CIC Release Notes

The latest HTML version of the CIC Release Notes is at
http://help.inin.com/cic/mergedProjects/wh_rn/desktop/introduction.htm.

Interactive Intelligence Customer Interaction Center® (CIC)

2017 R2

Last updated February 3, 2017
(See Change Log for summary of changes.)

Abstract

This document summarizes new features in Customer Interaction Center, Interaction Dialer, and other CIC products. It also includes general product notices at the beginning.

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Introduction

Introduction

The CIC Release Notes outlines most of the key new features introduced in CIC 4.0, CIC 2015, CIC 2016 and CIC 2017. It presents the features in order from the newest (the latest CIC 2017 release) to the oldest (CIC 4.0 GA). Following the CIC feature descriptions, the Separately Released Products section describes products that Interactive Intelligence releases outside the CIC release cycle. The Product Notices section contains notifications about changes in sales and support status for Interactive Intelligence products, or third party products.

For a webinar presentation about new features introduced in recent CIC releases, see the Webinars page in the Self Help section of the Support site (requires credentials).

For a printable PDF version of the Release Notes, see the Printable Documentation page.

The focus of this document is on the key features in each release. This document does not describe less significant features and other minor changes and bug fixes; however, documentation for those changes is available in the CIC Documentation Library. In addition, each release and each patch release includes a system-generated Readme and Summary file that includes a detailed list of public changes that are included in the release. Those files are available on the Product Information site next to the release/patch download file (requires credentials): https://my.inin.com/products/Pages/Downloads.aspx

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Product Notices

Product Notices

This section contains notifications about changes in sales and support status for Interactive Intelligence products, or third party products.

IPA Process Automation Server Version 1

In CIC 2017 R1, version 2 of the Process Automation Server subsystem in Interaction Process Automation will replace the original version of the subsystem. That release, which is estimated to be available in November 2016, will no longer include Process Automation Server version 1 in the installation, and Process Automation Server version 2 will be installed by default. It will not be possible to roll back from version 2 to version 1.

Customers who use Process Automation Server version 1 should upgrade to Process Automation Server version 2 using the migration tools before upgrading to CIC 2017 R1 or later versions. For more information about the migration tools and the differences between the two versions of Process Automation Server, see the Interaction Process Automation Technical Reference.

Note: Software updates for CIC 2017 R1 and later will apply only to Process Automation Server version 2. There are no restrictions on the sale of Interaction Process Automation licenses.

Interaction Monitor

Starting in CIC 2017 R2, CIC will use and require TLS 1.1 to better support PCI compliance. The PCI Council's Data Security Standard version 3.1 mandates this change. However, Interaction Monitor 1.0 requires TLS 1.0, so it will not

be compatible with CIC 2017 R2 and subsequent releases. CIC releases prior to CIC 2017 R2 will continue to support Interaction Monitor.

In addition, the latest version of firmware that Interaction Monitor supports on the AudioCodes gateway (Mediant 1000 and Mediant 2000) includes: M1000a: 6.40a.018.007, M1000b: 6.80A.261.013, M2000: 6.40a.063.001. For more information about firmware, see page 4 of the Interaction Monitor Server Implementation Guide.

Legacy Salesforce Integrations

Updated Sept. 15, 2016

CIC's integration with Salesforce Desktop will no longer be available for installation or use starting with CIC 2017 R1, which is estimated to be available in November 2016. Salesforce no longer supports the CTI Toolkit, which will stop working by February 2017. The CTI Toolkit is the foundation of the CIC Salesforce Desktop integration. Based on Salesforce's end of support, the Salesforce Desktop integration is end-of-life and no longer supported in CIC 2017 R1 and later versions.

The IC Integration for Salesforce Web will no longer be available for installation or use starting with CIC 2017 R2, which is estimated to be available in February 2017. This Salesforce Web integration will remain under standard support terms, but will no longer be available for sale or updates in CIC 2017 R2 and later versions.

Customers using these legacy Salesforce integrations should move to the newer CIC for Salesforce integration, which was released in July 2015, and includes numerous enhancements. For more information about the CIC for Salesforce integration, see the CIC for Salesforce help.

Note: The CIC for Salesforce integration is released on a different schedule from CIC and therefor it has its own CIC for Salesforce Release Notes list as well as a "What's new in CIC for Salesforce" topic.

Internet Explorer 10

Added Nov. 11,, 2016

Microsoft has ended support of Internet Explorer 10 (IE10) as of January 16, 2016. This means that IE10 no longer receives security updates or fixes, and that third-party libraries that once supported IE10 may no longer be updated as well. Therefore, the last CIC release in which Interaction Connect supports IE10 is CIC 2017 R2. CIC customers using IE10 should plan to upgrade to Internet Explorer 11 (IE11) or another currently supported web browser for Interaction Connect before upgrading to CIC 2017 R3 or later.

In addition, CIC for Salesforce will no longer support IE10 after December 31, 2016.

Updates for Previous Releases

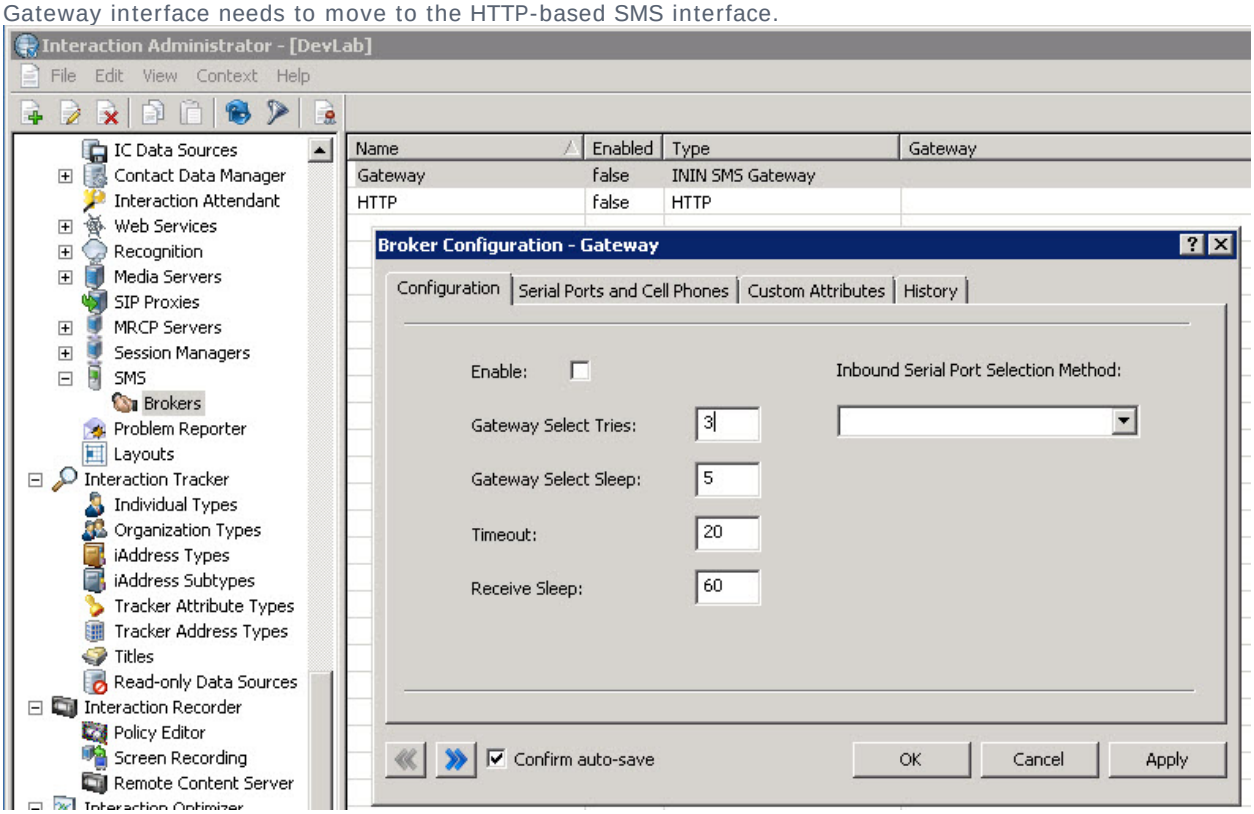
- Starting in CIC 2016 R2, CIC supports Windows 10 and Microsoft Edge.
- Starting in CIC 2016 R1, CIC supports Microsoft Exchange Server 2016 for Exchange Web Services.

For more information about support for Windows 10, Microsoft Edge, and Microsoft Exchange Server 2016, see CIC System Software Requirements.

Legacy SMS Gateway Broker Deprecated

Added Oct. 6, 2016

CIC 4.0 SU4 added support and configuration options for multiple HTTP-based SMS brokers as the preferred SMS interface. By the time of CIC 4.0 SU6, CIC no longer supported the SMS Gateway-based interface, but the configuration options remained in Interaction Administrator. Starting in CIC 2017 R2, the SMS Gateway configuration options will be removed from Interaction Administrator and anyone still using the SMS Gateway interface needs to move to the HTTP-based SMS interface.



Added Oct. 6, 2017

New Features in 2017 R2

New Features in 2017 R2

This section lists the main features that are new in CIC 2017 R2.

- Interaction Administrator Change Log Enhancements
- Co-Browse for CIC
- Interaction Connect Create Personal Responses
- Interaction Connect Outbound Email Interaction
- Interaction Recorder Support for OPUS mono and dual-channel recordings
- New Compiler and Binary Compatibility
- New Crystal Reports for Line Summary and Detail, and Wrap Up Codes
- TLS version 1.2 connections
- Validation of Microsoft SQL Server 2016 with CIC
- WebRTC for CIC

Interaction Administrator Change Log Enhancements

Database tables and views contain detailed information about changes made in Interaction Administrator. These enhancements were made to two of the most commonly used nodes: Default User and Roles. Customers can now create reports or database queries that display information about Default User changes, and Roles additions, changes, and more.

This enhancement is an expansion of the Interaction Administrator Change Log Enhancement added in CIC 2016 R1 http://help.inin.com/cic/mergedProjects/wh_rn/desktop/interaction_administrator_change_log_enhancements.htm.

EnhancedIAChangeLog

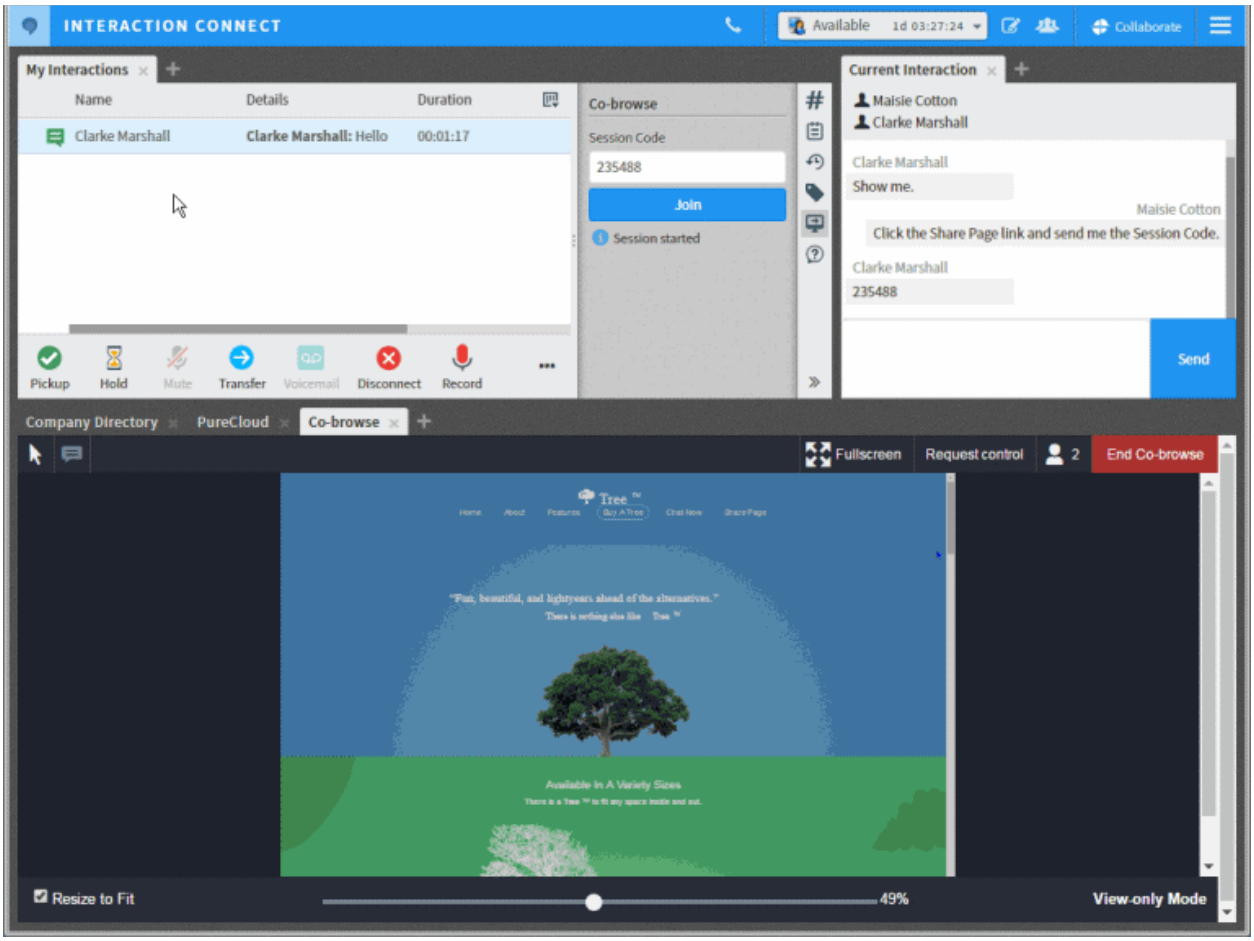
EnhancedIAChangeLogId	ChangeDateTime	ChangeTime	ChangeDateTimeGMT	UserId	StationId	ChangeType	EntryKey	EntryClass	I3TimeStampGMT	SiteId	SubSiteId	ApplicationID
-2147483306	16:32.0	15:16:32	16:32.0	MORPHEUS_USER	MORPHEUS	Modification	workgroup1	RolesWorkgrou	16:32.0	1	0	2
-2147483307	16:32.0	15:16:32	16:32.0	MORPHEUS_USER	MORPHEUS	Modification	user41	RolesUser	16:32.0	1	0	2
-2147483308	16:32.0	15:16:32	16:32.0	MORPHEUS_USER	MORPHEUS	Modification	Supervisor	Roles	16:32.0	1	0	2

Warning: Enable the enhanced Interaction Administrator change log only during non-peak production hours and only if all CIC clients are upgraded to CIC 2016 R1. Enabling this log is an intensive operation that requires significant computing resources. If you enable this feature before you upgrade all CIC clients to CIC 2016 R1 or later versions, then the CIC clients that run earlier versions of CIC will log incomplete audit data.

Co-Browse for CIC

The Co-browse feature enables Interaction Connect users to give a visitor to your company's website direct assistance on a webpage. With the consent of the website visitor, an Interaction Connect user can take full or limited control of the visitor's screen and interact directly with the webpage.

Interaction Connect has a new 'Co-Browse View'. This view is coupled with the new Co-browse sidebar in My Interactions. Together the new view and sidebar enables agents to assist customers by establishing co-browse sessions which are associated with an interaction.



Requirements

- **PureCloud Engage 3**

  Co-browse is a billable PureCloud service that requires a PureCloud Engage 3 license. The PureCloud service is available to CIC customers at a discounted rate. Contact a Sales representative to arrange for this discount, PureCloudInsideSales@inin.com.

  Note: The Co-Browse for CIC feature is available on a limited basis in its initial release. A PureCloud sales representative can arrange for you to qualify.

- **Customer Interaction Center**, version 2017 R2 or later.
- **Interaction Connect**, version 2017 R2 or later.
- **PureCloud for CIC integration**

  Note: Because this feature leverages PureCloud, the CIC administrator must enable the PureCloud for CIC integration. The PureCloud administrator must give the **Engage User Role** that includes the co-browse permission to selected users in the paired PureCloud organization. The co-browse feature is not available in Interaction Connect until the administrator grants this permission. For configuration and setup information, see the PureCloud for CIC Administrator's Guide in the CIC Resource Center.

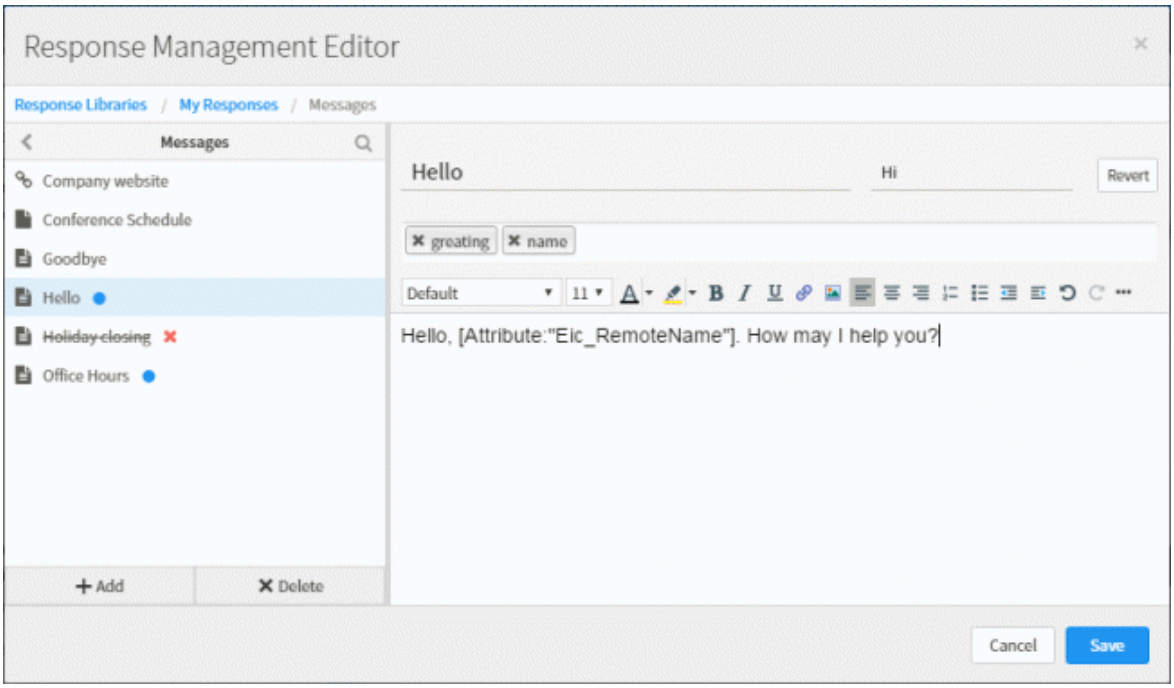
Interaction Connect Create Personal Responses

Interaction Connect users can create their own stored responses, organize them in categories, and store them in a personal Response Management library. These users can then search for and use these personal responses in interactions.

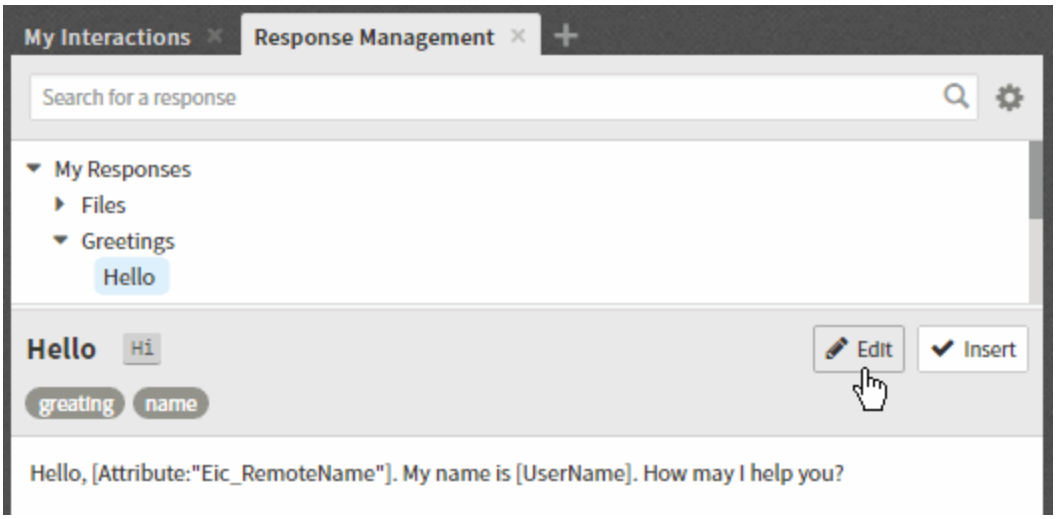
Interaction Connect users can create and edit only their own personal responses. Personal responses are private and are not available to other CIC users.

- Interaction Connect users create these personal responses in the new Response Management Editor. This editor supplies a full range of text formatting tools. It also enables the user to insert clickable URLs, hyperlinks to images, or macros that supply interaction attributes such as the name of the agent. Users can also create file responses that upload a file from their workstation as an attachment in email or chat interactions.

Requirement: The Response Management Editor requires a 2017 R2 or later CIC server.



- These responses appear in the **My Responses** folder in the **Response Management** view. Agents can search for these responses by name or label. They can use shortcuts to insert these responses in email or chat interactions.



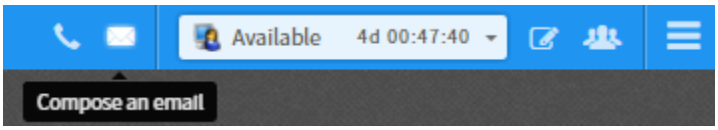
Interaction Connect Outbound Email Interaction

Outbound Email Interaction

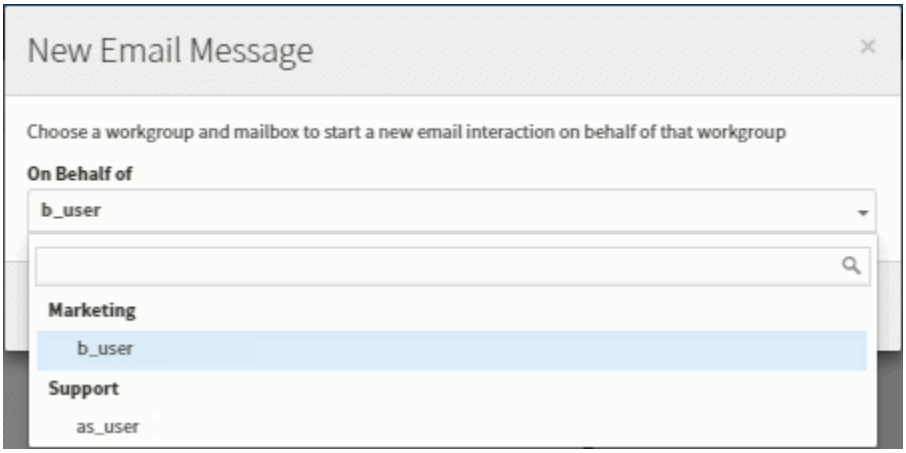
Interaction Connect users can initiate an outbound email interaction on behalf of a workgroup. It can be included in Customer Interaction Center reports and statistics. Additionally, as an interaction, it could be processed by any custom email handlers in your Customer Interaction Center installation.

To initiate an outbound email interaction:

1. The agent clicks the **Compose an email** icon in the navigation toolbar.



2. If the agent is a member of more than one workgroup configured with one or more outbound mailboxes, the agent selects the appropriate workgroup and mailbox. Then the agent clicks **Create Email Message**.



Note: The agent's workgroup status does not have to be **Active** in order for the agent to send an email message.

3. The agent addresses and composes the email message in the **Current Interaction** view.

> **Note**: Complete details for this procedure will be in the CIC 2017 R2 Interaction Connect help topic, Start an Email Interaction.

Important points to consider:

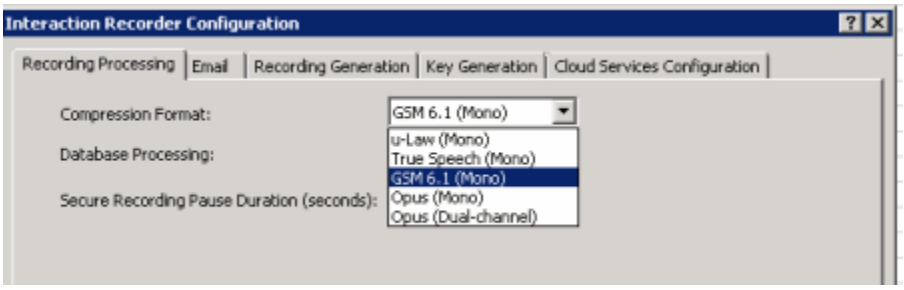
- Sending an outbound email interaction is not the same as **replying** to an ACD-routed email message sent to a workgroup mailbox. You are **initiating** the interaction, not responding. For more information about responding to an ACD-routed email, see Reply to an E-mail Message.
- A reply to an outbound email interaction is addressed to the appropriate workgroup mailbox and is routed as an ACD interaction. A reply would first appear in the appropriate workgroup queue and then be ACD-routed to My Interactions.

> **Requirements**: The agent needs an ACD Access License associated with the E-mail interaction type in order to work with email messages. Also, to send an email interaction, the agent must be a member of a workgroup configured with an outbound email mailbox. The agent also needs the View User Queues or Modify User Queues right to his or her user queue.

Interaction Recorder Support for Opus Mono and Dual-channel Recordings

To further support customers who require 3rd party vendors for post-call speech analytics and speech-to-text transcription, the following new compression formats have been added into Interaction Recorder and configured in Interaction Administrator:

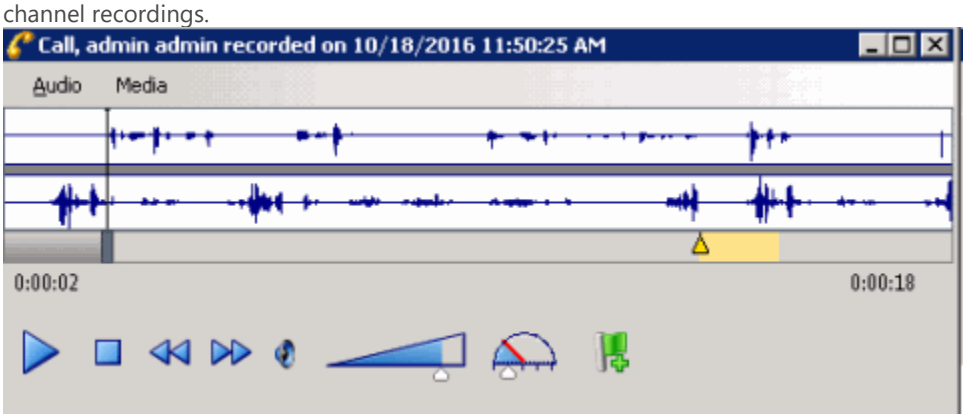
- Opus (Mono)
- Opus (Dual-channel



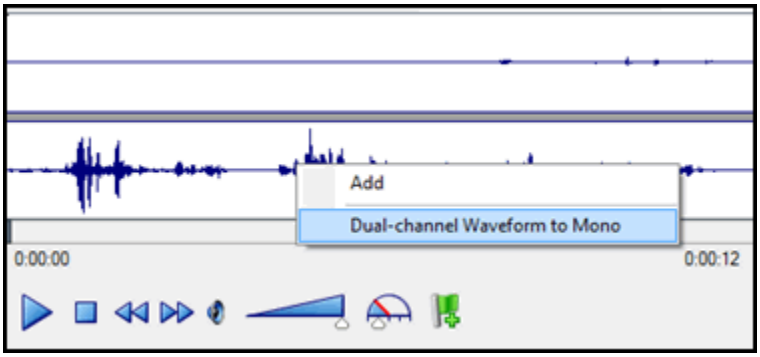
Supporting both the Opus mono and dual-channel formats allows for greater audio compression and smaller recording file sizes, especially for Opus mono as compared to GSM or TrueSpeech compression formats.

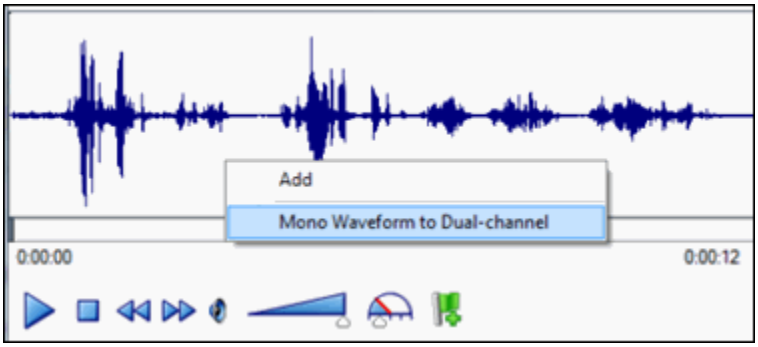
Recording playback enhancements and management of Opus, ogg-based recordings within the standard recording playback control were also made.

- Interaction Recorder playback control now displays both channels within the waveform control for dual-channel recordings.



- New context menu item within the playback control added to switch between the dual-channel and mono waveform data for dual-channel recordings.





- When Opus recordings are exported or archived from within Interaction Recorder, the extracted Opus audio data will be extracted into an Opus, ogg-based audio file with the .opus file extension.
    - During exporting or archiving, the number of channels will be maintained so Opus Mono recordings will be exported with 1 channel audio data, and Opus dual-channel recordings will be exported with 2-channel audio data.

Important Note
Support for Opus recordings within Interaction Recorder and CIC requires version 2017R2 or later client and server-side components. Earlier versions of the Interaction Recorder Remote Content Servers also do not support Opus recordings and will result in errors when archiving or exporting Opus recordings. Opus recordings can be generated within CIC and Interaction Recorder starting with 2017R1 or later Media Servers.

- Enabling the Opus (Mono) and Opus (dual-channel) compression formats requires additional resources on the Media Servers. See the *Interaction Media Server Technical Reference* and the Interaction Media Server Sizing Calculator for details, specifically when using Dual-channel as it requires 1 additional point on the Media Servers.
- Enabling the Opus (dual-channel) compression format requires additional disk space storage. See the *Interaction Recorder and Interaction Quality Manager Technical Reference* for updated compression factors and disk space requirements when generating Opus (Mono) and (Dual-channel) recordings.

New Compiler and Binary Compatibility (updated 11/17/2016)

CIC development must occasionally update its compiler for core components to stay in support and to take advantage of new compiler capabilities and fixes. CIC 2017 R2 was built using the latest Microsoft Visual Studio 2015 Update 3 compiler. Previous CIC releases (back to 2015 R1) were built using Visual Studio 2010 or earlier. This means that you should not mix binary files from older releases with CIC 2017 R2 - they may not be compatible and their use is unsupported.

Any custom tools built with the CIC Designer COM API using an older compiler will need to be recompiled for use in 2017 R2 and beyond. In addition, customers migrating from an older version of CIC to 2017 R2 or newer will need to use the CIC 2017 R1 version of the Interaction Migrator utility to export configuration data on an older CIC server. See the Interaction Migrator Technical Reference document for details.

e-FAQ Integration Compatibility

The e-FAQ integration software requires the appropriate version of CIC. For sites using CIC 2017 R2 and later, you must also install the e-FAQ integration from CIC 2017 R2 or later on the CIC server. For sites using CIC 2017 R1 or earlier, you must also install the e-FAQ integration corresponding to that release of CIC. You cannot use the e-FAQ integration from 2017 R1 or earlier with CIC 2017 R2 or later.

New Crystal Reports for Line Summary and Detail, and Wrap Up Codes

Interaction Center reports that use ActiveReports .NET are built on an old version of ActiveReports. We are no longer planning to support ActiveReports in future releases, in favor of reports based on Crystal Reports 2013. In this release, the Line Summary, Line Detail, and Wrap Up Codes reports that used ActiveReports have been replaced with versions built on Crystal Reports.

The new Crystal Reports Line Summary and Detail, and Wrap Up Codes will be found in IC Business Manager's Interaction Reporter under the Line Reports and Wrap Up Codes categories. The Active Reports versions of these reports are under the Legacy Reports category, and they are still accessible and will run as they did in previous releases of Customer Interaction Center.

New Report (Crystal)	Report Category	Legacy Reports (ActiveReports)	Design Differences
Line Summary and Detail	Line Reports	Line Detail Line Summary	- Formatting parameters are not available in the Crystal Reports version. - The user clicks the hyperlink in the report, which opens a new tab in the Crystal Report viewer that displays the daily detail view. Now this will

			automatically fetch the data instead of showing the parameter screen. - Show Detail parameter is added to distinguish between Summary and Detail report. - Color scheme and font are changed. - Company Logo is changed according to current Crystal reports.
Wrap Up Codes	Wrap Up Codes	Wrap Up Codes	- Interaction ID column is added. - Extra header text "Wrap-up Time" is added. -Color scheme and font are changed. - Company Logo is changed according to current Crystal reports.

The new Line Summary and Detail, and the new Wrap Up Codes reports in this release use stored procedures to extract data for the report, similar to the ActiveReports version of the reports.

TLSv1.2 connections

TLS negotiation

CIC, its subsystems, and client applications support network connections using Transport Layer Security (TLS) versions 1.0, 1.1, and 1.2. By default, CIC 2017 R2 uses TLS v1.2. CIC negotiates to previous TLS versions for backwards compatibility with older CIC components.

Disabling older TLS versions

Using a new `ININ_SSL_MIN_PROTOCOL_VERSION` environment variable on the CIC server, you can control the minimum version of TLS network connections that the CIC server supports.

Supported values:

- TLSv1.0
- TLSv1.1
- TLSv1.2

Configure this environment variable only after updating all CIC subsystems to the latest version. Otherwise, setting TLSv1.2 as the minimum version prohibits network connections with older CIC subsystems.

Director updated to latest CIC release

Interaction Director is now included as part of the CIC release cycle and supports TLSv1.2 network connections.

Validation of Microsoft SQL Server 2016 with CIC (updated 12/8/2016)

CIC 2017 R2 and later supports Microsoft SQL Server 2016 on Windows Server 2012 R2. For a list of supported databases, see the Testlab.inin.com site.

CIC web-based phone

The CIC web-based phone feature enables Interaction Connect users to use a web browser on a PC as a SIP telephone using WebRTC as the communication protocol. The CIC web-based phone eliminates the need to distribute, install, and configure a physical IP telephone for each agent or user, or to install a SIP soft phone application on PCs.

Interactions that use CIC web-based phone leverage the existing functionality of CIC. Call data, prompt plays, music on hold, and recordings for CIC web-based phones function as normal CIC calls for traditional IP phone types.

Note:
For 2017 R2, CIC web-based phone is an early-release feature.

For PureConnect Cloud (CaaS) customers, all WebRTC media traffic is routed through the PureCloud Edge device to the Interaction Media Servers in use with the feature. For Remote Control Model (RCM) customers, this traffic will pass across the MPLS network. The MPLS link must be sized as if each agent was at the customer premises; no media will be passed out the PureConnect/PureCloud Internet connection.

CIC web-based phone requirements

- Personal computer with the following items:
  - Speakers and microphone (or headset)
  - Supported web browser
    - Google Chrome - version 47 or higher
    - Mozilla Firefox - version 44 or higher
- Licensing:
  - No feature license for CIC is needed at this time
  - PureCloud Communicate license
- Network:

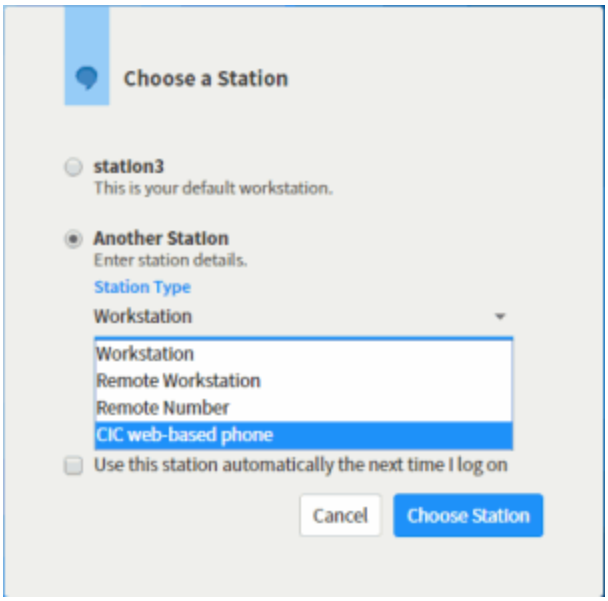
  CIC web-based phone consumes approximately 200 to 400 Kbps (30-50 KB/sec) of bandwidth, even when not on an active call.

  Note:
  Ensure that your network connections between the agent and PureCloud are sufficient to facilitate the bandwidth consumption for all CIC web-based phone instances in a location.

- PureCloud Edge appliance (one or more):
  - PureCloud Edge (Standard)
  - PureCloud Edge Mini
  - PureCloud Edge Micro
  - Virtual PureCloud Edge
- CIC 2017 R2 or later

Interaction Connect and WebRTC

After you use Interaction Administrator to configure lines and dial plan entries to connect to PureCloud, and create stations as CIC web-based phones, agents use the CIC web-based phone type in Interaction Connect:



CIC web-based phone limitations

At this time, the CIC web-based phone feature has the following limitations:

- All CIC web-based phones are treated as remote numbers.
- The CIC web-based phone feature facilitates only audio communications, video communications are not available at this time.
- The CIC web-based phone feature supports only the following web browsers:
    - Google Chrome - version 47 or higher
    - Mozilla Firefox - version 44 or higher

New Features in 2017 R1

New Features in 2017 R1

This section lists the main features that are new in CIC 2017 R1.

- Compliance and Security in 2017 R1
- Crystal Reports User and Queue Reports
- Interaction Connect Statistics Views
- Interaction Recorder and Content Server Health Check
- Interaction Recorder HTTPS Support for Export, Playback, and Archiving
- Interaction Dialer Enhancements in 2017 R1
- IPv6 Support
- New REST Tools for IVR Deployment
- Reporting: ACD Exceptions

Compliance and Security in 2017 R1

These changes enhance CIC's commitment to high security and industry standards.

OpenSSL Version Update

OpenSSL is an open-source project that provides a robust, commercial-grade, and full-featured toolkit for the Transport Layer Security (TLS) and Secure Sockets Layer (SSL) protocols. It is also a general-purpose cryptography library.

The previous version of CIC was built with OpenSSL 1.0.1 and support for this version will end on December 31, 2016, which means that no security updates will be provided after that. CIC 2017 R1 incorporates OpenSSL 1.0.2h, which disables weak ciphers, includes support for TLS 1.2, and provides better security. See the OpenSSL 1.0.2 Release Notes for details.

Windows 10 V1607 QoS Driver Signing

CIC 2017 R1, and subsequent releases, include a QoS driver that is digitally signed by Microsoft. This small change prevents installation problems detected on computers with new installations of Windows 10 version 1607. The installation problems were previously noticed after Microsoft began enforcing its digital signature requirement in that version of the operating system, and which Interactive addressed in KB Q147040943600476.

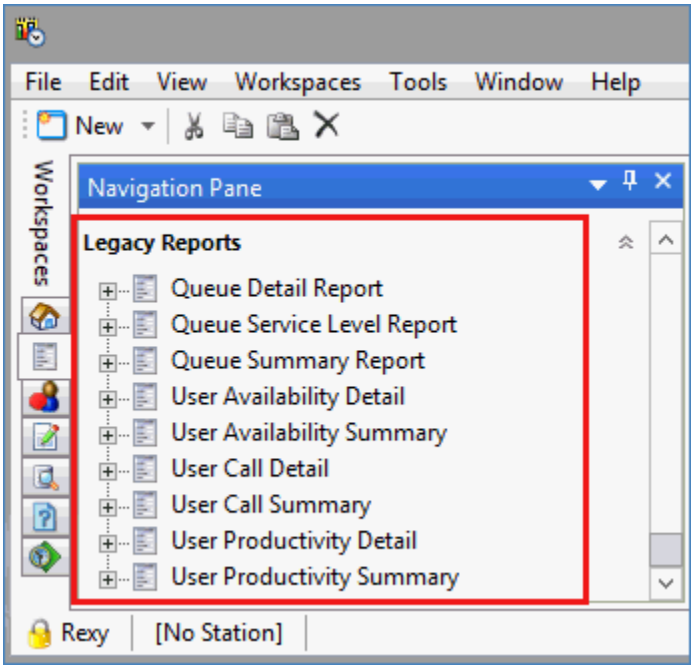
E911 Service Provider Support

To enable North American customers to comply with emergency service number (E911) regulations implemented in some states and areas, CIC provides a new mechanism for E911 functionality. The E911 feature sends the Media Access Control (MAC) and IP address of a managed station that dials 911 through a CIC client application to a third-party E911 service provider. The E911 service provider can associate those addresses to a previously provided Automatic Location Information (ALI) record and forward it to the correct Public Safety Answering Point (PSAP) to answer.

For more information, see the E911 Technical Reference in the CIC documentation library.

Crystal Reports User and Queue Reports

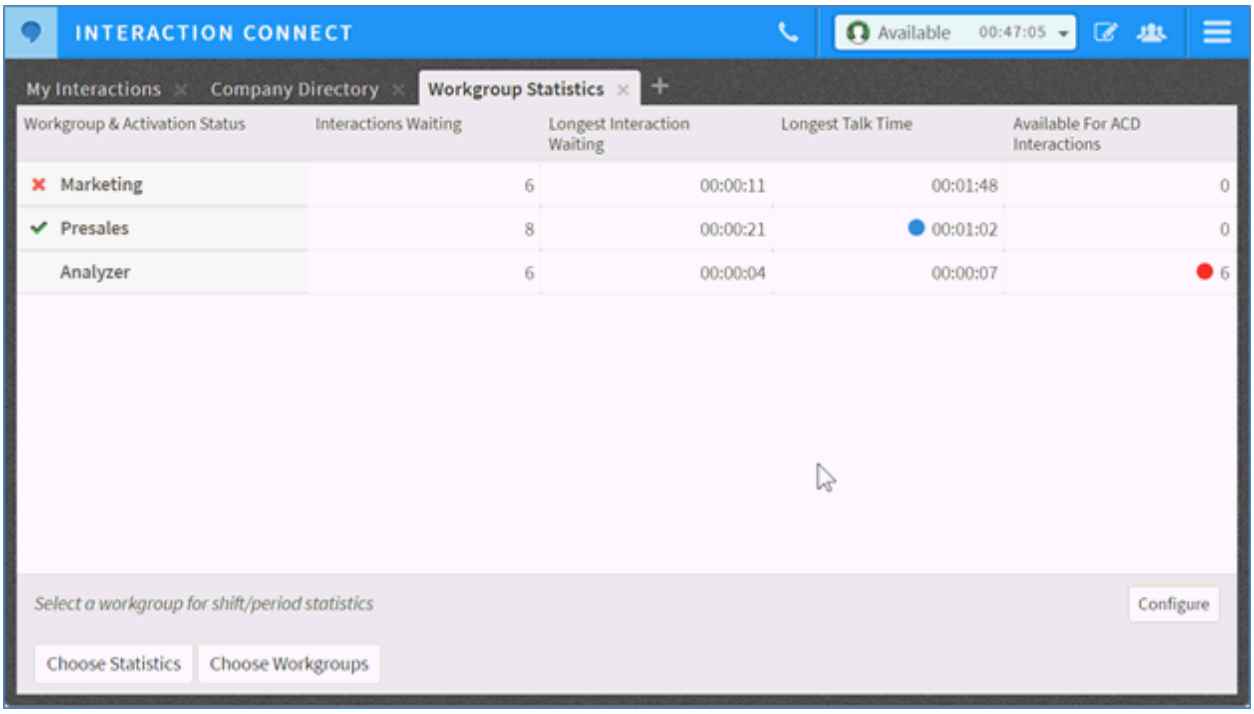
In this release, the user and queue reports that previously used ActiveReports are replaced with reports built on Crystal Reports. The new user and queue reports are available in IC Business Manager's Interaction Reporter, under the User Reports and Queue Reports categories. The ActiveReports versions are now available in a new Legacy Reports category. The reports in the Legacy Reports category are accessible and will run as they did in previous CIC releases.



Interaction Connect Statistics Views

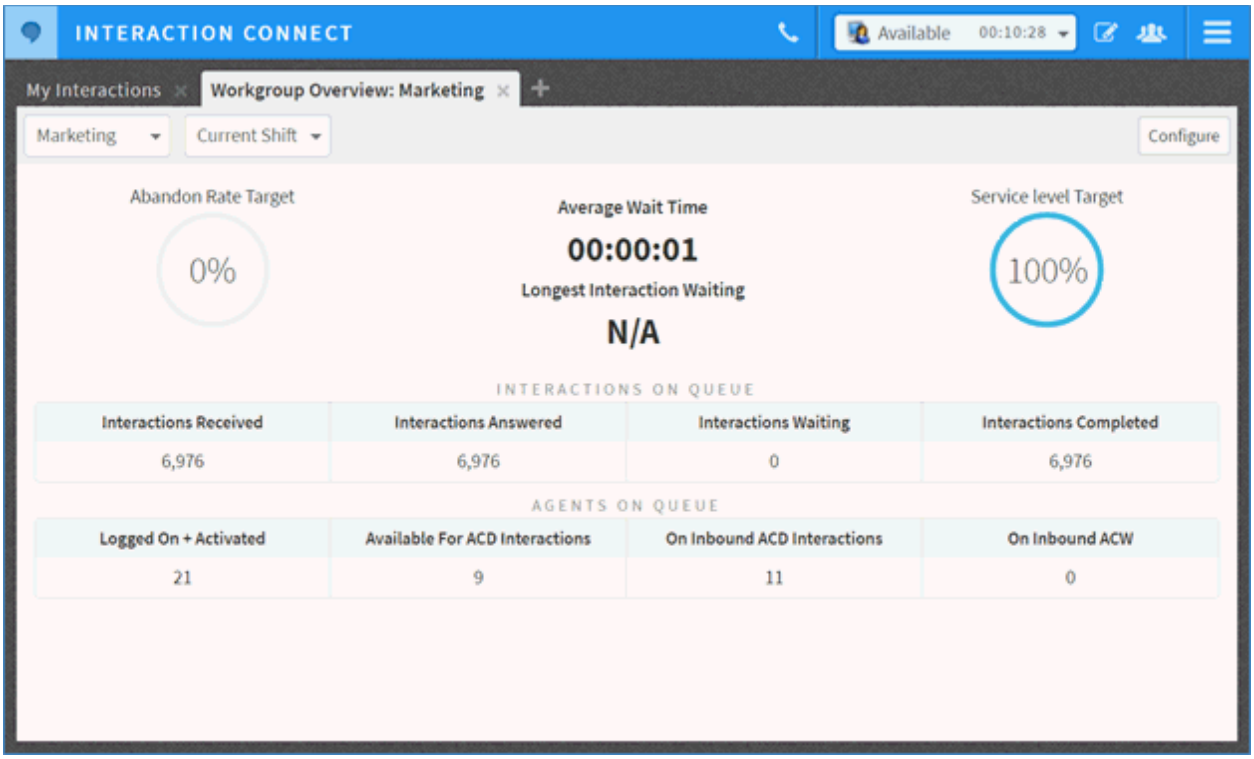
Workgroup Statistics

The customizable Workgroup Statistics view displays a table for viewing selected workgroup statistics by workgroup. Users can select multiple workgroups and view up to eight statistics per workgroup. Users can view shift and period statistics to compare their own performance to the workgroup. Users with the Interaction Supervisor Plugin: Workgroups license can choose which statistics appear in the table and can enable alerts for the statistics in the view.



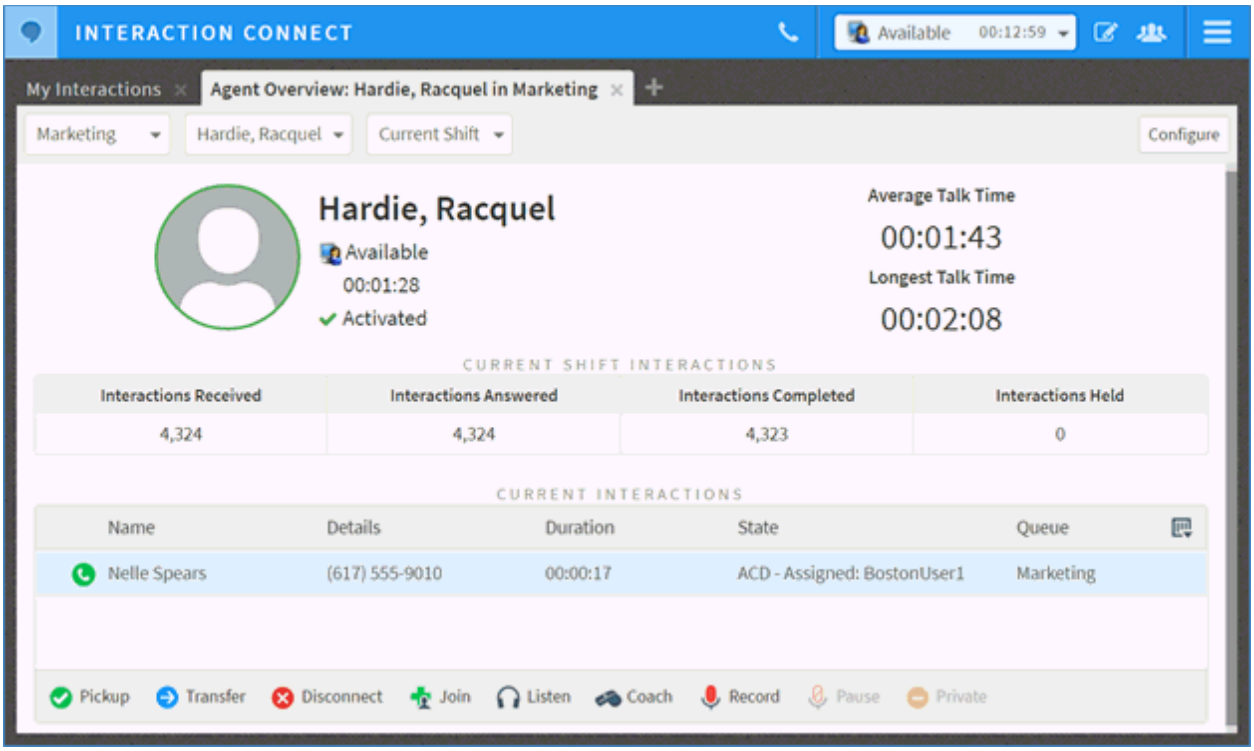
Workgroup Overview

The new Workgroup Overview view is a customizable summary of a workgroup's performance during a shift or period. The view includes graphical elements for service level, abandon rate, and wait time statistics, and includes more detailed statistic values for interactions and agents on queue. Users with the Interaction Supervisor Plugin: Workgroups license can choose which statistics appear in the table and can enable alerts for the statistics in the view.



Agent Overview

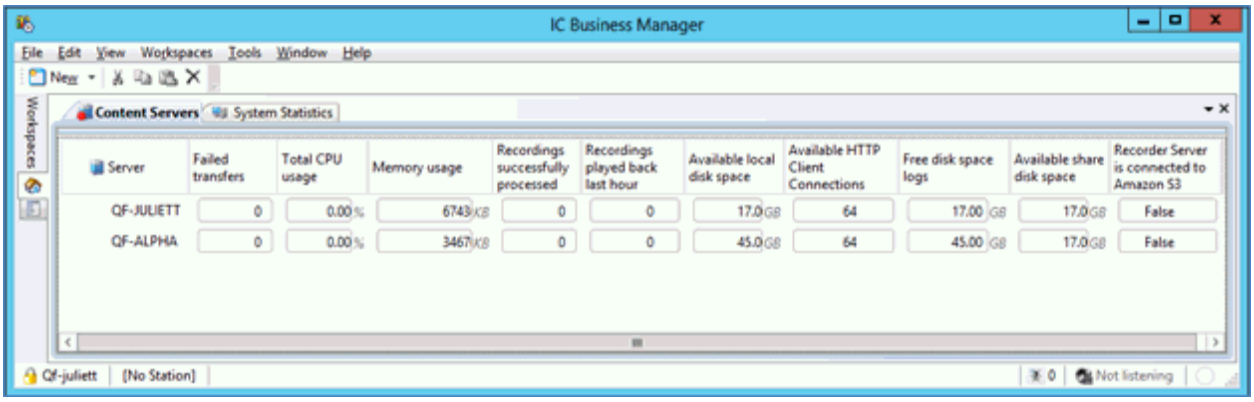
The Agent Overview view enables supervisors to manage their agents. The customizable view offers a snapshot of a single user in a selected workgroup, showing user status, workgroup activation status, and selected agent-specific statistics. The view also includes a queue of the interactions assigned to the agent with supervisor-focused call control actions, including coach, listen, and join. This view is only available to users with the Interaction Supervisor Plugin: Workgroups license.



Interaction Recorder and Content Server Health Check

Content Server IC Business Manager View

A new Content Server view in IC Business Manager displays statistics for each configured content server the Recorder Server. This allows system administrators to see the status of each server in real time and take action if a server experiences problems or exhausts its resources.



Recorder SNMP Enhancements

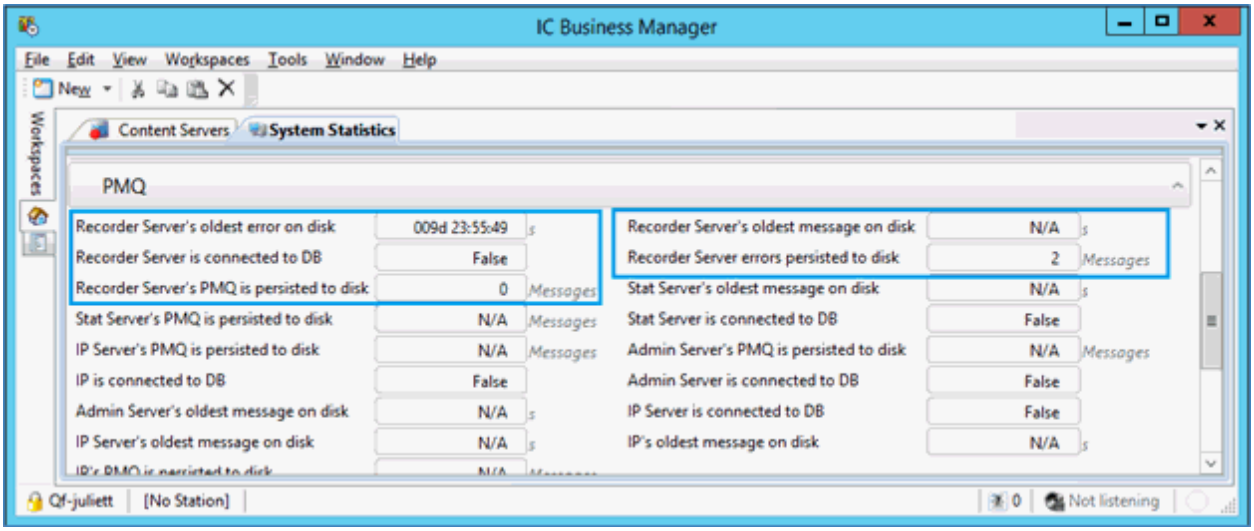
New statistics and multiple traps are now exposed through SNMP on the CIC server. The SNMP statistics include those in the new view in IC Business Manager.

The SNMP trap scenarios include:

- Any recording transfer failures
- No content server is able to access a shared location configured in the Recorder Policy Editor
- All content servers in a region are low on available storage space (under 5 GB)

Recorder Server PMQ Statistics

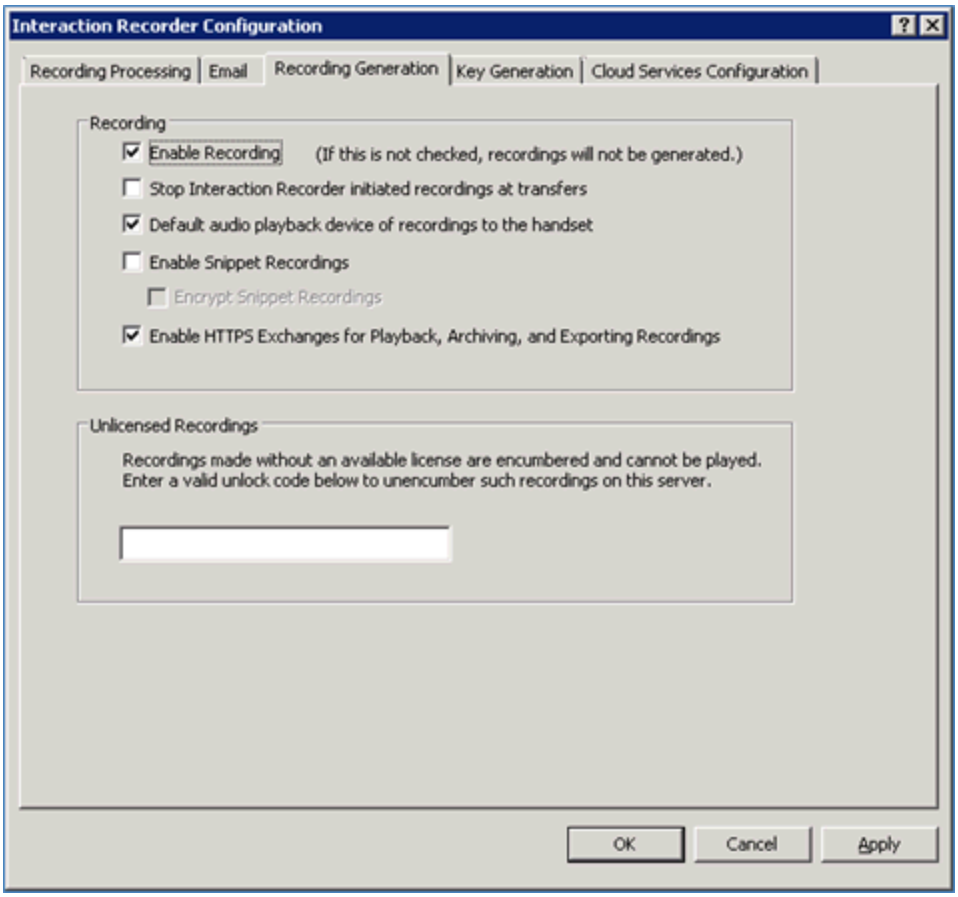
The PMQ statistics view in IC Business Manager now includes error file statistics for Recorder Server. By monitoring the error file statistics, an administrator can view detected errors and schedule them for reprocessing in Interaction Administrator. The PMQ statistics view shows the status of PMQ files to be reprocessed.



See also the *Interaction Recorder and Interaction Quality Manager Technical Reference*.

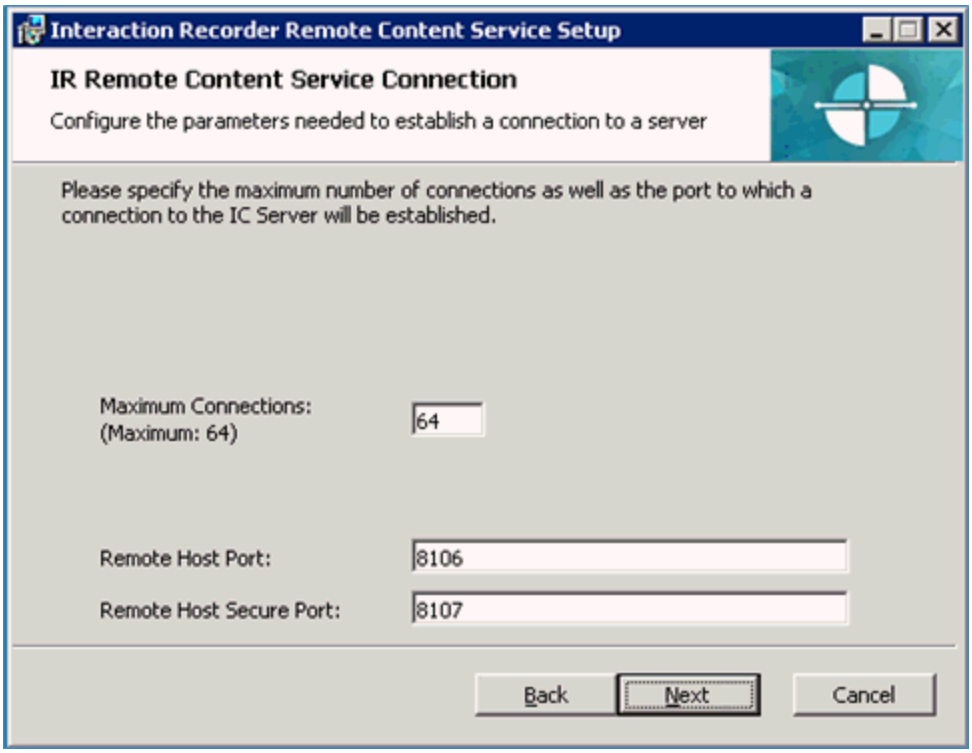
Interaction Recorder HTTPS Support for Export, Playback, and Archiving

The Interaction Recorder container in Interaction Administrator includes new configuration options to help secure communication paths when accessing recordings for playback, archiving, and exporting.



For ICELib applications that export recordings in ININ.IceLib.QualityManagement.RecordingsManager, new public GetExportUriSecure API methods check the Enable HTTPS Exchanges for Playback, Archiving, and Exporting Recordings configuration setting. When enabled, exporting of recording files uses HTTPS exchanges. When disabled, exporting defaults to HTTP exchanges.

When installing Interaction Recorder Remote Content Service (RCS), a new Remote Host Secure Port HTTPS option allows customers to specify the secure/https port for each remote content service. The default secure port is 8107.



Note: The secure (HTTPS) port value for an Interaction Recorder Remote Content Service connection is changeable in the ircontentserverconfig.xml file after installation. All recordings should be processed before changing the HTTPS port value; otherwise, there may be accessibility issues with unprocessed recordings until the original port number is restored. Remote Content Service must be restarted for a new HTTPS port to take effect.

Interaction Dialer Enhancements in 2017 R1

- Agents can place multiple, successive calls on the same contact before moving to the next contact.
- Reporting was changed to classify the additional time that agents spend on additional calls to the same contact.
- New IPv6 support as added for HTTP transfers using Interaction Dialer.

IPv6 Support

All CIC components now support IPv6 for SIP proxy. This is a requirement for Joint Interoperability Test Command (JITC) certification.

In CIC 2017 R1, IPv6 support was added to:

- HTTP transfers from Interaction Dialer
- Interaction SIP Proxy - for more information, see the Interaction SIP Proxy Technical Reference document

New REST Tools for IVR Deployment

Interaction Designer includes a new REST tool palette, which includes six new tools for developing REST-based IVR applications. These applications can now make REST-based calls directly to web servers. Previously, IVR developers used the Interaction Designer SOAP tools with middleware to REST-based calls. The new tools include:

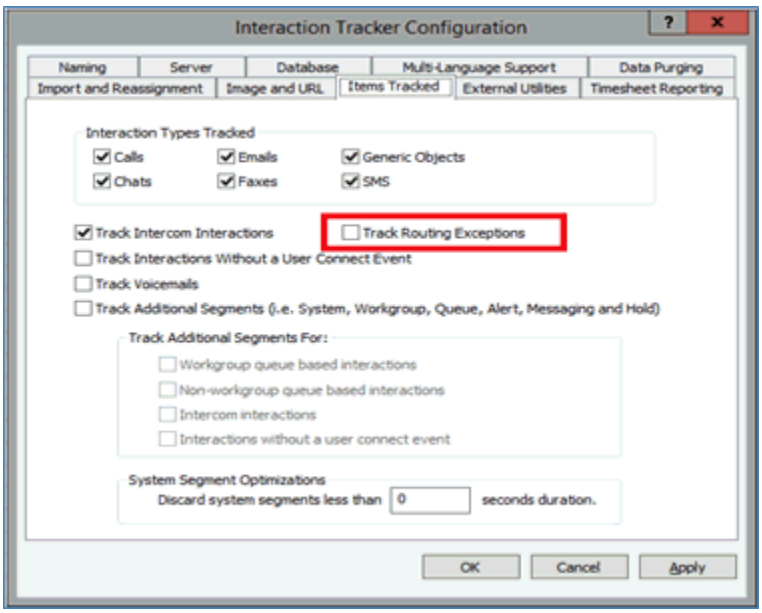
- REST HTTP
- Bearer Token Request

- JSON Builder
- JSON Parser
- Array Builder
- Array Parser

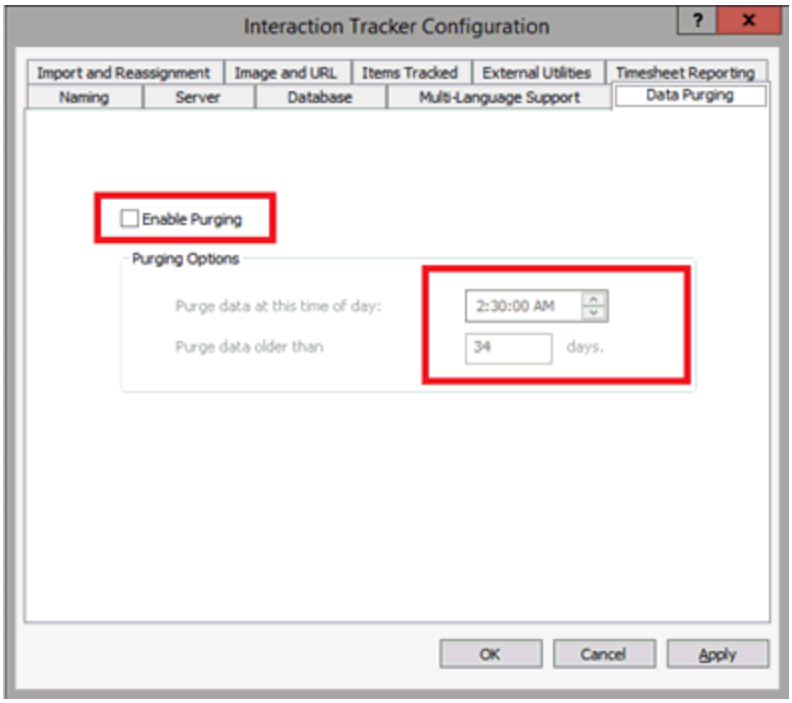
Reporting: ACD Exceptions

CIC administrators can now enable tracking of ACD exceptions and use that data to help improve call center efficiency. Tracked exceptions include transfers, flow-ins, flow-outs, and abandons.

The administrator can enable tracking of ACD exceptions in the Interaction Tracker configuration in Interaction Administrator. Tracking is disabled, by default, but administrators are encouraged to use this option to identify bottlenecks in their call centers.



Administrators can choose to keep the data on the Data Purging tab.



New Features in 2016 R4

New Features in 2016 R4

This section lists the main features that are new in CIC 2016 R4.

- Improved Scalability
- PureCloud for CIC Integration (phases 2 and 3)
- AT&T Certification with CIC
- SMS Improvements
- Compliance and Security
- Interaction Recorder Policy Editor Overview Feature
- Interaction Recorder Configuration Options for AWS
- Crystal Reports Metadata Migrator Process Improvements
- New Parameter for Interaction Dialer Reports
- Interaction Optimizer Enhancements
- Managed Phones
- Improved language models for Interaction Analyzer and Interaction Media Server

Improved Scalability

CIC can now support up to 20,000 configured users and 10,000 active agents on a single CIC instance. Specific improvements include:

- The conversion of RemocoServer to a 64-bit application to allow for valid virtual machine performance counters

- Improvements to the performance of the StatServerAgent subsystem
- Improvements to the performance and reduced memory footprint of the StatAlertServer subsystem
- The elimination of off-server Session Manager crashes while running at large scale
- Reductions to the bandwidth required between the StatAlertServer and off-server Session Manager subsystems

PureCloud for CIC Integration (phases 2 and 3)

PureCloud for CIC Integration (phases 2 and 3)

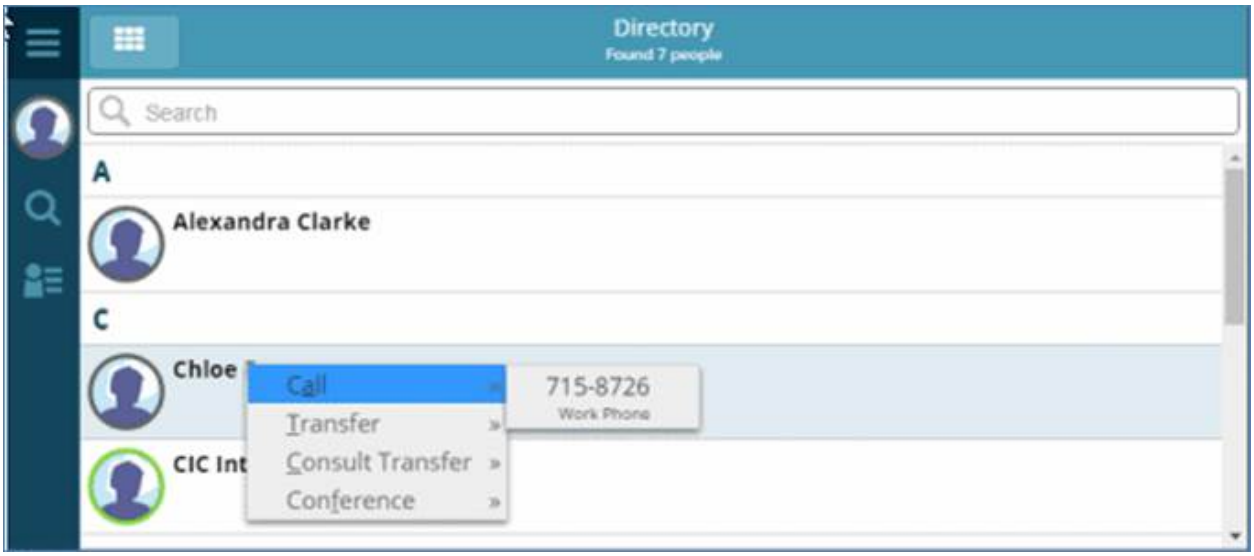
The PureCloud for CIC integration enriches the CIC user experience by leveraging the power and data of CIC and the collaborative features of PureCloud. PureCloud for CIC brings users together into a single environment that allows for seamless communication between CIC and PureCloud-only users.

Phases 2 and 3 of the integration include:

- A PureCloud Directory view in Interaction Desktop and Interaction Connect
- CIC and PureCloud user status synchronization
- The ability to view the status of PureCloud bridges and connectors in Interaction Administrator

PureCloud Directory View

The PureCloud Directory view, which is available to add in Interaction Desktop and Interaction Connect, allows CIC users to see all PureCloud and CIC users in a single directory and view detailed user information. From the Directory view, CIC users can call, transfer calls to, and conference with PureCloud users. For more information, see "PureCloud for CIC" in the Interaction Connect help or the Interaction Desktop Client help.

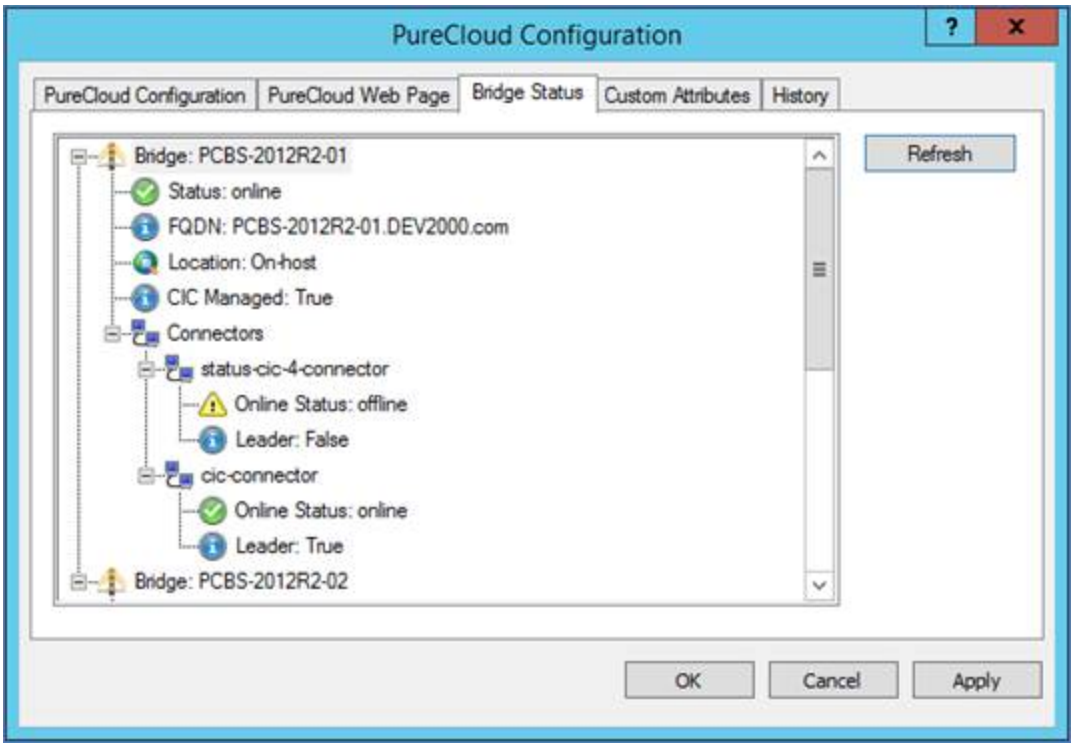


PureCloud Directory options for CIC users

CIC users can choose either PureCloud or CIC as the primary source for their status and presence.

Status of PureCloud Bridges and Connectors

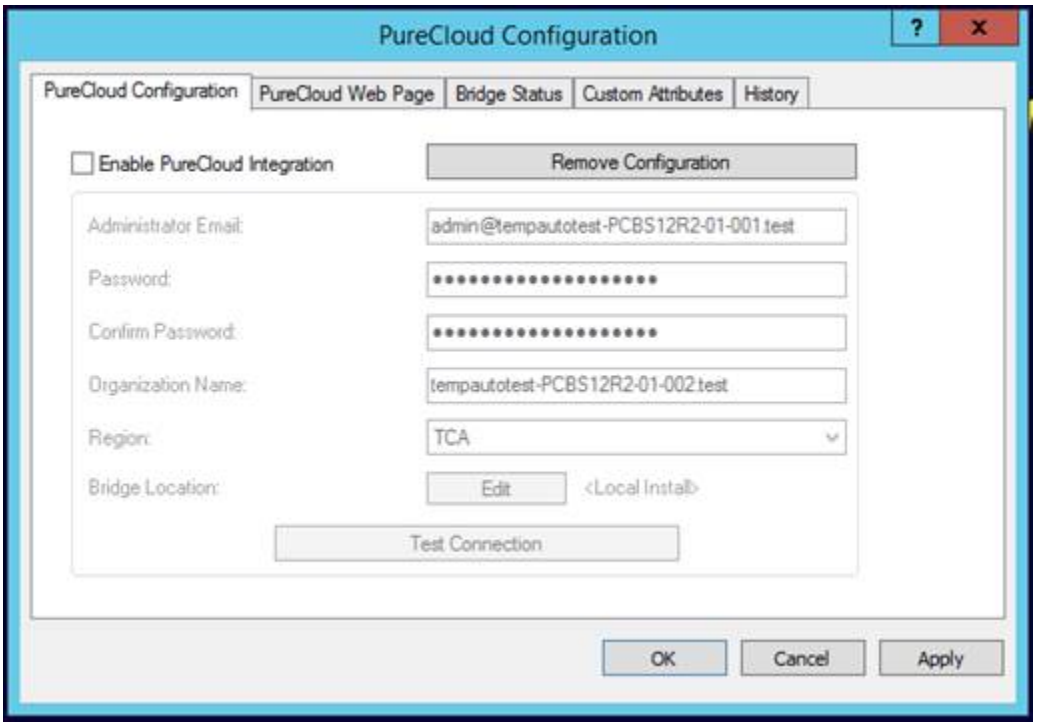
A new Bridge Status tab in the Interaction Administrator PureCloud Configuration dialog box allows CIC administrators to check the status of an organization's bridges and connectors.



PureCloud bridge and connector statuses in Interaction Administrator

Options to Remove and Change the Paired PureCloud Organization

Administrators can now disable the integration or pair to a different PureCloud organization on the PureCloud Configuration tab in Interaction Administrator.



Options to disable the integration or change the paired organization

For more information, see the PureCloud for CIC Administrator's Guide.

AT&T Certification with CIC

CIC is now certified by AT&T for its interoperability with AT&T IP Toll-Free and the related Transfer Connect service. This certification applies to and was tested with CIC 2016 R1 patch 9, the minimum required version. CIC customers can now use AT&T IP Toll-Free and Transfer Connect to provide and manage inbound calls to CIC. For more information, see the CIC Configuration Guide for AT&T IP Toll-Free Transfer Connect (IPXC) Service on the Interactive Intelligence testlab.inin.com site.

SMS Improvements

- CIC now links the original text message with a reply and preserves the entire SMS text conversation.
- Improved SMS routing can route replies to the original agent or use keywords to route the reply to another agent or queue.
- Delivery receipts are supported when using selected Interactive Intelligence approved SMS brokers.
- Simplified configuration makes using multiple SMS brokers easier.
- Agents can choose different outbound numbers and even different SMS broker accounts for each outbound SMS message use case. Using the appropriate broker enables you to take advantage of lower rates for person to person outbound messages.
- Improved SMS resiliency makes SMS more like a stateful interaction channel. Starting with CIC 2016 R4, the Interaction Recovery Service subsystem recovers SMS interactions with a transition that is almost seamless.

For more information, see the Short Message Server Technical Reference in the CIC Documentation Library,

Compliance and Security

Compliance and Security

This release includes the following compliance and security changes.

SHA-2 Support for CIC

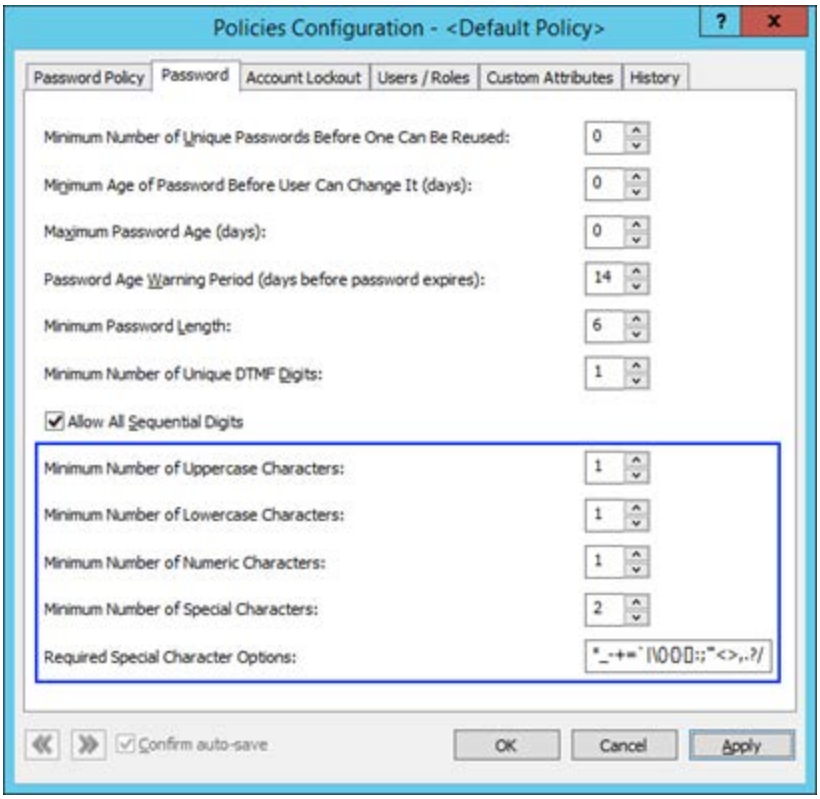
CIC can now use SHA-2 certificates for communication between CIC and its subsystems. This update allows customers to use either SHA-1 or 256-bit SHA-2 for certificates signed by the CIC server group authority. For more information, see "SHA-2 Upgrade Overview" in the Security Features Technical Reference.

FIPS Compliance for JITC

CIC client applications can now operate in Windows environments where the **System cryptography: Use FIPS compliant algorithms for encryption, hashing, and signing** group policy is enabled.

Additional Password Policy Complexity Options

The CIC password policy now supports additional complexity options.



New password policy options

Interaction Recorder Policy Editor Overview Feature

Interaction Recorder Policy Editor now supports the initiation policy overview feature, which reviews and provides the following overview of enabled initiation policies defined with the Policy Editor:

- Verifies which entities (users, stations, lines, workgroups, and roles) will be recorded, based on the current initiation policies.
- Verifies which users and stations are licensed with the Interaction Recorder Access license.
- Checks for initiation policies that contain the **stop processing more policies** or **abandon recording** actions, which can affect recording initiation rules.
- Formats and displays results of the overview within the Initiation Policy Overview form.

For more information, see “Interaction Policy Overview” in the Interaction Recorder Policy Editor help.

Interaction Recorder Configuration Options for AWS

Interaction Recorder Configuration Options for AWS

The Interaction Recorder Cloud Services configuration options for Amazon S3 now support Amazon Web Services (AWS) Version 4 with region endpoint support.

Interaction Administrator AWS Configuration Options

In the Interaction Recorder container in Interaction Administrator, administrators can configure a regional endpoint for each Amazon S3 bucket. The configuration options appear on the Cloud Services Configuration tab.

S3 Keys Editing AWS Options

An administrator must select which region endpoint to associate with their S3 bucket configuration. Per the Amazon AWS Regions and Endpoints documentation, specifying a regional endpoint can help reduce data latency in the application when accessing or storing recordings with the AWS S3 service.

Interaction Recorder Policy Editor AWS Configuration Options

In Interaction Recorder Policy Editor, when configuring Amazon S3 buckets for the retention policy store media action, the administrator can specify the region endpoint for any Amazon S3 bucket.

AWS-Related Improvements

Improvements include:

- The ability to store recordings in Amazon S2 buckets as part of the retention policy storage location action.
- Improvements to the parallel processing of recordings for Amazon S3 storage operations. The improved processing results in less load on system resources and more efficient thread usage throughout Interaction Recorder and the Remote Content Servers.

Crystal Reports Metadata Migrator Process Improvements

The migration process now migrates custom reports and includes several dozen historical reports that were not included in earlier CIC versions. The migration process runs without user intervention.

The process checks to see if there are reports to migrate. It migrates the report metadata and the ACLs associated with the reports.

The historical reports that are included in this process are found in IC Business Manager Interaction Reporter in the Legacy Historical Reports category. By default, the Legacy Historical Reports category is not visible. To display the category in Interaction Reporter, an administrator can change the state of this category to Visible in the Interaction Administrator Report Management node, on the Report Configuration page.

For more information and the list of legacy historical reports, see the Interaction Reporter Help.

New Parameter for Interaction Dialer Reports

The new Secure Campaign Name parameter uses a permissions-based selection of campaigns that a user has access to. With this parameter, users can select campaigns, for which they have access, to run a report. If the user does not have access to view a campaign, that campaign is not available from the campaign parameter list and the user is not able to run a report for that campaign.

For more information, see “Report Management” in the Interaction Administrator help.

Interaction Optimizer Enhancements

- In the Agent Details view, a new **Export All Visible Columns** button allows users to export all the columns in the view. This feature accompanies the existing **Export Editable Columns** button, which allows users to export only the columns with information that can be imported. For more information, see “Manage the Agent Details view” in the Interaction Optimizer help.
- In the Add Modification dialog box, a new **Create another** check box allows users to add more than one forecast modification. This feature allows users to quickly and easily add multiple modifications in one session without closing and reopening the dialog box each time. For more information, see “Add a forecast modification” in the Interaction Optimizer help.
- Previously, unexpectedly high or low forecast FTE values had a negative impact on the schedule, in some cases. In this release, we changed the forecast FTE calculations to resolve the unexpected fluctuation in forecast FTE values. This should result in improved headcount estimations.

Managed Phones

Managed Phones

This release includes support for new phones. For more information, see the *Managed IP Phones Technical Reference* at http://help.inin.com/cic/mergedProjects/wh_tr/desktop/pdfs/managed_ip_phones_ag.pdf. The change log at the end of that document indicates the updates.

Polycom Phones VVX 101 and 201 Support

CIC now supports Polycom VVX 101 and VVX 201 as managed phones. The phone firmware is based on Polycom release 5.4.0. The phones will be available for deployment August 1 with the 2016 R4 release.

SIP 100/200 TLS Functionality

This release includes TLS/SRTP support for AudioCodes 420HD, Interaction SIP Station I, and Interaction SIP Station II.

Improved language models for Interaction Analyzer and Interaction Media Server

Added Oct. 4, 2016

CIC 2016 R4 introduced new language models that improve accuracy in keyword spotting for Interaction Analyzer and call analysis in Interaction Media Server.

Caution! The new language models increase CPU resource utilization for Interaction Media Server and could overtax the server resulting in audio errors during interactions or probation periods. In CIC environments where Interaction Analyzer and call analysis are not used, the new language models do not impact Interaction Media Server performance. To ensure that your current Interaction Media Servers have sufficient CPU resources to facilitate the increase processing load of the new language models, download and use the Interaction Media Server sizing calculator.

For CIC 2016 R4 Patch 0 through 2016 R4 Patch 4, the upgrade process for Interaction Media Server automatically installs and enables the new language models. However, due to the possibility of Interaction Media Servers being placed on probation by the CIC server because of increased utilization of CPU resources, CIC 2016 R4 Patch 5 reinstalls the previous language models. This change ensures that no unforeseen impacts occur to the ability of your Interaction Media Servers to handle and process interactions.

If you install 2016 R4 Patch 5 or later, you can control which language models Interaction Media Server uses for keyword spotting and call analysis. Using Interaction Administrator, set the `UseNewAnalyzerModels` server parameter to **`True`** to enable the new language models. Set the server parameter to **`False`** to use the previous language models.

Note: In CIC 2017 R1, only the new language models will be installed and enabled. The older language models will not be available. Interactive Intelligence strongly recommends that customers using Interaction Analyzer re-evaluate their Interaction Media Server sizing forecast with the updated sizing calculator to validate that you have sufficient Interaction Media Server resources to support the additional CPU resource requirement prior to upgrading. If you require additional Interaction Media Servers, Interactive Intelligence recommends that you reduce the amount of keyword spotting until you can implement additional Interaction Media Servers. To reduce the amount of keyword spotting, modify recording policies to reduce the percentage of calls being analyzed.

New Features in 2016 R3

New Features in 2016 R3

This section lists the main features that are new in CIC 2016 R3.

Internet-Enabled Reporting

Internet-enabled reporting allows reporting services to execute without a direct connection from a workstation to the database server. The connection to the database server uses a reporting plug-in added to HttpPlugin Host to facilitate a proxy connection to the database server. A secure (SSL/TLS) WebSocket tunnel between Interaction Reporter and the reporting plug-in establishes a connection to the database. All database traffic uses this connection without the need for Interaction Reporter to establish direct connection to the database.

For more information about Internet-enabled reporting, see the *CIC Reporting Technical Reference* in the CIC Documentation Library.

Interaction Connect Improvements

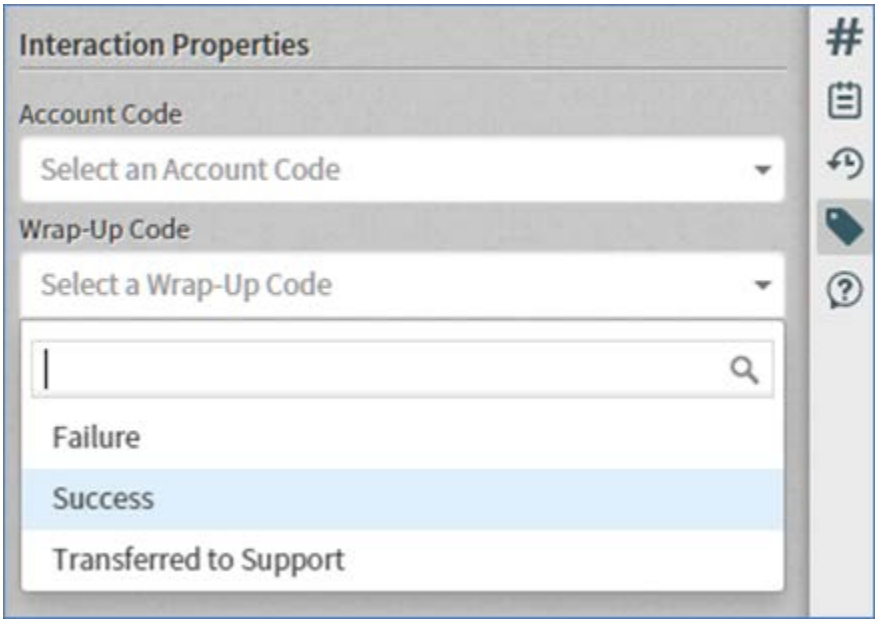
Interaction Connect Improvements

CIC 2016 R3 includes several enhancements to features in Interaction Connect.

Wrap-up Codes

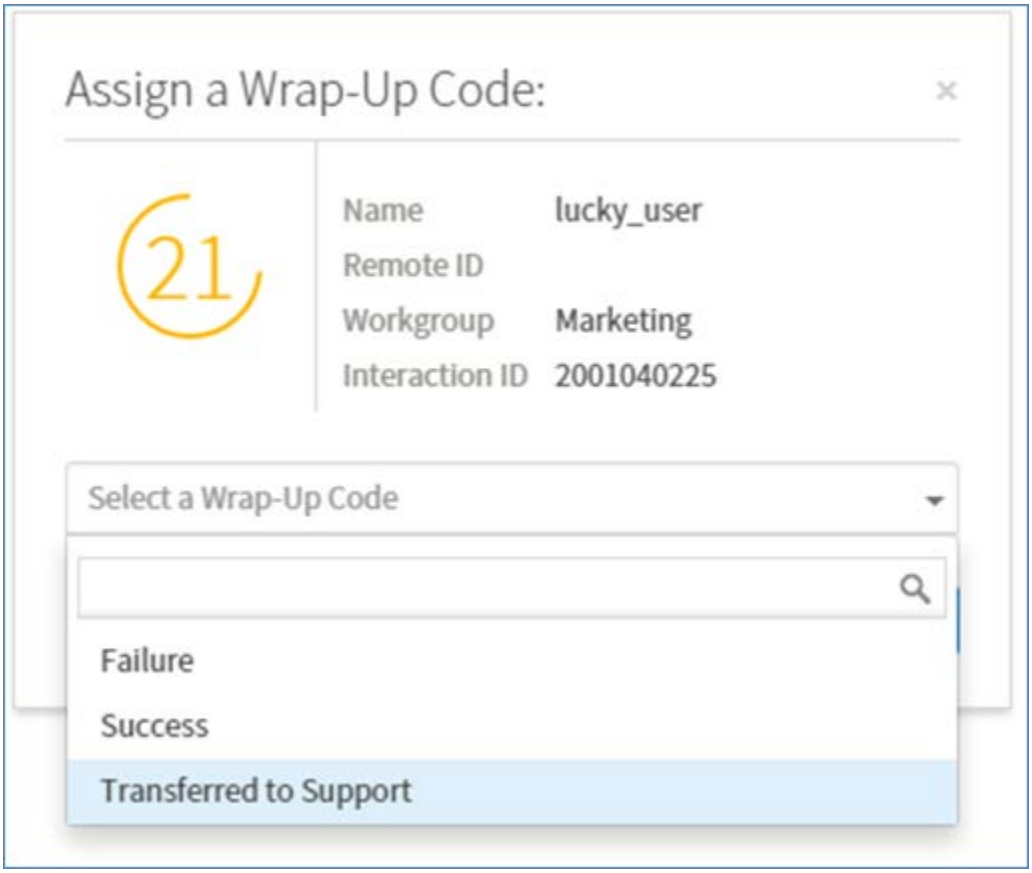
A user on an ACD interaction now has the option to set a wrap-up code. Wrap-up codes indicate the nature of an interaction, such as a billing problem, new order, or service request. CIC administrators can associate wrap-up codes with any workgroup queue. Reports are available to categorize call details by wrap-up codes.

Users have two options when setting wrap-up codes. The first option is to select a wrap-up code in the **Interaction Properties** dialog box during an interaction.



Setting the wrap-up code on an interaction using Interaction Properties

The second option is to select a wrap-up code from the **Assign a Wrap-Up Code** dialog box, which appears when the interaction disconnects if no wrap-up code is already set. The dialog box closes after a configurable amount of time, but a user can still set the wrap-up code in the **Interaction Properties** dialog box.



Setting the wrap-up code from the Assign a Wrap-Up Code dialog box

Secure Pause

Secure recording pause is a feature that an agent can initiate when requesting sensitive input, such as a social security number or credit card information, from a customer. The agent can initiate the pause using the **Secure Pause** icon on the queue toolbar.

The **Secure Pause** button is only available if:

- The user has the necessary security rights and adds the button to the toolbar.
- The feature is enabled.
- There is a selected interaction that is in an appropriate state, such as connected.

The Secure Pause button appears on the queue toolbar when enabled

To initiate a secure pause, the agent clicks the **Secure Pause** icon. All recordings of the interaction pause for a configurable amount of time. An administrator can globally configure the length of secure pauses in the Recorder configuration in Interaction Administrator. During the pause, the amount of time remaining in the secure segment appears on the toolbar. The recording resumes when the pause is complete.

The secure pause timer counts down the amount of time remaining

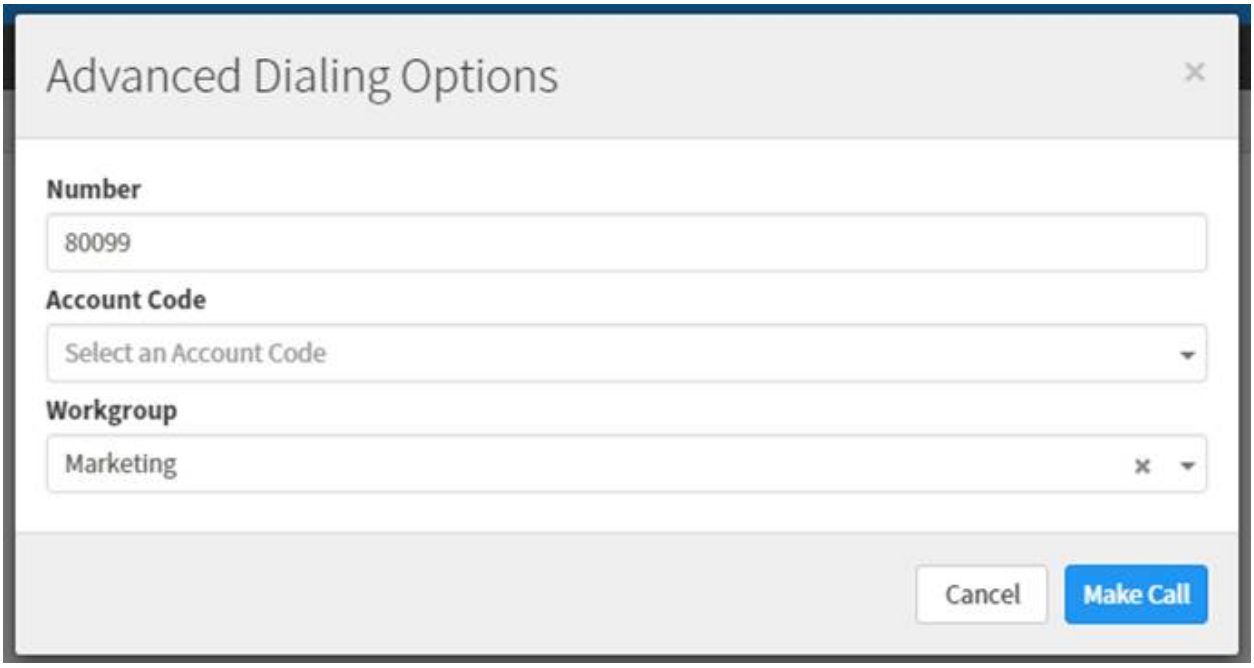
To extend the pause, the agent can click the icon again. The secure pause terminates when the configured amount of time elapses.

Dial on Behalf of Workgroups

If the CIC administrator enables advanced dialing options for an agent and that agent is a member of at least one workgroup and has at least one account code to select, then the **Advanced Dialing Options** dialog box appears every time the agent starts a call. This prompts the agent to assign the appropriate account code and/or designate a workgroup.

If an agent designates a workgroup when making a call, this action associates the outbound call with a workgroup. Primarily used for administrative and reporting purposes, the dial on behalf of a workgroup feature enables the call to count towards an agent's and the workgroup's statistics.

Note: An agent can only dial on behalf of a workgroup in which his or her status is Active.



Advanced dialing options

PureCloud for CIC Integration (Phase 1)

PureCloud for CIC Integration (Phase 1)

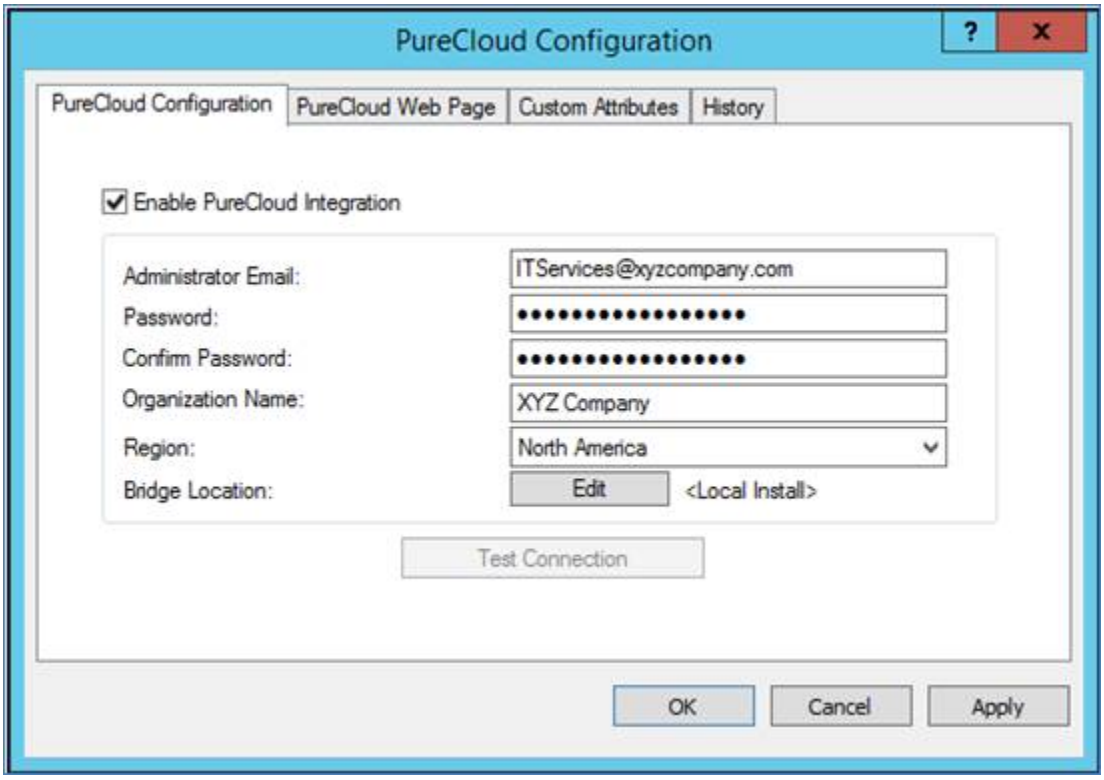
The PureCloud for CIC integration enriches the CIC user experience by leveraging the power and data of CIC and the collaborative features of PureCloud. PureCloud for CIC brings users together into a single environment that allows for seamless communication between CIC and PureCloud-only users.

The initial phase of the integration includes:

- Configuration in Interaction Administrator
- User information and status synchronization
- Interaction Connect user access to PureCloud Collaborate

Configuration in Interaction Administrator

The PureCloud for CIC configuration only requires a few steps in Interaction Administrator. The CIC administrator can create a new PureCloud organization, if one does not already exist, or use an existing PureCloud organization.



PureCloud for CIC configuration

- A new PureCloud Admin user is automatically created with the specified email address and password. The PureCloud Admin user has permissions in both CIC and PureCloud.
- PureCloud Bridge is installed to manage the data transfer between CIC and PureCloud. A local install on the IC server is recommended. However, an off-server PureCloud Bridge install is available.
- Once PureCloud for CIC is configured, the administrator can start PureCloud Collaborate directly from Interaction Administrator.

User information and status synchronization

CIC user information and statuses are automatically and continuously synced into a paired PureCloud organization.

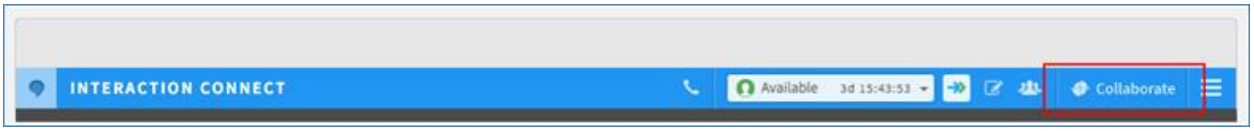
PureCloud for CIC syncs the following default CIC user information in the PureCloud organization:

- Display name (required)
- Email address (required)
- Extension
- Business number
- Work phone
- Cell phone
- Department name
- Title

- Status (user-configured)

Interaction Connect user access to PureCloud Collaborate

Once PureCloud for CIC is configured, CIC users can access PureCloud Collaborate directly from Interaction Connect.



Collaborate access in Interaction Connect

For more information about the integration, see the *PureCloud for CIC Administrator's Guide* in the CIC Documentation Library at http://help.inin.com/cic/.

Interaction Recorder Snippet Recordings

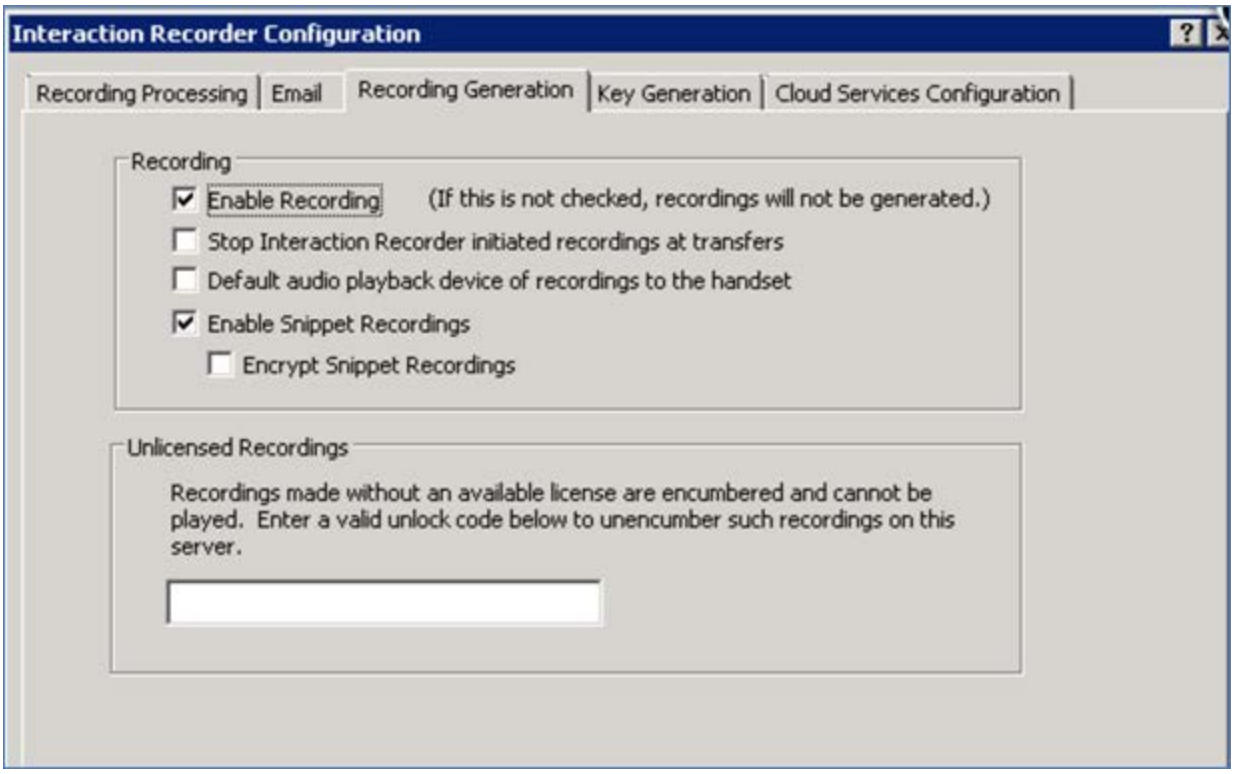
A new snippet recording feature in Interaction Recorder provides the option to initiate recording of a portion of a call or chat. This is useful when there is a need to record only a segment of a conversation, such as for the confirmation of a transaction request.

This feature helps contact centers meet specific needs for recordings. For example, many organizations require the ability to record a segment of a conversation for legal purposes. Also, some organizations require the ability to initiate a recording only after obtaining agreement from the customer.

An agent can control the point at which the recording begins or ends. Unlike with ad hoc recordings, Interaction Recorder records and manages snippet recordings. Agents can manually initiate and stop snippet recordings during a portion of a call. Handlers can also start and stop recordings.

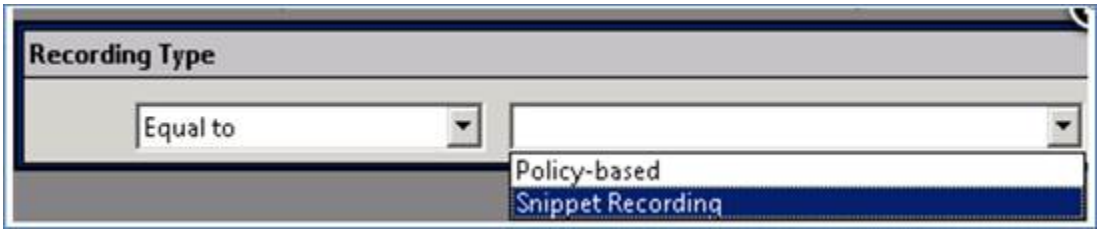
Other features of snippet recordings:

- A new search attribute provides the ability to locate snippet recordings.
- Interaction Recorder supports the encryption of snippet recordings for security purposes.
- Snippet recordings are available for quality evaluation purposes.
- The type of recording, Snippet or Policy-based, appears in the new **Recording Type** column in the Search Results view.

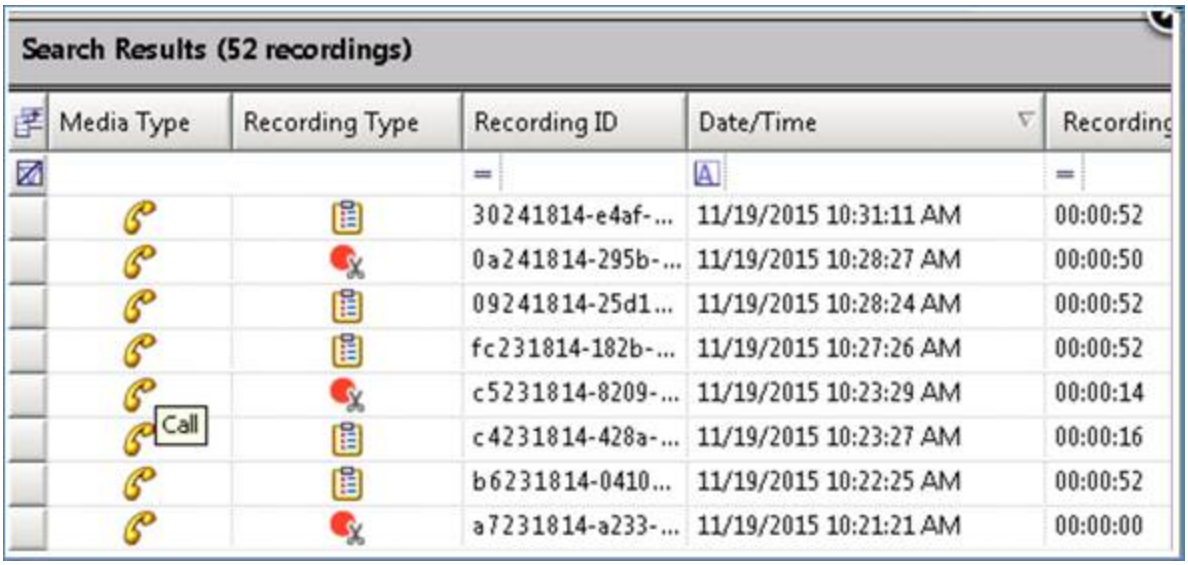


Snippet recording configuration

New icon to initiate and stop a snippet recording



Search for snippet recordings only



Recording type search results

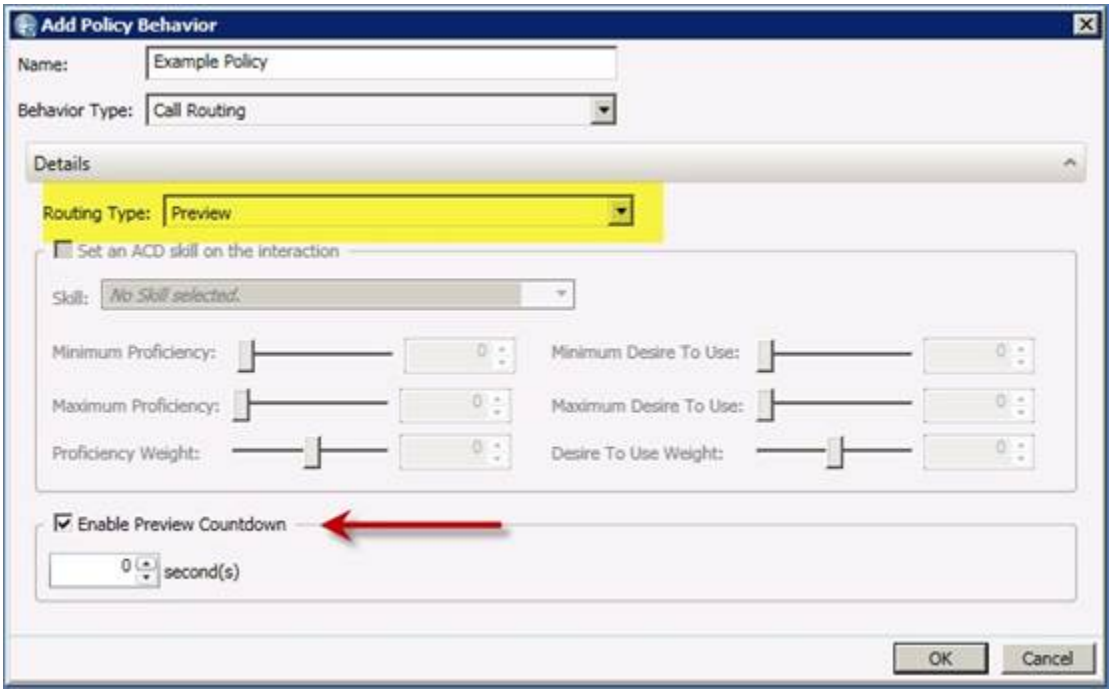
Interaction Dialer Compliance Improvements

Interaction Dialer Compliance Improvements

This release includes compliance-related improvements to Interaction Dialer.

Policy Set/Behavior Types

When configuring the call routing behavior type for a PreCall policy type, users can now select Preview in addition to the standard routing types Normal, Precise, and Do Not Call. Selecting the Preview routing type configures the system to wait until an agent is available, presents the agent with a screen pop that includes contact information, and then places a call object in an initializing state on the agent's queue. The system either waits for the agent to manually make the call, or, if Preview Countdown is enabled, makes the call once the time on the countdown timer elapses.



Preview routing type

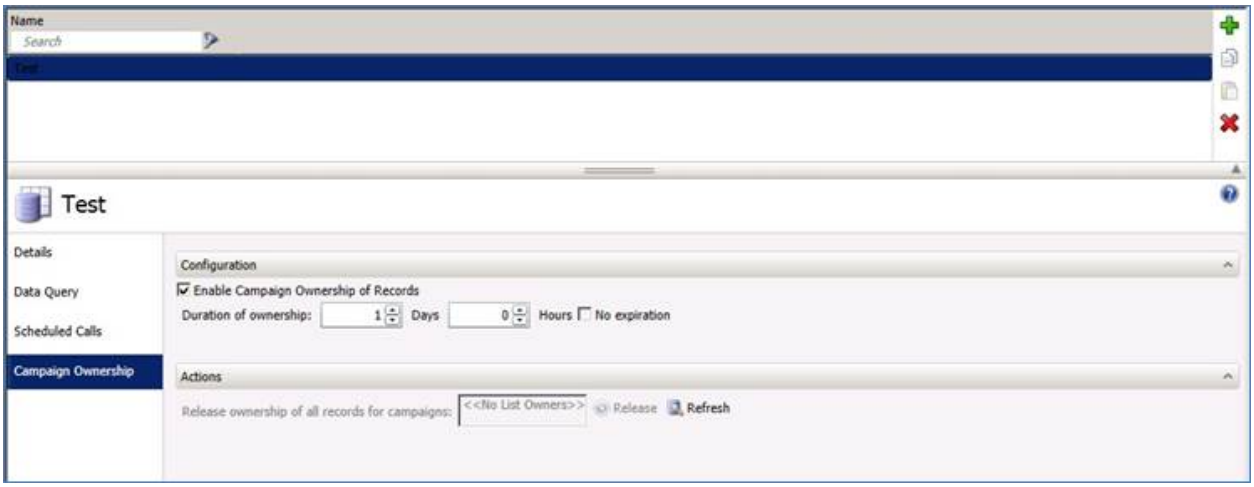
Recall Control

New max attempt thresholds allow an administrator to set the maximum number of contact attempts, after which no more calls are made to the contact. This maximum is configurable on a per-record or per-number basis. Conversely, an administrator can allow an unlimited number of per-number, per-record, or per-day contact attempts.

Campaign Ownership

On the **Campaign Ownership** tab in the **Contact List** view, an administrator can configure options to ensure that multiple campaigns do not dial the same contact on a shared contact list during a configurable period of time. This is useful if multiple campaigns simultaneously use the same contact list. The first campaign to dial a number gets ownership of that record. Dialer denies access to any other campaigns that attempt to access that record.

The **Action** options on the same tab allow an administrator to manually release ownership of campaign records. These options are only available if the administrator has the Contact List Record Ownership Control security right.



Campaign ownership options

Custom DNC Source

A new field, **Custom DNC source**, appears on the **Contact List** tab. This field allows the administrator to specify both a custom DNC data source and a DNC.com source to simultaneously scrub contact lists. Using more than one data source is optional.

Scheduled Call History

When a scheduled callback occurs, a new callscheduletime field in the CallHistory table stores the call's scheduled date and time.

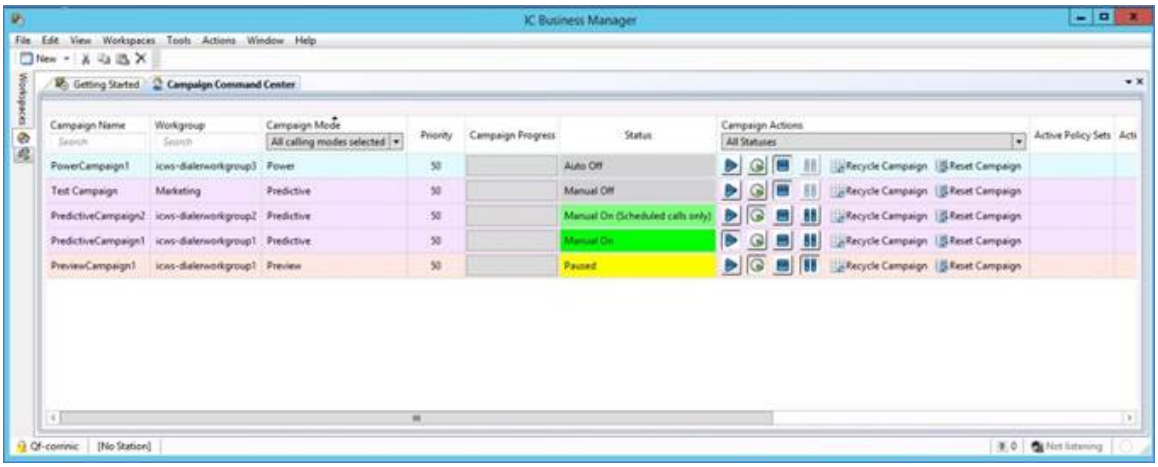
When a call results in a scheduled callback, Dialer adds a new CallHistory record for that call. The wrapupcategory and wrapupcode fields in the record contain the word "Scheduled," and the callscheduletime field is NULL. Then, when the scheduled callback occurs, Dialer adds a second CallHistory record for that call. The callscheduletime field in the new record contains the date and time of the scheduled call, and the wrapupcategory and wrapupcode fields contain the appropriate values.

Campaign Command Center View Enhancements

Enhancements to the **Campaign Command Center** view make it easier to find information with multiple campaigns displayed:

- Color coding in the **Status** column indicates the status of each campaign.

- Color coding of rows indicates which rows have the same value in the sort-by column.
- Sortable columns include **Workgroup**, **Campaign Mode**, **Priority**, **Campaign Progress**, and **Status**. Sorting by the **Campaign Name** column displays alternating row colors because campaign names are always unique.



Campaign Command Center color coding

DNC.com Metadata

When scrubbing a contact list, Dialer can now access and process additional metadata from DNC.com. This metadata includes information on Calling Time Window, Calling Time Restrictions, Do Not Call Today, and Existing Business Relationship (EBR) Permission. Information about calls that are blocked based on this metadata is stored in a new searchable table. Results of blocked call searches can then be exported in a number of different formats for future use.

Removal of HEAT Integration

As of CIC 2016 R3, the HEAT integration is no longer available. However, HEAT is now available as a cloud solution. For more information about the integration to support the HEAT cloud version, contact Interactive Intelligence partner Automated Voice and Data Solutions.

New Features in 2016 R2

This section lists some of the main features that are new in CIC 2016 R2.

New Features in 2016 R2

New Features in 2016 R2

This section lists the main features that are new in CIC 2016 R2.

Interaction Connect Enhancements

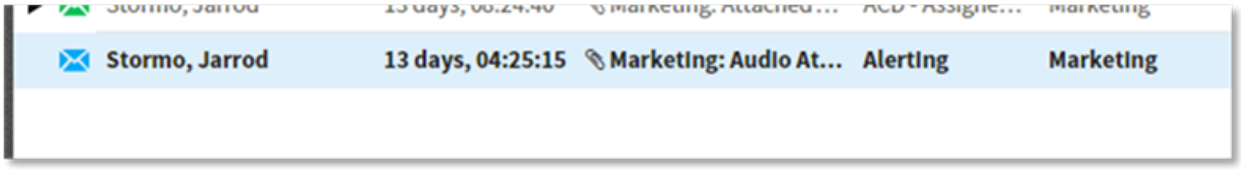
Interaction Connect Enhancements

This release contains several enhancements to Interaction Connect. For more information about the features and enhancements described here, see the Interaction Connect Help.

Support for Email Interactions

Users can now reply to ACD-routed email messages. Like with other interaction types, CIC reports and statistics can include email message replies. With support for email interactions, Interaction Connect now supports all interaction types, except Interaction Process Automation work items.

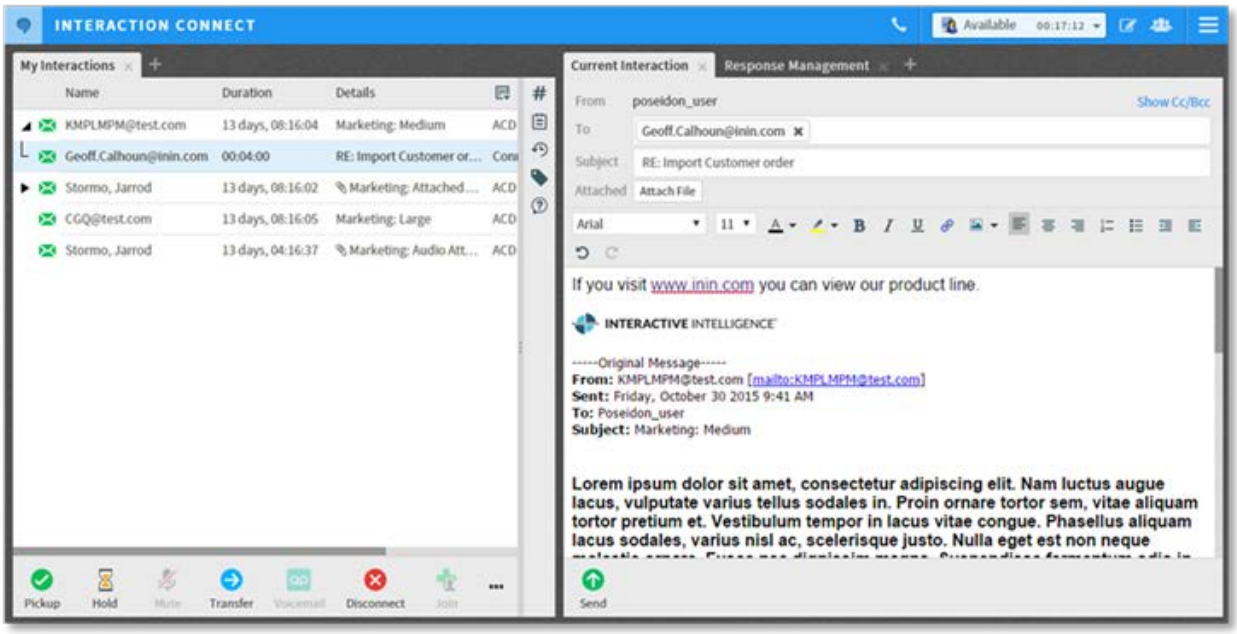
As with other interaction types, users see email interactions on the My Interactions tab and they receive pop-up notifications to alert them to email interactions.



Alerting email interaction on the My Interactions tab in Interaction Connect

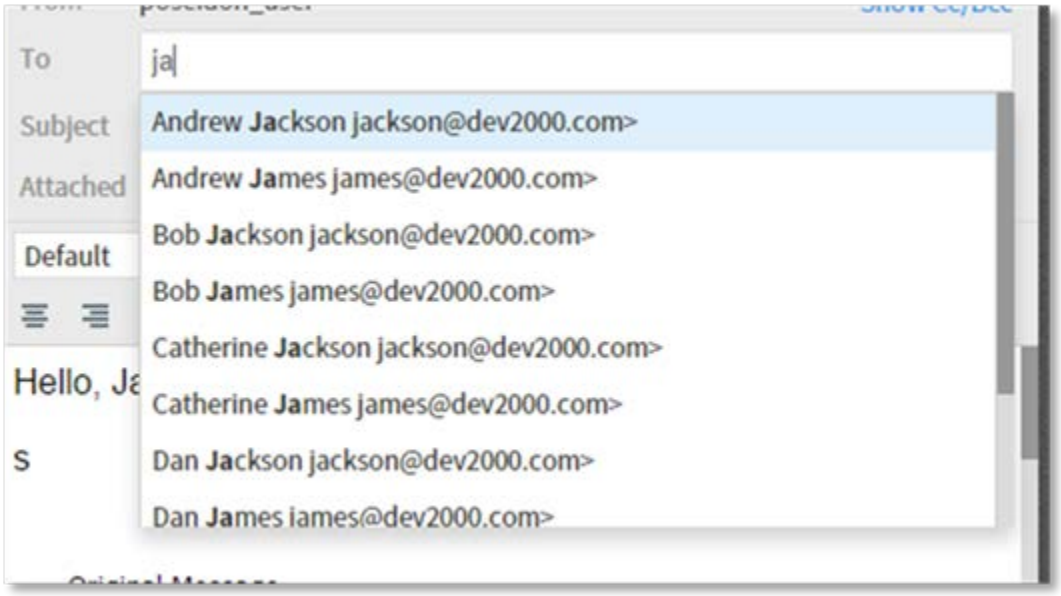
The email editor in Interaction Connect offers a rich email experience, similar to the one in Interaction Desktop. The email editor enables users to customize email messages in many different ways, including:

- Changing the font, font size, and font color
- Highlighting text
- Aligning and indenting text
- Inserting hyperlinks and images



Working with an email interaction

The email form also includes the ability to resolve contacts automatically as the user types in the To, CC, and BCC fields. This ability reduces the time it takes to respond to an email interaction.



Contact resolution

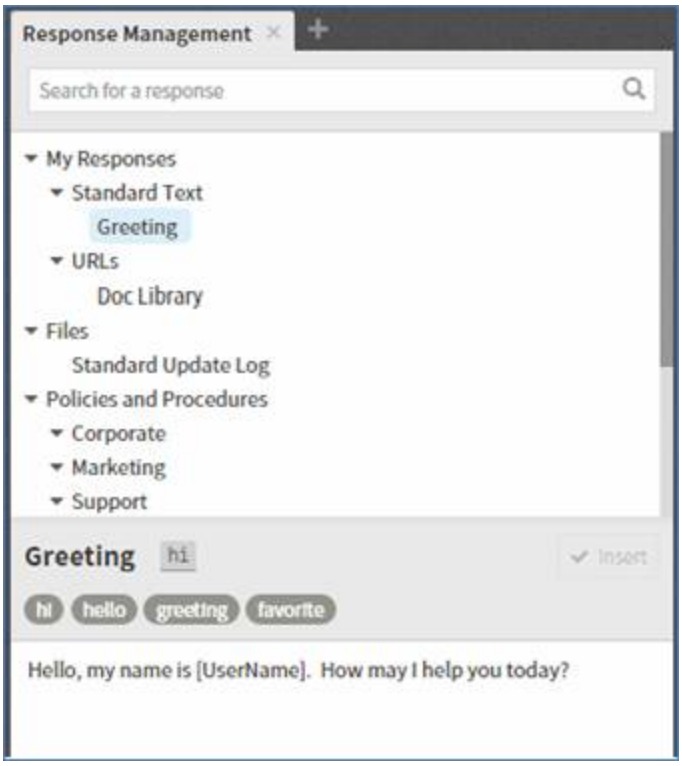
For more information about email interactions in Interaction Connect, see the Email Messages section of the Interaction Connect help.

Support for Response Management

Interaction Connect now supports Response Management, which enables the use of pre-defined items, such as messages and stored files, to more quickly handle interactions. CIC administrators can create system-wide response items and organize them into categories. Administrators can then grant the necessary rights for all or selected users to access a particular library of response items.

Users can view, select, and use a stored response during a chat session, when replying to an ACD-routed email interaction, and when responding to a callback request.

Note: A future release of Interaction Connect will allow users to create and manage their own personal responses. Users can view, select, and use any existing personal responses they have created using another CIC client, like Interaction Desktop.



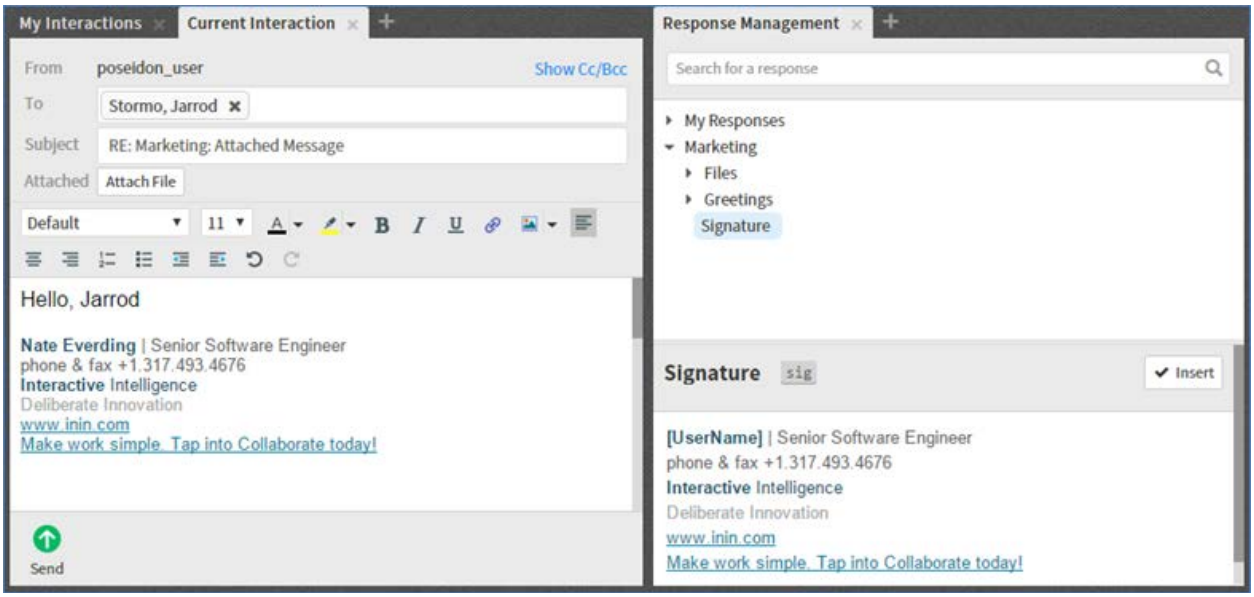
Response management library with several categories and items

Response management also includes the ability to use macros. Macros allow information to be filled in dynamically when the response item is chosen, reducing the overall number of response items that you need to create.

Macros can be items such as:

- The user name
- Interaction attributes, including custom attributes
- The current date and time

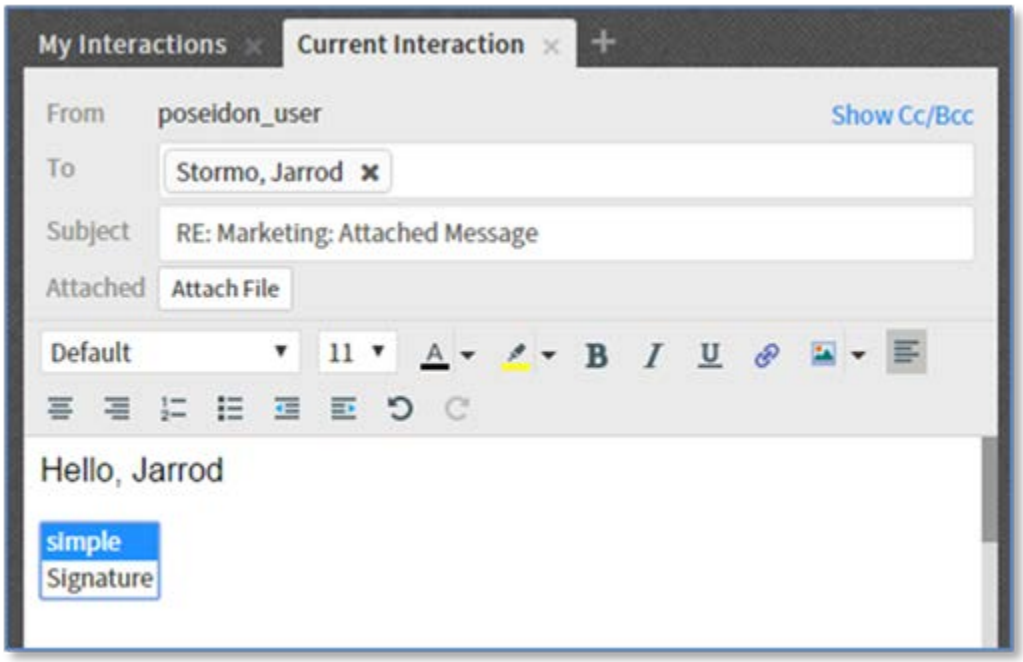
Under **Signature** in the following screen, the chosen response item includes the macro [Username]. In the interaction, the user's name, Nate Everding, is filled in when the response item is inserted. Since the user name is filled in dynamically, every user could potentially use this one response item, eliminating the need to create a signature response item for each user.



UserName macro fills in user name

Response management shortcuts allow quicker insertion of response items. In the screen above, the signature response item has the shortcut “sig.”

In the body of the email below, the user types an s and then presses Ctrl+Spacebar. Since there are two response items with shortcuts that begin with s, the user sees a list of the two options. Had there only been one response item with a shortcut that begins with s, it would have been automatically inserted.



Example of response management shortcuts

For more information about response management, see the Response Management section of the Interaction Connect help.

Interaction Process Automation Off-Server Install

The off-server components section of the CIC .iso file now includes an option to install off-server instances of Interaction Process Automation version 2.

Process Automation Server version 2, which released in CIC 2015 R3, provides greater scalability and N+1 capabilities. For more information about the improvements in Process Automation Server version 2, see the CIC 2015 R3 release webinar.

For more information about the install, see the Interaction Process Automation Technical Reference.

IC Web Services (ICWS) Improvements

This release includes new Agent-Assistance and Client Configuration public APIs, and improvements to the POST and PUT APIs.

For more information, documentation, and examples, or to download the ICWS SDK, see https://developer.inin.com/documentation/pages/default.aspx.

ICWS Community Technology Preview

You can now preview upcoming ICWS improvements and new APIs. Improvements and new APIs are generally available for preview one release before they become public. This preview period allows time for initial testing and development work to start before the APIs are public.

For example, the following new or improved APIs are now available to preview in CIC 2016 R2:

- Configuration
- Connection
- Interactions
- Response management
- Statistics

Email Attachment Download Improvements

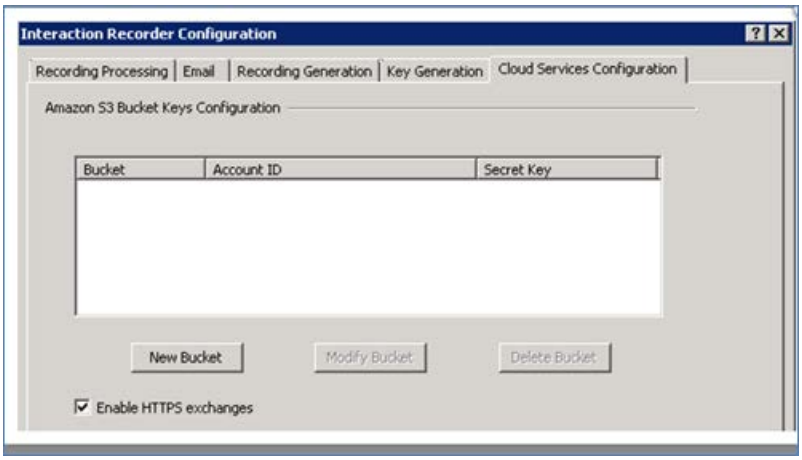
Email attachments now download out-of-band using HTTP file transfer. This improvement significantly reduces the time it takes to download attachments, especially for connections with nontrivial latency, such as over a WAN.

Interaction Quality Manager Improvements

Interaction Quality Manager now provides the ability to force the Interaction Screen Recorder Capture Client to log on to only a specific single sign-on (SSO) identity provider. Configuration now enables automatic logon to screen recorder using single sign-on credentials. It eliminates the need for users to log on to both SSO and Interaction Screen Recorder Capture Client.

If a recording is encumbered, the local party name is now visible in IC Business Manager to allow administrators to identify users or stations that need the Recorder Add-on license. This eliminates the need to scour the logs or run manual database queries to determine which users or stations are missing the required license.

There is a new configuration option within Interaction Recorder to control whether exchanges between the Amazon S3 cloud services and Interaction Recorder Server are HTTP or HTTPS. This option is especially beneficial for CaaS.



Cloud Services configuration in Interaction Recorder

Interaction Speech Recognition

Interaction Speech Recognition includes support for additional languages, including Australian English (en-AU), U.S. Spanish (es-US), Canadian French (fr-CA), and German (de-DE). Support for U.S. English (en-US) was included in a previous CIC release. All of the languages are available in tier 1 and tier 2 licensing.

Interaction Text-to-Speech

This release introduces native support for Interaction Text-to-Speech, which runs natively on the media server and includes support for these initial languages: U.S. English (en-US), Australian English (en-AU), Great Britain English (en-GB), Canadian French (fr-CA), and German (de-DE).

Usage-based Pricing for Speech within CaaS

CIC 2016 R2 introduces a change to pricing for speech offerings. You can still choose to purchase persistent ports, however two new options based on reported usage are now available.

- Price per minute
  With this option, the system tracks the usage of speech and converts that into a time value. You pay for actual usage based on that time.
- Maximum monthly concurrent ports
  This option monitors your call ports and reports on the largest maximum usage. Your bill is based on the port cost multiplied by the number of concurrent ports.

You can use both options with Interaction Speech Recognition or Nuance's Recognizer speech offerings.

New Interaction Dialer Reports

This release includes two new Interaction Dialer reports: Best Time to Call Analysis and Call Answer Distribution. These reports allow customers more intuitive looks into their data set in an effort to increase ROI.

Best Time to Call Analysis Report

This report displays an hourly breakdown of contacts, right party contacts, and success rates for one or more campaign groups.

The report consists of a main report with summarized data per site ID, campaign name, and campaign group. A line chart, which follows the data, allows comparison of contacts, RPC, and success, based on the number of dials.

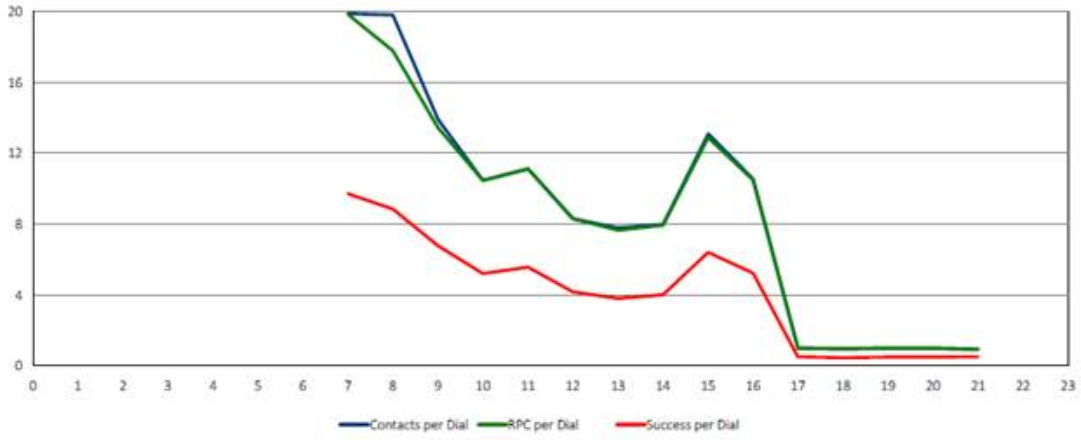
Best Time To Call Analysis

INTERACTIVE INTELLIGENCE

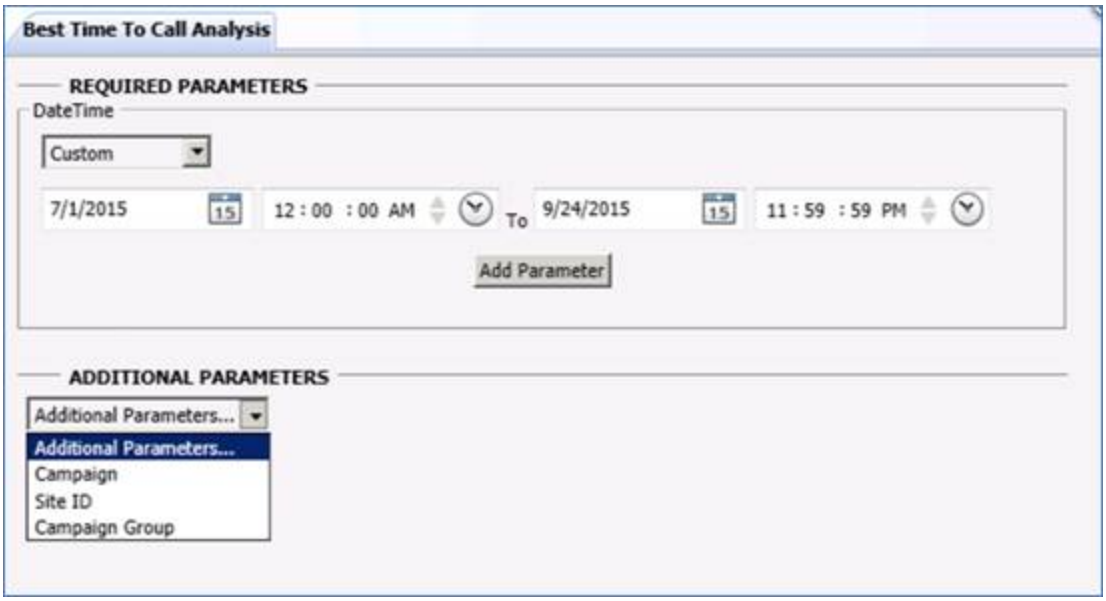
Date: 7/1/2015 12:00:05 AM - 10/1/2015 11:59:59 PM
Site: <All>
Campaign: rabahcampaign
Campaign Group: <All>

Site: Regular_server
Campaign Name: RabahCampaign
Campaign Group: -

		Contacts		Right Party Contact			Success			
Time	Dials	#	Per Dial	#	Per Dial	Per Contact	#	Per Dial	Per Contact	Per RPC
7:00	9,584	1,903	19.86	1,899	19.81	99.79	930	9.70	48.87	48.97
8:00	170,993	33,830	19.78	30,373	17.76	89.78	15,125	8.85	44.71	49.80
9:00	268,993	37,377	13.90	36,133	13.43	96.67	18,195	6.76	48.68	50.36
10:00	366,596	38,329	10.46	38,329	10.46	100.00	19,044	5.19	49.69	49.69
11:00	338,393	37,587	11.11	37,561	11.10	99.93	18,823	5.56	50.08	50.11
12:00	461,843	38,317	8.30	38,290	8.29	99.93	19,291	4.18	50.35	50.38
13:00	538,548	41,826	7.77	41,199	7.65	98.50	20,421	3.79	48.82	49.57
14:00	522,520	41,701	7.98	41,414	7.93	99.31	20,917	4.00	50.16	50.51
15:00	381,085	49,862	13.08	49,026	12.86	98.32	24,388	6.40	48.91	49.75
16:00	379,675	39,997	10.53	39,784	10.48	99.47	19,820	5.22	49.55	49.82
17:00	178,757	1,778	0.99	1,777	0.99	99.94	889	0.50	50.00	50.03
18:00	155,042	1,487	0.96	1,486	0.96	99.93	716	0.46	48.15	48.18
19:00	179,244	1,763	0.98	1,763	0.98	100.00	884	0.49	50.14	50.14
20:00	179,018	1,778	0.99	1,778	0.99	100.00	883	0.49	49.66	49.66
21:00	30,440	282	0.93	282	0.93	100.00	153	0.50	54.26	54.26



Best Time to Call Analysis Report



Best Time to Call Analysis Report parameters

Parameters

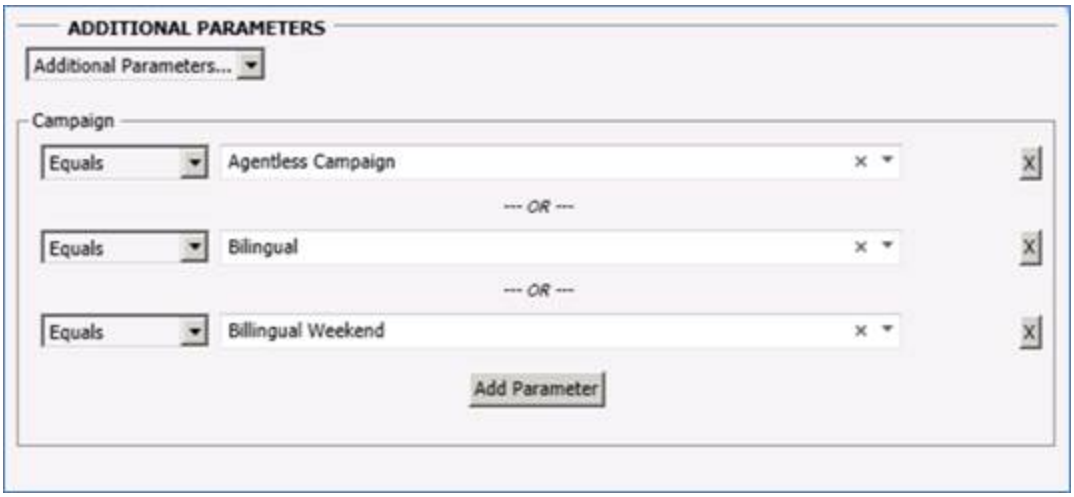
This report requires a date/time range to query the view.

Users can narrow the query results using the following parameters:

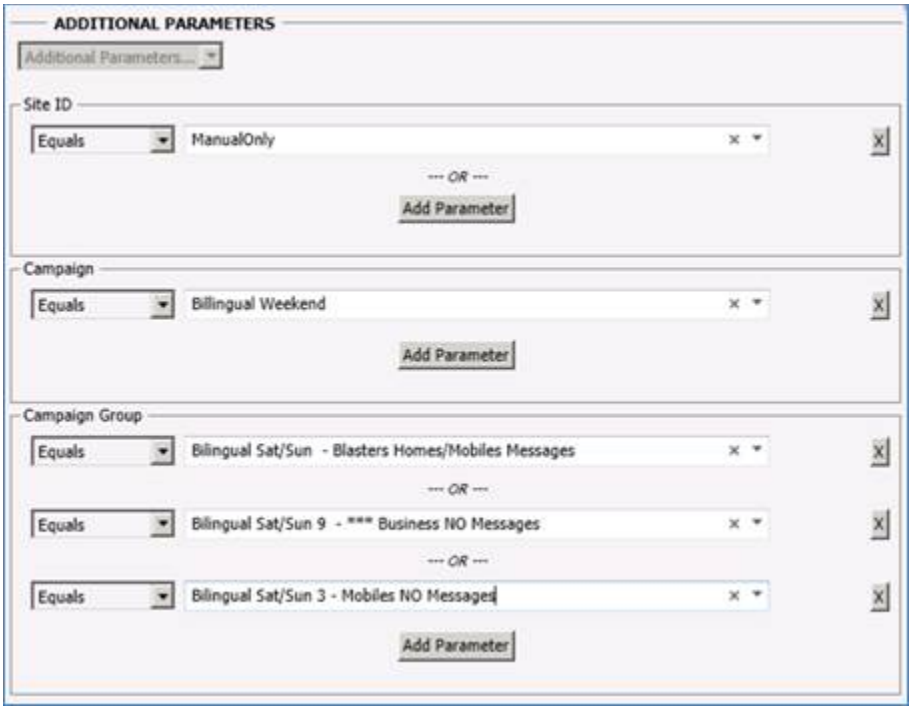
- Site ID
- Campaign name
- Campaign group

Interaction Dialer now supports the selection of multiple sites, campaign names, and groups.

Parameters for selecting multiple Interaction Dialer sites



Parameters for selecting multiple campaigns



Parameters for selecting multiple campaign groups

A user can select multiple campaign groups using the pre-populated list for the selected campaign, except when a campaign group is part of the selection to run the report.

Call Answer Distribution

This report displays summary data and a graphical analysis of the number of seconds it takes to answer Interaction Dialer calls. This data provides guidance for setting the no-answer timeout value. The Show Detail parameter drives the display of the following summary data table.

Call Answer Distribution

Date: 7/1/2015 12:00:00 AM to: 10/1/2015 1:17:08 PM

Site: ManualOnly

Campaign: high risk

Campaign Group: 0

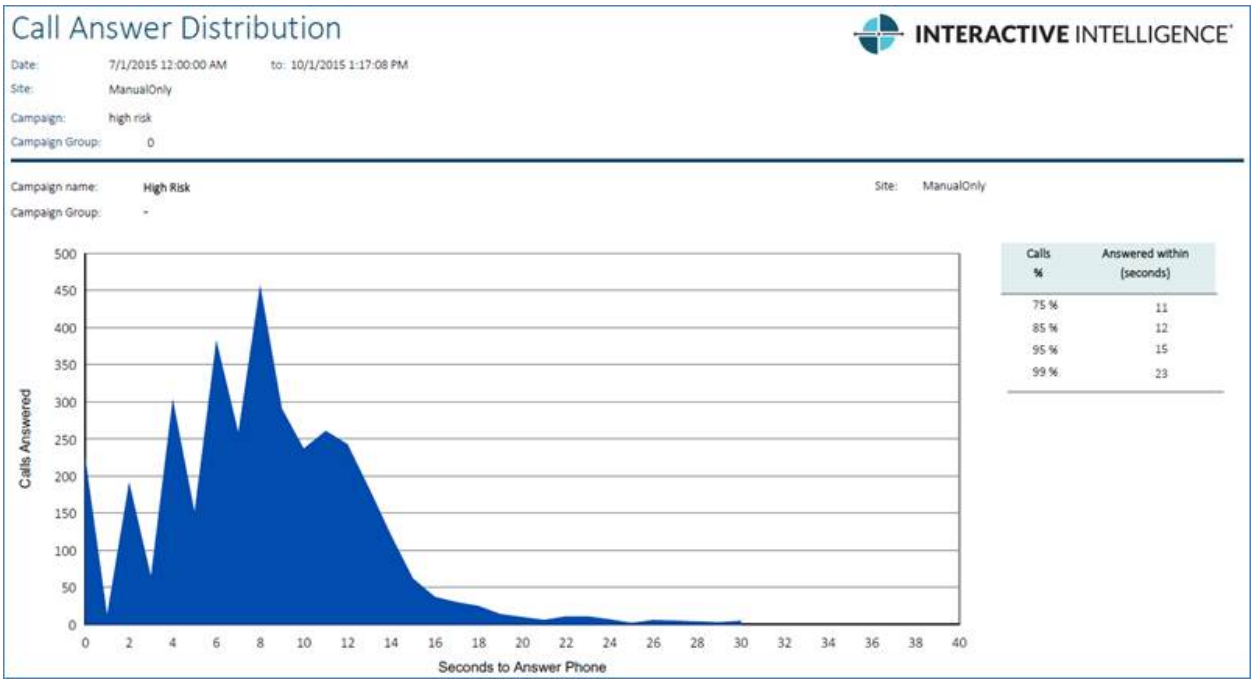
Campaign name: **High Risk**

Campaign Group: -

Calls	Answered within seconds	Calls %	Running Total %
224	0	6.19	6.19
13	1	0.36	6.55
192	2	5.31	11.86
65	3	1.80	13.65
304	4	8.40	22.06
152	5	4.20	26.26
383	6	10.59	36.84
259	7	7.16	44.00
458	8	12.66	56.66
291	9	8.04	64.70

Call Answer Distribution Report

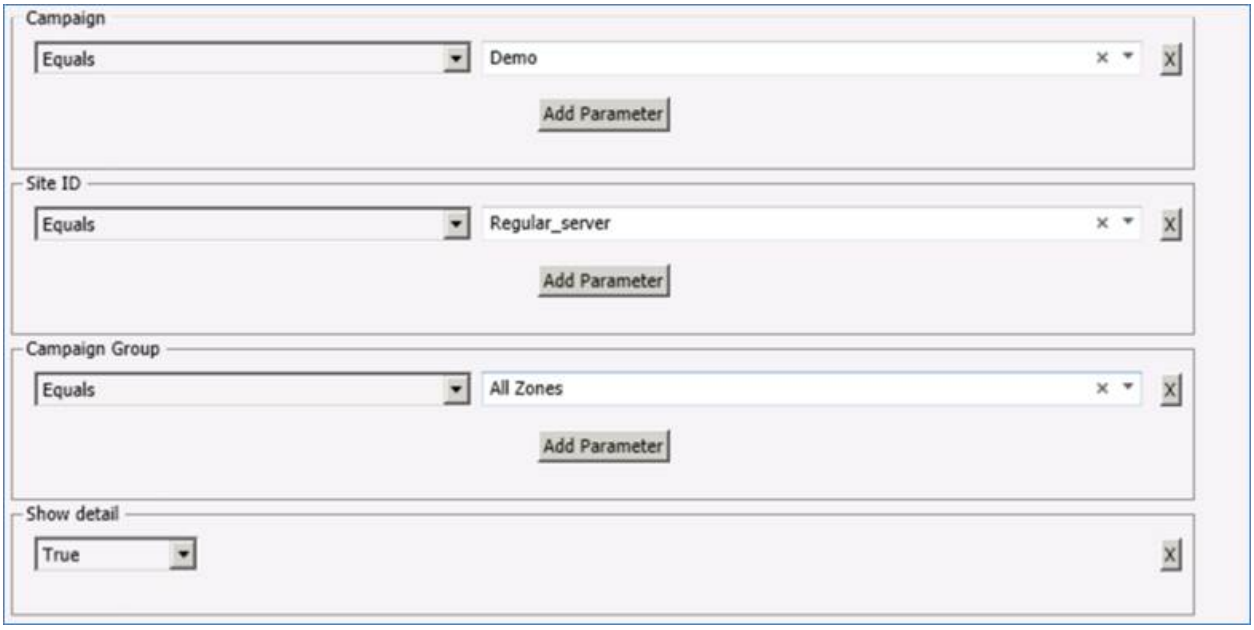
Following the summary data, the graph presents the distribution of answered calls.



Call Answer Distribution Report

Parameters

- Start date/time (local converts to map CallplacedtimeUTC)
- Campaign (maps CampaignName)
- Campaign group (returns Campaign Group identifier to map CallHistory.RuleGroupID)
- Site ID (maps CallHistory.SiteID)
- Show detail (Boolean to control tabular data visibility)



Call Answer Distribution Report parameters

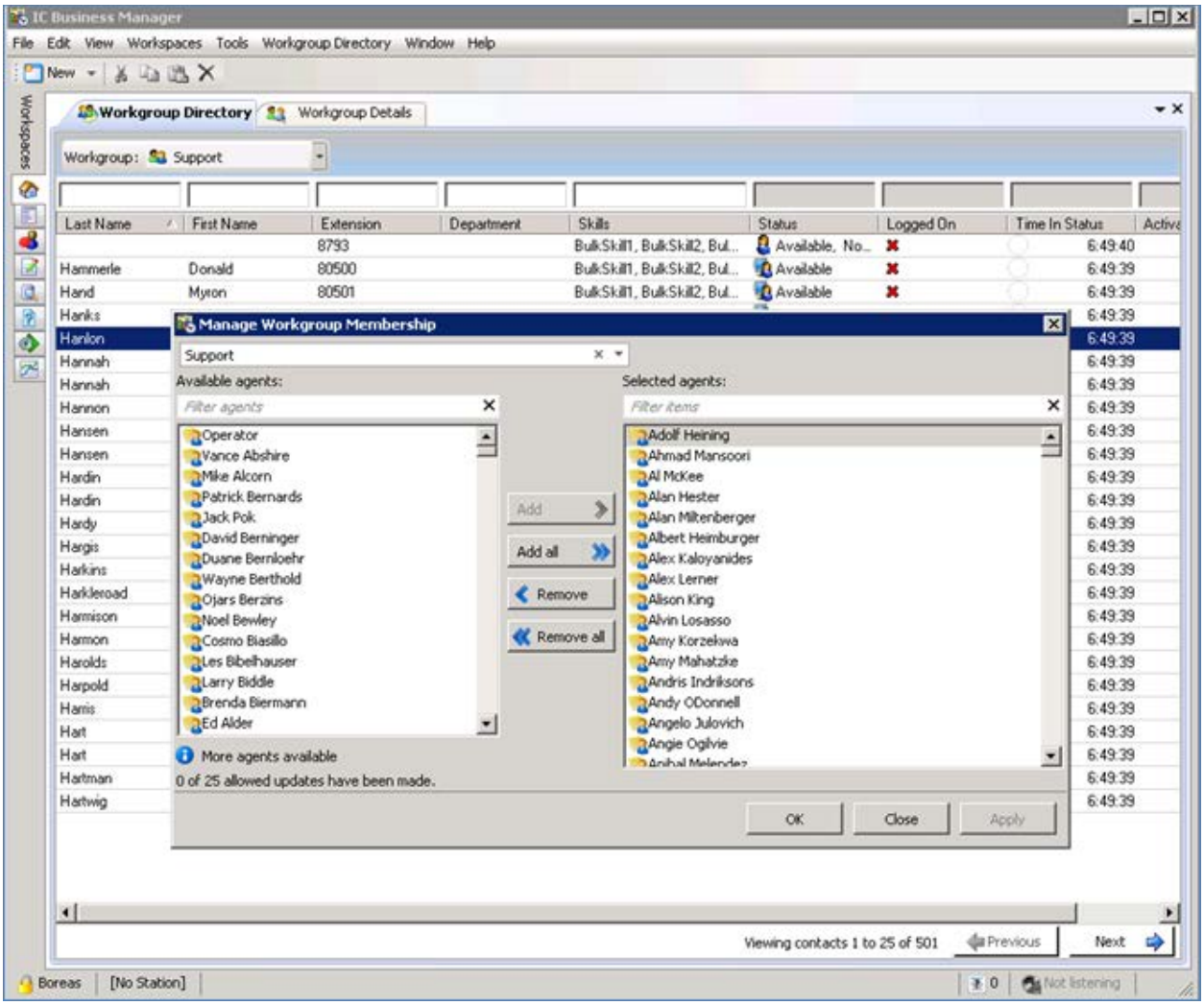
IC Business Manager Feature Improvements

IC Business Manager Feature Improvements

IC Business Manager now supports the addition or removal of agents in a workgroup queue. Feature improvements allow for the use of server parameters to restrict the number of records that appear in the IC Business Manager statistics views.

Addition/Removal of Agents in a Workgroup Queue

This release adds support for supervisors to add and remove agents to/from a workgroup queue in IC Business Manager. Supervisors can add or remove up to 25 agents at a time in the Manager Workgroup Membership dialog box.



Adding or removing agents in a workgroup queue

Server Parameters for IC Business Manager Views

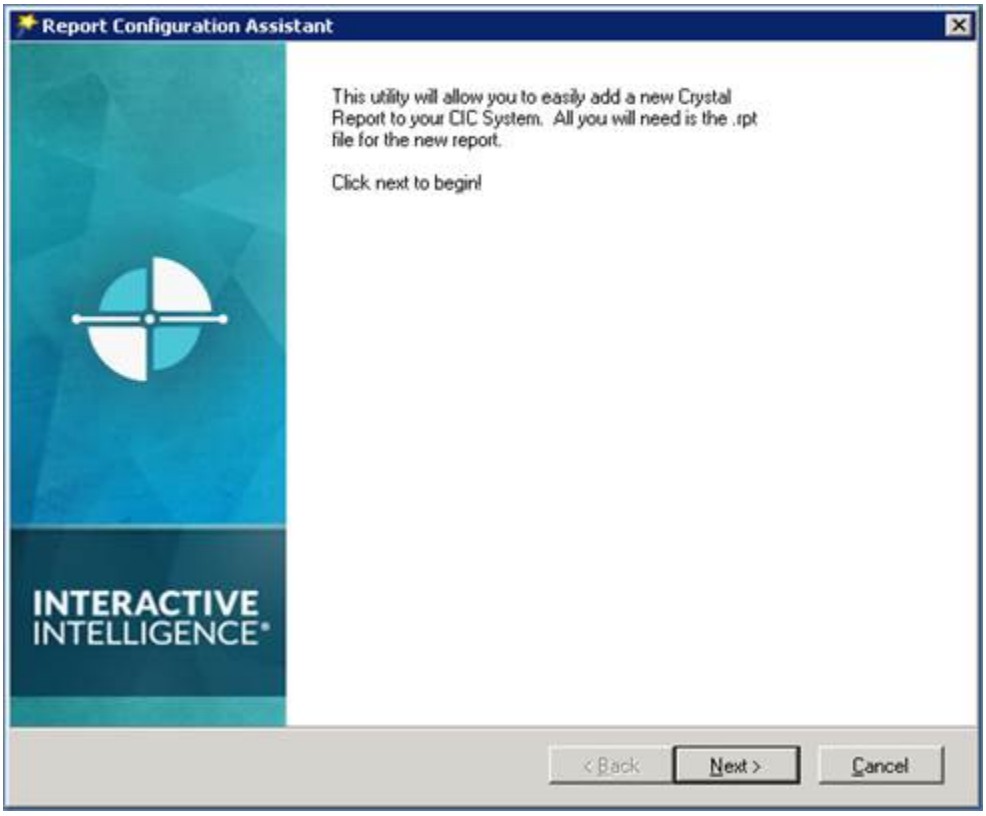
You can now use server parameters to restrict the number of records that appear in the IC Business Manager Statistics view. To set the server parameters, add them in the Server Parameters container in Interaction Administrator. Then, set the parameter values.

Parameter Name	Description
MaximumAgentsInAgentGraphView	Set this parameter to limit the number of agents shown in the Agent Graph view. The default value is 20.
MaximumAgentsInAgentOverviewView	Set this parameter to limit the number of agents shown in the Agent Overview view. The default value is 20.
MaximumStatisticsInAgentGraph	Set this parameter to limit the number of statistics shown in the Agent Graph view. The default value is 40.
MaximumStatisticsInWorkgroupGraph	Set this parameter to limit the number of statistics shown in the Workgroup Graph view. The default value is 40.
MaximumStatisticsInWorkgroupOverviewView	Set this parameter to limit the number of statistics shown in the Workgroup Overview view. The default value is 180.
MaximumWorkgroupsInWorkgroupOverviewView	Set this parameter to limit the number of statistics shown in the Workgroup Overview view. The default value is 20.

Note: Interactive Intelligence performed scalability tests for 5000+ agents and 500+ supervisors, with each supervisor allowed to observe up to 720 agent statistics and 720 workgroup statistics simultaneously. Exceeding the tested number of simultaneous statistics watches could cause Customer Interaction Center server scalability issues.

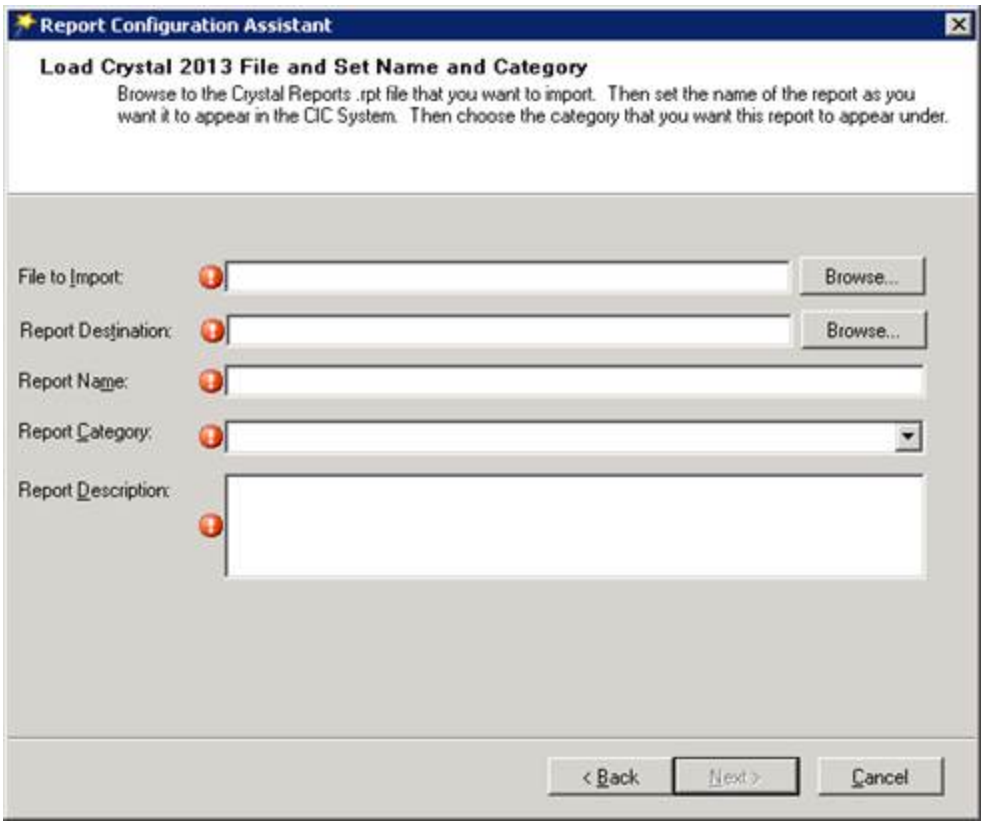
Crystal Reports Import Utility

The stand-alone Crystal Reports Import Utility provides a streamlined method for configuring Crystal Reports reports that run in IC Business Manager. The utility provides customers an easy-to-use wizard for importing a new report into the system using an .rpt file and user-friendly forms. This utility eliminates the need to add a Crystal Reports report manually through Interaction Administrator using XML editing to populate the metadata. For more information about the utility, see the *Crystal Reports Import Utility Technical Reference* in the CIC Documentation Library at help.inin.com.



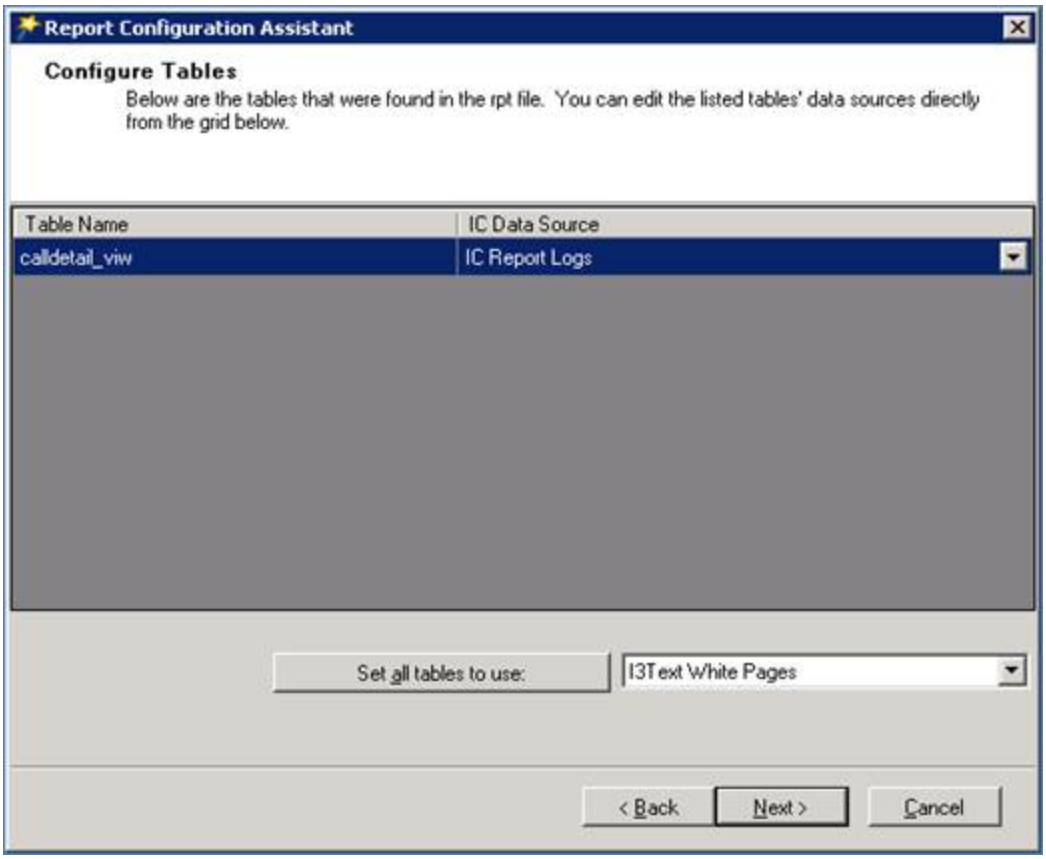
Crystal Reports Import Utility

The user runs the CrystalReportImportUtility.exe file, and then begins the import using the Report Configuration Assistant. The user then enters or selects the files, name, category, and so on.



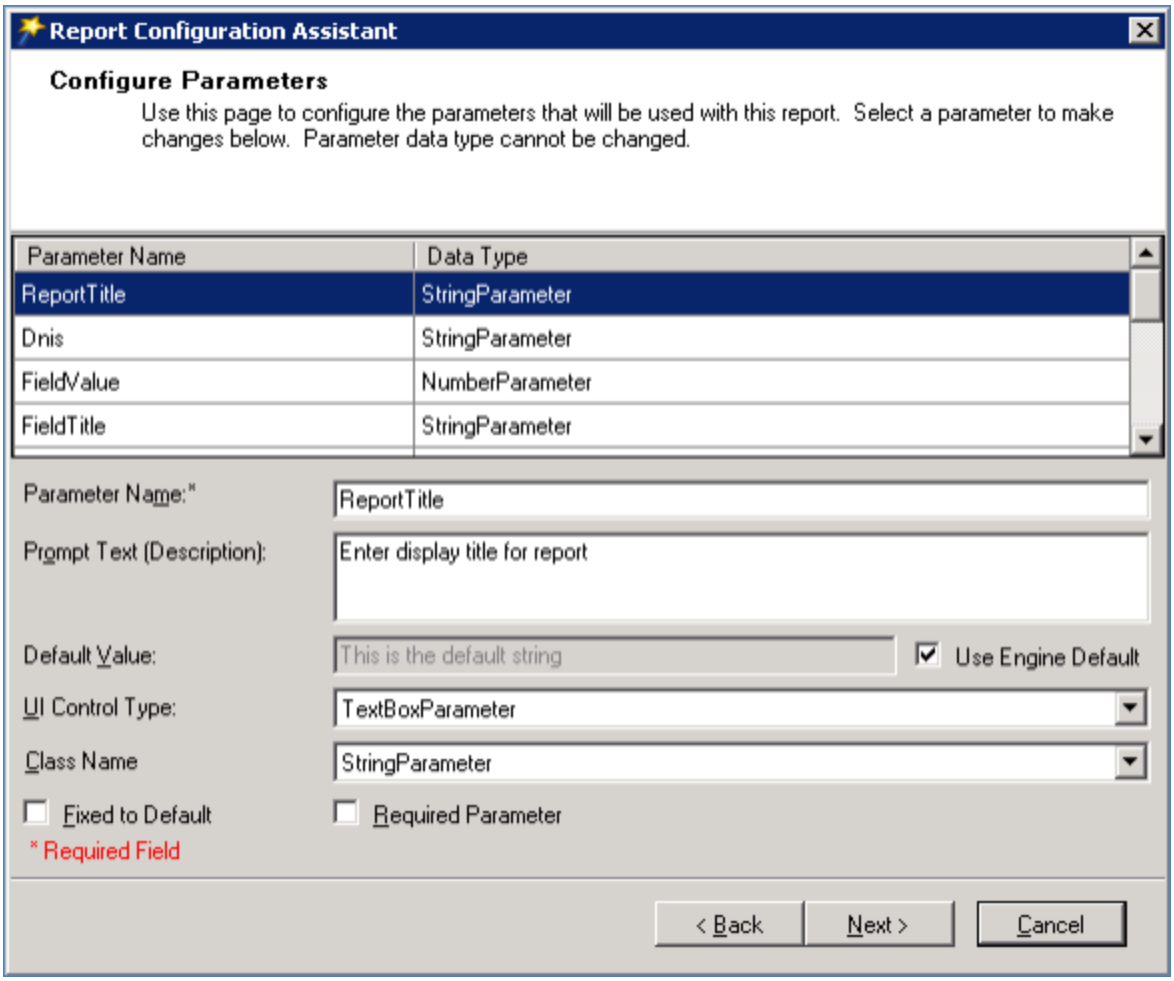
Report Configuration Assistant name and category selection

The user can then configure one or more tables and the related data sources.



Report Configuration Assistant table configuration

After configuring the tables, the user can configure the report parameters in the .rpt file, and then import the report.



Report Configuration Assistant parameter configuration

Database Schema Change Library

To help with upgrading database customizations, a Database Schema Change Library is available on the Interactive Intelligence Product Information site. The library contains reports that detail the schema changes between your current CIC release/patch and a target CIC release/patch.

Interaction Optimizer Performance Improvements

This release includes improvements to the schedule editor and adherence exceptions view in Interaction Optimizer.

Removal of Remedy 4.0-7.0 Screen Pop Integration

The Remedy 4.0-7.0 IVR integration was removed in CIC 2015 R3. In CIC 2016 R2, the screen pop integration was removed. Integration with the current version of Remedy (8.1) is still possible using out-of-the-box CIC functionality. You can find instructions at developer.inin.com.

REST API Support to Configure the Media Server

You can now configure Interaction Media Server using the REST API, which makes implementing many media servers much simpler. For more information about the REST API, see the Interaction Media Server REST API section in the *Interaction Media Server Technical Reference*.

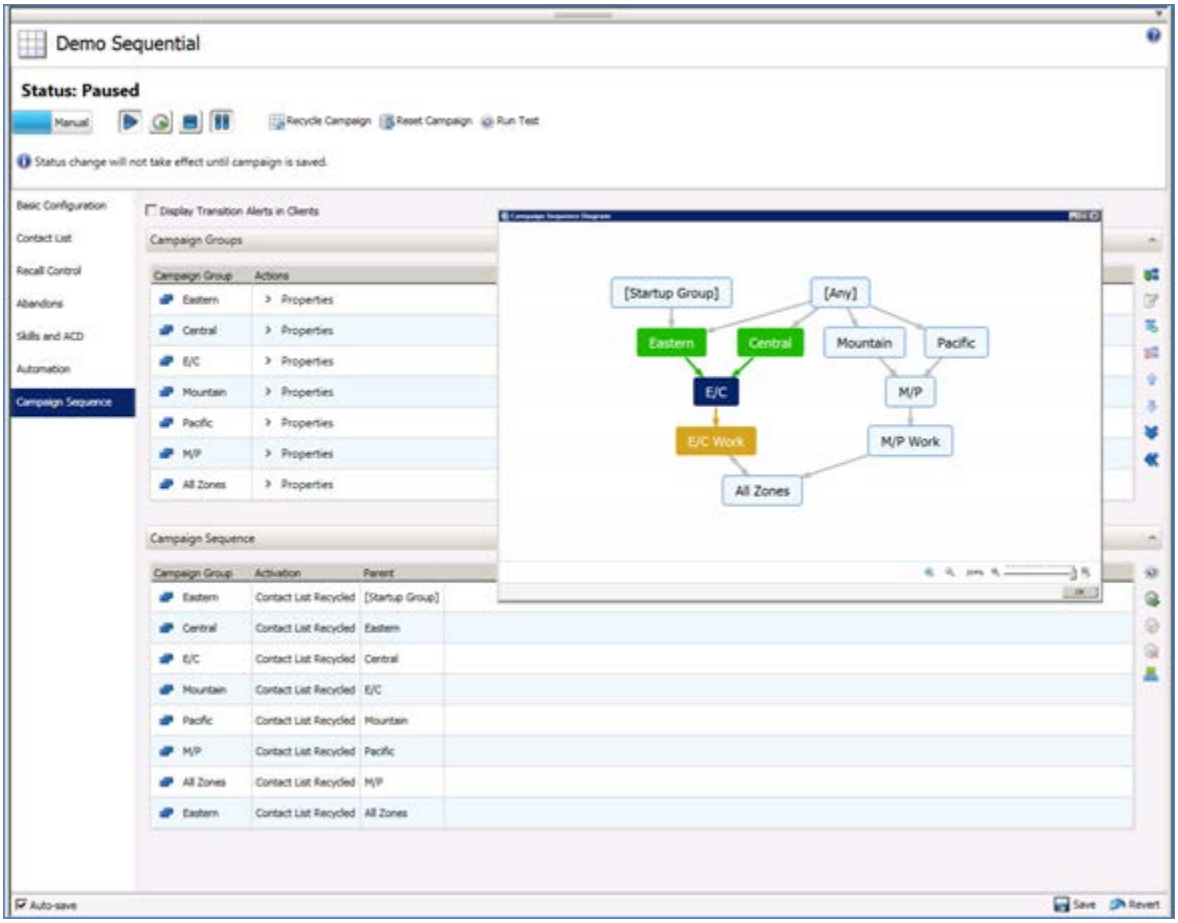
Interaction Dialer Enhancements

Interaction Dialer Enhancements

Beginning with this release, you can find information about new features in this document, *CIC Release Notes*. Information about previous releases, CIC 4.0 through CIC 2016 R1, is still available in *Interaction Dialer Release Notes*, which you can find in the CIC Documentation Library at help.inin.com.

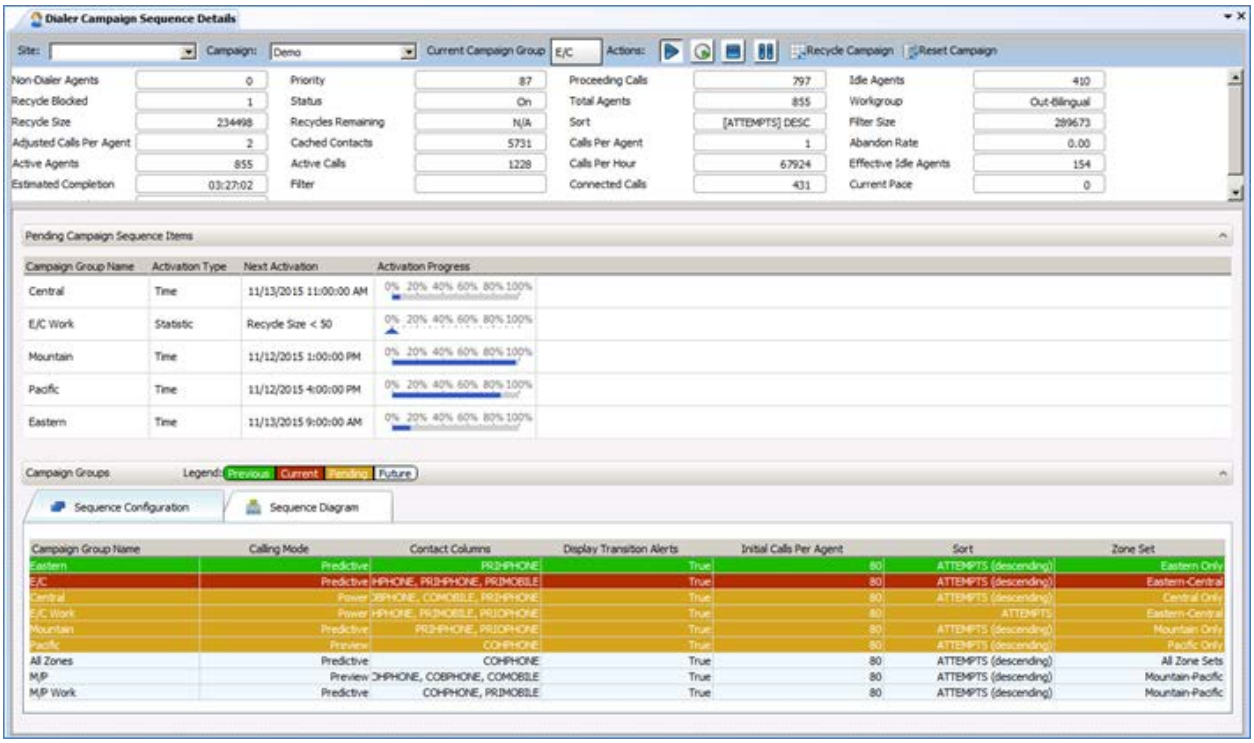
Interaction Dialer Advanced Campaign Management Tool

Using the Advanced Campaign Management feature for Interaction Dialer, you can more easily configure a campaign to modify its behavior automatically as conditions change throughout the day. Using the tools on the Campaign Sequence tab in Interaction Administrator, you can break down the campaign into groups, each with the same set of campaign properties. You can adjust the values of the campaign properties in each group. Then, you can arrange the campaign groups in a sequence such that the flow of the campaign moves from group to group based on time, event, or statistical triggers.



Interaction Administrator Campaign Sequence tab

Once a campaign sequence runs, you can monitor its behavior in real time from the Dialer Campaign Sequence Details view in IC Business Manager. In the view, you can easily track the campaign using statistics, progress gauges, and color-coded listings.



Interaction Administrator Campaign Sequence tab

For more information about Interaction Dialer advanced campaign management, see the *Advanced Campaign Management for Interaction Dialer Overview Guide* in the Interaction Dialer section of the CIC Documentation Library at help.inin.com.

New Features in 2016 R1

New Features in 2016 R1

This section lists the main features that are new in CIC 2016 R1.

Release Process Enhancements

Release Process Enhancements

These following enhancements to the CIC release process are now available.

Known Issues

You can now preview a list of issues fixed in the next CIC and Dialer patches on the Known Issues page on the Interactive Intelligence Product Information site.

CIC 2015 R3 Patch 12 Engineering Specials

SCR	Summary	Detail	ES Available	Resolved In
IC-132466	Fixed an issue that could cause email forms to get stuck in memory long after the email was disconnected.	Fixed this issue by making sure to clean up any lingering events after the email interaction had been deallocated.	P12-IC-132466	Patch13

Click here to preview issues resolved in CIC 2015 R3 Patch 13

SCR	Summary	Detail
IC-125309	When an external call is transferred to an external number, only one of the interactions will get deallocated.	When an external call is transferred to an external number, only one of the interactions will get deallocated after the call is disconnected. This can cause an issue with Tracker getting the appropriate information to clear its cache of the interaction entry, so later interactions might get stale cache data.
IC-127842	Historical Reports are not properly Migrated.	We fixed an issue where migration code did not properly append the '_migrated' suffix to imported report ds keys, and added code to keep the report ds migration ahead of the report files migration.

List of issues fixed in the next patch

Database Scripts

Starting in CIC 2016 R1, a .zip file containing the Microsoft SQL Server and Oracle database scripts is available for each CIC release and patch of the CIC .iso file, and as a separate download on the Downloads page on the Interactive Intelligence Product Information site.

Release	Release Download(s)	Release Posted On
CIC 2016 R1 (with Interactive Update 2016 R1)	CIC_2016_R1.iso CIC_Appliance_2016_R1.iso 2016_R1_DatabaseScripts.zip	

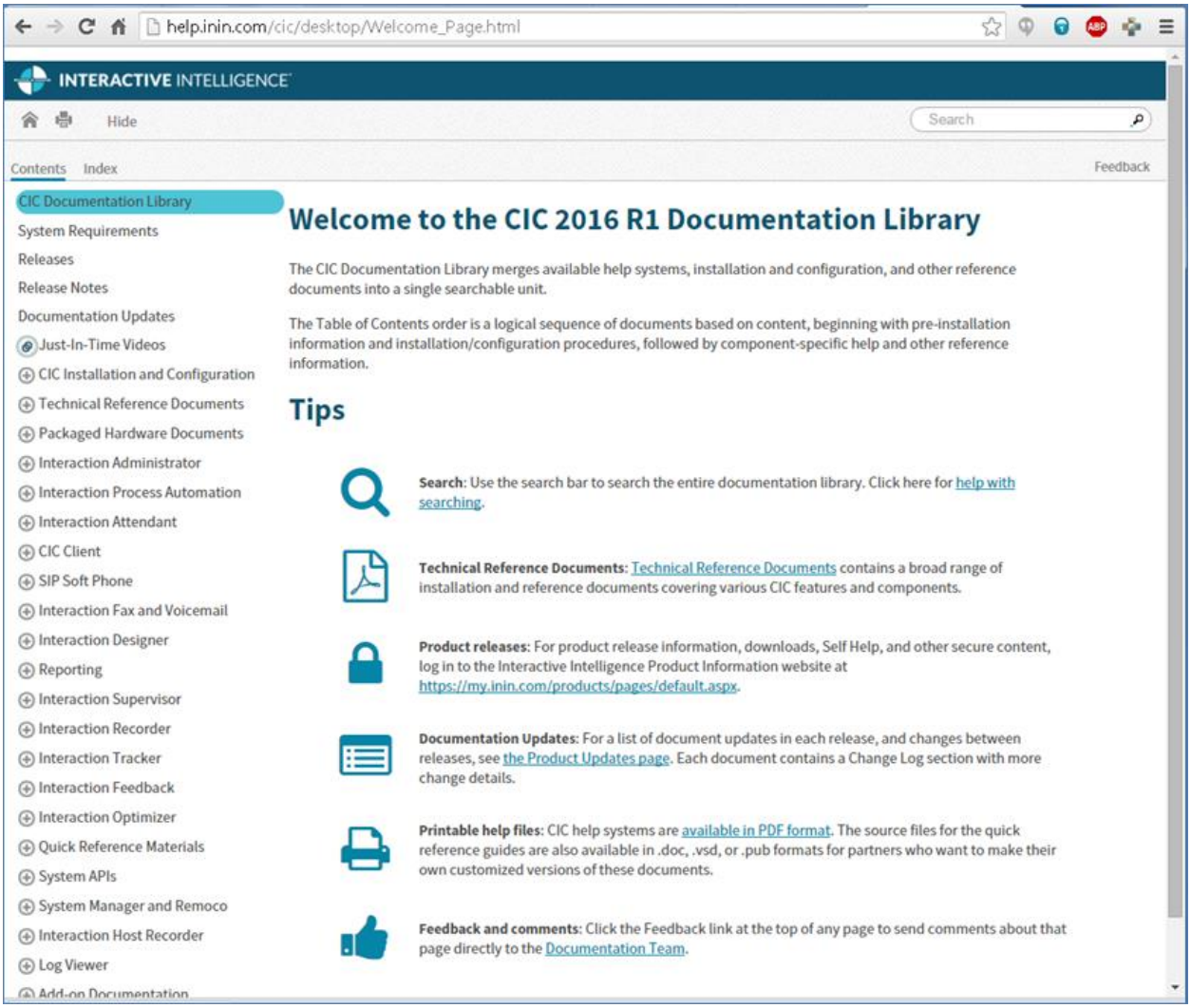
Accessing database scripts on the Downloads page

Public Access to Technical Content

Starting in CIC 2016 R1, the CIC Documentation Library and the Just in Time videos developed by Education have a new public location hosted on help.inin.com. The Interactive Intelligence Developer Portal, developer.inin.com, no longer requires a logon to access content. The public URLs provides easier access to the technical resources for all CIC customers and partners.

CIC Documentation Library	help.inin.com/cic	Existing links and bookmarks to the rebranded CIC Documentation Library and all help systems and documents within it are automatically redirected to the new location.
Just-In-Time Videos	help.inin.com/justintime	This is a library of easy-to-find, brief, and focused "how-to" training videos that apply to all CIC

		customers. The videos were previously hosted on the CaaS MyCloud portal.
Developer Portal	developer.inin.com	The established URL continues to work for the Developer Portal even though some of its content is hosted on the new public site.



New public CIC Documentation Library

Microsoft .NET Framework 4.5.2 Requirement

Starting in CIC 2016 R1, .NET Framework version 4.5.2 is required on the IC server and client workstations that run IC User Applications and IC Server Manager Applications. Microsoft .NET Framework 4.5.2 is a highly compatible, in-place update to .NET Framework versions 4.5.1, 4.5, and 4.0.

For more information, see the Microsoft KB article https://support.microsoft.com/en-us/kb/2934520. If .NET Framework version 4.5.2 has not already been installed via Windows Update, install it on the IC server from the CIC 2016 R1 or later .iso file and on the client workstations from the IC_WorkstationPreReqs share on the 2016 R1 IC server. For details, see System Software Requirements.

Remote Providers for Interactive Update

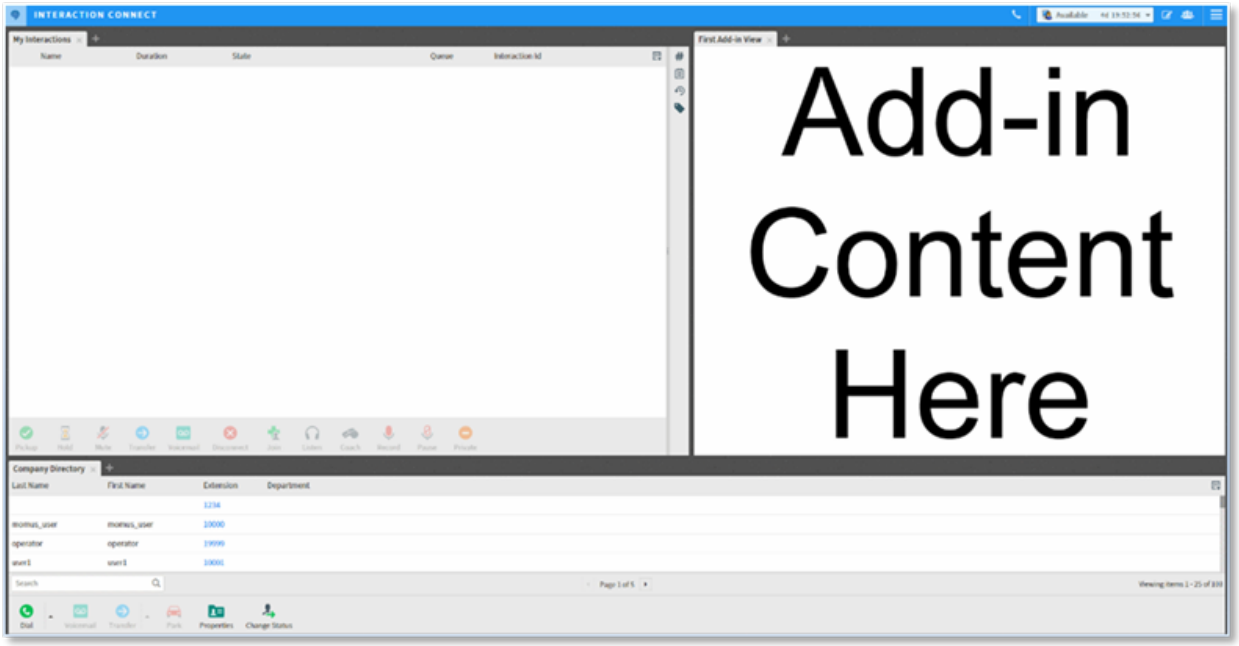
CIC now supports remote content providers for customers that use Interactive Update. Remote content providers are instances of Interactive Update servers that are located at a customer's locations. A remote content server holds copies of the update files so that the files only need to be pulled once across the WAN. CIC clients at the different locations can then pull updates from the remote content providers over the LAN, using less WAN bandwidth and improving the time to apply updates.

For more information, see the Interactive Update Technical Reference.

Interaction Connect Add-in Support

CIC 2016 R1 contains the initial phase of support for using custom add-ins with Interaction Connect. Add-ins allow customizations to Interaction Connect, beyond what is available out of the box. This support is similar to the add-in support that is available in Interaction Desktop, but with less functionality in this initial phase.

For more information, see https://developer.inin.com.



Support for custom add-ins

StatServer and Statistics Scalability and Reliability

A more reliable StatServer subsystem provides:

- Reduced memory usage
- 64-bit
- An increase in the number of workgroups to which a user can belong

End of Life for Interaction Client .NET Edition

To complete the transition to Interaction Desktop as the primary CIC client in CIC 2015 R3 and later, Interaction Client .NET Edition is removed when you apply CIC 2016 R1 to existing installations and is no longer installed with new CIC 2016 R1 and later installations. If you have not yet transitioned from Interaction Client .NET Edition to Interaction Desktop, the CIC 2016 R1 or later update still allows you to migrate settings and perform phased upgrades.

Interaction Administrator Change Log Enhancements

New database tables and views contain detailed information about changes made in Interaction Administrator. These enhancements were made to four of the most commonly used nodes: Users, Workgroups, Skills, and Licenses. Customer can now create reports or database queries that display information about licenses, granted system rights, and historical workgroup membership moves, additions, changes, and more.

Results | Messages

	EntryKey	License	IsActive	Changetype	IsAssignable	ChangedBy	ChangedFrom	ChangeDateTime
1	mssUser1	I3_ACCESS_ACD_MEDIA_3_PLUS	1	Initial	0	MSSADMIN	QF-MSS	2015-10-23 13:17:46.217
2	mssUser1	I3_ACCESS_CLIENT	1	Initial	0	MSSADMIN	QF-MSS	2015-10-23 13:17:46.217
3	mssUser1	I3_ACCESS_IPA_DESIGNER	1	Initial	0	MSSADMIN	QF-MSS	2015-10-23 13:17:46.217
4	mssUser1	I3_ACCESS_ACD_MEDIA_3_PLUS	1	Initial	0	MSSADMIN	QF-MSS	2015-10-23 13:15:27.430
5	mssUser1	I3_ACCESS_CLIENT	1	Initial	0	MSSADMIN	QF-MSS	2015-10-23 13:15:27.430
6	mssUser1	I3_ACCESS_IPA_DESIGNER	1	Initial	0	MSSADMIN	QF-MSS	2015-10-23 13:15:27.430
7	mssUser2	I3_ACCESS_ACD_MEDIA_3_PLUS	1	Initial	0	MSSADMIN	QF-MSS	2015-10-23 13:17:46.217
8	mssUser2	I3_ACCESS_ANALYZER	1	Initial	0	MSSADMIN	QF-MSS	2015-10-23 13:17:46.217
9	mssUser2	I3_ACCESS_CLIENT	1	Initial	0	MSSADMIN	QF-MSS	2015-10-23 13:17:46.217
10	mssUser2	I3_ACCESS_ACD_MEDIA_3_PLUS	1	Initial	0	MSSADMIN	QF-MSS	2015-10-23 13:15:27.430
11	mssUser2	I3_ACCESS_ANALYZER	1	Initial	0	MSSADMIN	QF-MSS	2015-10-23 13:15:27.430
12	mssUser2	I3_ACCESS_CLIENT	1	Initial	0	MSSADMIN	QF-MSS	2015-10-23 13:15:27.430

List of changes

Warning: Enable the enhanced Interaction Administrator change log only during non-peak production hours and only if all CIC clients are upgraded to CIC 2016 R1. Enabling this log is an intensive operation that requires significant computing resources. If you enable this feature before you upgrade all CIC clients to CIC 2016 R1 or later versions, then the CIC clients that run earlier versions of CIC will log incomplete audit data.

Interaction Marquee Improvements

CIC 2016 R1 includes an initial phase of development work to ensure that the application is deployed more efficiently in the field, customers can more easily create packages, and the application is more reliable and stable in call center environments.

Improvements include:

- Improved switchover reliability
- Now includes detailed package execution history with diagnostic info for failures
- Now indicates exact problem in the package output for failures instead of “Marquee Package Unavailable”
- Automatically recovers from many types of package execution failures that previously required a restart
- Syncs LDAP configuration more frequently and more reliably

Interaction Dialer Support Added to IC Web Services (ICWS)

ICWS now provides the ability to perform various Interaction Dialer related operations:

- Log in and out of Interaction Dialer campaigns.
- Mark agents as ready for calls.
- Request breaks from taking Interaction Dialer interactions.
- Disposition Interaction Dialer interactions.

- Provide access to system facilities, such as sending a notification to one or more custom handlers and subscribing to hander-sent notifications.

ICWS does not yet include support for Interaction Dialer scripts or staging.

Improving Monitoring/Health Statistics

CIC 2016 R1 includes new SNMP Management Information Base (MIB) files for Session Manager and the StatAlertServer subsystem to provide proactive monitoring of resource utilization and system stability.

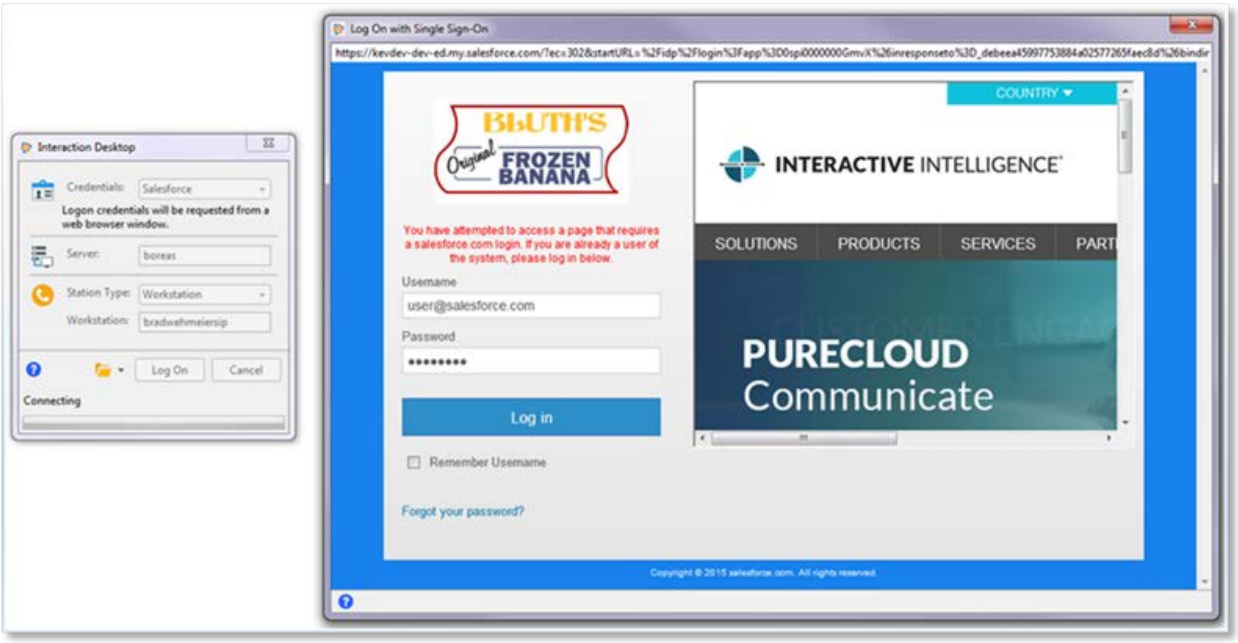
Session Manager monitors:

- The number of session for every CIC subsystem on a Session Manager instance
- The CIC products that are watching a Session Manager instance and consuming resources
- The top bandwidth users of a Session Manager instances over the last five minutes
- The total number of alerts and statistics being monitored by CIC products

StatAlertServer tracks the statistics requested and provided by various CIC products.

Web-Based Authentication SSO for IceLib-Based Applications

IceLib-based applications, such as Interaction Desktop, now support web-based single sign-on providers such as Salesforce.com. This enables users to be redirected to a web-based authentication form as part of logging onto CIC. Interaction Connect already includes this capability.



Web-based single sign-on

Use of MSXML 4.0 Discontinued

CIC no longer uses MSXML version 4.0. Since Microsoft discontinued support for MSXML 4.0, CIC use of this version causes it to show up during vulnerability scans. CIC now uses MSXML versions 3.0 or 6.0 to avoid this.

64-bit Media Servers

Media servers now run as 64-bit, allowing access to larger amounts of memory and additional CPU cores.

Switchover Support for CaaS

SIP stations now fully support switchover for CaaS customers.

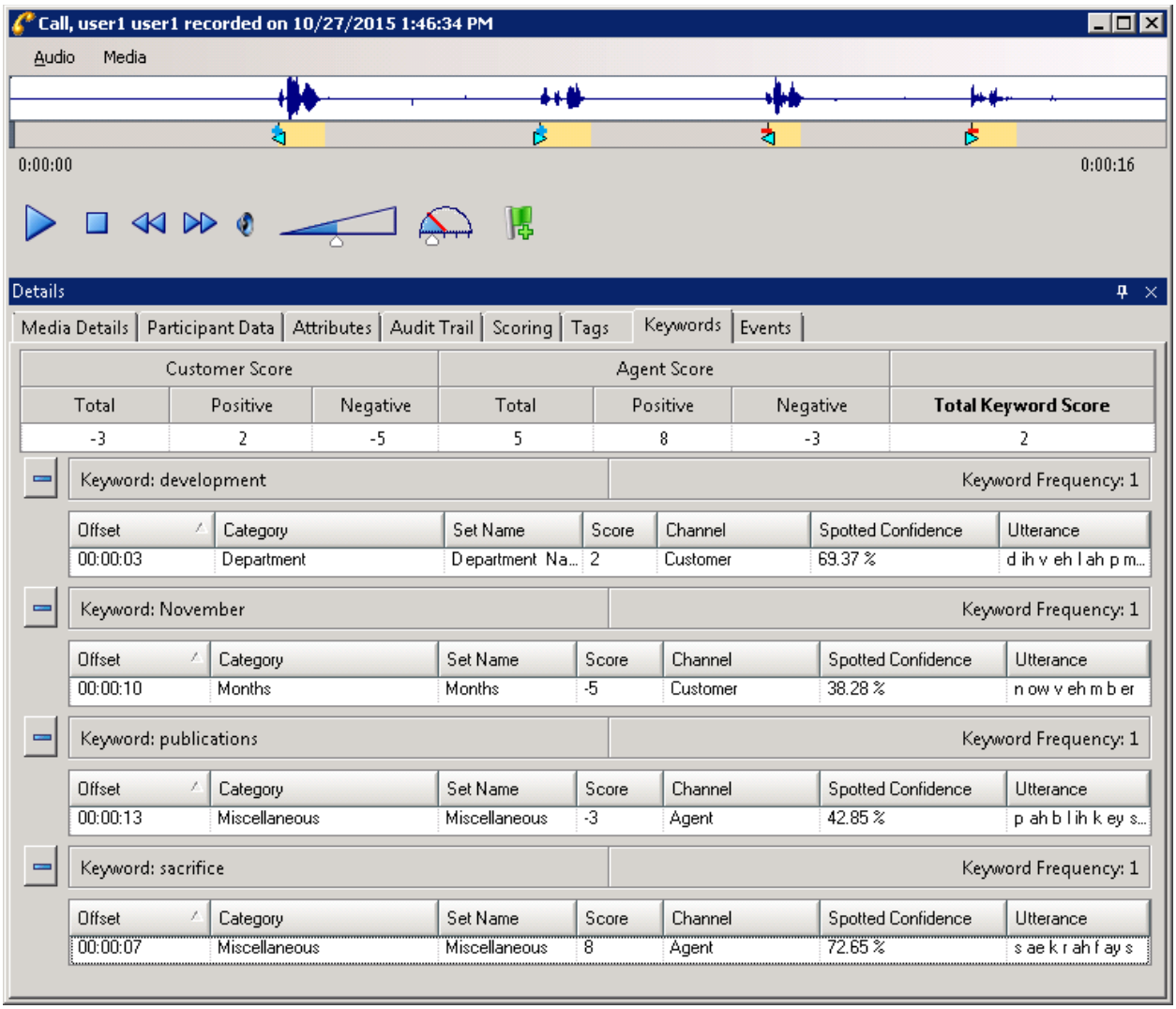
Quality Improvement with Analyzer Results Data and Analyzer Reports

The Keyword Scores tab in the IC Business Manager Media Details dialog box is now named Keywords. In addition to displaying the Agent/Customer positive and negative scores, the Keywords tab now includes the following scores:

- Total score for Agent/Customer
- Overall score (combines the agent and customer totals)

Additional data displayed in the Keywords tab now includes the following for each spotted keyword:

- Keyword name (right-click on the keyword to jump to that spot in the recording)
- Frequency of the keyword hit
- Offset (time within the call where the hit occurred)
- Keyword category
- Keyword set name
- Score for the keyword
- Channel (agent or customer)
- Spotted confidence %
- Utterance



Analyzer Results Data

The ability to see additional data for each spotted keyword, such as the spotted confidence and utterance, helps with the ability to recognize frequency and patterns needed to fine-tune for improved accuracy results of keyword spotting. Offset, the time within the call where the hit occurred, provides valuable insight regarding both sides of the conversation and can help to identify improvement opportunities for agents and for contact center processes. The ability to copy/paste/export data from the Keywords tab (a feature that was made available in CIC 2015 R4), allows users to have data to create reports and to assist in fine-tuning keyword settings.

New Analyzer Keyword Hit Report

New Analyzer Keyword Hit Report

The Analyzer Keyword Hit report is new in CIC 2016 R1. This section describes the report, its parameters, and the report views.

Analyzer Keyword Hit Report Description

This report displays detail and summary views of keyword hits that were identified by Analyzer keyword categories over a specified period of time. A bar chart that reports the percentage of recordings that contain hits from keyword categories, and a chart that shows the count and percentages of recordings that contain keyword hits by category,

appear in the main view. The report contains hyperlinks to drill down to a Keyword Detail view and an Interaction Detail view for additional information on keyword hits within each call.

The main view provides high-level insight into the voice of the customer. The report assists in answering questions such as "Which keyword categories are getting the most hits?"

Further analysis of calls with keyword hits can help to determine drivers and to gain additional insight. For example, if there is a keyword category for First Call Resolution (FCR), what percentage of the calls had a keyword hit?

By inspecting keyword categories with a low percentage of hits, you can also use the report to determine if tuning or revision of keywords is needed.

Analyzer Keyword Hit Report Parameters

The Analyzer Keyword Hit report provides the ability to specify a timeframe for results, for specific categories and specific keyword sets. After defining the parameters, hyperlinks included within the report data provide the ability to drill down to views with additional details of the keyword hits within the categories.

The following parameter options are available to the user running the report:

- Timeframe (pre-defined date range) or custom start and end date (required).
- Keyword category.
- Keyword set.
- Workgroup or agent.
- Top N (to limit number of categories displayed, such as top 10).
- Display chart – Default is set to true to view results in a bar chart.

Parameters for Keyword Hit Report

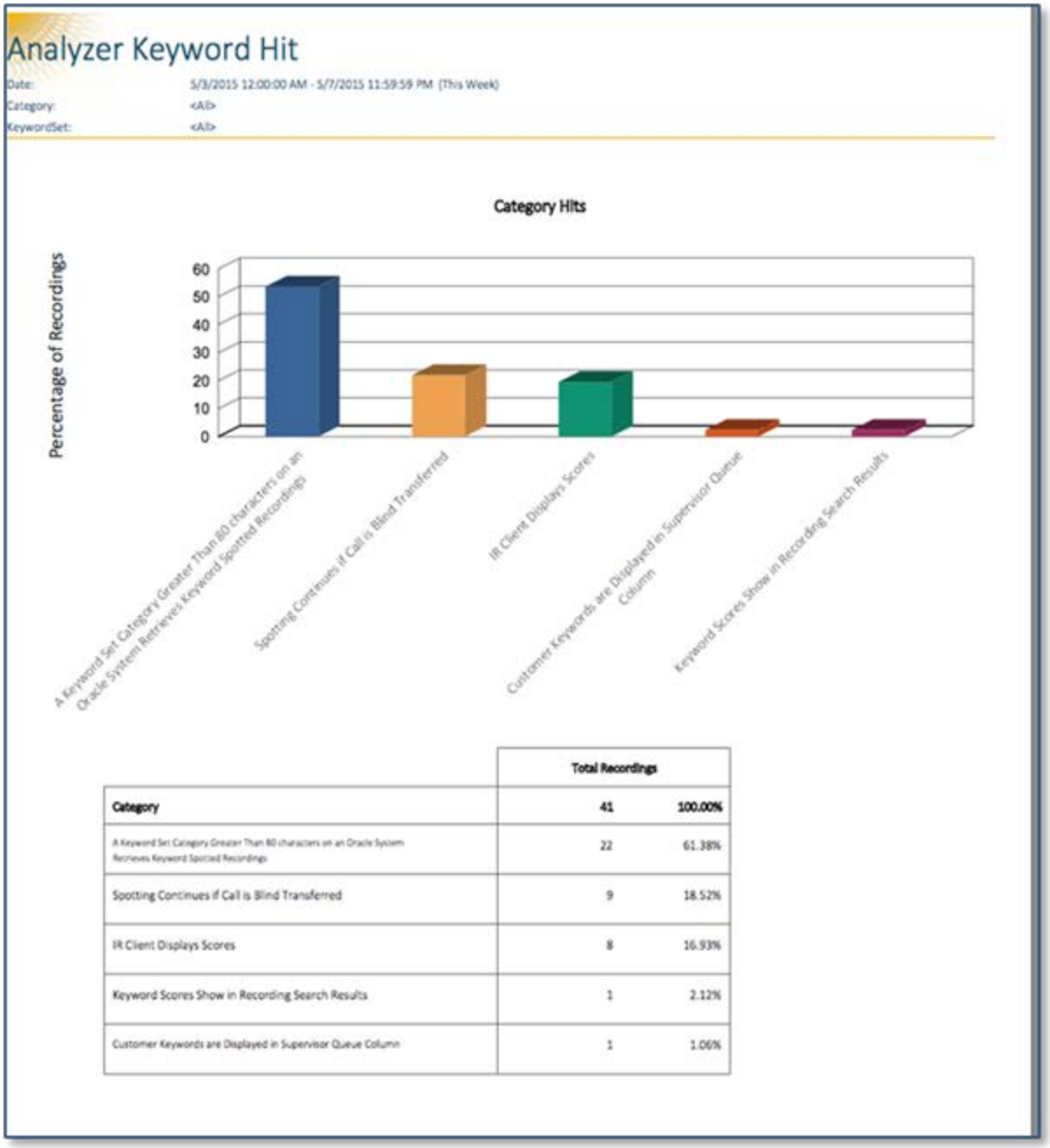
Chart and Table View

The header of the report displays the selected report parameters.

Both the bar chart and table display the selected keyword categories and the percentage of recordings that contain hits within each category within the defined timeframe.

The chart and table view answers questions such as:

- Out of all of the recordings, which keyword categories are getting the most hits?
- What are the top N categories with hits?
- What are the hits for these specific categories?
- What are hits for a specific workgroup?
- What were the highest hits today? Last week? Last month?



	Total Recordings	
Category	**41**	**100.00%**
A Keyword Set Category Greater Than 80 characters on an Oracle System Retrieves Keyword Spotted Recordings	22	61.38%
Spotting Continues if Call is Blind Transferred	9	18.52%
IR Client Displays Scores	8	16.93%
Keyword Scores Show in Recording Search Results	1	2.12%
Customer Keywords are Displayed in Supervisor Queue Column	1	1.06%

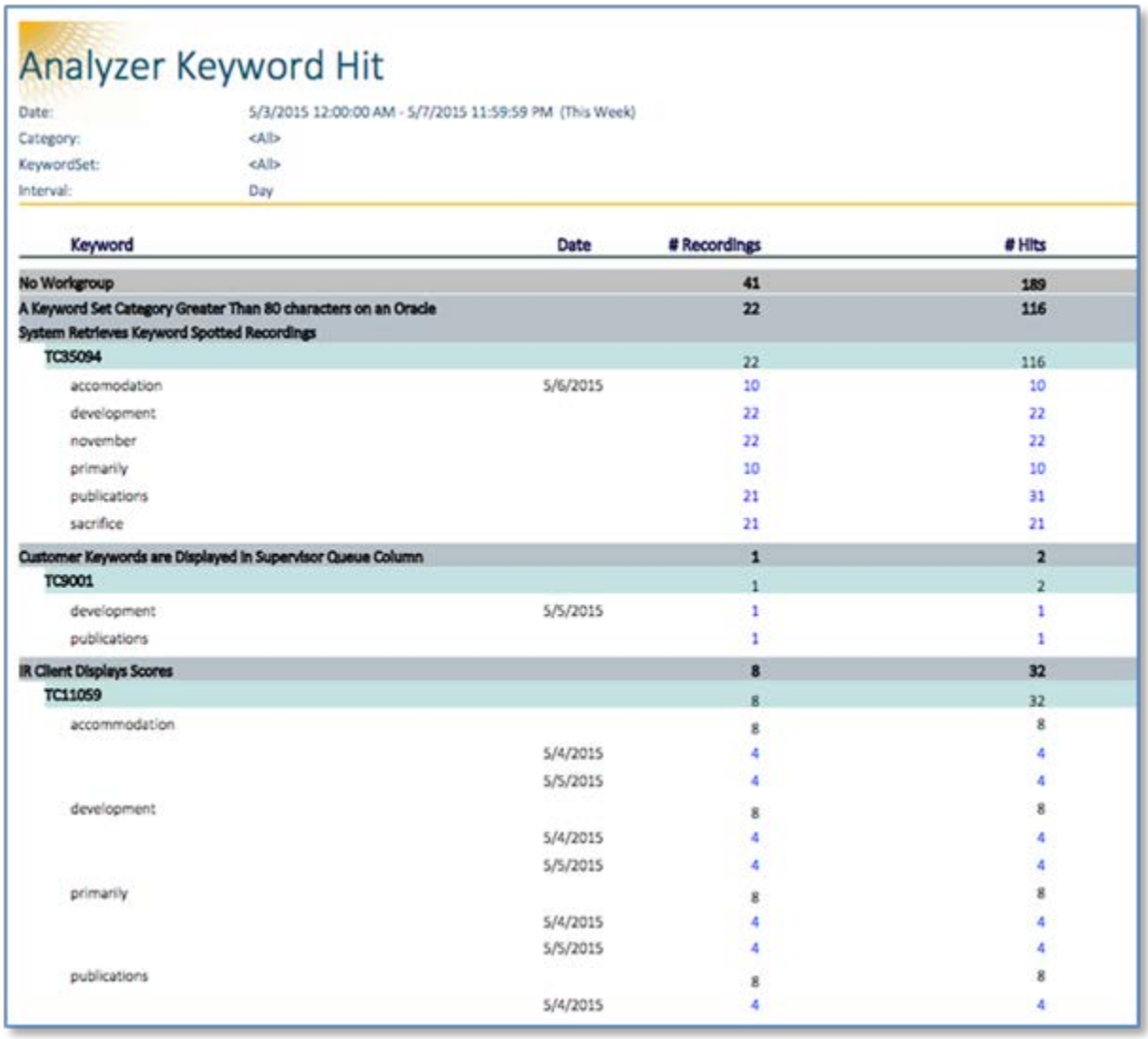
Category name, total number of recordings within each category, and % of total recordings for each category within the timeframe

Hyperlinks from the table display additional data regarding the number of recordings and the number of keyword hits within each category.

The additional data answers questions such as:

- How many calls this week had hits for keywords in categories XYZ?
- How many hits were there yesterday? Today?
- What were the keywords with hits and how many recordings include those hits?

- If there were 22 recordings with hits for a keyword, how many times was that keyword spotted within those recordings?



Analyzer Keyword Hit

Date: 5/3/2015 12:00:00 AM - 5/7/2015 11:59:59 PM (This Week)
Category: <All>
KeywordSet: <All>
Interval: Day

Keyword	Date	# Recordings	# Hits
No Workgroup		41	189
A Keyword Set Category Greater Than 80 characters on an Oracle System Retrieves Keyword Spotted Recordings		22	116
TC35094		22	116
accomodation	5/6/2015	10	10
development		22	22
november		22	22
primarily		10	10
publications		21	31
sacrifice		21	21
Customer Keywords are Displayed In Supervisor Queue Column		1	2
TC9001		1	2
development	5/5/2015	1	1
publications		1	1
IR Client Displays Scores		8	32
TC11059		8	32
accommodation		8	8
	5/4/2015	4	4
	5/5/2015	4	4
development		8	8
	5/4/2015	4	4
	5/5/2015	4	4
primarily		8	8
	5/4/2015	4	4
	5/5/2015	4	4
publications		8	8
	5/4/2015	4	4

Date, all keyword categories, hits in all categories, dates of hits, number of recordings with hits, number of hits in recordings

Hyperlinks from the previous view provide a Keyword Detail View of recordings with the keyword hit and an additional hyperlink provides the Interaction Detail View, with keyword hit details for each recording.

Keyword Detail View Example

The example of this view includes the following information (see the example below the *Interaction Detail View* section):

- Hyperlinks from the previous view to details of keyword hits for the keyword “development”
- Recording ID
- Date/Time
- Duration

- Event offset (time in call of hit)
- Customer positive/negative score
- Agent positive/negative score
- Channel
- Score
- Spotted confidence

Interaction Detail View Example

This view is accessible from a hyperlink in the Keyword Detail view. The example of this view includes the following information for the keyword "development," which was found in eight recordings (see the example below):

- InteractionID
- Direction
- RecordingID
- Segment date/time
- Participants
- Role
- iAddress
- Duration

This view provides answers to questions such as:

- For workgroup X, within this timeframe, what are the details for hits on a specific keyword?
- What is the recording ID so that I can listen to the call?
- Where in the call does the hit occur? Is it at the beginning, middle, or end, or is there no consistency of hit location?
- What is the spotted confidence of each hit?
- Were there multiple participants on the call?
- How did that call end? Was it transferred or was it disconnected by the agent or caller?

Keyword Detail and Interaction Detail view examples

Interaction Recorder

Interaction Recorder

This section describes enhancements to Interaction Recorder in CIC 2016 R1.

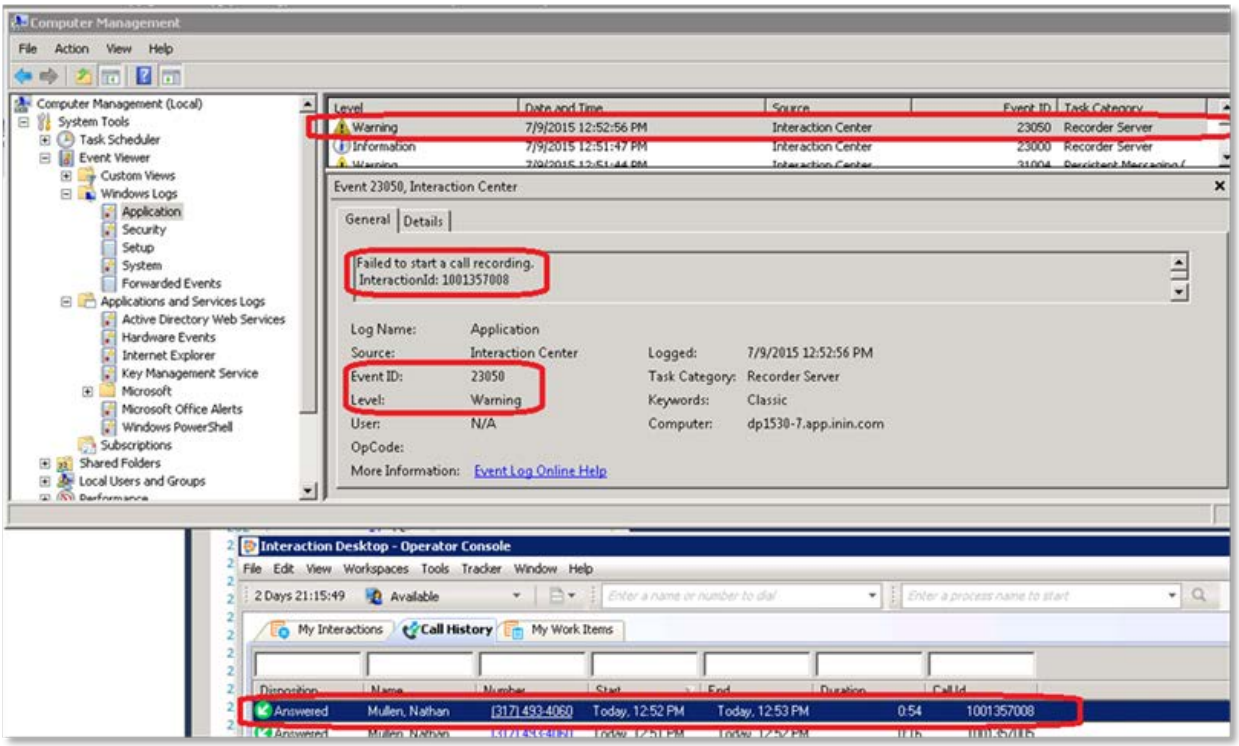
Failed Recording - Application Log Error Warning

Interaction Recorder tracks unsuccessful recording attempts, however all recording media types are reflected in the same unsuccessful recording statistic. Notifications in the application log now provide a warning to users so that they

can see failed recording attempts by media type (call, screen, email, and chat), and immediately take action on them if necessary.

Audio recording requirements can carry heavy penalties and SLAs for certain customers, while unsuccessful recording of other media types such as screen, email and chat are typically less critical. The General tab within the app logs specifies the media type of the recording.

Example of Application Log View for Failed Call Recording



Application Log View

Interaction Quality Manager

Interaction Quality Manager

CIC 2016 R1 includes improvements to Quality Scorecard comments and some changes to the Media Details dialog box.

Improvement to Quality Scorecard Comments

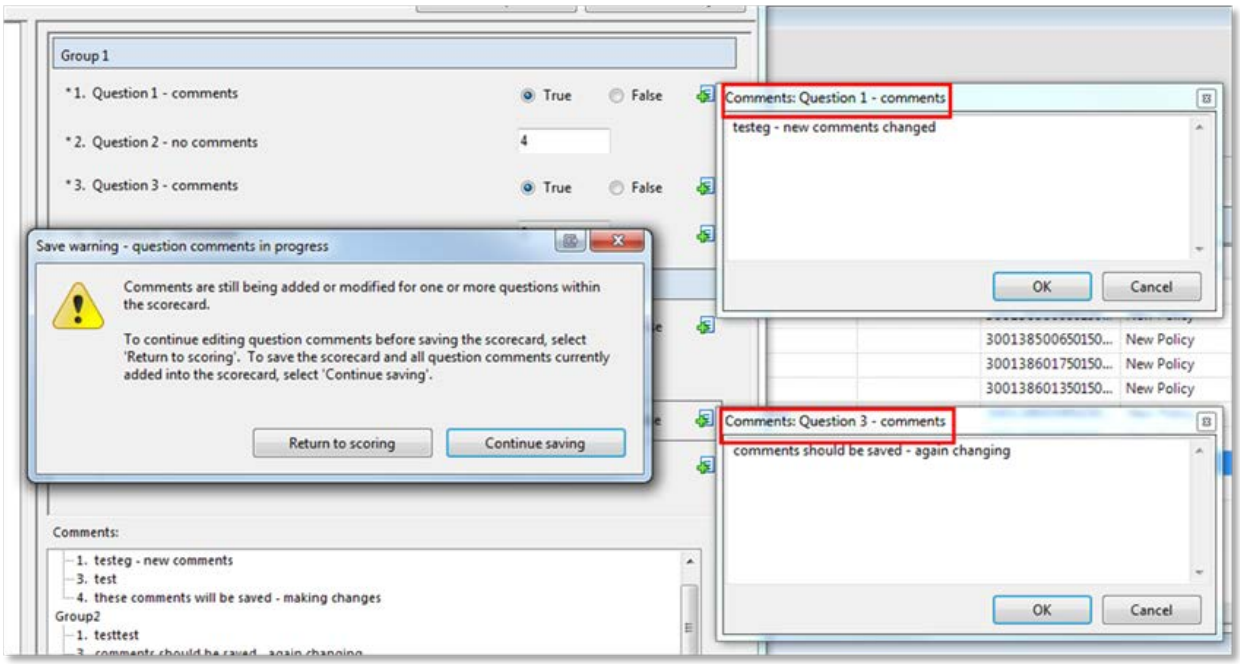
The Scorecard Comments dialog box now does the following:

- Allows full display of long scorecard comments in the Scorecard view, as well as the tool tip and is no longer truncated to display just first 250 characters in the Scorecard view
- Provides access to other screens within IC Business Manager when in the process of entering scorecard comments.
- Allows the user to pause the recording playback without first close the Scorecard comments box
- Associates the comment box title to the Scorecard question to which it pertains.

- Allows opening of multiple comment forms at the same time, and displays them slightly to the right of the Add Comment control within the question.
- Warns the user if there are unsaved scorecard comments when the Save or Finish buttons are clicked on the scorecard form.

  o Clicking “Continue saving” continues with the save, closes the comments forms, and saves any open comments.

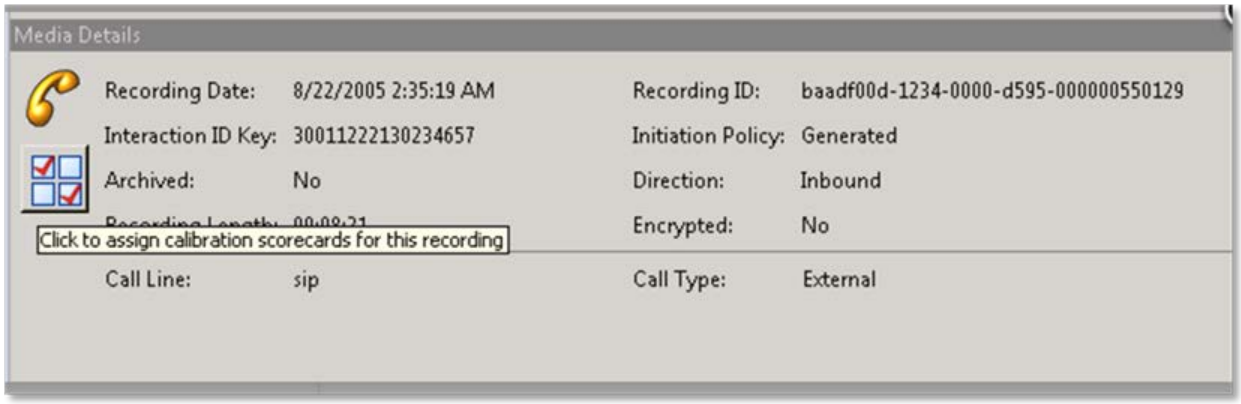
  o Clicking 'Return to scoring' aborts the save operation and returns to scoring the scorecard.



Enhancements to Quality Scorecard Comments

Assign Scorecards for Calibration in Recording Media Details Window

- The Interaction Recorder Media Details window displays a new icon to provide the ability to assign scorecards for use in the calibration of recordings.
- The tooltip for the new icon: Click to assign calibration scorecards for this recording
- The Calibrate button appears for users with the Interaction Quality Manager license and the rights to assign scorecards for evaluation.
- When the button is clicked, the Assign Calibration Scorecards form appears.



New icon in Media Details

The user that is responsible for locating recordings for inclusion in the quality calibration process can assign the appropriate scorecard to use. The user can assign the scorecard to individual evaluators or by role. Assigning the calibration by role assigns the evaluation to all users currently within that role.

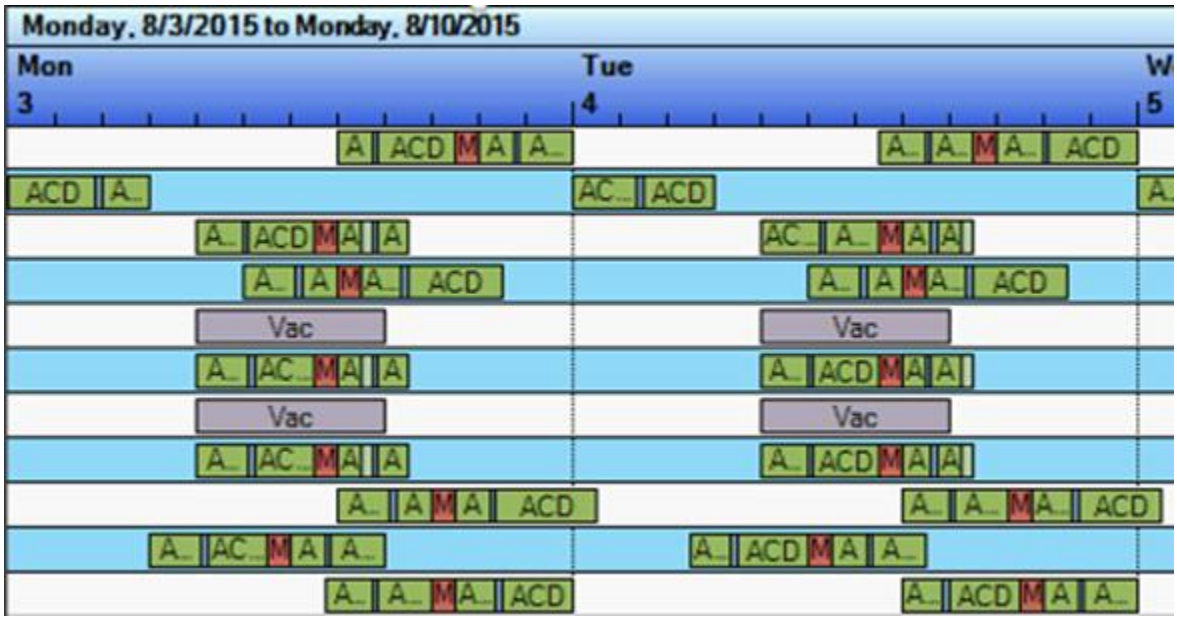
The already existing Recordings to Score view allows a quality manager/coordinator to see the assignment and scoring status for assigned calibration scorecards.

Existing calibration reports provide the ability to compare variations of each evaluator's scoring results.

Interaction Optimizer

CIC 2016 R1, Workforce management administrators can:

- In a time-off accrual plan, set a negative time-off accrual balance.
- Modify multiple activities in the schedule editor to prevent the system from forcing time value lengths to be a multiple of 15 minutes. This feature is useful for bringing agents back into adherence.
- When in week view, choose to view the individual activities of each day, rather than viewing the entire shift as one item. Open the Schedule Display Options dialog box and choose to view individual activities in week view, or clear the option to view activities in a single time bar for the entire shift. Administrators cannot move or change individual activities in week view.



New week view

- In the Scheduling Unit's configuration view, enable or disable calibration in the Scheduling Unit Configuration view. If calibration is enabled, then scheduling and re-forecasting will look at published schedules or actual agent activity information in the recent past, along with historic service performance, and adjust requirements accordingly.

In adherence/conformance reports, if multiple statuses from the same activity type exist consecutively, then the system displays all status names rather than just one. For example, if an agent contains back-to-back statuses of Available, On call, and After call wrap-up, then administrators can see all three statuses in the report.

The use of special characters when creating and naming scheduling units previously caused issues. Going forward, special characters are limited when creating scheduling units. A scheduling unit name cannot contain any of the following characters: /, \, |, &, ', ^, =, +. However, previously created scheduling units that contain special characters are not affected.

Localization

Localization

CIC 2016 R1 includes localization of IC Business Manager Applications reports for additional languages, and localization of the Interaction Optimizer shift trading feature.

Localization of Analyzer Keyword Hit Report

CIC 2016 R1 includes localization of the Analyzer Keyword Hit Report in IC Business Manager Applications for these languages:

- Simplified Chinese
- Traditional Chinese
- German
- French
- Japanese
- Polish
- Brazilian Portuguese
- Spanish

Localization of Interaction Optimizer Shift Trading Feature

The new Interaction Optimizer shift trading feature is localized in the same languages that are available in Interaction Optimizer, both on the server and agent sides.

Temporary Removal of ETL Report Log (Log 50)

Log 50 represents the CIC ETL (Extract Transform Load) process. It is not yet fully functional and will be automatically disabled upon upgrade to CIC 2016 R1 or later versions. To prevent the log from being inadvertently turned on, the UI control for it was removed and the log is no longer be visible in Interaction Administrator. Log 50 will be available again in Interaction Administrator in a future CIC release.

Initial Release of HP ProLiant DL 360 and DL 380 Gen 9 Servers

The HP ProLiant DL 360 Gen 9 Server is an update to the HP ProLiant DL 360 Gen 8 Server. The server is upgraded to the Windows Server 2012 operating system with a more powerful CPU. This server platform supports the Interactive Applications Server (IAS) platform and the Media Server SIP Proxy (MSSP) platform. This SIP-based device is designed for contact center and enterprise environments and it hosts the CIC provisioning subsystem and Interaction Administrator.

HP ProLiant DL 360/380 Gen 9 Server

- Replaces HP Gen 8 Server
- Medium and Large Configurations
- **CPU** 1 or 2 - Intel®- XEON 6-Core Processor (w/ Hyper-Threading)
- **RAM**16GB or 32 GB RAM
- **Hard Drive(s)** 450GB or 900 GB SAS x 4
- **Storage Controller** Embedded HP Smart Array Controller w/2GB flash backed cache
- **RAID Configuration** RAID 1+0
- **Operating System** Microsoft ® Windows Server 2012 R2 Standard w/latest ININ approved patches. Includes Windows Server Embedded Standard 2012 R2 COA.
- **Warranty Information**
  - Protected by HP Standard Warranty (3-year Parts, 3-year Labor, 3-year On-site support) with Next Business Day (NBD) response.
  - A 3-year or 5-year HP Care Pack may be purchased separately to supplement the standard warranty provided by the manufacturer.

***** HP DL 380 server is used for Extra-Large HP Gen 9 Servers***

HP ProLiant DL 360 and DL 380 Gen 9 server details

Sametime Integration End of Sale/Life

The Sametime 8.0/8.5 integration has been removed from sale and installation as of the CIC 2016R1 release. IBM removed Sametime 8.0/8.5 from the market in September, 2013, when Sametime 9 was released. A replacement Sametime 9.0 integration is available from Automated Voice & Data Solutions, an Interactive Intelligence Elite partner. For more information, contact Sharon Moon at sharon.moon@avds.com.

LiveLOOK Packaged Integration End of Life

The LiveLOOK packaged integration originally released with CIC 4.0 SU1 has been removed from sale and installation as of the CIC 2016R1 release. The CIC 4.0 SU1 integration package is no longer compatible with the current release of LiveLOOK. A replacement offering for the integration is available at no charge on the Interactive Intelligence Marketplace.

New Features in 2015 R4

This section lists some of the main features that are new in CIC 2015 R4.

New Features in 2015 R4

New Features in 2015 R4

This section lists the main features that are new in CIC 2015 R4.

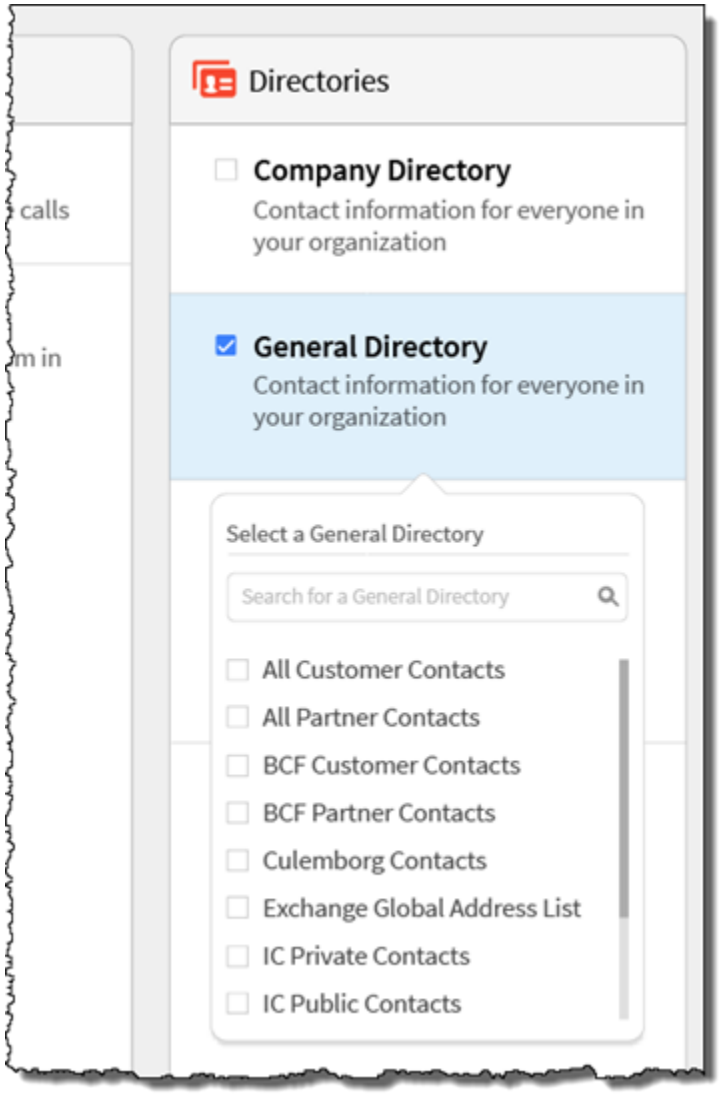
New Features in Interaction Connect

New Features in Interaction Connect

Interaction Connect includes several new features.

New Directory Types

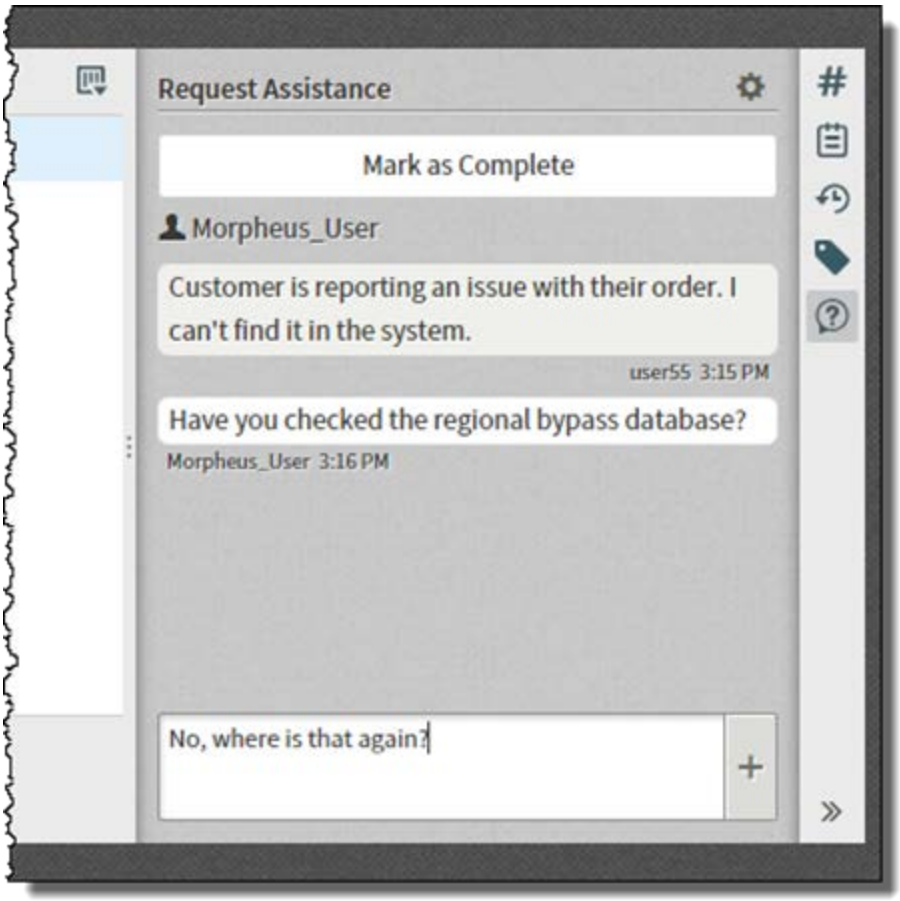
Interaction Connect now supports additional directory types, such as general, station groups, and workgroups.



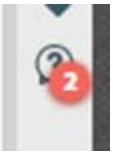
Interaction Connect Directories

Interaction Connect Request Assistance

Agents can now request and receive assistance from workgroup supervisors. This feature is valuable when an agent needs assistance with an interaction. For example, when a caller asks a question that the agent cannot answer.



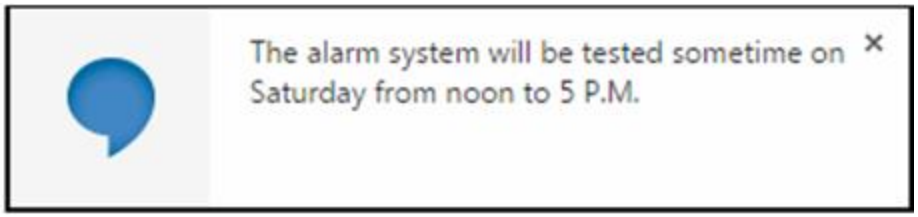
Interaction Connect Request Assistance Feature



User Assistance Request Responses that Need Attention

Interaction Connect and Desktop Memos

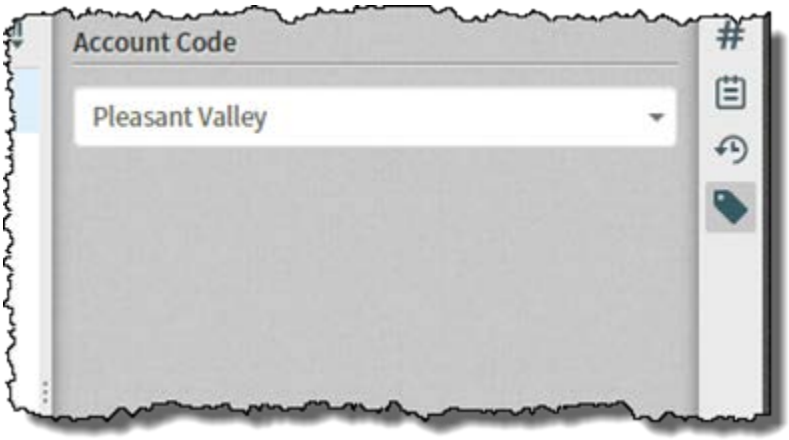
Client memos now appear in Interaction Connect and desktop notifications. Client memos allow supervisors and administrators to easily communicate with selected users, workgroups, or roles, by means of brief messages. For example, a supervisor might use a memo when interaction volumes are high to tell agents to go into a specific queue.



Interaction Connect and Desktop Notifications

Interaction Connect Account Codes

Agents can now assign account codes to interactions. An account code is an identifying set of numbers that is assigned to an account name and that agents can add to CIC to associate outgoing and incoming calls.



Account Codes

Interaction Connect Single Sign-on Workflow Improvements

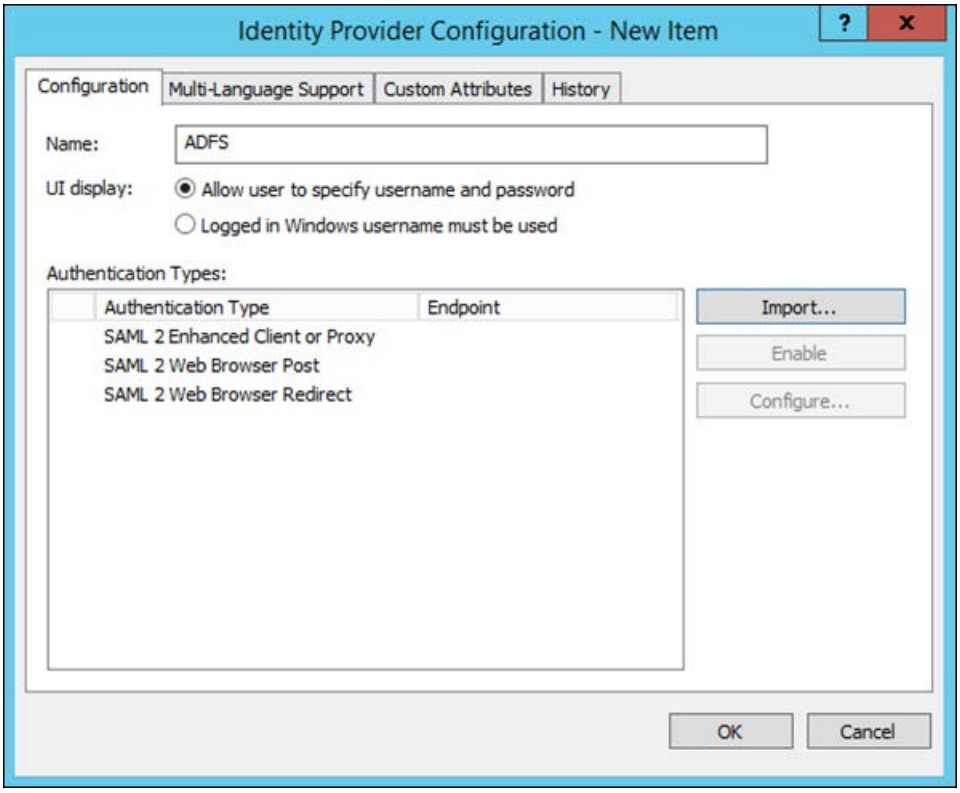
CIC 2015 R4 introduces improvements to the logon experience for customers that use single sign-on with Interaction Connect. The new workflow has a much better look and feel and allows the user to select defaults to help speed up the logon process.

Salesforce.com Single Sign-on Documentation

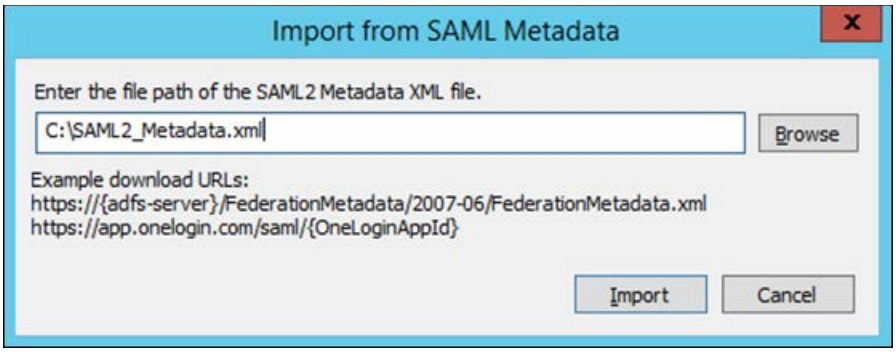
The Identity Providers Technical Reference now includes details about enabling Salesforce.com single sign-on in CIC. You can find this document in the CIC Documentation Library at:
https://my.inin.com/products/cic/Documentation/index.htm

SAML Metadata Import

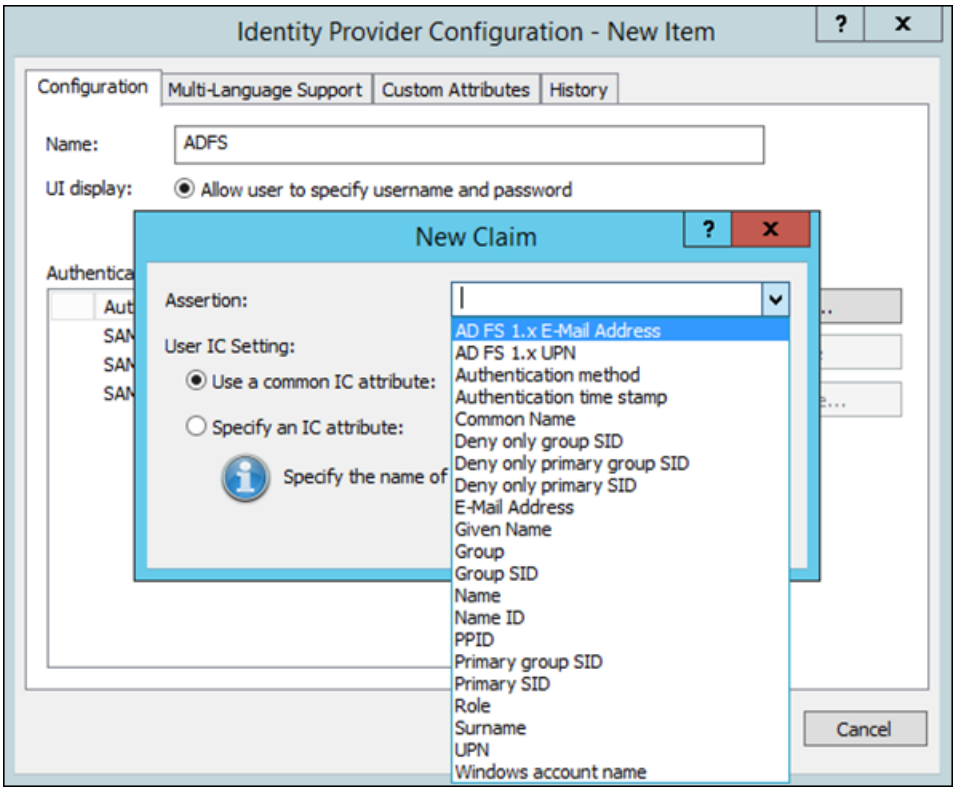
This feature simplifies the process of adding new identity providers in Interaction Administrator. Using the identity provider's XML metadata, Interaction Administrator allows users to pick and choose claims instead of having to add them manually.



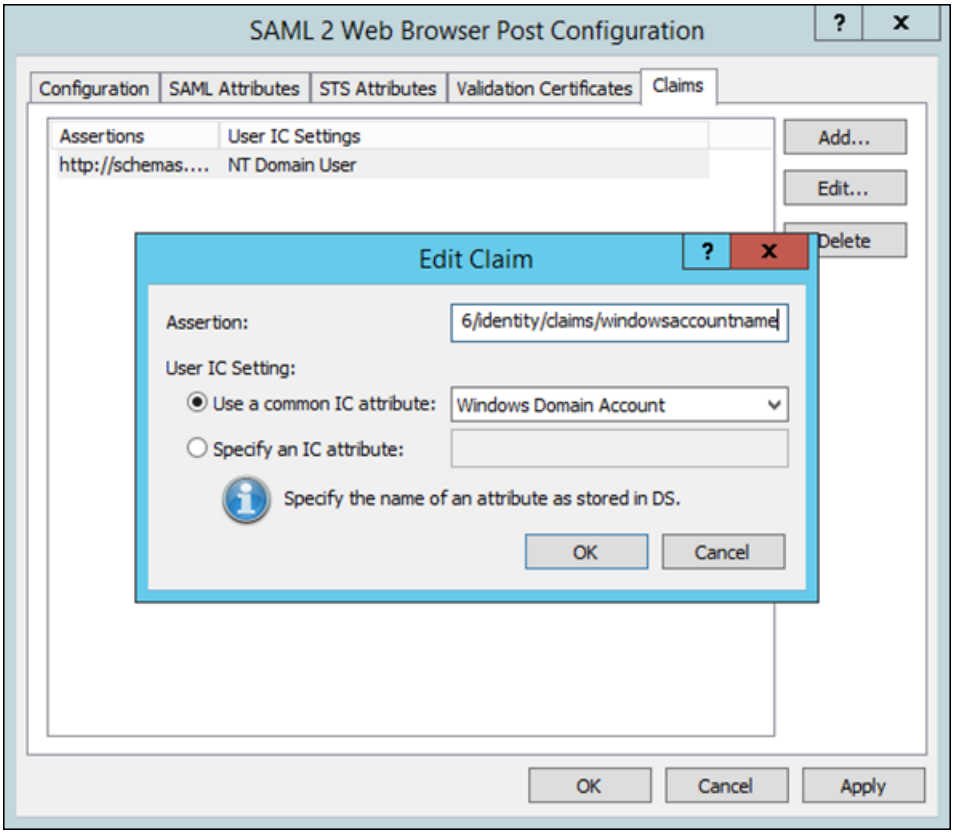
Identity Provider Configuration in Interaction Administrator



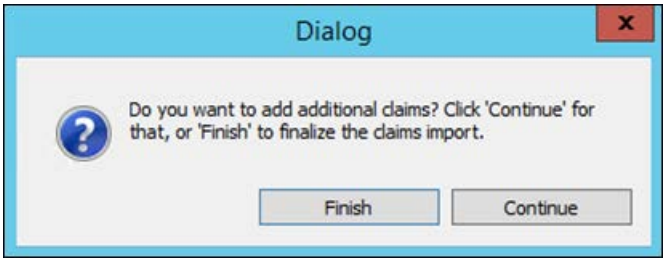
SAML Import from XML File



Pick and Choose Claims to Avoid Manual Entry



Edit Claim



Edit Claim

Improved Interaction Recorder Searching for Interaction Analyzer Keyword Spotting

Improved Interaction Recorder Searching for Interaction Analyzer Keyword Spotting

New Interaction Analyzer search attributes and data results improve the ability to locate recordings, based on keyword spotting results. You can use this information to fine tune keywords and identify improvement opportunities for agents and contact center processes. The ability to copy and paste and/or export data from the recording search results grid provides data for users to create reports and assist in fine tuning keyword settings.

New search attributes include:

- Keyword set category
- Keyword set name

- Spotted keyword confidence %

The recording search results grid now includes four new Interaction Analyzer keyword scoring results, bringing the number of keyword scoring data columns to seven. The new columns include:

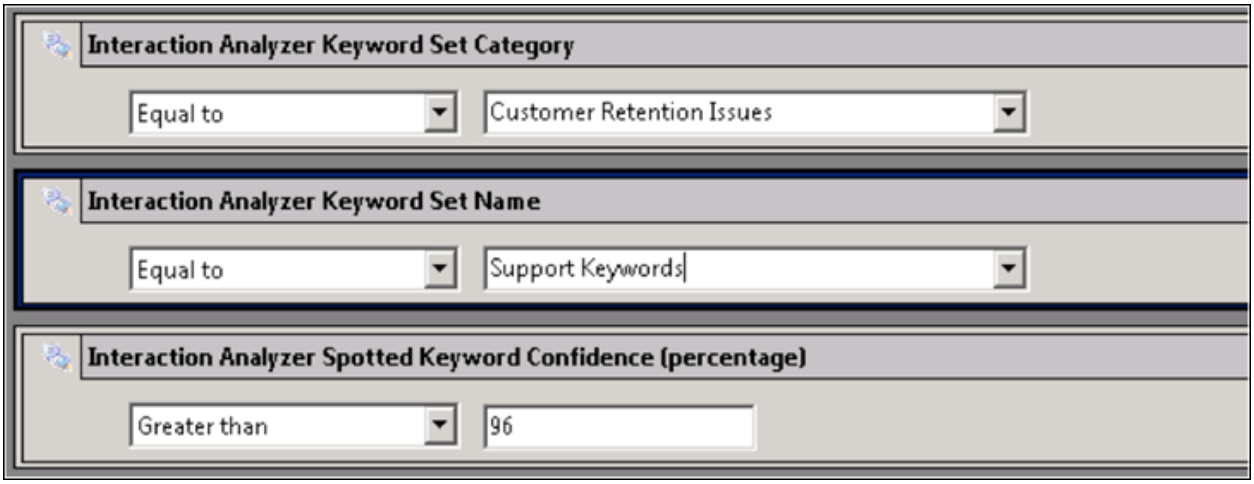
- Customer positive score
- Customer negative score
- Agent positive score
- Agent negative score

The recording search results grid contains two new data columns that pertain to whom the interaction is from and the direction of the interaction. The new columns are:

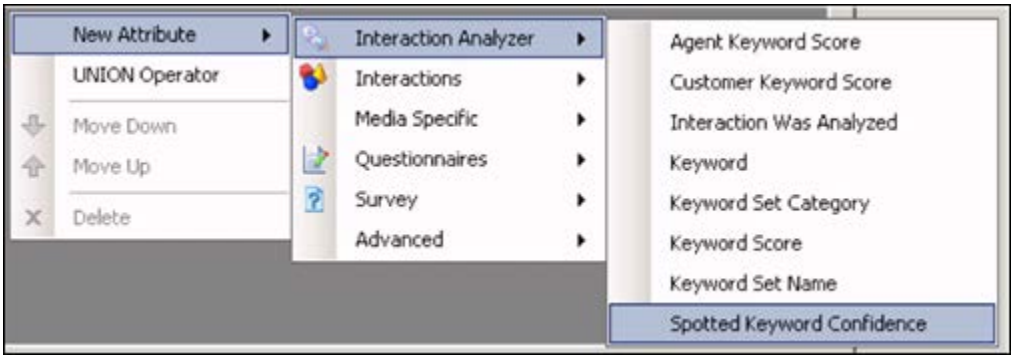
- Initiator Interaction Address
- Direction

Users can copy and paste rows of data from the recording search results data grid or from the media details pane.

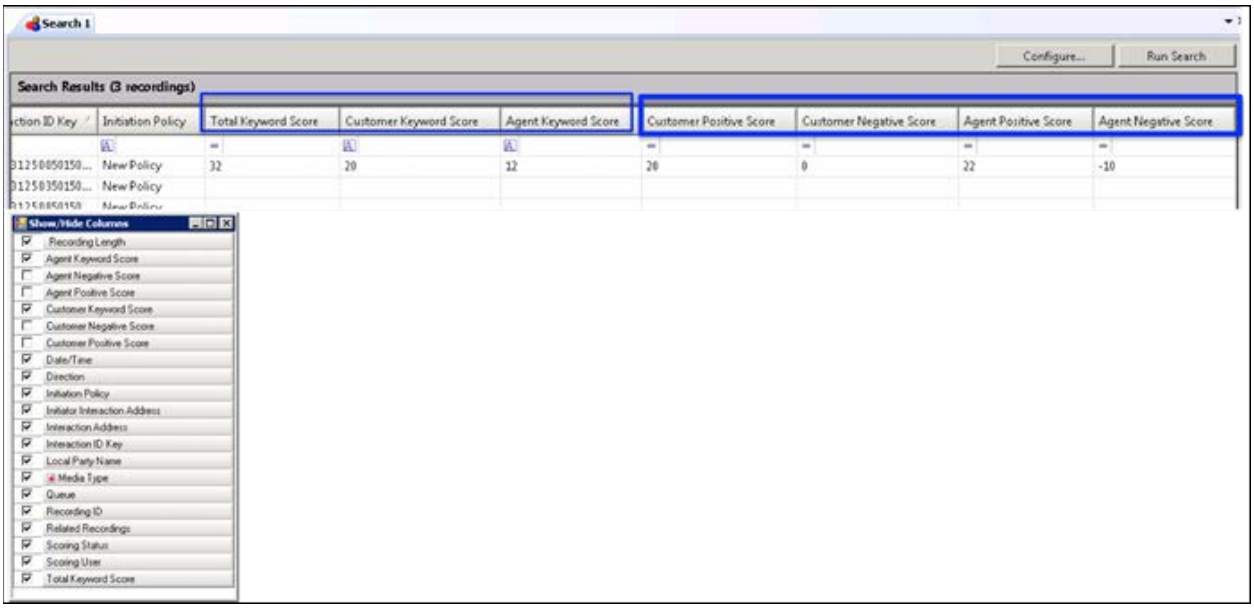
Users can also export search results for recording searches and scorecard searches from the data grid. Format options include CSV, Excel, and PDF.



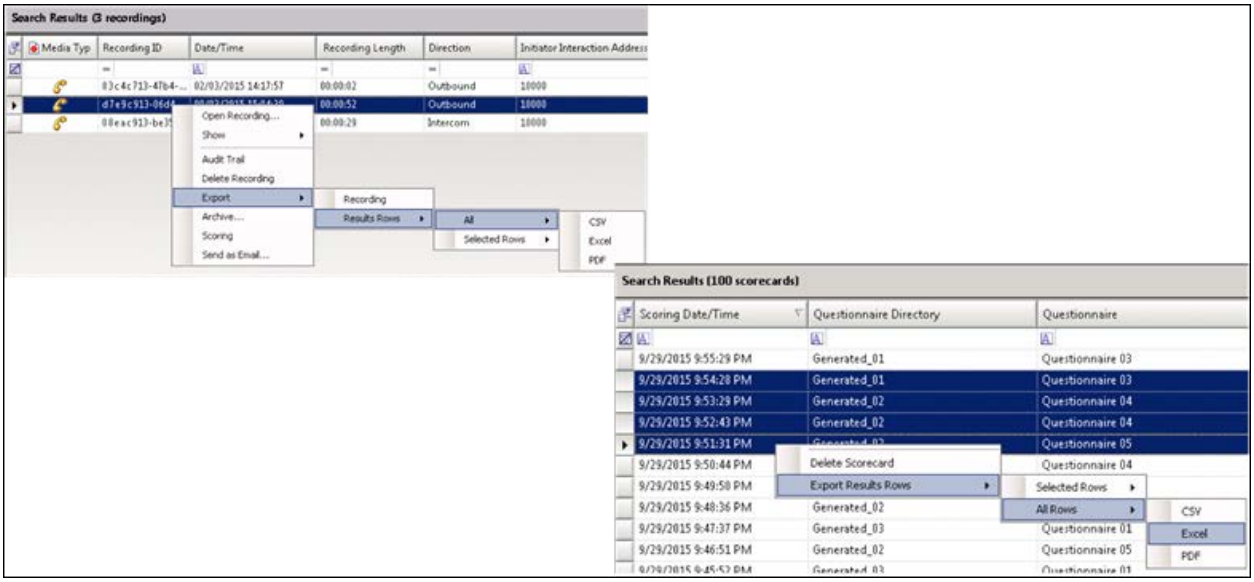
Keyword Sets



Searches



Score Columns



Export Search Results

Improved Scalability for Interaction Recorder and Interaction Quality Manager

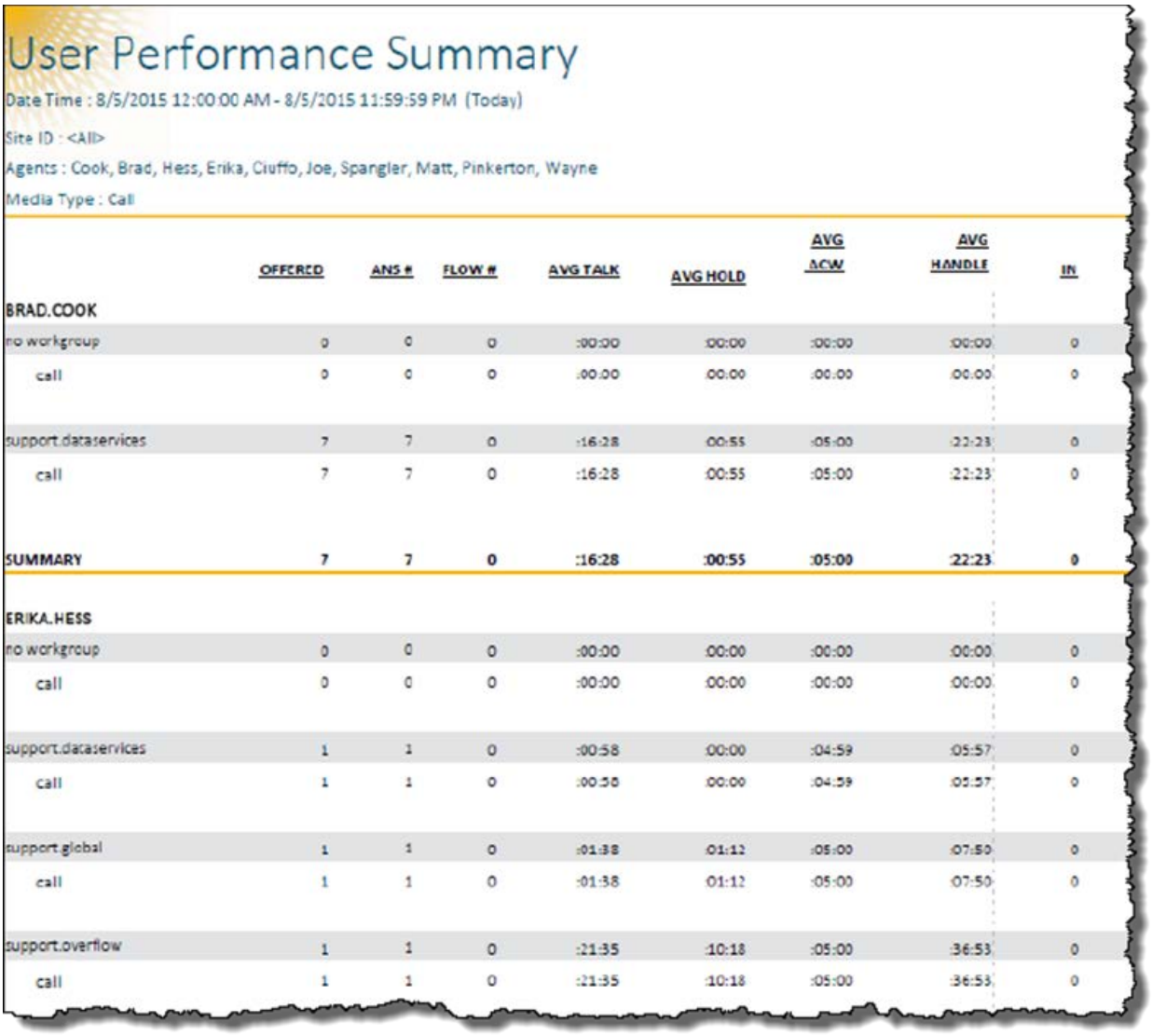
Targeted performance improvements and elimination of table-scans for various Recorder and Quality Management stored procedures result in efficiency improvements.

- When retrieving results in a recorder search within IC Business Manager, there is up to a 1.5x performance increase on an SQL database and up to a 10x performance increase on an Oracle database.
- Security policy re-apply design is up to 25x faster on an SQL Server-based system, and up to 7x faster on an Oracle-based system, using approximately 25 security policies.
- Policy audit history tracks policy changes and re-evaluation status. The audit history provides a better understanding of the changes and the timing of the changes.
- There is a new UI indicator and progress meter for the security and retention policy apply process.

- There is now the ability to cancel a policy re-apply.
- Recorder components that leverage Amazon S3 storage now use the HTTPS protocol (instead of HTTP) for file transfers and communication. This change addresses security protection during file transfers and archiving.

User Performance Summary Report

The new User Performance Summary report displays ACD and non-ACD summary information with several flexible column placeholders to display statistics, such as talk time, handle time, DND, and occupancy.



User Performance Summary

Date Time : 8/5/2015 12:00:00 AM - 8/5/2015 11:59:59 PM (Today)

Site ID : <All>

Agents : Cook, Brad, Hess, Erika, Ciuffo, Joe, Spangler, Matt, Pinkerton, Wayne

Media Type : Call

	OFFERED	ANS #	FLOW #	AVG TALK	AVG HOLD	AVG ACW	AVG HANDLE	IN
BRAD.COOK								
no workgroup	0	0	0	:00:00	:00:00	:00:00	:00:00	0
call	0	0	0	:00:00	:00:00	:00:00	:00:00	0
support.dataservices	7	7	0	:16:28	:00:55	:05:00	:22:23	0
call	7	7	0	:16:28	:00:55	:05:00	:22:23	0
SUMMARY	**7**	**7**	**0**	**:16:28**	**:00:55**	**:05:00**	**:22:23**	**0**
ERIKA.HESS								
no workgroup	0	0	0	:00:00	:00:00	:00:00	:00:00	0
call	0	0	0	:00:00	:00:00	:00:00	:00:00	0
support.dataservices	1	1	0	:00:58	:00:00	:04:59	:05:57	0
call	1	1	0	:00:58	:00:00	:04:59	:05:57	0
support.global	1	1	0	:01:38	:01:12	:05:00	:07:50	0
call	1	1	0	:01:38	:01:12	:05:00	:07:50	0
support.overflow	1	1	0	:21:35	:10:18	:05:00	:36:53	0
call	1	1	0	:21:35	:10:18	:05:00	:36:53	0

User Performance Summary Report

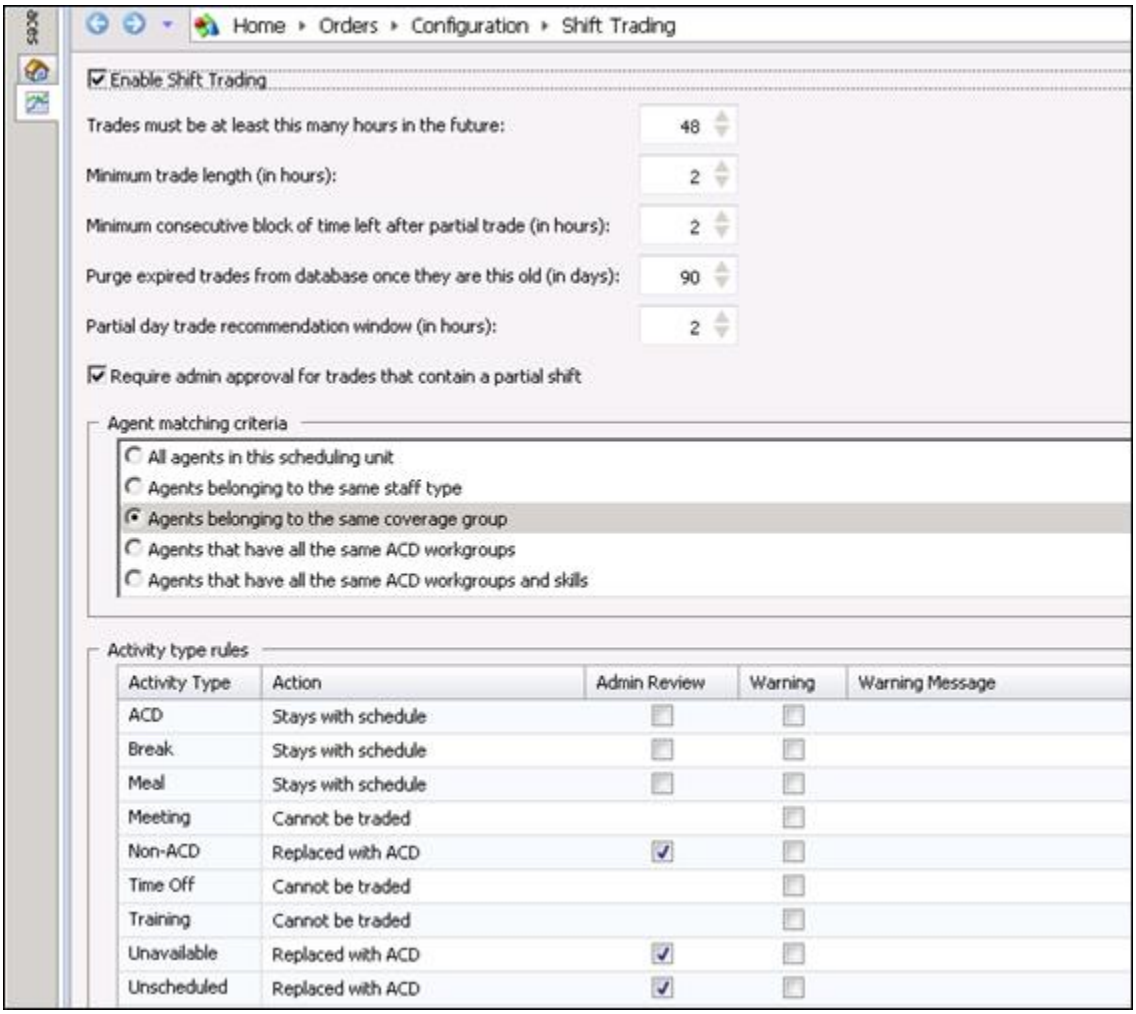
New Firmware for Polycom SoundPoint IP and VVX Phones

CIC 2015 R4 includes the following firmware to support these Polycom SoundPoint IP and VVX phone models:

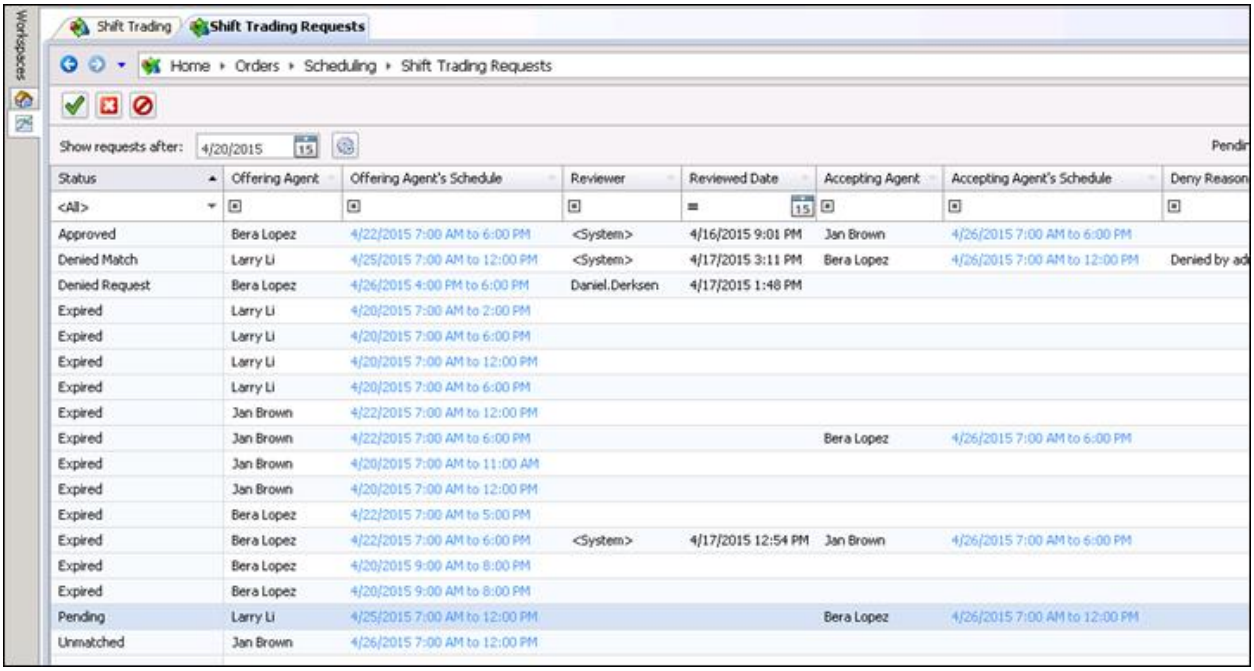
Firmware	Phone model
4.0.8c (default for SoundPoint IP phones)	IP321, IP331, IP335, IP450, IP550, IP560, IP650, IP670, IP5000, IP6000, IP7000
5.2.2 (default for VVX phones)	VVX300, VVX310, VVX400, VVX410, VVX500, VVX600

Interaction Optimizer Agent-Initiated Shift Trading

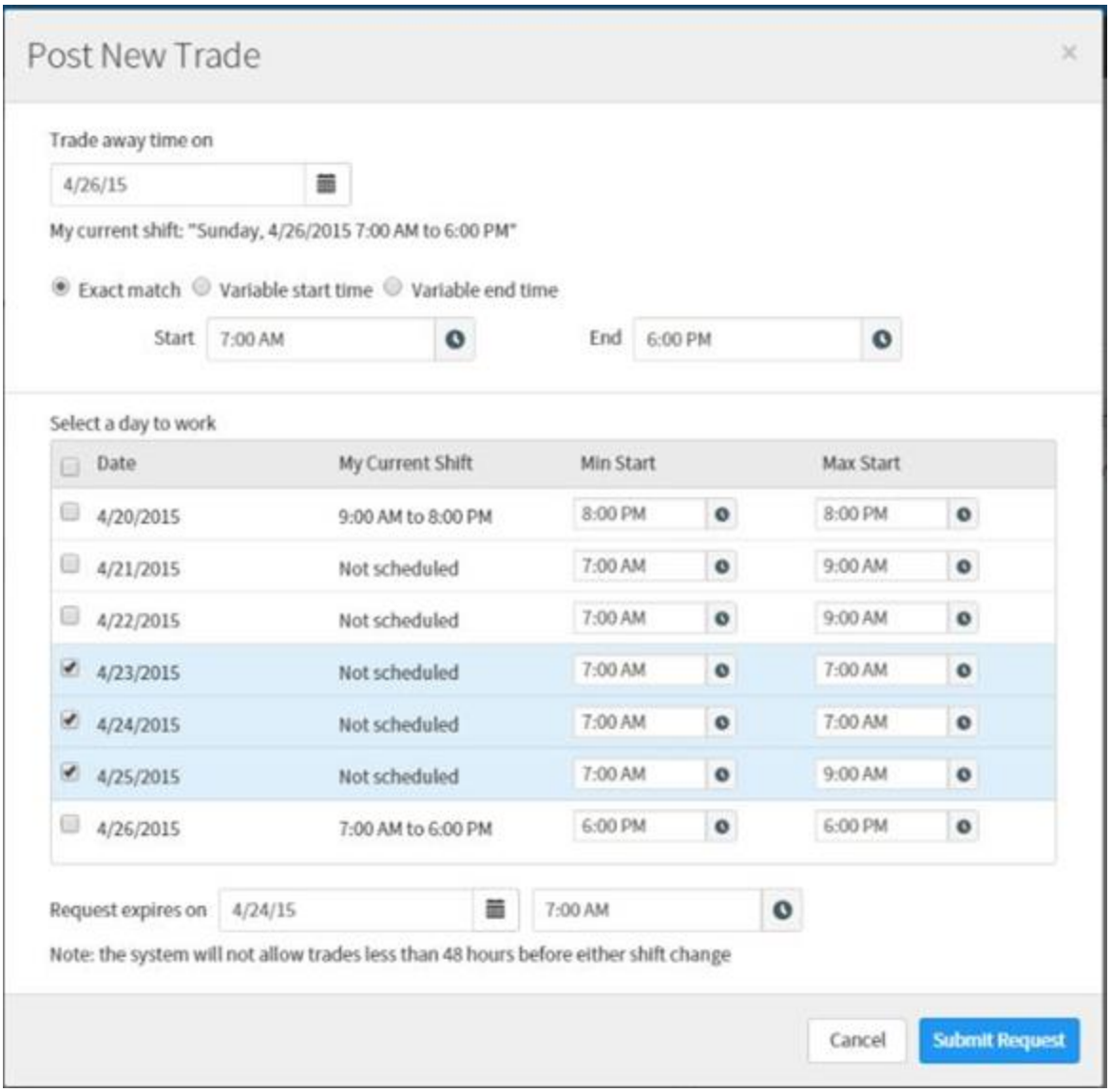
This feature enables agents to trade whole or partial shifts with other agents, based on business rules that the scheduling administrator configures. Those business rules include things like min/max weekly hours and membership in service goals, workgroups, or interaction types that drive whether the trade should be approved automatically or queued for the scheduling administrator to review.



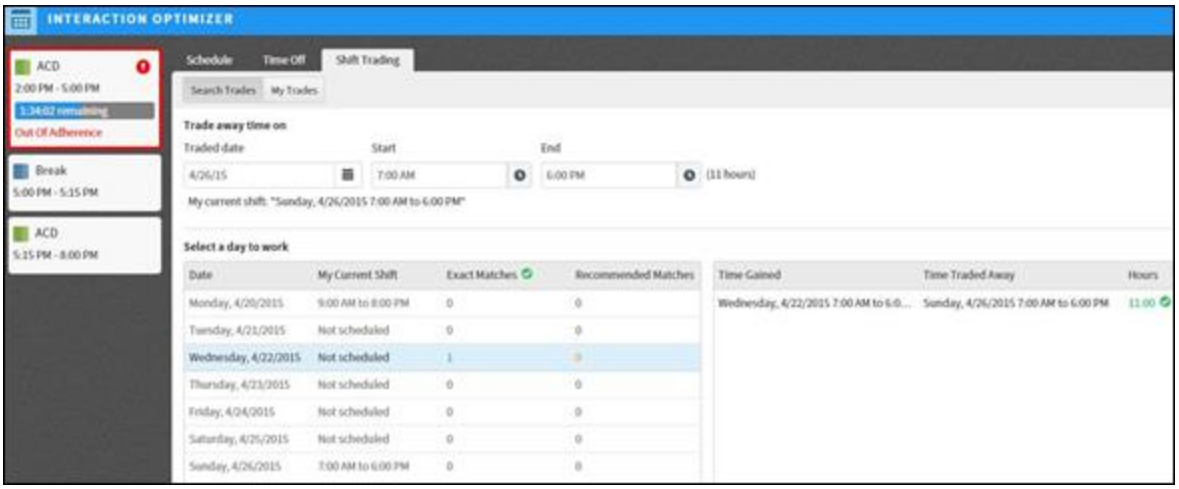
Configure Trade Rules (WFM Administrator)



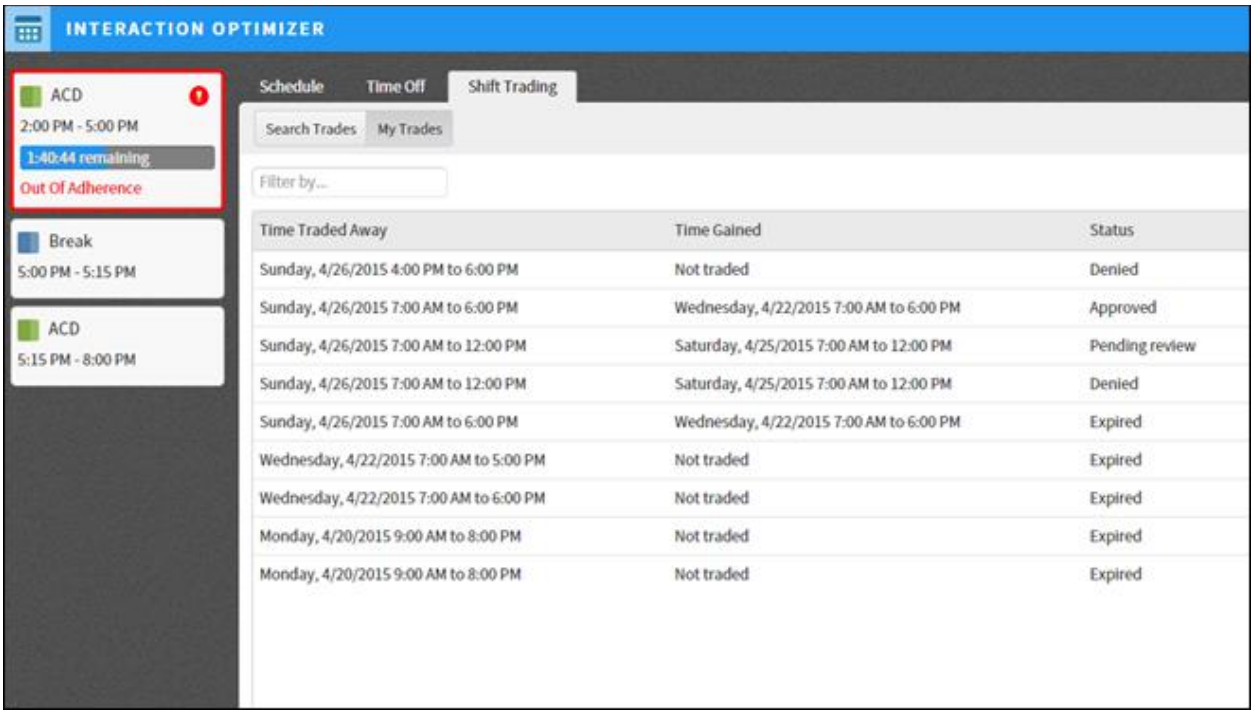
View/Manage Trades (WFM Administrator)



Post New Trade (Agent)



Search Trades (Agent)



My Trades (Agent)

New Features in 2015 R3

New Features in 2015 R3

This section lists the main features that are new in CIC 2015 R3.

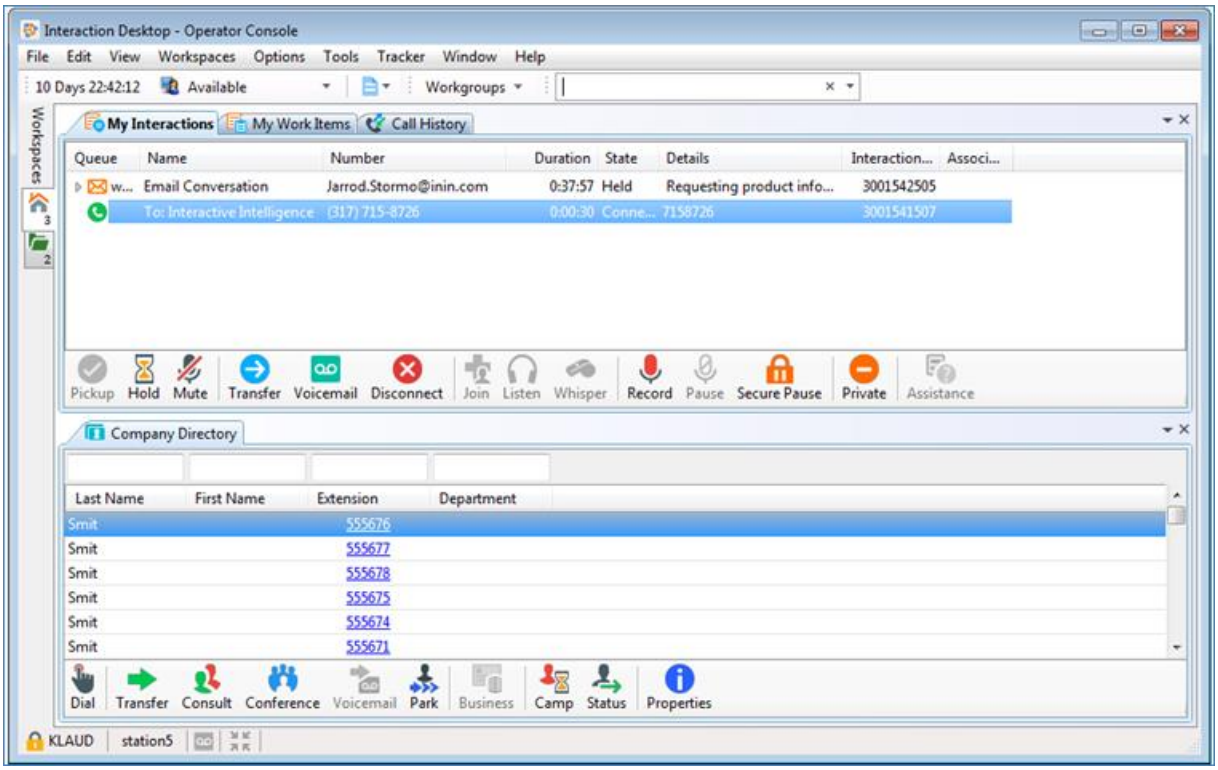
Interaction Desktop General Availability

CIC 2015 R3 includes the initial release of our new desktop CIC client, Interaction Desktop. This application includes all of the client functionality from Interaction Client .NET Edition, with improved email views and optimizations to some other client functionality.

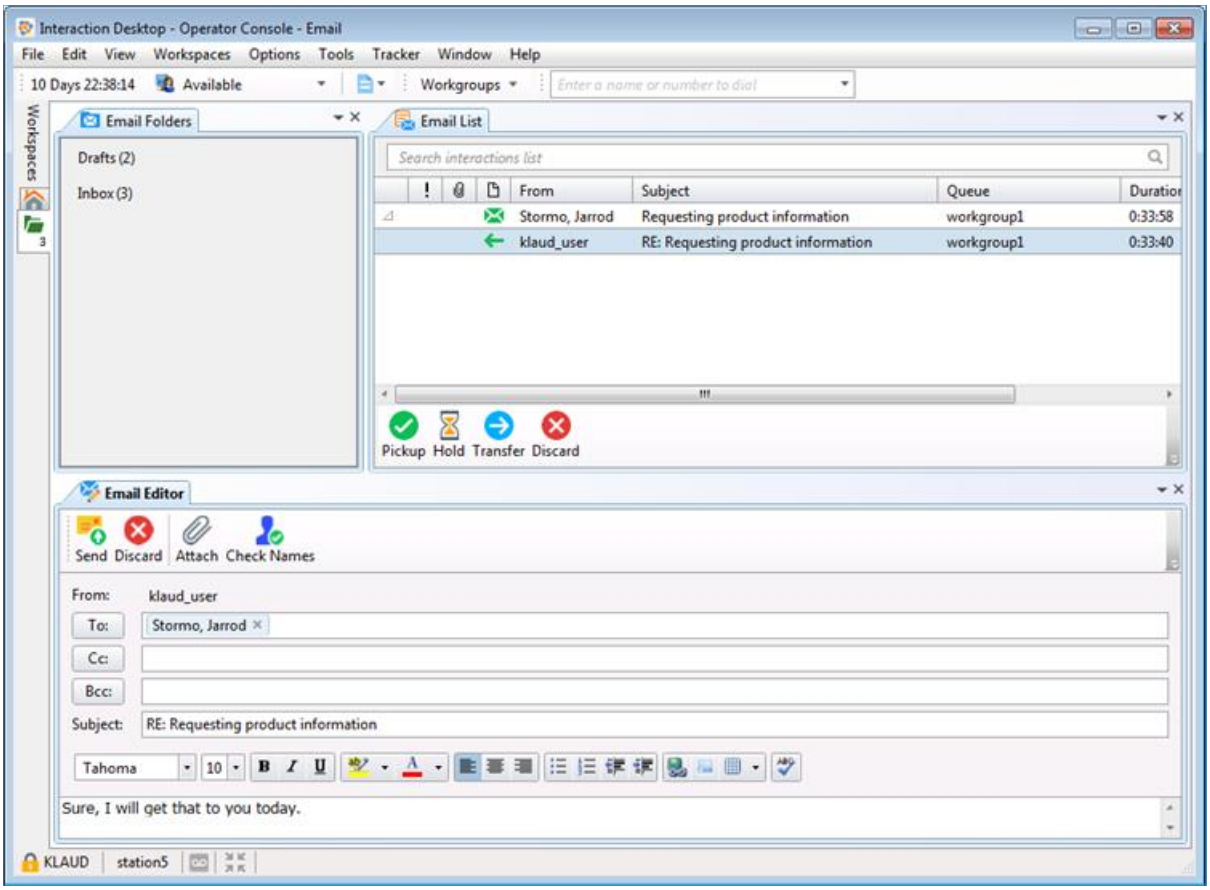
Future versions of CIC will include additional functionality, such as the supervisor views in Interaction Center Business Manager (ICBM). The goal is to allow users to receive calls and manage the contact center from a single application.

Refer to the *Interaction Desktop Quick Start Guide* in the CIC Documentation Library for an overview of the differences between Interaction Client .NET Edition and Interaction Desktop.

During the installation of CIC 2015 R3, some or all user settings from Interaction Client .NET Edition are automatically migrated to Interaction Desktop. For more information about the transition, refer to the *Transition to Interaction Desktop Administrator's Guide* in the CIC Documentation Library.



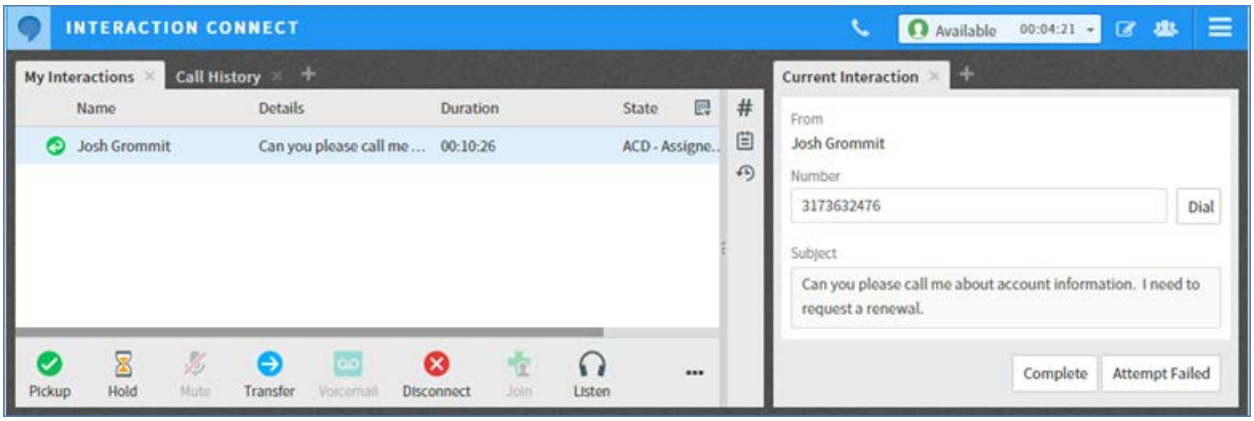
Interaction Desktop



Interaction Desktop Email Features

Interaction Connect Callback Support

Interaction Connect now allows agents to receive callbacks.



Interaction Connect Logon Screen

Interaction Center Web Services (ICWS)

The ICWS Directory and Interaction History APIs are now public.

For more information, documentation, examples, or to download the ICWS SDK, see https://developer.inin.com/documentation/pages/default.aspx.

Secure IVR Playback

The Secure IVR Playback feature enables callers in an Interactive Voice Response session to enter DTMF digits securely through a telephone keypad and hear the corresponding DTMF digits as feedback. Call recordings and keyword spotting diagnostic recordings do not include the entered digits. The digits are not present in log or tracing files, other people on the phone cannot hear them, and they are encrypted between all points within the CIC system to ensure security and to meet PCI compliance standards. The Secure IVR Playback feature works for internal calls, external calls, and ACD-routed calls.

PCI compliance is a requirement in some countries – there cannot be the ability to see sensitive data, for example, social security numbers, credit card numbers, and PINs.

CIC has no control over streams that leave the system.

This feature is part of the Secure Input feature implementation. For more information about secure IVR playback, see the *Secure Input Technical Reference* in the CIC Documentation Library.

Hold Time Recording Search and Display in Recording Media Details

This feature adds the ability to search recordings based on hold time criteria. It also displays a new column in the recording results grid view and it adds information about the holds in the recording playback media Details dialog box with a new Events tab.

Types of hold include:

- Hold/transfer
- Hold during the interaction
- Total hold time

In ICBM, the new Events tab displays:

- The number of times that an agent places a caller on hold during a recording.
- The total amount of time that a caller is on hold during a recording.
- A list of all the individual holds with duration.

Hold time details provide critical data to help evaluate cost, efficiency, and quality of handling interactions. Length of time and frequency of placing callers on hold has a significant impact on customer satisfaction and can be an indicator of agent performance issues. The ability to locate recordings based on hold criteria, and to view the hold time details, improves the efficiency of quality monitoring efforts by making it easier to identify calls that can yield the most benefit from evaluation efforts and identification of coaching opportunities.

IPA Process Automation Server (PAS) Version 2

Process Automation Server, the primary "engine" of the Interaction Process Automation solution, is completely re-architected to provide significant overall performance improvements. PAS v2, which supports 64-bit architecture, provides for the implementation of many more users, processes, work items, and system variables than in PAS v1. Written specifically with clustering scalability in mind (that is, N+1), PAS v2 provides greater stability and improved use of memory, disk space, and bandwidth utilization for greater performance and speed.

Migration of process definitions from PAS v1 is not required. A one-time migration tool migrates process instances. Manually transferring persistence files in switchover or disaster recovery instances is now unnecessary. Database backup functions are now managed via SQL Server internal mechanisms. Overall, IPA's PAS v2 represents a significant evolution in Interaction Process Automation's functionality and performance.

NICE/IEX WFM Integration

The connector was updated to send information to IEX so that the user state appears in real time and the user status is preserved. This allows managers to reliably and accurately measure schedule adherence.

Integrations End of Life

The following integrations are now end of life:

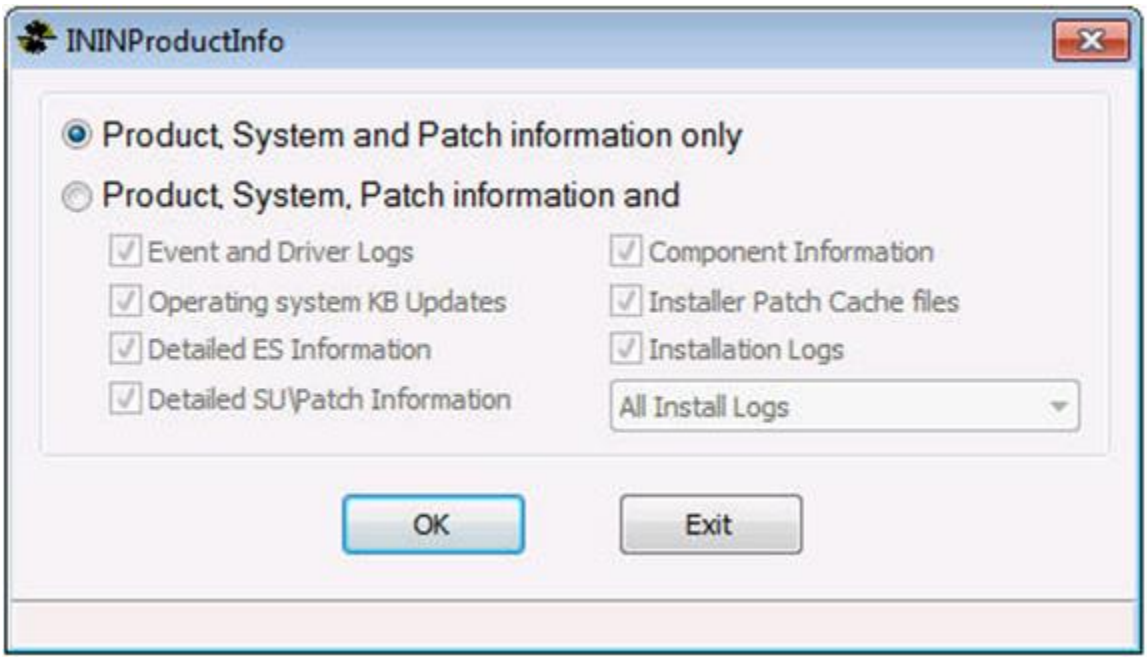
- Interaction Process Automation integration with SharePoint
- Remedy IVR integration

Starting with CIC 2015 R3, these integrations are no longer available on the CIC release and patch .iso downloads.

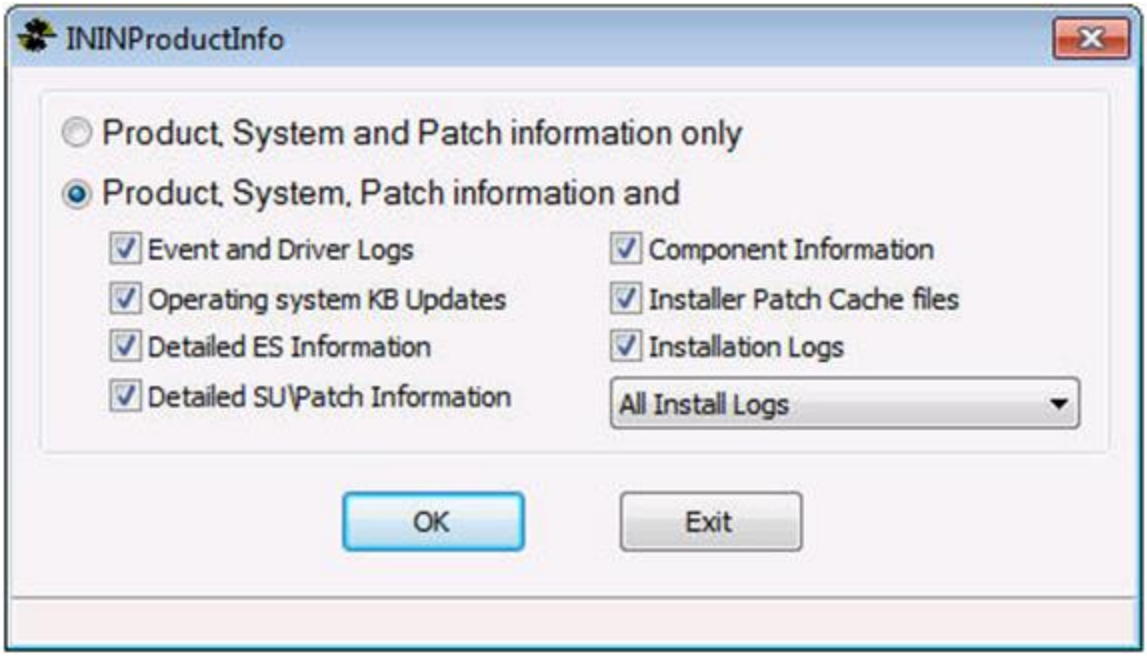
ININProductInfo Utility

The ININProductInfo utility gathers information about installed Interactive Intelligence products and system information, logs, and (optionally) applied operating knowledgebase updates and Windows installer logs. This information helps the Interactive Intelligence Support and Testing teams diagnose installation issues.

The utility is available in the \Utilities share on the CIC server, following the 2015 R3 IC Server installation. For more information about the utility, see the *Interaction Center Installation and Configuration Guide* in the CIC Documentation Library.



ININProductInfo Utility, Product and Path Information Only



ININProductInfo Utility, Additional Options

New Features in 2015 R2

New Features in 2015 R2

This section lists the main features that are new in CIC 2015 R2.

Interaction Center Web Services (ICWS) Improvements

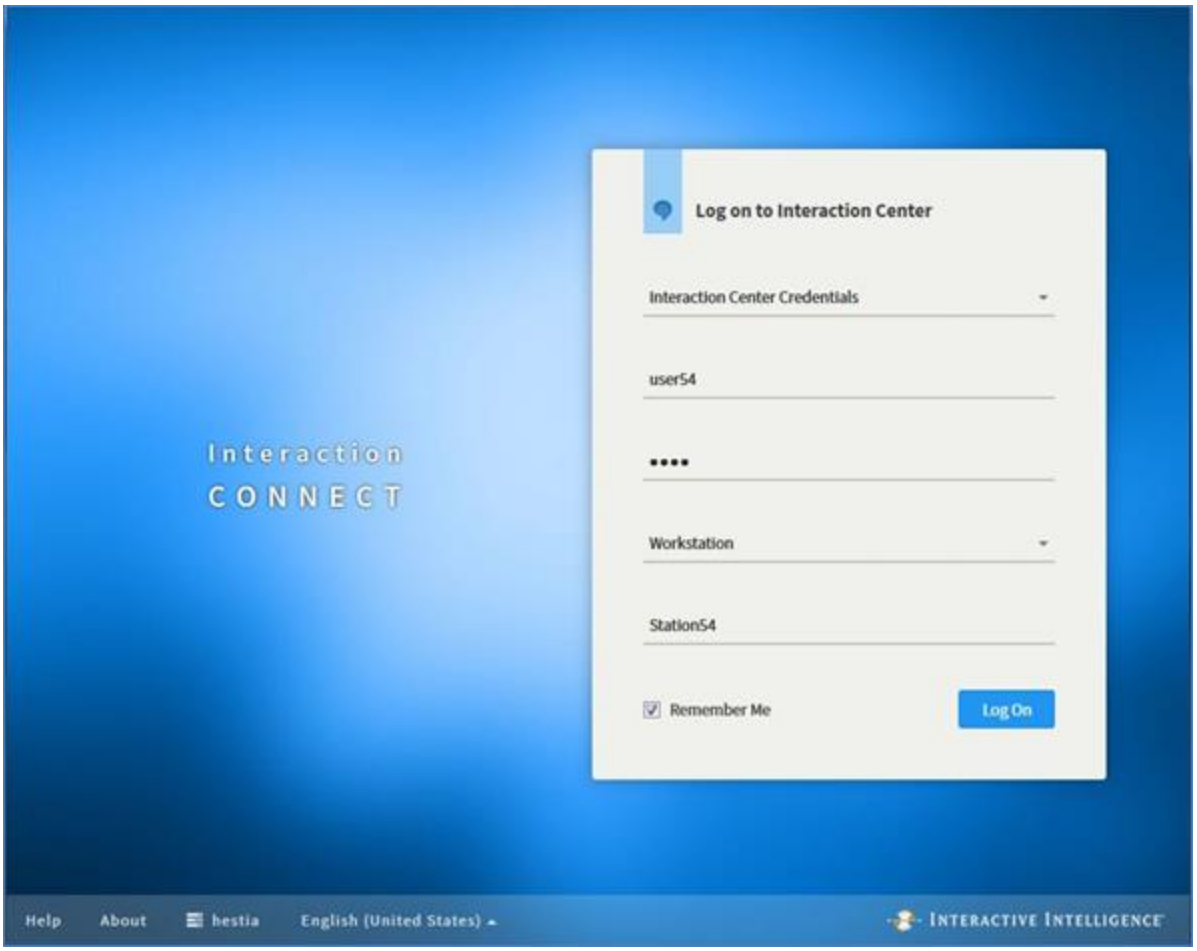
The Interaction Center Web Services (ICWS) SDK now supports SAML 2.0-based single sign-on providers.

To find more information, documentation, and examples, or to download the ICWS SDK, see https://developer.inin.com/documentation/pages/default.aspx.

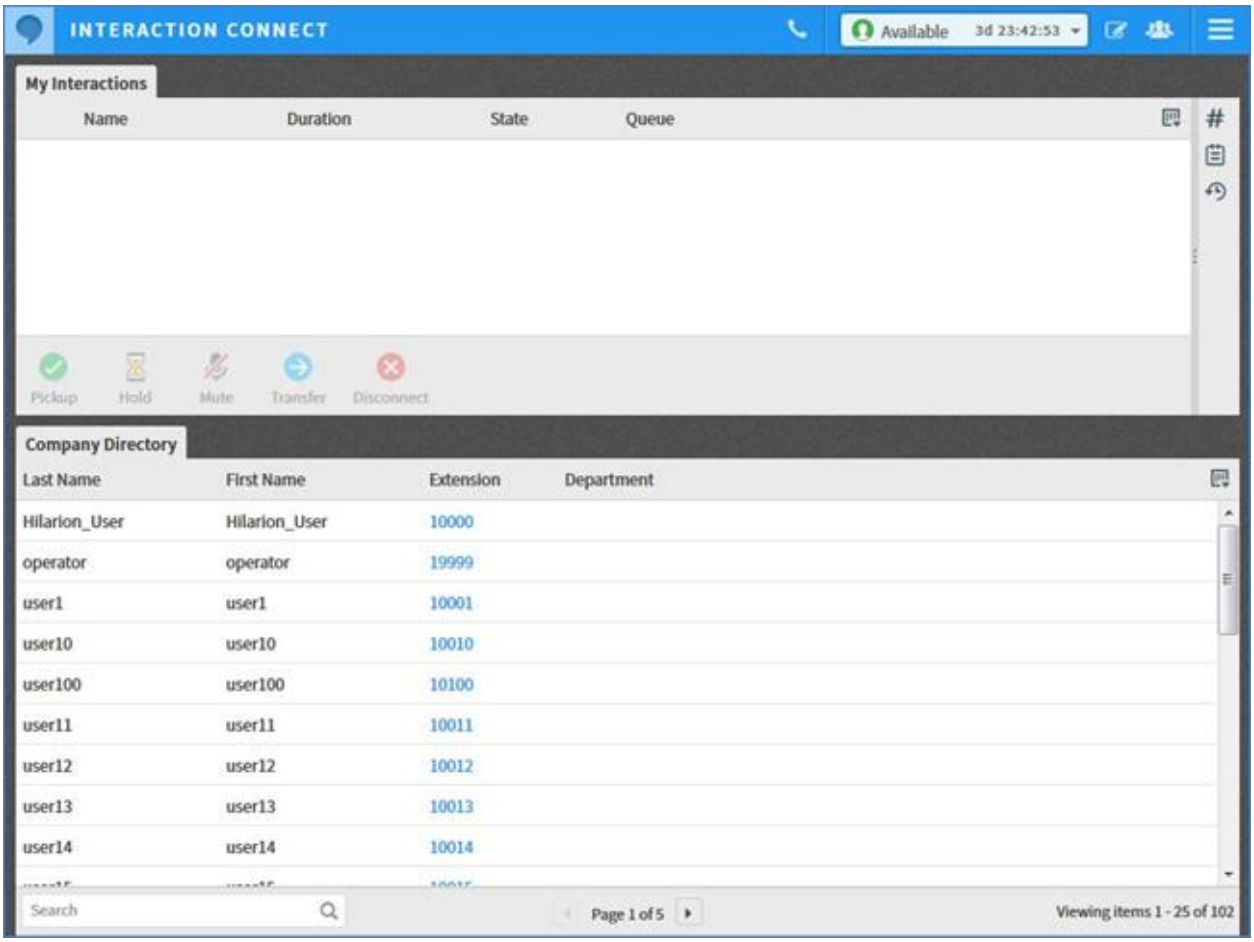
Initial Release of Interaction Connect

CIC 2015 R2 includes the initial release of the new HTML 5-based web client, Interaction Connect. Interaction Connect is based on a REST API (ICWS), which provides better usability and scalability than Interaction Client Web Edition. The initial release includes a limited set of features. Future releases of CIC will include additional Interaction Connect functionality.

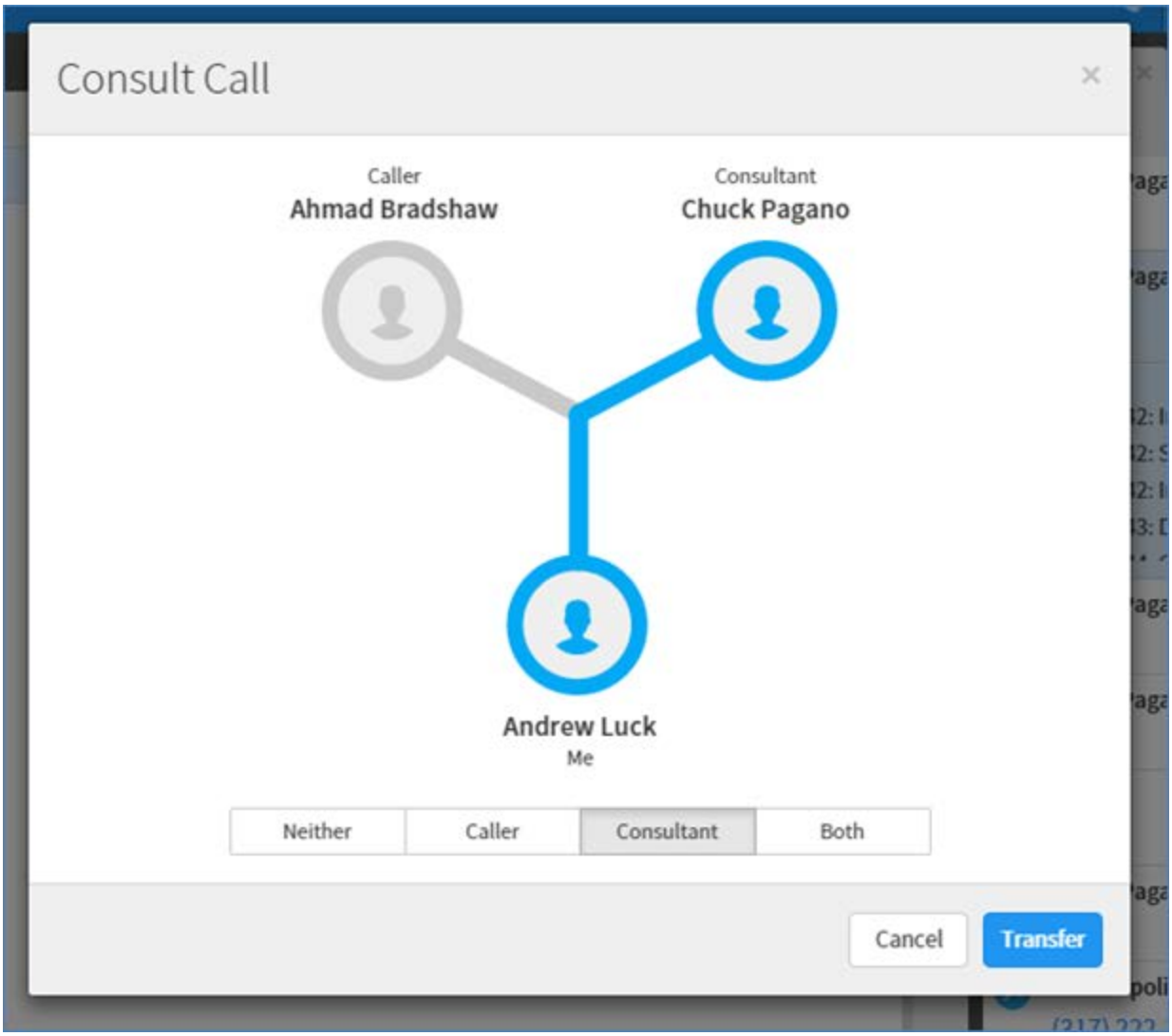
Note: Interaction Connect requires the use of a web server and CIC Web Applications.



Interaction Connect Logon Screen



Interaction Connect Interface



Interaction Connect Consult Call

Support for Google Gmail oAuth 2.0

CIC now supports oAuth 2.0 for Google Gmail.

Improvements to Email Editing Capabilities

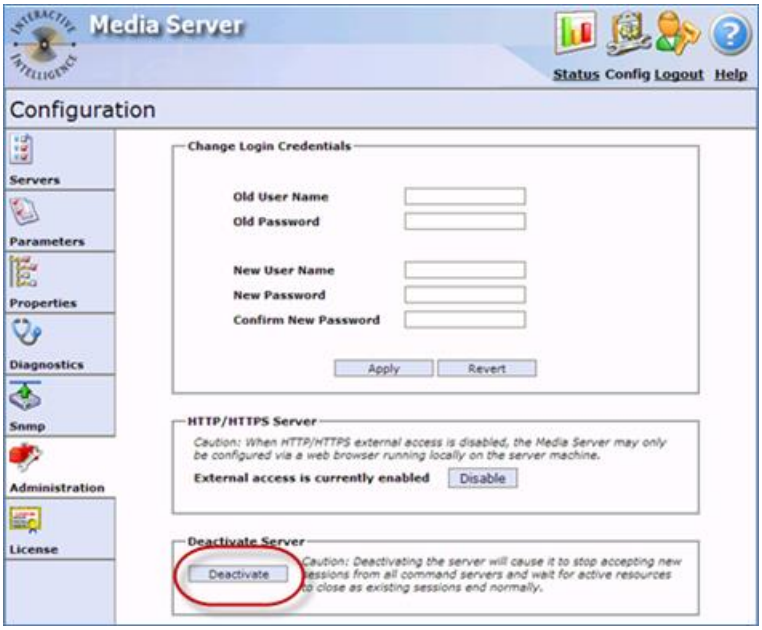
CIC 2015 R2 includes several updates and enhancements to Response Management and Email Editor. Updated features include, but are not limited to, Response Management drag-and-drop capabilities, Response Management font selection, and line spacing.

Improved Support for Web Chat in Mobile Browsers

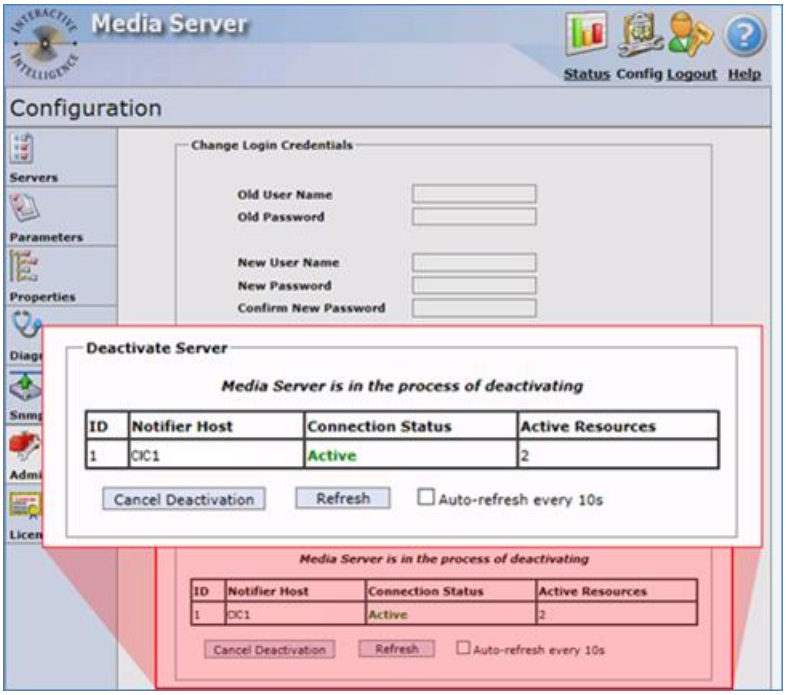
This release includes improved support for using web chat in mobile browsers on Android, Windows, and iOS-based tablets.

Media Server Web Configuration Enhancement

In situations where several CIC servers are connected to the same Media Server, an administrator using the web interface can now take that Media Server down for updates or servicing. When taken down, the Media Server waits for the current sessions to complete, but it does not accept new sessions.



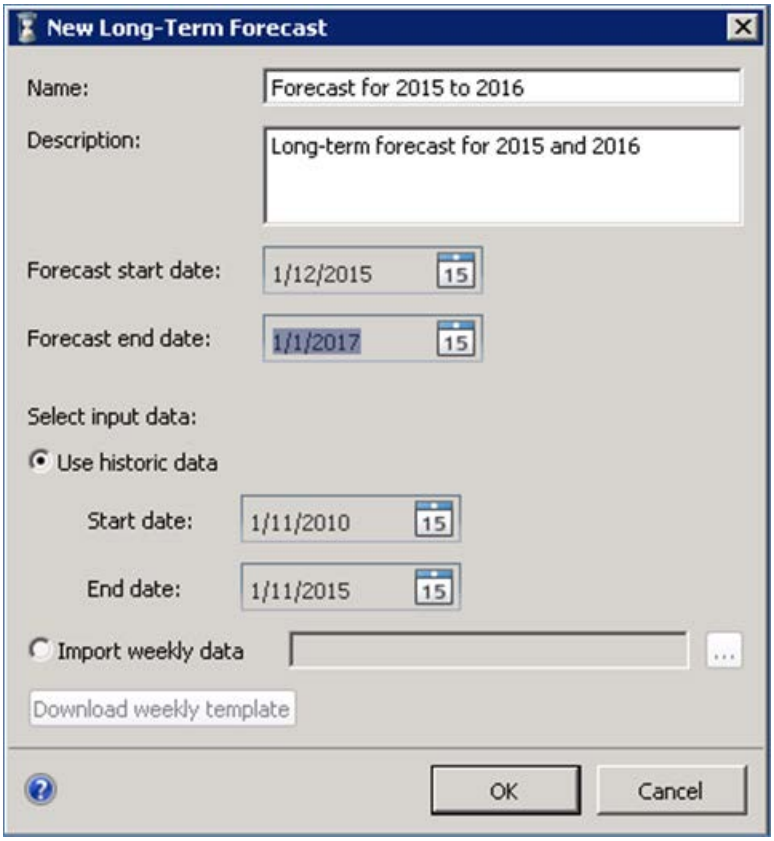
Media Server Deactivate Button



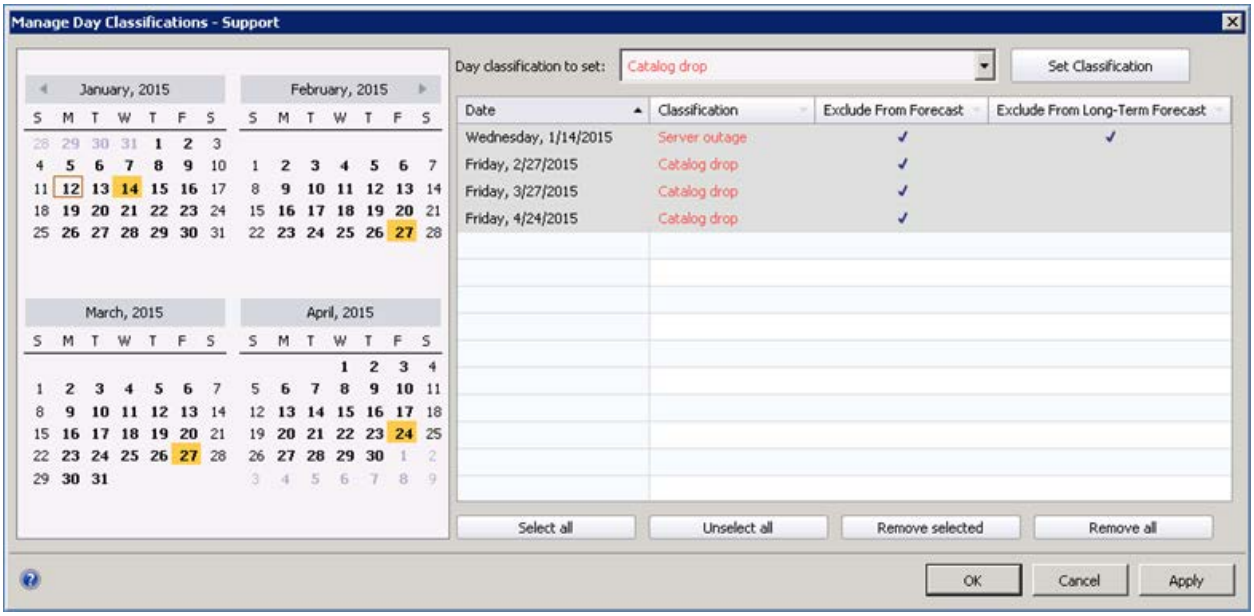
Media Server Deactivating

New Optimizer Long-term Forecasting

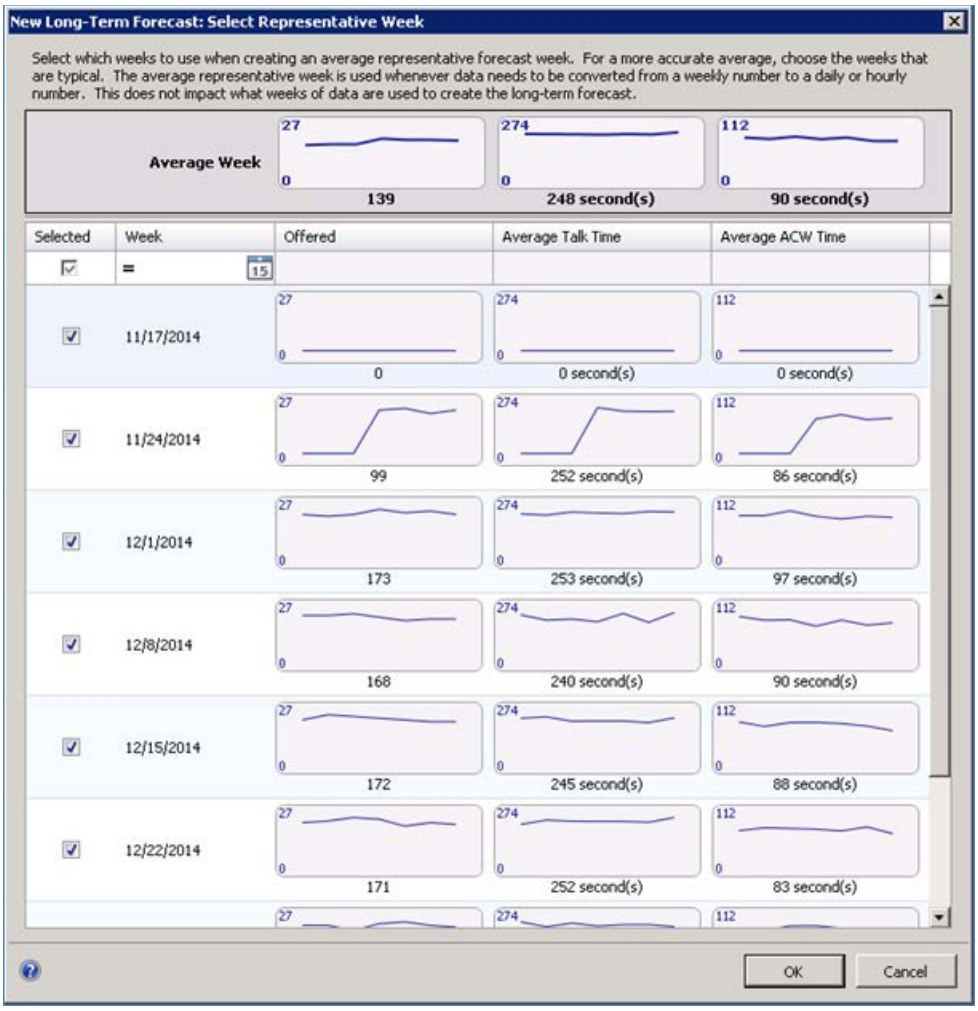
Long-term forecasting allows users to generate a weekly level forecast for volume and average handle time for many weeks at a time. The existing short-term forecasting feature only allows forecasting for one week at a time at the interval level. The long-term forecast is useful for generating a staffing forecast to use when planning weekly or monthly time off, headcount management, and more.



Optimizer Long-term Forecasting



Optimizer Long-term Forecasting – Manage Day Classifications



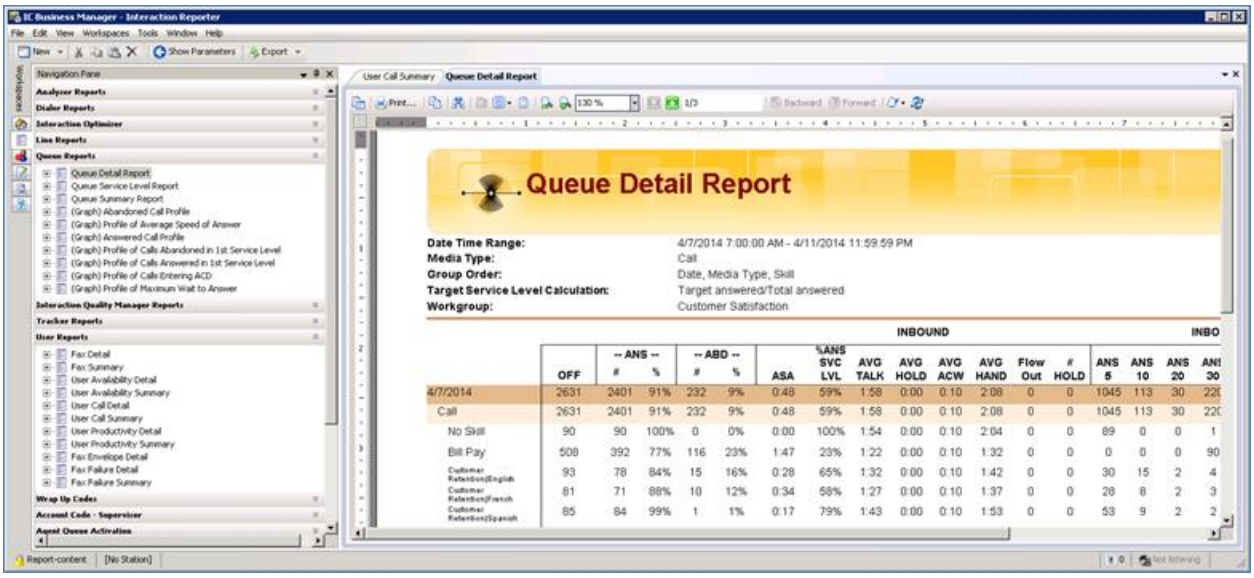
Optimizer Long-term Forecasting – Representative Week Selection

Support for Crystal Reports 2013

Interaction Reporter now supports Crystal Reports 2013. It also provides backward compatibility support, in CIC 2015 R2 and later, for Crystal Reports that were created with versions 9, 10, and XI in CIC 2.4 and 3.0, and 4.0.

As part of this update, the Historical Reports view in IC Business Manager is no longer available. All Historical Reports in IC Business Manager that did not previously have an equivalent report in Interaction Reporter are migrated to Interaction Reporter in CIC 2015 R2, and following the migration, will appear in the Interaction Reporter module in ICBM. And, in Interaction Administrator, the Historical Reports container is no longer available and Crystal Reports now appear under the Report Management container.

Note: Following the CIC 2015 R2 upgrade, customers that have used Crystal Reports must run IC Setup Assistant to migrate custom report templates and other related database information. In Setup Assistant, select Database. Setup Assistant guides you through the entry of information related to your database configuration, and then it migrates the templates. For a pair of switchover servers, you must run Setup Assistant on the backup server after applying the upgrade and before starting the IC service. You don't need to run Setup Assistant again after upgrading the primary server.



IC Business Manager – Interaction Reporter

Tracking of Application Users Logging On and Logging Off

CIC now logs user logon and logoff activities in the LoginLogoutChangeLog_viw view in the CIC database. The logged information includes the date and time of the event, user ID, application name, success or failure codes, and machine name.

Interaction Recorder/Quality/Feedback Stability and Reliability – Phase 2

Phase 2 of the enhancements to these products includes improvements in testing and tools to provide better scalability and reliability, and to eliminate or reduce identified customer pain points.

Initial Release of SIP Station II

Interaction SIP Station II is a SIP-based device designed for contact center and enterprise environments that use Power over Ethernet. The device includes physical controls for volume, mute, on-hook/off-hook, and emergency/urgent speed autodial. Interaction SIP Station II works in conjunction with the CIC provisioning subsystem and is configured in Interaction Administrator in the same way as Polycom phones, SIP Soft phones, and AudioCodes phones. The Interaction SIP Station II must be implemented as a managed IP phone.

The initial release of SIP Station II provides support for:

- Dual registration
- Enhanced debugging and troubleshooting improvements
- Gigabit Ethernet and dial pad

SIP Station II

Microsoft Lync – RCC Support

This update adds enhancements (TLS support, station lookup, license check, etc.), to the Lync RCC functionality that was originally introduced with the OCS integration in CIC 2.4. The update also includes improvements to the RCC configuration and installation process.

Note: Lync RCC integration now requires a new feature license: I3_FEATURE_LYNC

New Features in 2015 R1

This section lists some of the main features that are new in CIC 2015 R1.

New Features in 2015 R1

New Features in 2015 R1

This section lists the main features that are new in CIC 2015 R1.

New Distribution Model

The CIC product suite has a new distribution model with new naming, faster release cycles, and higher quality. CIC 4.0 SU 6 was the last release using the older model. CIC 2015 R1 is first of the new releases. CIC 2015 R1 or later can be applied to any CIC 4.0 SU. For more information, see the Interactive Intelligence Product Information site at https://my.inin.com/products/cic/Pages/Releases-and-Patches.aspx.

ES Roll-up / Patch Creation
ES Roll-up / Patch Creation

Starting with this release, Interactive Intelligence will begin a bi-weekly process of releasing patches for CIC, Interaction Dialer, Interactive Update, and Interaction Conference. These patches will be a roll-up of all known ESs for a given release.

For more information about the release and patch process and how to download the latest patch, see the "New CIC Release and Upgrade Process: What You Need to Know" section at https://my.inin.com/products/selfhelp/Webinars/Pages/ProductBriefings.aspx

Required: Apply the latest patch after installing CIC 2015 R1 or later

After you install CIC 2015 R1 or later, apply the latest patch for the release. This requirement helps ensure the most stable operation of the product. Patches are posted along with releases on the Interactive Intelligence Product Information site Download Page.

Support for Newer Windows Operating Systems

Starting with this release, CIC now supports Windows Server 2012 R2, Windows 8.1, and Windows 8.1 Update 1.

Switchover Enhancements

Switchover Enhancements

This section describes enhancements to split switchover and switchover resiliency.

Split Switchover Optimizations

The switchover process was improved to handle instances where the CIC primary and backup servers are located on different LANs. There are new server parameters to tailor the switchover subsystems to compensate for network connectivity and latency issues. These changes help avoid unnecessary switchovers caused by connectivity issues between CIC servers.

Switchover Resiliency

The switchover resiliency process was improved to handle up to 15,000 emails and 4,000 simultaneous chats during a switchover.

Scalability Improvements

This release includes several enhancements to improve stability during administrative changes that are performed during a heavy load.

These enhancements help with:

- Client responsiveness
- Server responsiveness
- Server memory utilization
- Unintended switchover

ICWS (Interaction Center Web Services)

Interaction Center Web Services (ICWS) includes these enhancements:

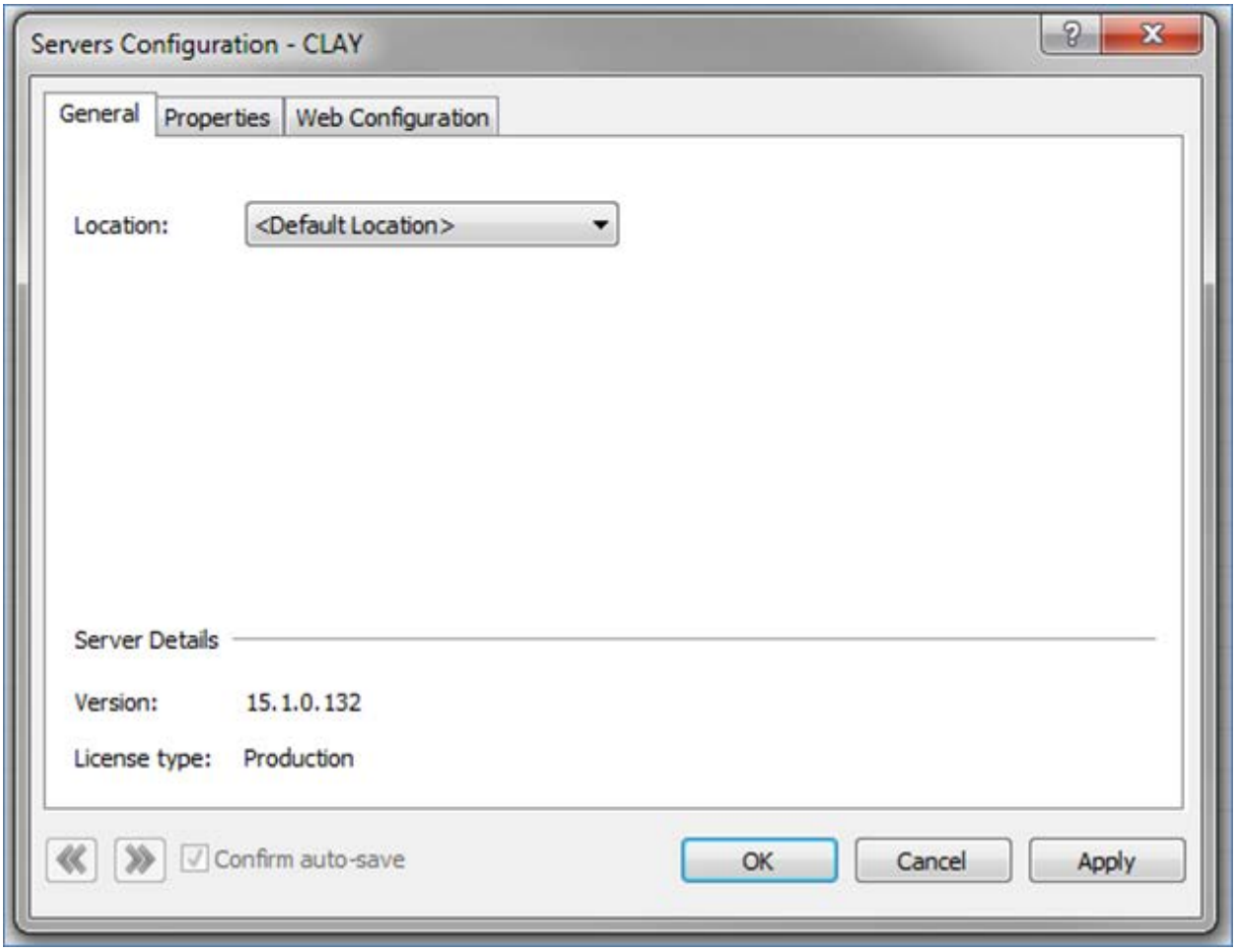
- New APIs for Interaction Process Automation and Workforce Management
- Enhancements to the Configuration, Connection, Licenses, and Status APIs
- Improved Error responses

See https://developer.inin.com/documentation/pages/default.aspx for documentation, examples, or to download the ICWS SDK.

Display Media Server Version and License Type

When Interaction Media Server connects to a CIC server, it sends its version and license type. That information now appears in the **Servers Configuration** dialog box of the **Media Servers** object in Interaction Administrator. Previously, Interaction Administrator did not display this information for any connected Interaction Media Server.

With this new feature, administrators can use Interaction Administrator to determine the versions and license types of multiple Interaction Media Server instances that are connected to the CIC server.



New Server Details

Improvements to Data Services Components

Enhancements to the following components, which are related to data services, improve consistency and scalability:

- TrackerServer
- StatServer
- TransactionServer
- AlertServer

General improvements were made to those subsystems, and testing of the subsystems was vastly improved.

Improvements to Interaction Recorder

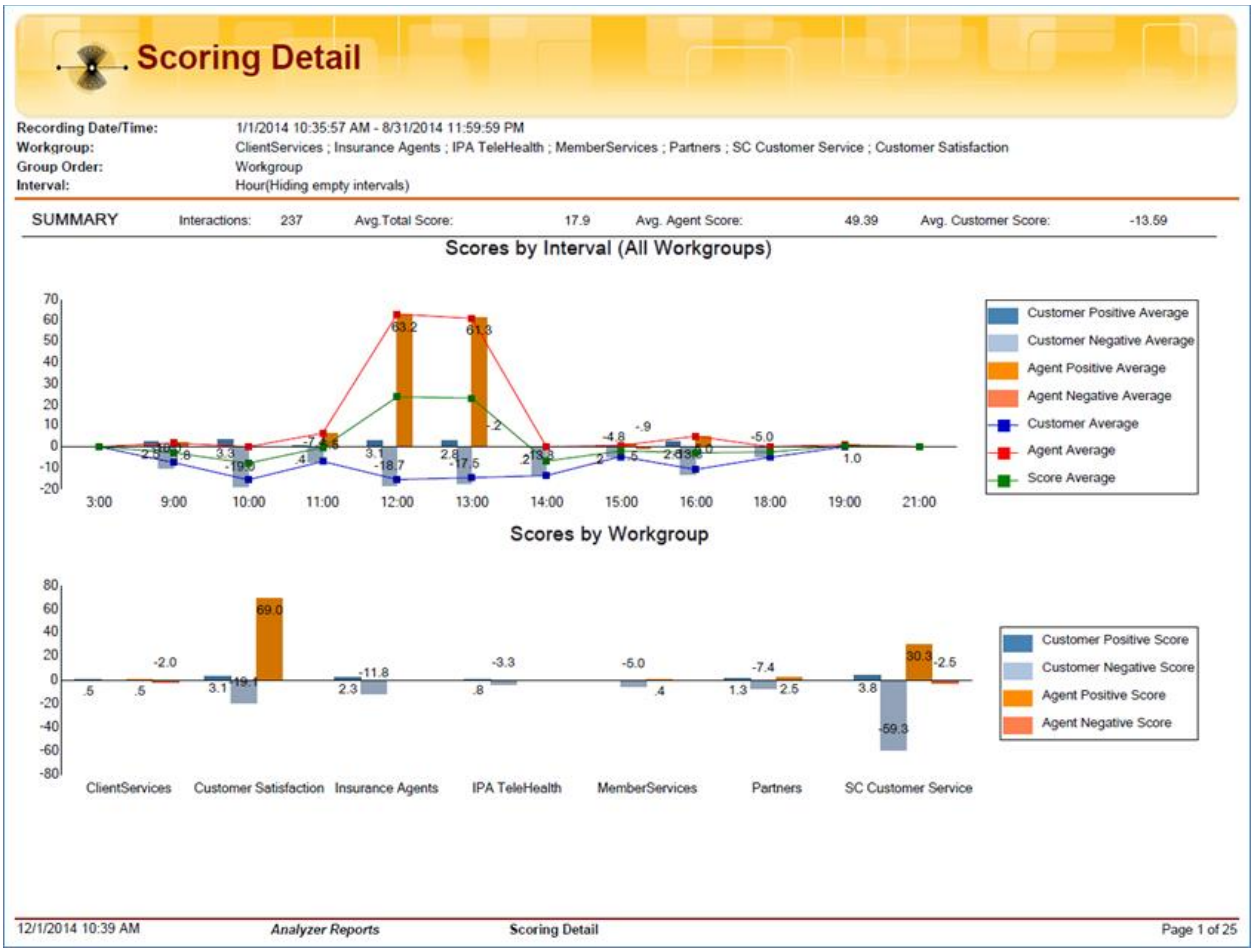
Interaction Reporter, Scheduled Reports, Report Assistant, and the infrastructure for those applications were all improved. Some of the notable changes are:

- Addition of a DNIS parameter to the Queue and Agent reports in Interaction Reporter.

- Correction of SiteID complications within the Dialer campaign reports.
- Addition of non-ACD data and transfer statistics to the User Productivity reports.

Interaction Analyzer Reporting

Starting with this release, the Analyzer Scoring Detail report is now in Interaction Reporter. This report displays positive and negative scores for keywords from both the agent and customer conversation legs. The report displays data from all workgroups by interval. It also breaks down scores by workgroup, with the name of the recorded agent and the scoring details of the recorded interaction.

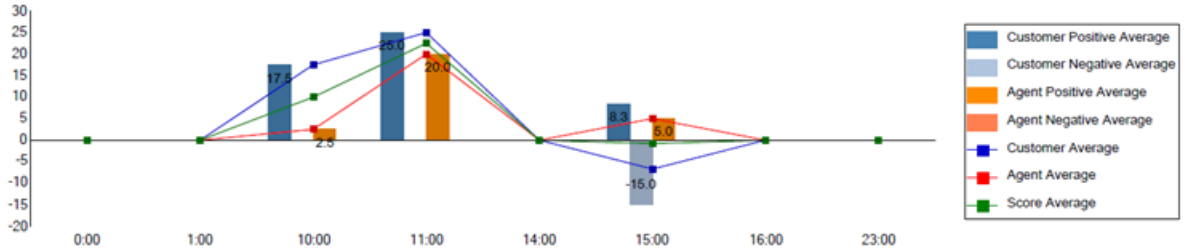


Report Example 1

Workgroup Details

407ETR

Scores by Interval



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	00:16:47	Howard Frenkel	POC - 407ETR	0	0	0	0	0	0	0
1:00										
	f8316b13-c8a9-d021-8547-a4a9f5060001									
	00:03:19	Howard Frenkel	POC - 407ETR	0	0	0	0	0	0	0
10:00										
	9f646a13-bbcc-d09b-8547-a4a9f5060001									
	00:02:41	Justin Hawkins	POC - 407ETR	20	20	0	20	0	0	0
	ec646a13-bd2a-d035-8547-a4a9f5060001									
	00:00:34	Justin Hawkins	POC - 407ETR	20	15	5	15	0	5	0
11:00										
	77676a13-5a1a-d025-8547-a4a9f5060001									
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14:00										
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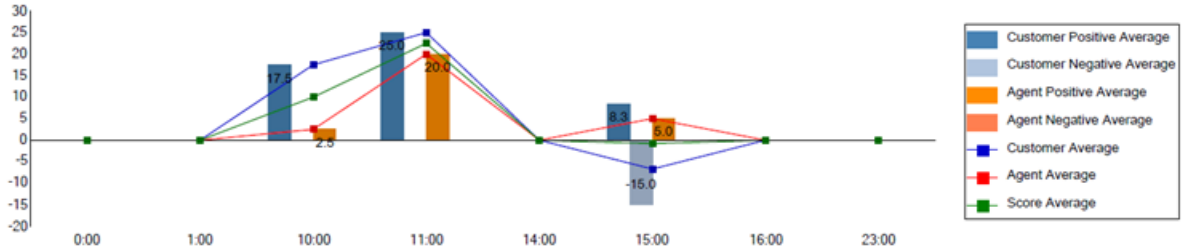
Workgroup Details

407ETR

Scores by Interval



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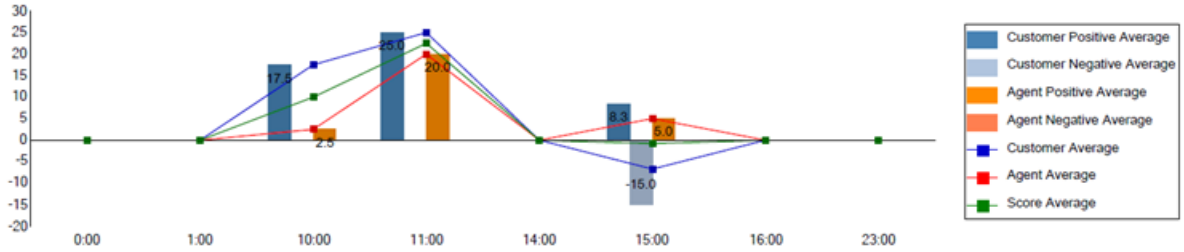
11:00										
	77676a13-5a1a-d025-8547-a4a9f5060001									
	00:01:38	Howard Frenkel	POC - 407ETR	45	25	20	25	0	20	0
14:00										
	0a5d6b13-0dde-d0ac-8547-a4a9f5060001									
	00:17:54	Howard Frenkel	POC - 407ETR	0	0	0	0	0	0	0

Workgroup Details

407ETR

Scores by Interval



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0:00										
	95306b13-366c-d040-8547-a4a9f5060001									
	00:16:47	Howard Frenkel	POC - 407ETR	0	0	0	0	0	0	0
1:00										
	f8316b13-c8a9-d021-8547-a4a9f5060001									
	00:03:19	Howard Frenkel	POC - 407ETR	0	0	0	0	0	0	0
10:00										
	9f646a13-bbcc-d09b-8547-a4a9f5060001									
	00:02:41	Justin Hawkins	POC - 407ETR	20	20	0	20	0	0	0
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	00:00:34	Justin Hawkins	POC - 407ETR	20	15	5	15	0	5	0
11:00										
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	00:01:38	Howard Frenkel	POC - 407ETR	45	25	20	25	0	20	0
14:00										
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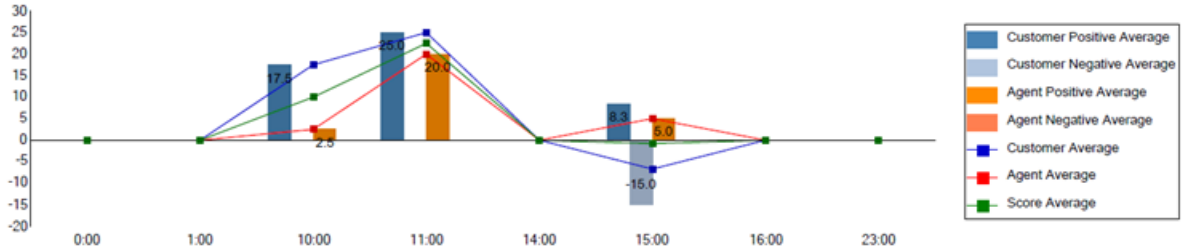
	00:17:54	Howard Frenkel	POC - 407ETR	0	0	0	0	0	0	0

Workgroup Details

407ETR

Scores by Interval



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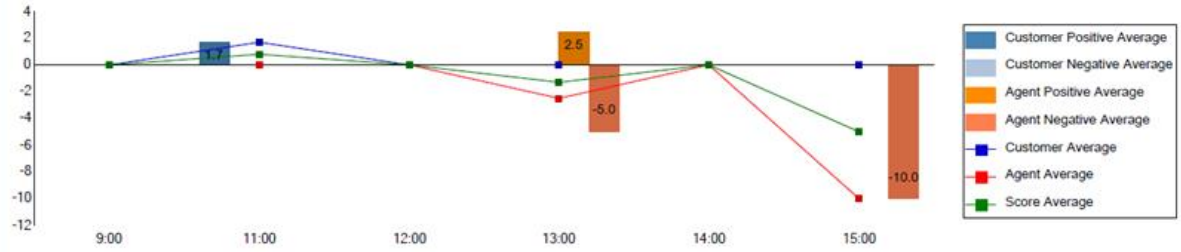
0:00										
	95306b13-366c-d040-8547-a4a9f5060001									
	00:16:47	Howard Frenkel	POC - 407ETR	0	0	0	0	0	0	0
1:00										
	f8316b13-c8a9-d021-8547-a4a9f5060001									
	00:03:19	Howard Frenkel	POC - 407ETR	0	0	0	0	0	0	0
10:00										
	9f646a13-bbcc-d09b-8547-a4a9f5060001									
	00:02:41	Justin Hawkins	POC - 407ETR	20	20	0	20	0	0	0
	ec646a13-bd2a-d035-8547-a4a9f5060001									
	00:00:34	Justin Hawkins	POC - 407ETR	20	15	5	15	0	5	0
11:00										
	77676a13-5a1a-d025-8547-a4a9f5060001									
	00:01:38	Howard Frenkel	POC - 407ETR	45	25	20	25	0	20	0
14:00										
	0a5d6b13-0dde-d0ac-8547-a4a9f5060001									
	00:17:54	Howard Frenkel	POC - 407ETR	0	0	0	0	0	0	0

Workgroup Details

ClientServices

Scores by Interval



	Recording Id Duration	Agent Name	Initiation Policy Name	Overall Score	Cust. Score	Agent Score	Cust. +	Cust. -	Agent +	Agent -
9:00										
	989a6b13-5e61-d0ff-8547-a4a9f5060001									
	00:08:18	David Ham	ClientServices Interactions	0	0	0	0	0	0	0
11:00										
	2b666a13-89cd-d0c2-8547-a4a9f5060001									
	00:02:14	David Ham	ClientServices Interactions	0	0	0	0	0	0	0
	95666a13-e767-d0ab-8547-a4a9f5060001									
	00:02:24	David Ham	ClientServices Interactions	0	0	0	0	0	0	0
	97166e13-4150-d02b-8c91-4236953f0001									
	01:15:07	David Ham	ClientServices Interactions	5	5	0	5	0	0	0
12:00										
	8ccc6d13-d05e-d073-8c91-4236953f0001									
	00:00:41	David Ham	ClientServices Interactions	0	0	0	0	0	0	0
	9acc6d13-d74c-d048-8c91-4236953f0001									
	00:00:05	David Ham	ClientServices Interactions	0	0	0	0	0	0	0
13:00										
	b21f6a13-f785-d0cf-89bc-3f43e91b0001									

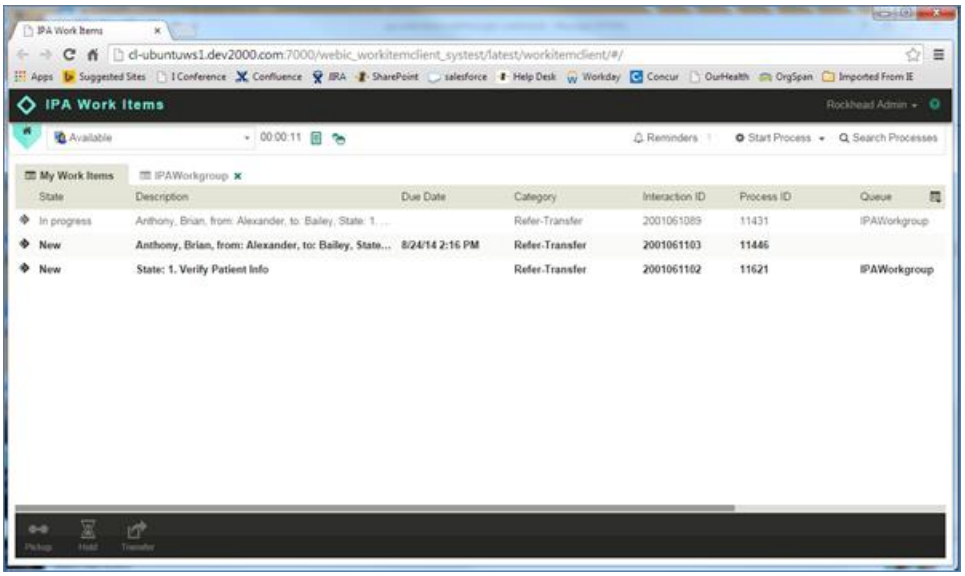
12/1/2014 10:39 AM *Analyzer Reports* Scoring Detail Page 2 of 25

Report Example 2

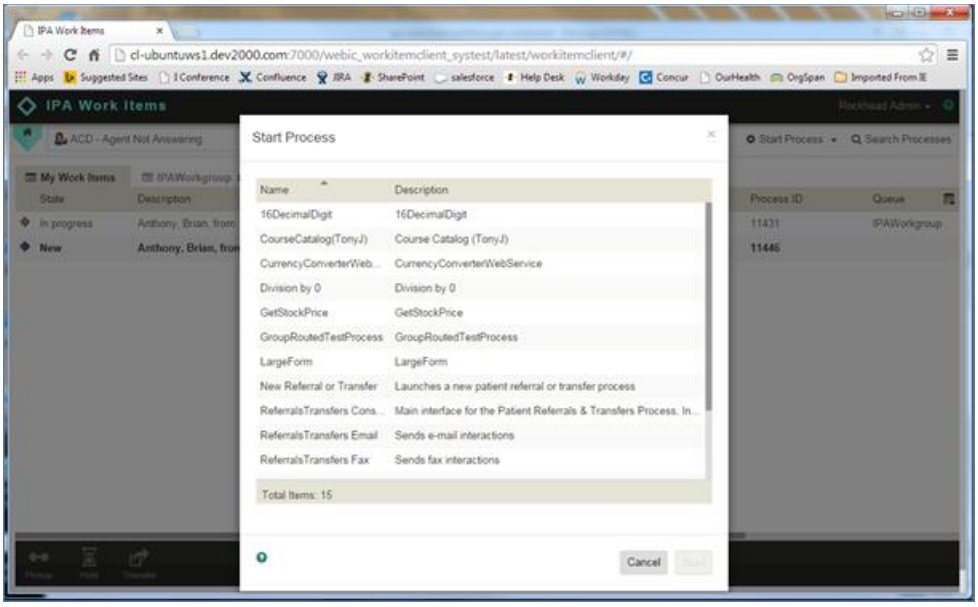
New IPA Stand-Alone Web Client

The new IPA Stand-Alone Web Client includes the IPA Work Item Client and the IPA Work Item Viewer. Those components are web-based, IPA-only applications for users who do not need the more full-featured Interaction Client .NET Edition.

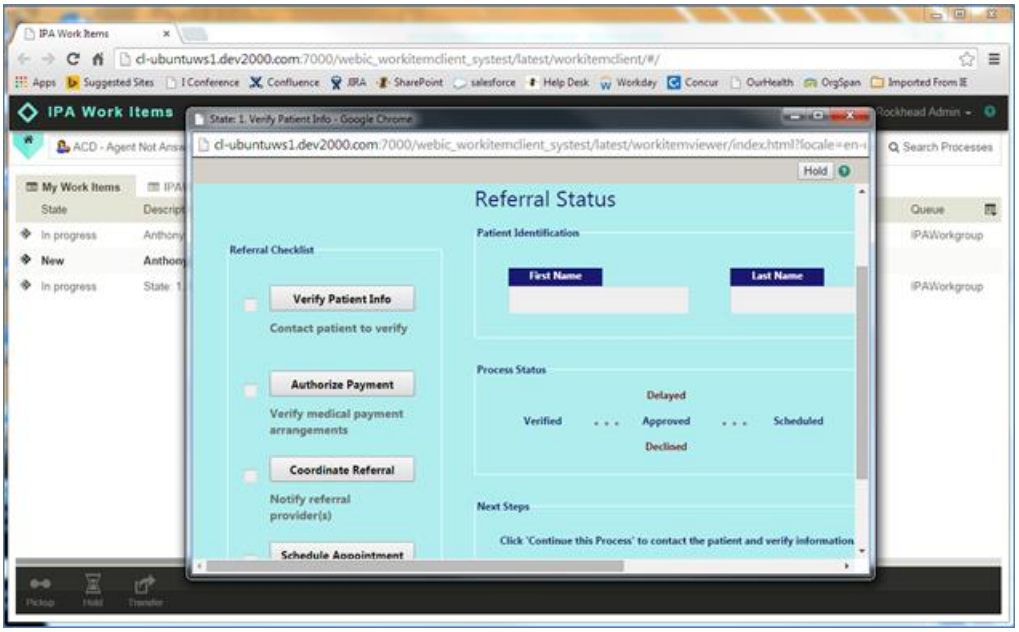
Functionality in the initial release focuses on managing work item interactions only. Users can pick up IPA work items, act on them, and then transfer them. They can also change their own statuses, activate or deactivate themselves in workgroups, and perform other tasks.



IPA Web Client Work Item Client



IPA Web Client Process Selection



IPA Web Client Work Item Viewer

Enhancements to Interaction Recorder Notification Events

This enhancement eliminates potential notification errors that are based on the state of the interaction. It improves the handling of notifications and ensures the correct action based on the state of the interaction.

Interaction Recorder watches for these interaction state updates:

- Connect
- Held
- PartyAdded
- Disconnected
- Transfer
- Consult Transfer

Interaction Recorder receives several of these updates in the course of an interaction, and the corresponding action depends on the correct state. Examples of actions that are based on the interaction state include:

- Determine whether an interaction should be recorded
- Stop recording.
- Pause a recording during a hold or transfer.
- Write hold and transfer updates to the database.

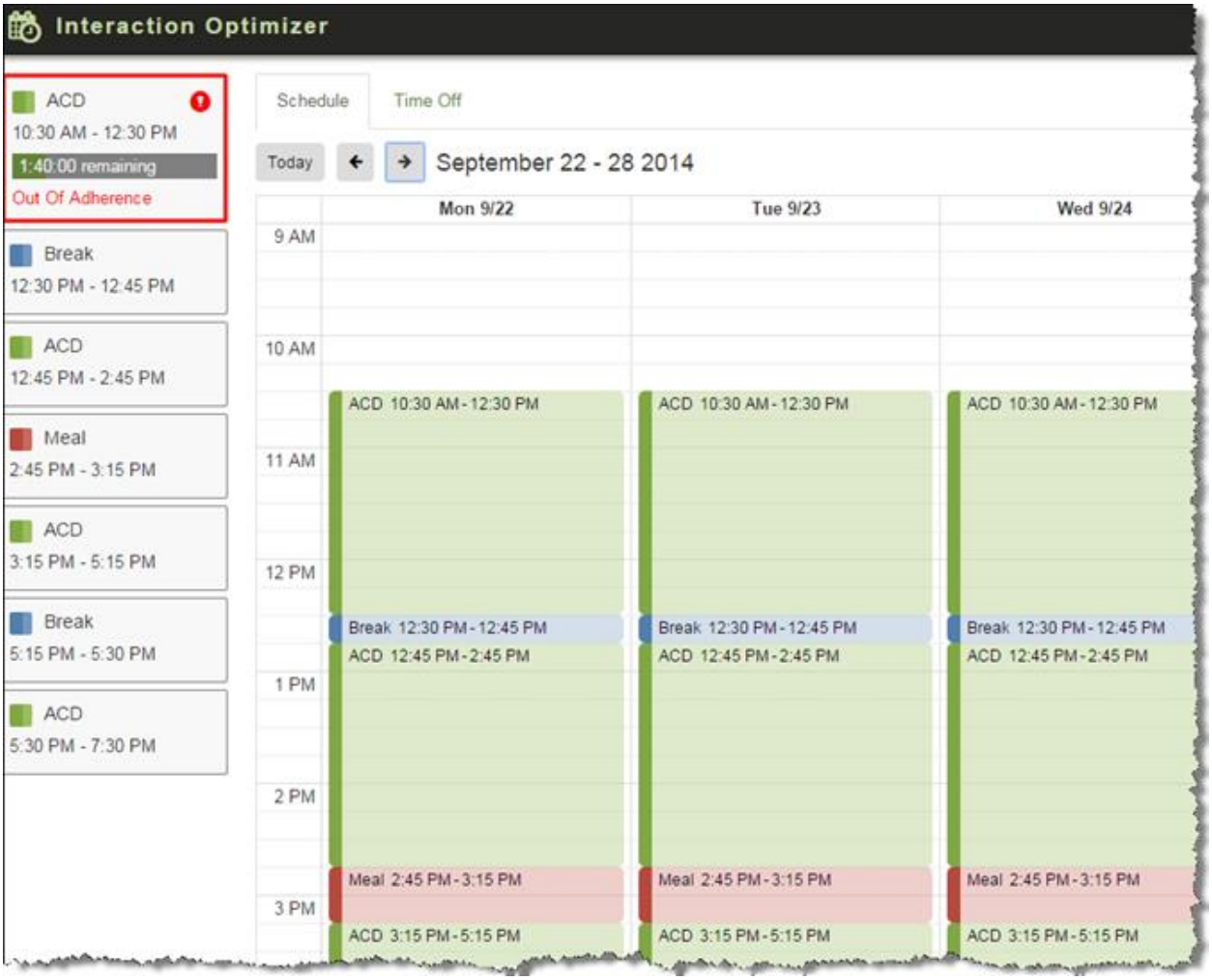
This enhancement does the following:

- Improves accuracy in handling recorded interactions.
- Provides more accurate recording query results.
- Improves reporting and tracking data.
- Allows for a more accurate, quality evaluation of recorded interactions.

Interaction Optimizer Time-off Planning for Agents with Enhanced My Schedule View

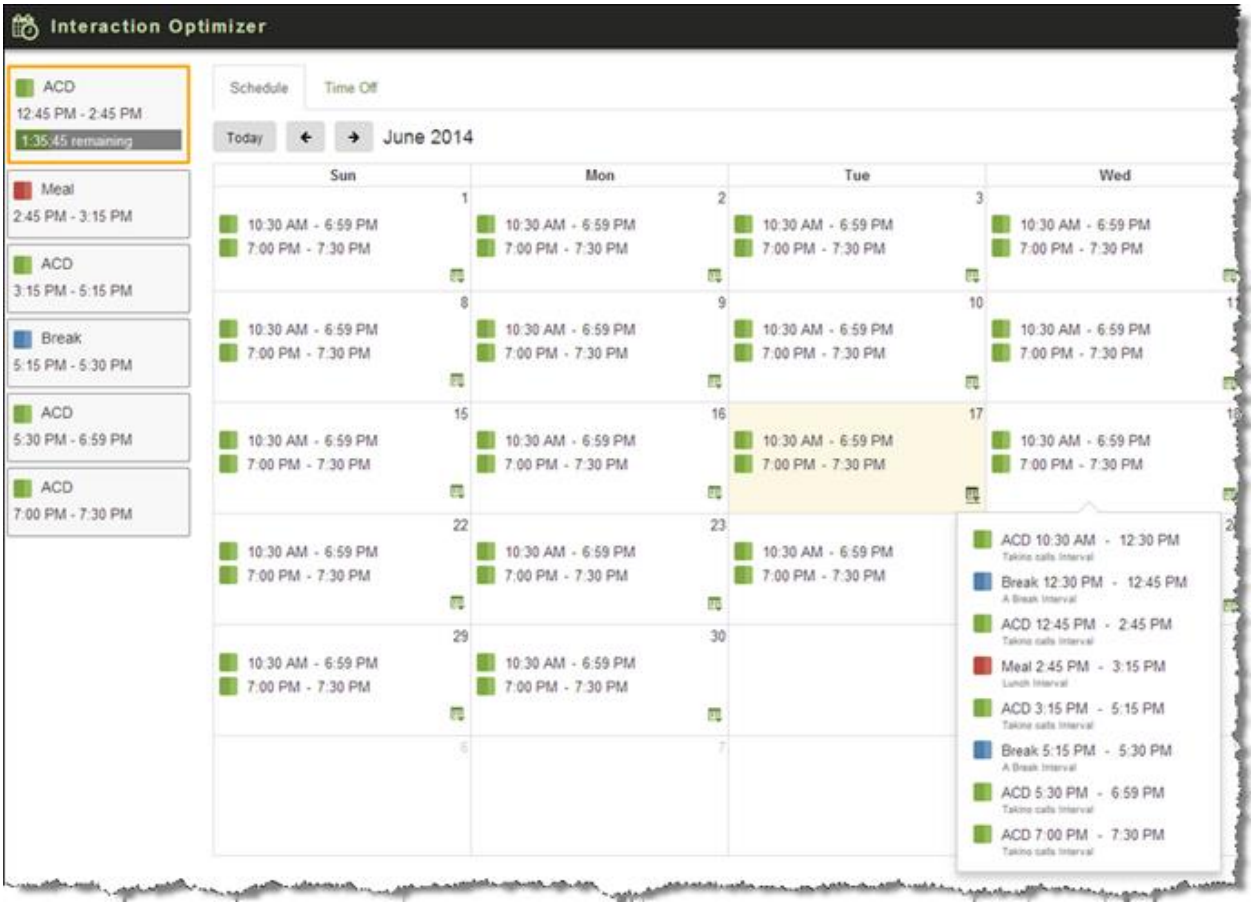
The Time-off Planning for Agents and the enhanced My Schedule view features allow agents to view their schedules and includes agent adherence status. Agents can plan their time off, based on the amount of time allotted for their coverage group compared to the amount of time the agent has accrued. The new features can be deployed as part of the .NET Client, as part of CIC web applications, or, if configured, as a stand-alone website that agents can access remotely. All deployment options require the use of a web server.

To assist agents with schedule adherence, the left side of the new My Schedule feature shows agents their current day's schedule, their current adherence status, and a countdown until their next status change.



Interaction Optimizer Schedule

Agents can also view their schedule in the week, month, or list formats and, they can access it from a website if it's configured.



Interaction Optimizer Schedule Week Format

New Features in 4.0 SU6

New Features in 4.0 SU6

This section lists some of the main features that are new in CIC 4.0 SU6.

Performance Improvements

Based on partner and customer feedback and significant testing efforts, SU6 includes functionality, scalability, and supportability improvements in many areas, including the following:

- Interaction Recorder and Interaction Quality Manager
- Interaction Reporter, CIC reports, and underlying data
- Session Manager
- Stat Alert Server (the subsystem that watches statistics in real time and generates alerts per users' specifications)

- Interaction Process Automation

ICWS (Interaction Center Web Services) SDK

This SU includes the initial release of the Interaction Center Web Services (ICWS) SDK. ICWS is a RESTful API for web, mobile, and desktop client applications. This initial release includes a limited set of APIs. Future SUs will provide more functionality.

All of our next-generation web applications, including Web Client and Web Administrator, use this SDK. Those applications will release in future service updates.

The ICWS SDK comes with documentation and sample applications, and it requires the IceLib/ICWS license. Customers who already have an IceLib license can use ICWS, as IceLib and ICWS share a license.

Polycom VVX 4.1.6 Firmware

Customer Interaction Center now supports Polycom Firmware 4.1.6. The new expansion modules available on the VVX500 and VVX600 models require this firmware.

Interaction Client Web Edition Authentication and Legal Banner

The Interaction Client Web Edition now supports the authentication settings that were added in CIC 4.0 SU2. These authentication settings allow a system administrator to configure the use of Windows authentication, Interaction Center authentication, or both. Interaction Client Web Edition also now supports a legal notification banner, which is configurable in Interaction Administrator. This banner appears prior to logging on and the user has to accept it before accessing the client application.

Japanese Localization for Interaction Client Mobile Web Edition

Interaction Client Mobile Web Edition now includes Japanese localization.

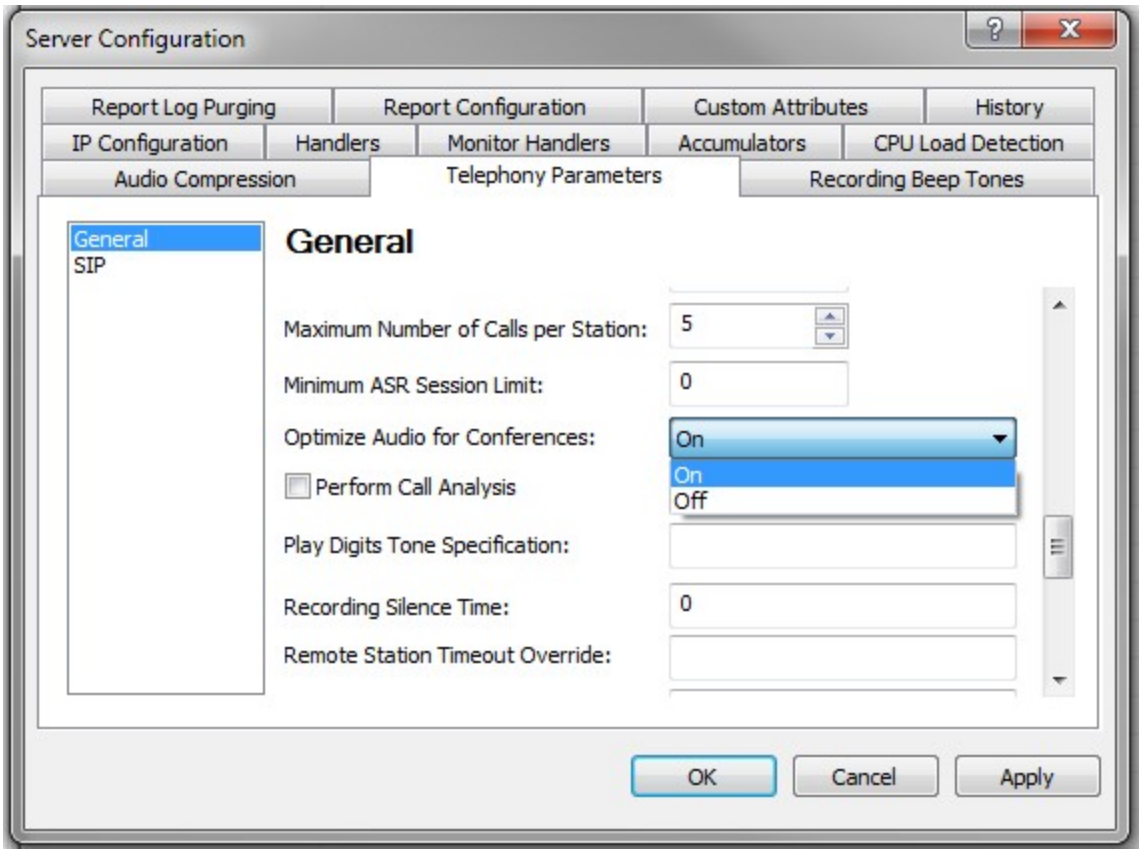
Web Chat Transcripts

End-customers can now request a transcript of a chat session by providing their email address. The system automatically emails the transcript after the chat session with the agent ends.

Echo Cancellation Configuration

CIC 4.0 SU5 introduced echo cancellation and dominant speaker detection for conference calls hosted through Interaction Media Server. In CIC 4.0 SU6, an administrator can globally enable or disable this feature in Interaction Administrator.

The configuration option, **Optimize Audio for Conference**, appears on the **Telephony Parameters** tab of the **Server Configuration** dialog box. It globally controls dominant speaker detection with echo cancellation for conference calls.

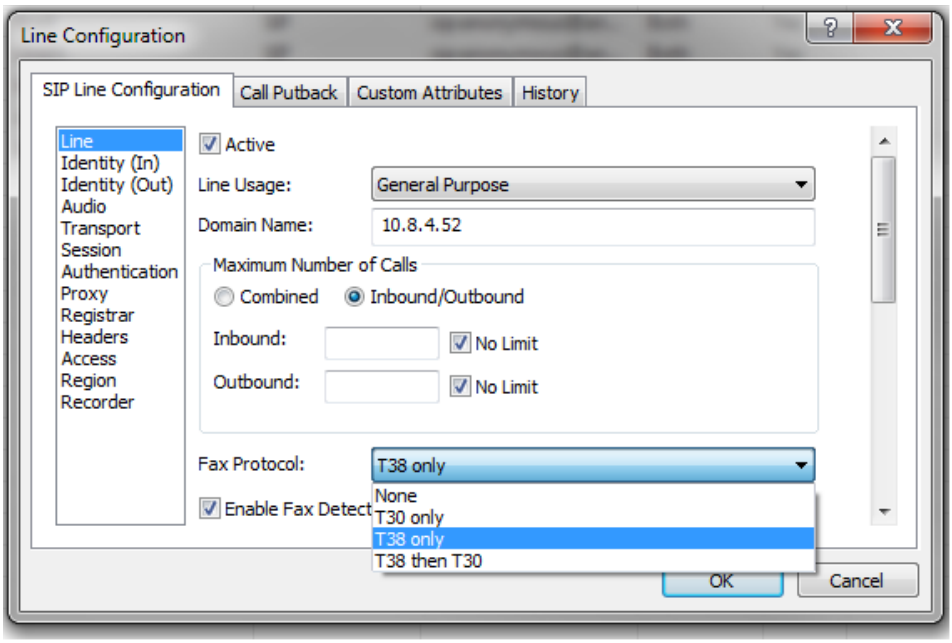


New Option to Configure Global Dominant Speaker Detection

Support for G.711 Faxing (T.30)

Support for G.711 Fax (T.30 Fax) is new in CIC 4.0 SU6. Many SIP carriers do not support, or are discontinuing support, for the T.38 fax-over-IP standard (T.30 encapsulation). Receiving fax calls in these scenarios requires T.30 fax support. As of this service update, you can now receive faxes from carriers that do not support T.38.

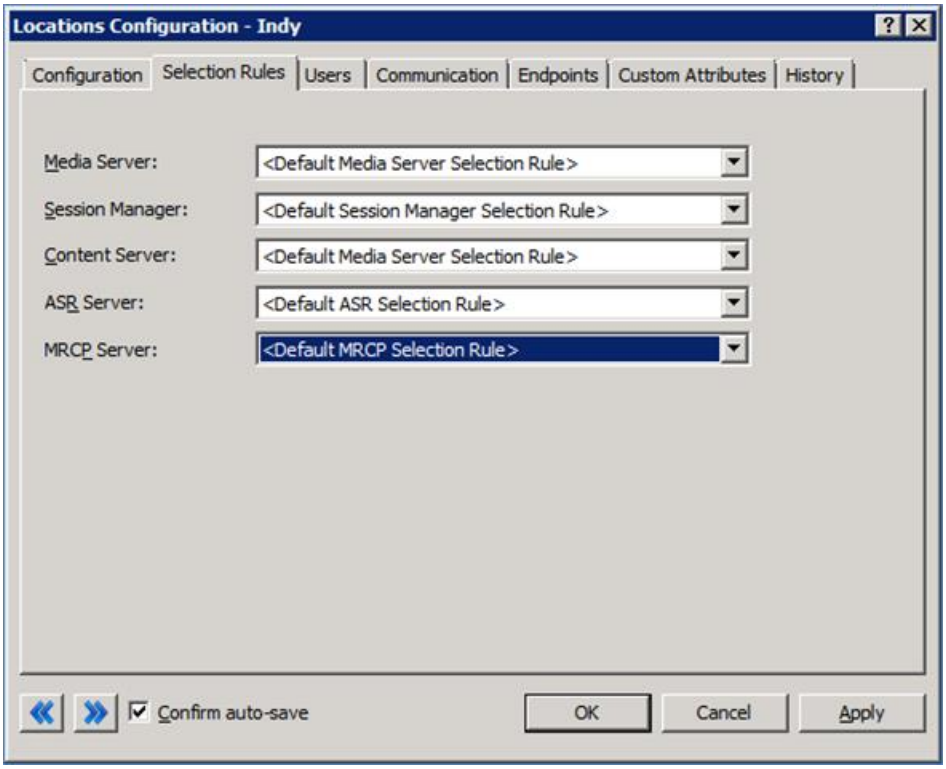
Through Interaction Administrator, you can set your fax protocol preference to T.30, T.38, or T.38 followed by T.30. If the carrier or gateway does not support T.38, then the latter option automatically falls back to T.30. This fax protocol setting is available in line configuration, default station configuration, and station configuration.



T.30 Configuration

MRCP Regionalization and Selection Rules

Interaction Center now supports the use of selection rules for MRCP servers configured in Interaction Administrator. Users can now configure rules that determine which MRCP server locations to use. Selection of MRCP servers is then based on the location where the audio will be streamed. Previously, the rules for selecting an MRCP server were not customizable, and preferred fallback locations were not configurable.



MRCP Regionalization Configuration

Workforce Optimization Enhancements

Workforce Optimization Enhancements

New Analyzer Language Models

Interaction Analyzer now includes a French (European) language model, which allows keyword spotting in French.

It now also includes Japanese and Spanish (European) language models for keyword spotting in those languages, but those models are currently only available as part of the beta program.

Improved Analyzer Accuracy

Interaction Analyzer has an improved keyword detection accuracy rate and a decreased false identification rate using a new Linear Discriminant Analysis (LDA) model. As of this release, the following languages are supported under the new LDA model: German, UK English, US English, Dutch, Polish, Brazilian Portuguese, and Turkish.

Remote Content Server (RCS) Regionalization

Interaction Recorder now provides optional settings for the RCS to set regional locations in Interaction Administrator.

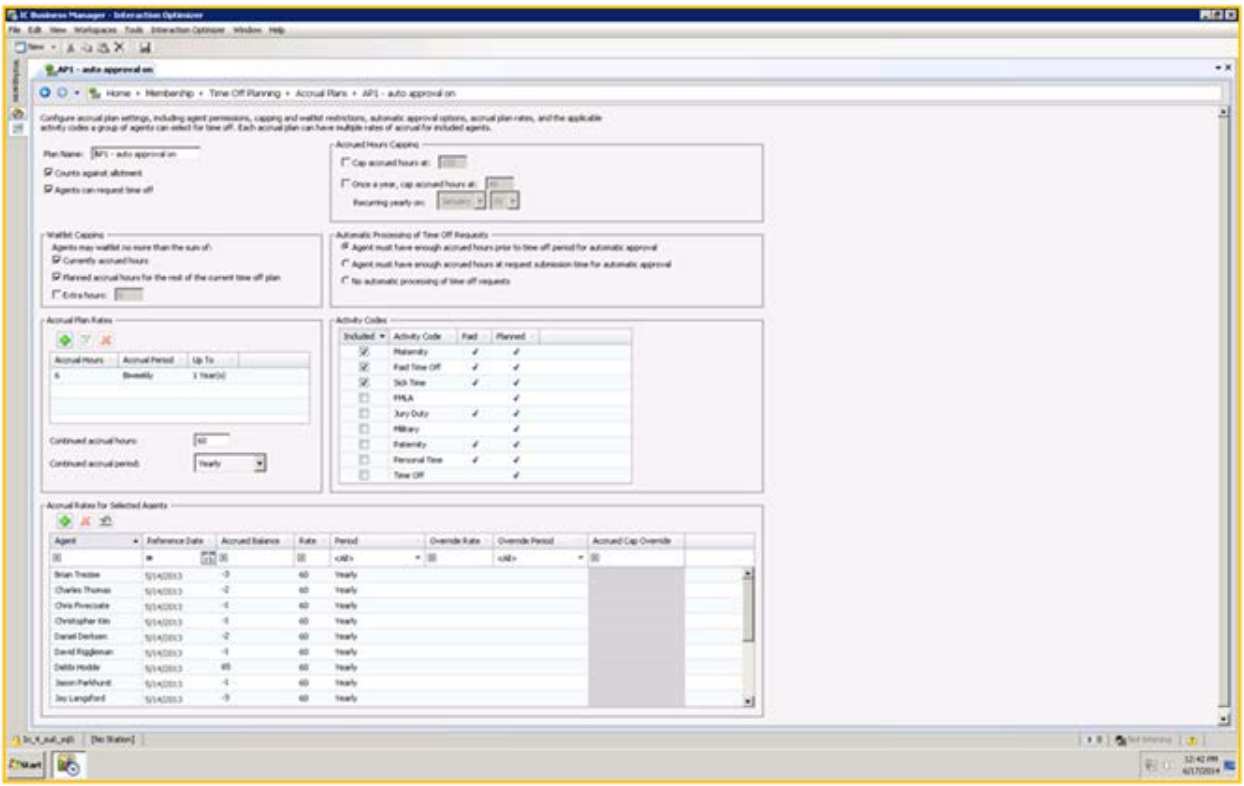
A new option allows for the dedication of an RCS for screen or media recording.

RCS location fallback rules now provide more intelligence to the RCS bidding process. When the IRServer receives the new set of fallback rules, it can determine the set of RCS candidates and perform a round-robin type of load balancing for the selected RCSs in those regions. Interaction Recorder Server considers the amount of free space on each RCS. If the amount of free space on an RCS is below the minimum (5 GB), then that RCS is excluded from the round-robin selection. However, if every RCS in the region is below the minimum, then Interaction Recorder Server selects the RCS with the most available free space.

Optimizer Time-off Planning for Administrators

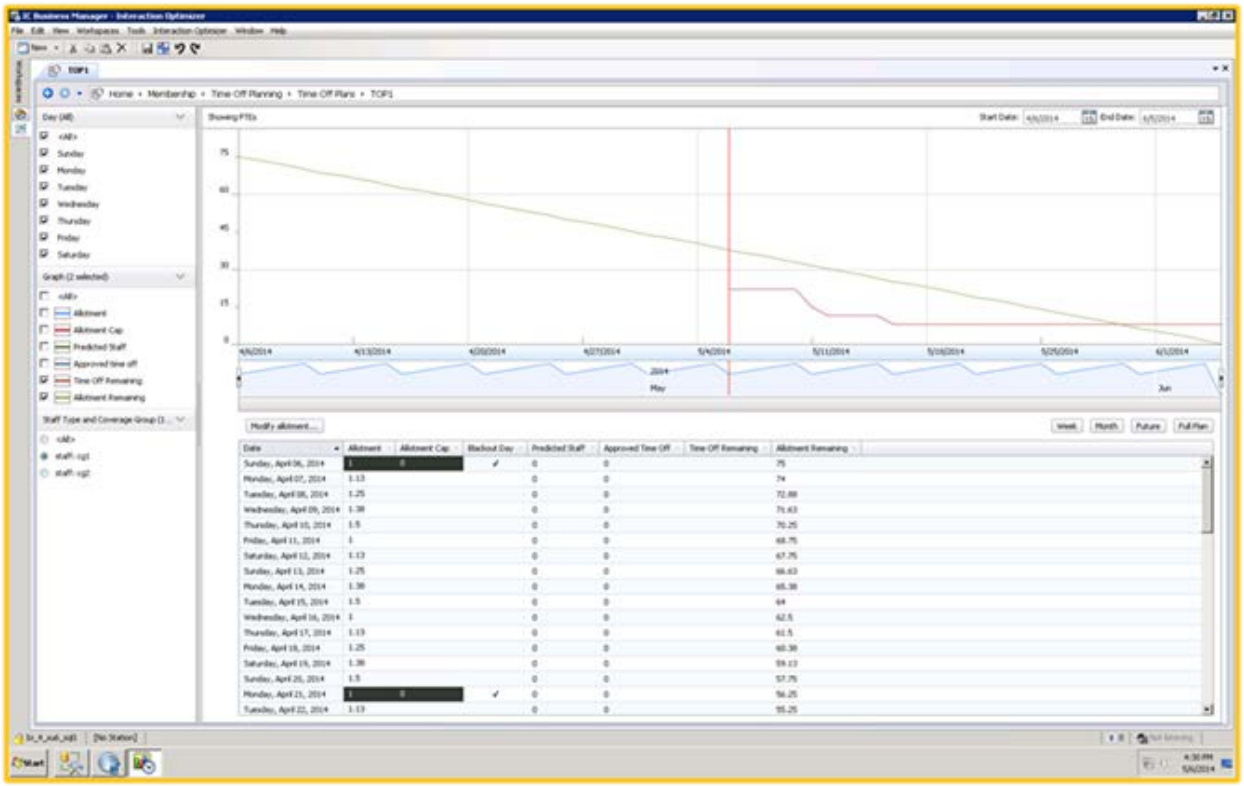
The time-off planning feature enables the automated approval of agent time-off requests, which were previously manually approved by the administrator. Approvals are based on a time-off coverage group's allocation of time for a specific activity code, and an agent's allotment of time off. Optimizer automatically approves time-off requests submitted by agents if both balances are positive, and it declines or wait-lists time-off requests if one or both balances are negative.

Optimizer uses time-off accrual rates to determine the allowable time-off for each agent during all of the active time-off plans for an activity code or codes. An agent's accrual balance increases automatically based on the agent's reference date and the accrual rates that apply to the activity code or codes.



Interaction Optimizer Automated Approvals

Interaction Optimizer uses time-off allotment amounts to determine the amount of time available within a time-off coverage group. Allotments are configurable by the administrator, and are based on a representative schedule week and the predicted staffing levels within the coverage group. Other means of modifying allotment amounts include manual adjustments, setting allotment caps, clearing allotment caps, and setting allotments to a percentage of the predicted staff. Within each plan, administrators can monitor various time-off metrics, such as time-off remaining, allotment remaining, and approved time off.

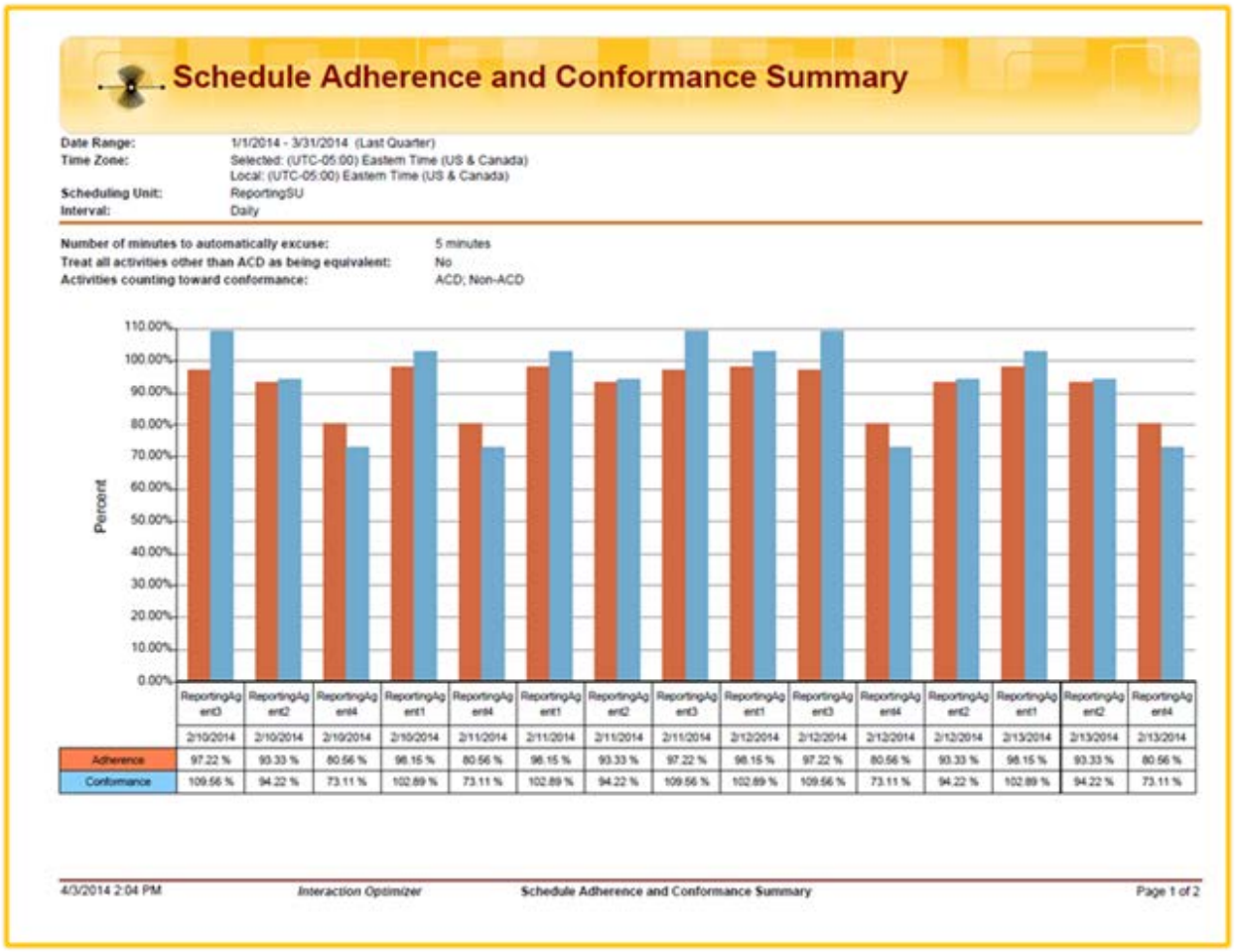


Interaction Optimizer Time-off Metrics

Optimizer Schedule Adherence and Conformance Reports

Interaction Reporter includes two new Interaction Optimizer reports: *Schedule Adherence and Conformance Summary*, and *Schedule Adherence and Conformance Detail*. These reports replace the existing schedule adherence report and include various improvements, such as ease of use and the addition of a schedule conformance metric. Schedule adherence measures the amount of time an agent follows his or her schedule related to the correct time of an event. Schedule conformance measures the percentage of time that an agent follows his or her schedule related to the amount of time of an event.

The *Schedule Adherence and Conformance Summary* report displays daily totals for both adherence and conformance, in both grid and graphical format.



Schedule Adherence and Conformance Summary

Date Range: 1/1/2014 - 3/31/2014 (Last Quarter)
Time Zone: Selected: (UTC-05:00) Eastern Time (US & Canada)
Local: (UTC-05:00) Eastern Time (US & Canada)
Scheduling Unit: ReportingSU
Interval: Daily

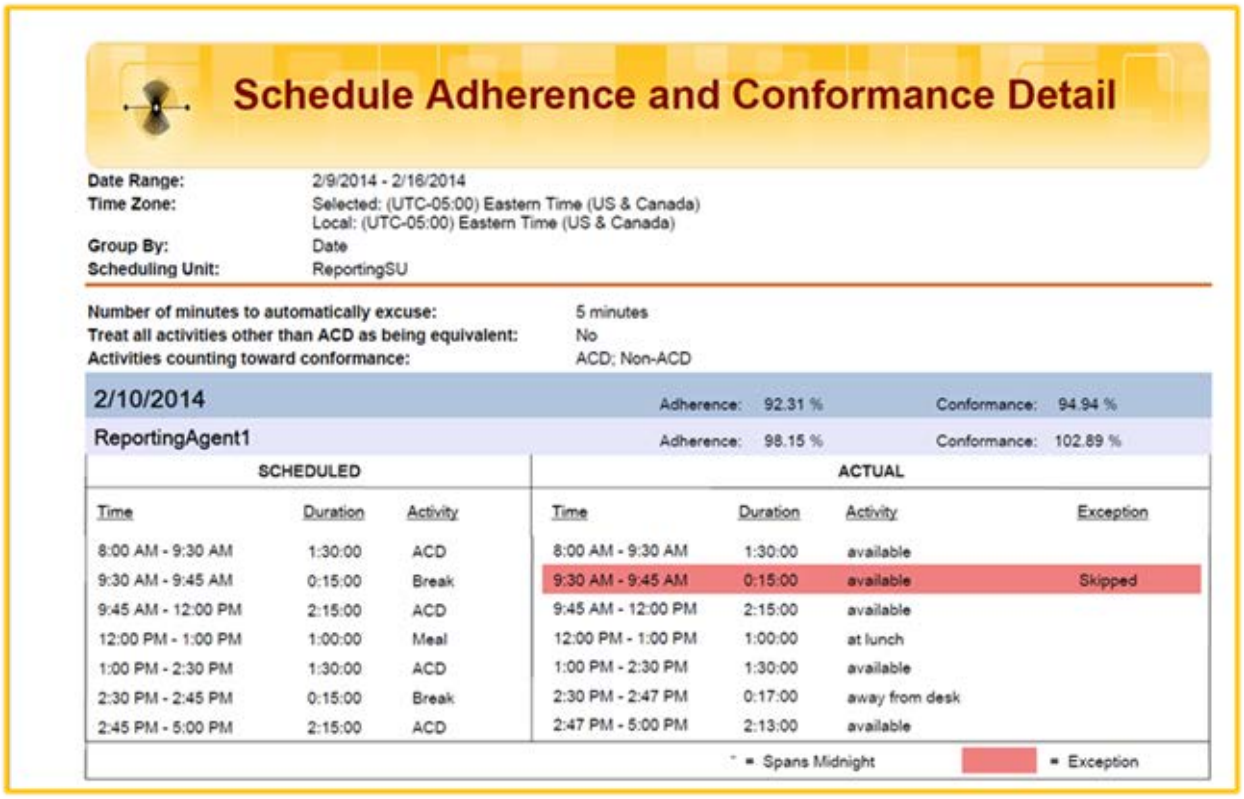
Number of minutes to automatically excuse: 5 minutes
Treat all activities other than ACD as being equivalent: No
Activities counting toward conformance: ACD; Non-ACD

	ReportingAgent3	ReportingAgent2	ReportingAgent4	ReportingAgent1	ReportingAgent4	ReportingAgent1	ReportingAgent2	ReportingAgent3	ReportingAgent1	ReportingAgent3	ReportingAgent4	ReportingAgent2	ReportingAgent1	ReportingAgent2	ReportingAgent4
	2/10/2014	2/10/2014	2/10/2014	2/10/2014	2/11/2014	2/11/2014	2/11/2014	2/11/2014	2/12/2014	2/12/2014	2/12/2014	2/12/2014	2/13/2014	2/13/2014	2/13/2014
Adherence	97.22 %	93.33 %	80.56 %	98.15 %	80.56 %	98.15 %	93.33 %	97.22 %	98.15 %	97.22 %	80.56 %	93.33 %	98.15 %	93.33 %	80.56 %
Conformance	109.56 %	94.22 %	73.11 %	102.89 %	73.11 %	102.89 %	94.22 %	109.56 %	102.89 %	109.56 %	73.11 %	94.22 %	102.89 %	94.22 %	73.11 %

4/3/2014 2:04 PM *Interaction Optimizer* **Schedule Adherence and Conformance Summary** Page 1 of 2

Schedule Adherence and Conformance Summary Report

The *Schedule Adherence and Conformance Detail* report displays detailed data for each day, and identifies each out-of-adherence event.



Schedule Adherence and Conformance Detail

Date Range: 2/9/2014 - 2/16/2014
Time Zone: Selected: (UTC-05:00) Eastern Time (US & Canada)
Local: (UTC-05:00) Eastern Time (US & Canada)
Group By: Date
Scheduling Unit: ReportingSU

Number of minutes to automatically excuse: 5 minutes
Treat all activities other than ACD as being equivalent: No
Activities counting toward conformance: ACD; Non-ACD

2/10/2014 Adherence: 92.31 % Conformance: 94.94 %

ReportingAgent1 Adherence: 98.15 % Conformance: 102.89 %

SCHEDULED			ACTUAL			
Time	Duration	Activity	Time	Duration	Activity	Exception
8:00 AM - 9:30 AM	1:30:00	ACD	8:00 AM - 9:30 AM	1:30:00	available	
9:30 AM - 9:45 AM	0:15:00	Break	9:30 AM - 9:45 AM	0:15:00	available	Skipped
9:45 AM - 12:00 PM	2:15:00	ACD	9:45 AM - 12:00 PM	2:15:00	available	
12:00 PM - 1:00 PM	1:00:00	Meal	12:00 PM - 1:00 PM	1:00:00	at lunch	
1:00 PM - 2:30 PM	1:30:00	ACD	1:00 PM - 2:30 PM	1:30:00	available	
2:30 PM - 2:45 PM	0:15:00	Break	2:30 PM - 2:47 PM	0:17:00	away from desk	
2:45 PM - 5:00 PM	2:15:00	ACD	2:47 PM - 5:00 PM	2:13:00	available	

* = Spans Midnight = Exception

Schedule Adherence and Conformance Detail Report

Vocalizer 6.0 MRCP Testing

Support for Nuance Vocalizer 6.0 TTS is now available for use with MRCP in CIC 4.0.

New Features in SU5

This section lists some of the main features that are new in CIC 4.0 SU5.

New Features in 4.0 SU5

New Features in 4.0 SU5

This section lists some of the main features that were added in SU5.

Platform Performance Improvements

SU5 includes significant performance improvements to Admin Server to reduce CPU usage and the time required to perform inheritance calculations. Interaction Center's inheritance model includes Default User, User, Workgroups, and Roles. When administrative changes are made, the system has to recalculate the effective rights for users. This inheritance calculation is optimized to reduce load on the IC server.

Enhancements also reduce system load for environments with a lot of chat interactions waiting in queue. The changes improve the way in which these in-queue interactions are handled.

Call Recovery Improvements

Call Recovery was introduced in CIC 4.0 SU4. When this feature is activated, the primary server automatically sends data to the backup server for each call interaction that is created on the primary server. If a switchover occurs, the call recovery feature uses the data on the backup server to attempt to regain control of the call interactions. There are

caveats to which environments can use this feature. For a list of scenarios, see the *Call Recovery Feature Technical Reference* in the CIC 4.0 Documentation Library.

The call recovery improvements add more functionality to the call resiliency feature by processing inbound alerting calls that were previously disconnected upon switchover. Now, those interactions continue to be processed during a switchover.

Echo Cancellation Support for Media Server Conferencing

Distributed conferences, a feature that was released in CIC 4.0 SU4, added the ability to scale conferences to nearly unlimited numbers by incorporating multiple media servers in a single conference. With this conferencing improvement also came the need to improve the signaling and overall conference experience. Previously, letting the endpoints do the signal conditioning and echo canceling was enough. Increasing the size of the conferences also increased any signal issues as well. To enhance the call quality of conferences, SU5 adds echo cancellation and other configurable improvements. Echo cancellation is disabled by default. To configure this feature, refer to the *Interaction Media Server Technical Reference* in the CIC Documentation Library.

New SNMP Stack and Network Management Framework

Simple Network Messaging Protocol (SNMP) is used to manage systems on the network by communicating information from SNMP-compliant network elements to an SNMP monitoring application. The new i3snmp stack standardizes network management interfaces. The i3snmp stack is an Interactive Intelligence library that provides full support of SNMPv1 and SNMPv2 message formats in both agent and manager modes. The i3snmp stack has subagents that allow for configuration, access privileges, and notifications specific to Interactive Intelligence subsystems. This change enables the consistent implementation of management information agents across all Interactive Intelligent products.

Switchover Improvements

Switchover Improvements

The switchover process in SU5 is optimized to perform better when the primary and the backup server connect across a WAN connection. With the **Switchover Over WAN** setting enabled, the initial synchronization process behaves differently. Instead of sending data between the primary and backup servers in small chunks, the process now sends data to the backup server in larger portions, resulting in overall smaller latency.

There are still limitations in the functionality that is supported in this WAN deployment model. For more information about this deployment model and the limitations, see the IC Automated Switchover System Technical Reference in the CIC Documentation Library.

Switchover Upgrade State in SU5 now works when the servers have different ESs applied. Switchover detects a difference in the ES level on both servers and starts in Upgrade State, which means that there is limited replication. For more information about Upgrade State and the data replication in that state, see the *IC Automated Switchover System Technical Reference* in the CIC Documentation Library.

Scalability Improvements to Resiliency of Email Messages during Switchover

SU5 includes switchover resiliency improvements for email interactions. This functionality improves the user experience related to switchover events. Users are informed of potential delays following a switchover event, and they see a progress bar to indicate the time remaining before they can resume work on email interactions.

The amount of time required for this process is related to the latency to the email platform and the number of emails to recover after the switch.

Single Sign-On for Icelib based applications

Interaction Center architecture now supports single sign-on (SSO) capability for authentication through IceLib-based applications like Interaction Client .NET Edition and IC Business Manager. The SSO functionality is based on SAMLv2 and can be used to authenticate to a Microsoft Active Directory by installing ADFS on the domain.

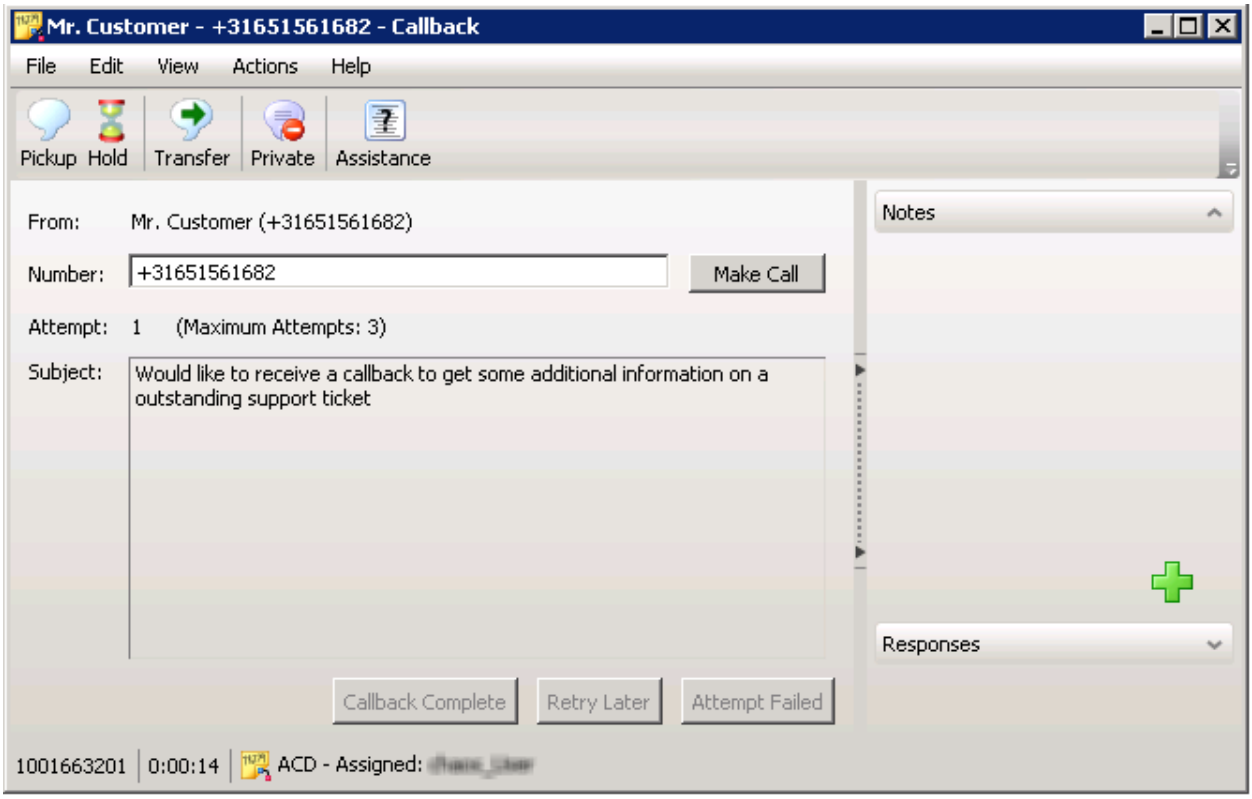
SSO is supported with ADFS and other SAMLv2-based identity providers using Integrated Windows Authentication.

Interaction Client .NET Edition – Callback Disposition and Retry

The agent side interface for callback requests changed in SU5. The **Disconnect** button was removed from the toolbar. The **Call Succeeded** and **Call Failed** buttons on the form are replaced by **Callback Complete**, **Retry Later**, and **Attempt Failed** buttons. Removing the **Disconnect** button forces agents to end the callback attempt by selecting one of the new form buttons. Use of the buttons indicates the disposition of the callback session for reporting purposes.

Callback retry functionality is new. If one or more attempts to reach the callback requester are not successful, agents can click the new **Retry Later** button to put callback requests into a snoozed state. A snoozed callback interaction is removed from the agent's queue and routed back to the appropriate workgroup queue. The interaction remains there until a configured interval passes and it is then routed back to an available agent. The CIC administrator configures the following:

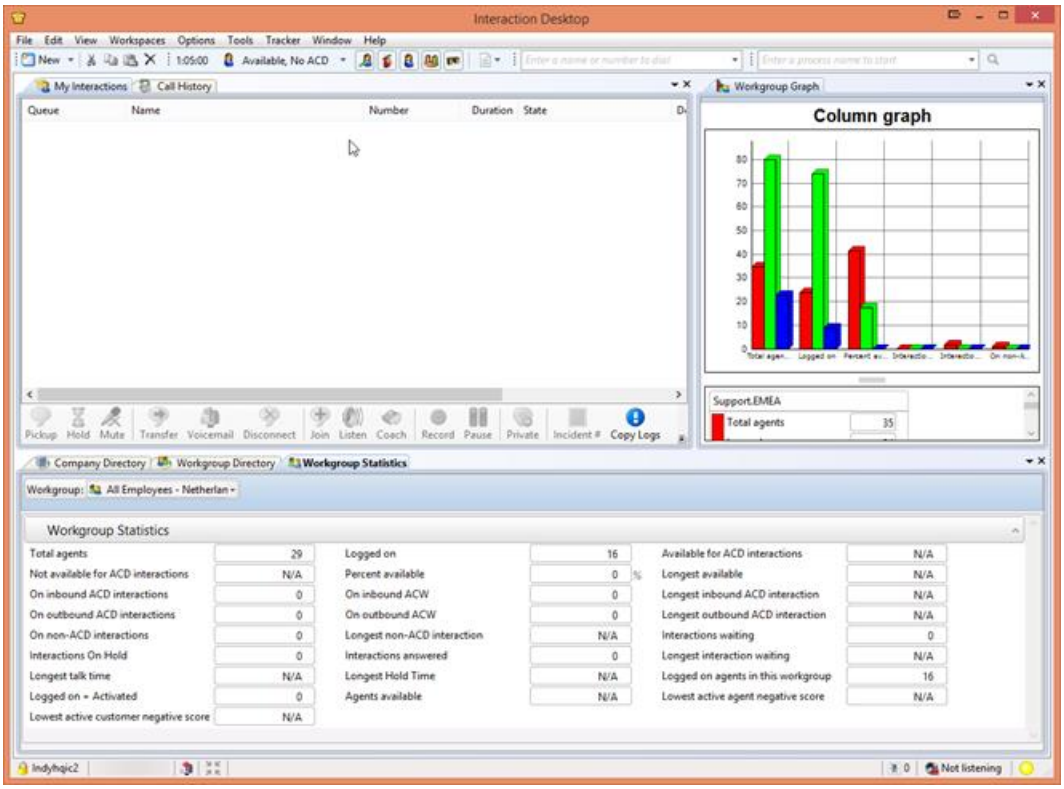
- Whether this feature is enabled
- The number of retry attempts allowed
- How long a snoozed callback request remains on the workgroup queue before it is routed back to an available agent



New Callback Form including 'Retry Later' Option

Interaction Desktop

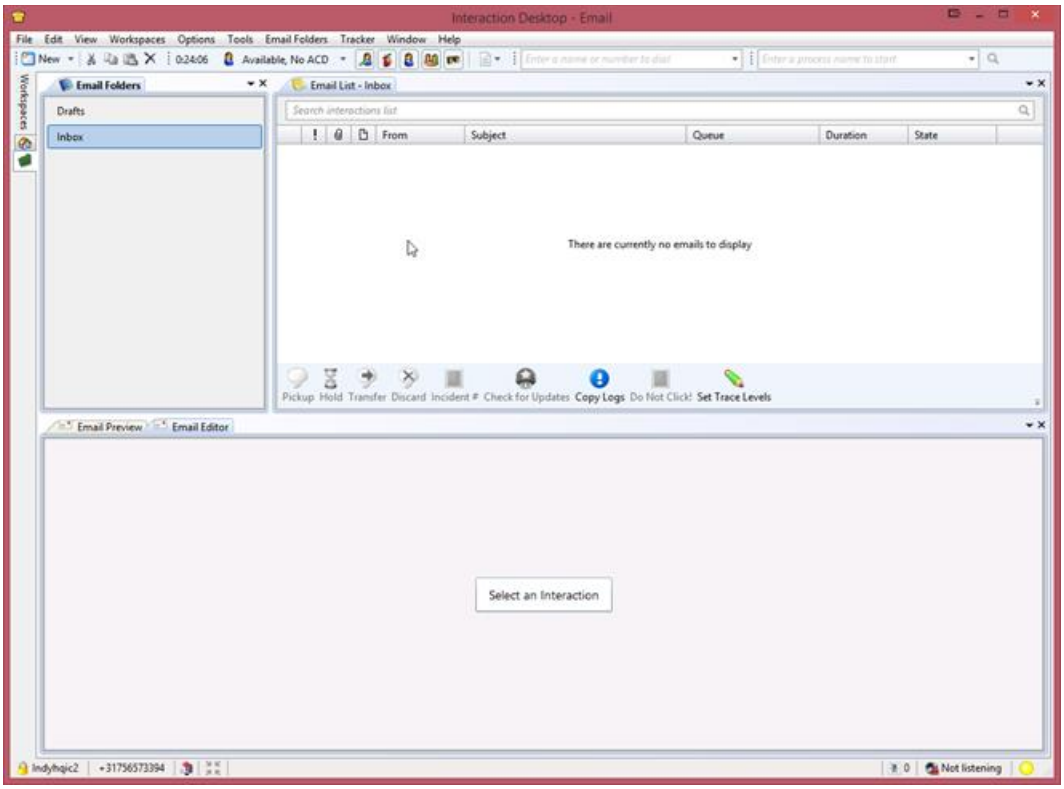
This SU introduces a new user application named Interaction Desktop, which combines Interaction Client .NET Edition and IC Business Manager. The application allows users to combine Interaction Client with Interaction Supervisor views in a single application. Adding a tab with statistics or graphs next to the **My Interaction** view is possible with Interaction Desktop. Each user can configure Interaction Desktop according to their own needs, and can use a single application to receive calls and manage the contact center.



Interaction Desktop

Interaction Desktop comes with some specific email handling capabilities, which the Interaction Client .NET Edition doesn't have. Interaction Desktop has specific email-related views allowing users to create a layout that is easier and designed to handle larger number of emails.

The following screen shows a sample Interaction Desktop layout designed for email handling:



Interaction Desktop Email Handling Layout

Email Folders view (left pane): This view displays the user's assigned email messages and the email messages to which they are responding. The user can add folders based on a specific queue.

Email List view (right pane): This view displays the email messages from the selected folder view.

Email Editor (bottom pane): The editor for responding to email messages.

The user selects an email interaction from the **Email List** view, and then responds to that email message in the **Email Editor**, instead of opening email messages in a separate window.

Interaction Desktop in SU5 is a beta release. We expect Interaction Desktop to become generally available in one the next service updates. If you are interested in using Interaction Desktop (which exists side by side with Interaction Client), contact Product Management at productmanagement@inin.com for details on how to enable and use Interaction Desktop.

Interaction Client Web Edition

Interaction Client Web Edition

Generic Object Support

SU5 adds the ability to receive and handle generic objects in Interaction Client Web Edition. Generic objects can be routed through ACD Server just like any other media type and assigned to users. For more information about the configuration and use of generic objects, see the *IC ACD Processing Technical Reference* and the Interaction Designer Help in the CIC Documentation Library.

Callback Object Support

Interaction Client Web Edition now includes support for callback objects. Interaction Center can route Callback Objects to agents using the Interaction Client Web Edition.

Interaction Client Web Edition also includes the functionality described in the section Interaction Client .NET Edition – Callback Disposition and Retry.

Web Farm/Web Cluster Support

Interaction Client Web Edition in SU5 includes some changes that improve the behavior of the web client when deployed in a web farm or cluster. Before, a user had to reauthenticate once a connection switched from one web server to another. Starting with SU5, there is no longer a requirement to reauthenticate. This change improves user experience for deployments in web farms and web clusters.

Reporting and Interaction Reporter

Reporting and Interaction Reporter

Interaction Reporter Parameters Page

Changes to the Interaction Reporter parameters page should improve the user's experience and provide consistency when running reports.

New Dialer Reports

Two Dialer reports are new to Interaction Reporter in SU5:

- The Dialer Agent Disposition Summary report provides agent-assigned call dispositions by agent, with analysis of call counts and call lengths by disposition.
- The Dialer Agent Utilization by Campaign report provides agent time usage on Dialer-related tasks per campaign.

Agent Disposition Summary

Record count(s): 20
Report query time: 00:00:01.7093734

DateTime: 6/23/2013 12:00:00 AM - 6/29/2013 11:59:59 PM (Last Week)
Campaign: OracleCampaign1
Site ID: CustomerSite

Campaign: OracleCampaign1 **Dialer site:** CustomerSite

Category	Category code	Calls			Call Length			
		#	% Total	% Category	Total	Average	% Total	% Category
User1								
Llamada exitosa	Codigo llamada exitosa	3,024	50.0	100.0	1:16:43:52	00:00:48	49.9	100.0
Llamada sin exito	Codigo llamada sin exito	3,026	50.0	100.0	1:16:49:43	00:00:49	50.1	100.0
		6,050	100.0		3:09:33:35	00:00:49	100.0	
User10								
Llamada exitosa	Codigo llamada exitosa	3,010	49.9	100.0	1:16:43:40	00:00:49	49.9	100.0
Llamada sin exito	Codigo llamada sin exito	3,021	50.1	100.0	1:16:48:48	00:00:49	50.1	100.0
		6,031	100.0		3:09:32:28	00:00:49	100.0	
User2								
Llamada exitosa	Codigo llamada exitosa	3,075	50.8	100.0	1:17:21:32	00:00:48	50.6	100.0
Llamada sin exito	Codigo llamada sin exito	2,980	49.2	100.0	1:16:20:32	00:00:49	49.4	100.0
		6,055	100.0		3:09:42:04	00:00:49	100.0	
User3								
Llamada exitosa	Codigo llamada exitosa	3,013	49.7	100.0	1:16:49:28	00:00:49	50.0	100.0
Llamada sin exito	Codigo llamada sin exito	3,044	50.3	100.0	1:16:54:12	00:00:48	50.0	100.0
		6,057	100.0		3:09:43:40	00:00:49	100.0	

Dialer Agent Disposition Summary Report

Improved Data Logging for Skills

The InteractionSummary and InteractionSegmentDetail tables now store the skills that are assigned to an interaction. InteractionSegmentDetail logs each value and change to the skill set. InteractionSummary stores the last assigned skill in a new column called LastAssignedSkillset. This value corresponds to the EIC_ACDSkillSet call attribute.

Interaction Detail Viewer UI Enhancement

Interaction Detail Viewer can now play back recordings, and now supports navigation through multiple interactions in search results.

Interaction Quality Manager Feature Enhancements

Interaction Quality Manager Feature Enhancements

SU5 includes several new features to improve quality management processes. The workspace module in IC Business Manager, previously named Questionnaires, is now named Interaction Quality Manager.

The Interaction Quality Manager license now provides users with access to features to create and score questionnaires (evaluations), search based on various scorecard criteria, assign questionnaires and recordings, and use a new tabbed view of recordings to score.

New features:

- Policy Editor – Assign questionnaires and scorers
- IC Business Manager – Assign questionnaires and scorers
- Recordings to Score view
- Analyzer keyword search
- Questionnaire editing features:
    - Deactivate/activate
    - Delete individual scorecard
- Encryption Indicator

The following sections describe these features.

New Policy Editor Features

Interaction Recorder's Policy Editor provides the ability to create a recording policy to:

- Assign questionnaires to users.
- Assign a scoring user (evaluator) by user, role or workgroup. For role/workgroup, it is a round-robin assignment.
- Support the calibration process by allowing pre-assignment questionnaires to users specifically for calibration.
- Indicate that the completed evaluation required agent signoff (applies to Interaction Web Portal users only).

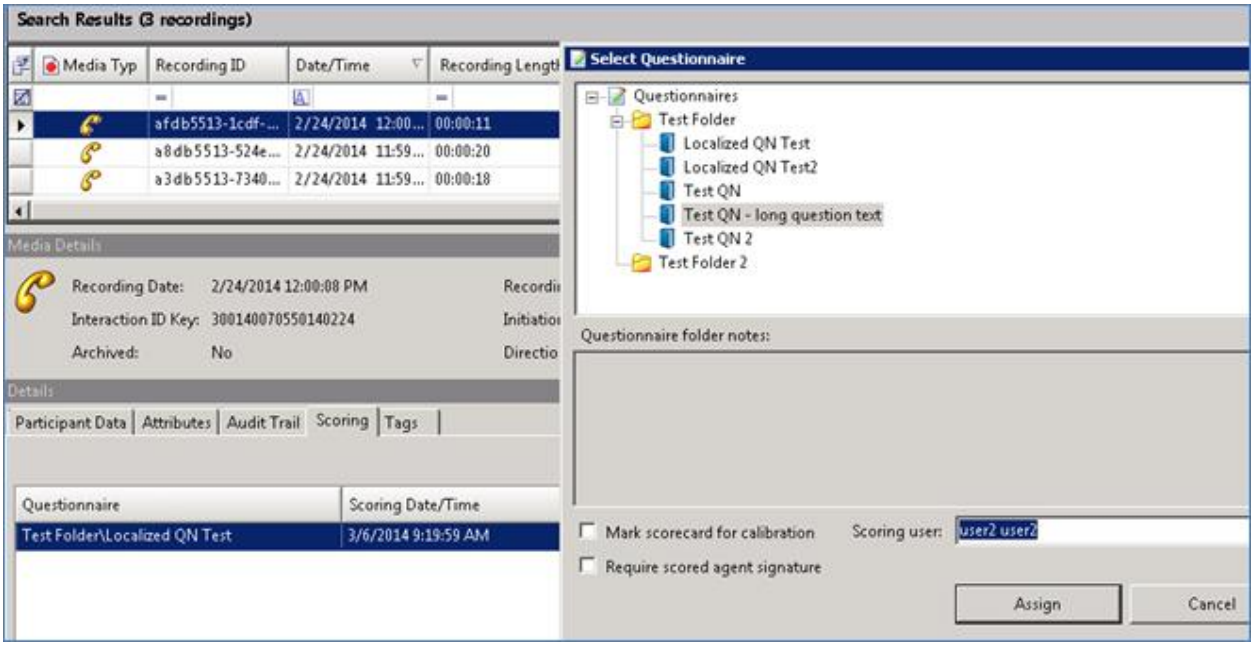
Users have access to these features through a Policy Editor Security policy, which indicates "can assign questionnaires."

Assignment of Questionnaires in IC Business Manager

IC Business Manager users can now do the following for a selected recording:

- Assign the recording to a user for scoring.

- Assign a questionnaire to the recording.
- Indicate that the scoring results are for calibration.

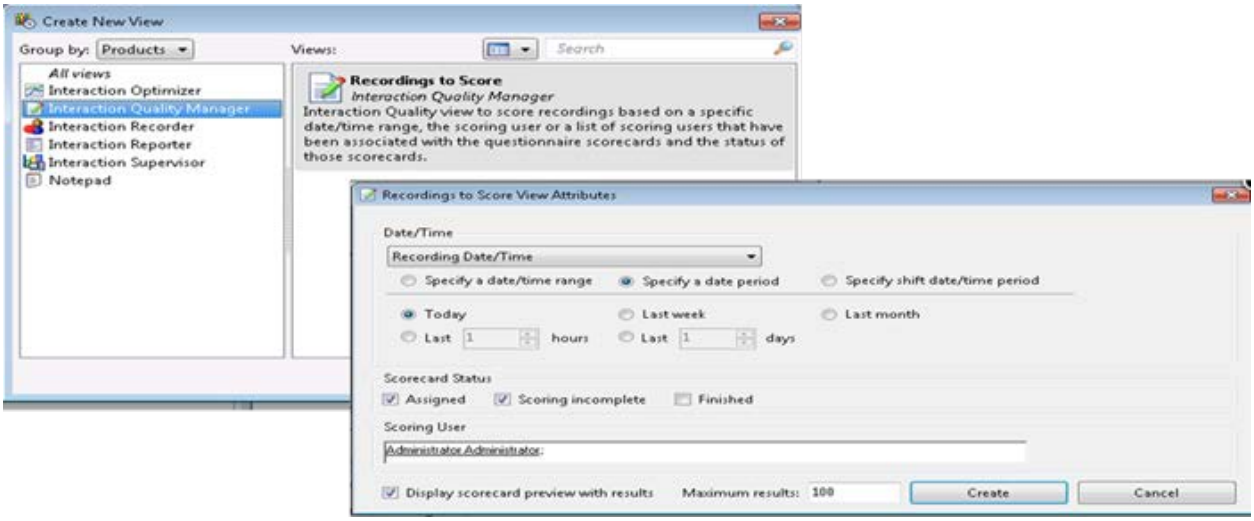


Assign a recording to a user for scoring in IC Business Manager

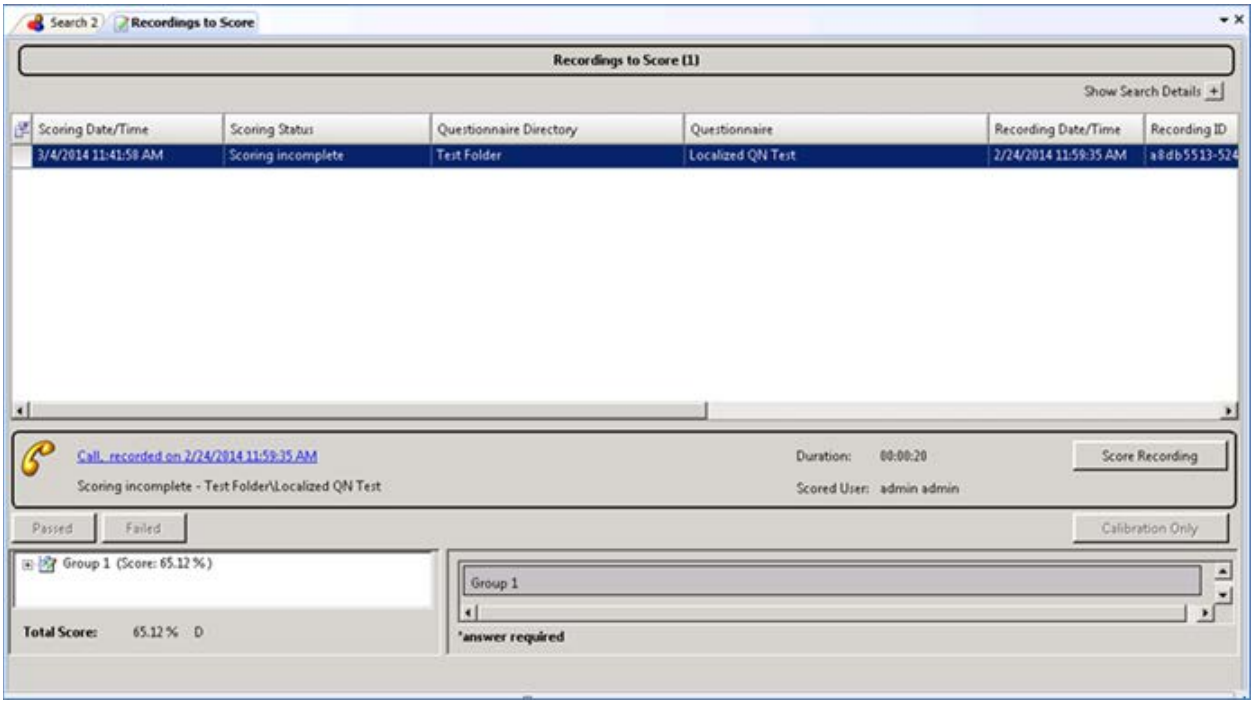
A key benefit of pre-assigning questionnaires with Policy Editor policies, or with new features in IC Business Manager (described below), is that it provides the ability to automatically deliver the recording to supervisors, along with the appropriate questionnaire. Another benefit is that it stops users from selecting the wrong questionnaire to use when evaluating agents.

Recordings to Score View

IC Business Manager has a new **IQ Recordings to Score** registered view under the Interaction Quality Manager module. Users can add the view to any tabbed workspace within IC Business Manager. The **Recordings to Score** view presents the user with their assigned scorecards, based on a specific scorecard or recording date/time range and scorecard status. This view eliminates the need for evaluators to search for recordings to score and select the correct scorecard to use.



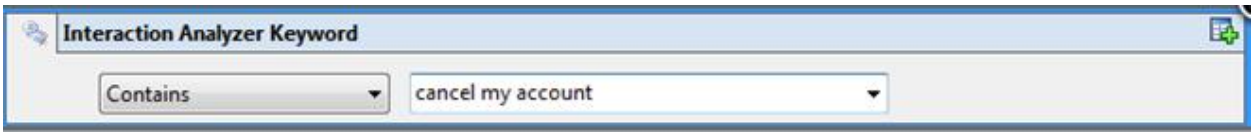
Select Interaction Quality Manager and create the Recordings to Score view



User's view of recordings that require scoring

New Analyzer Keyword Search Attribute

A new search attribute provides the ability to search for recordings by Analyzer keywords.



Recording search based on keywords

Addition of this search attribute allows more complex searches combining Analyzer scoring with the keyword/phrase results. The keyword/phrases are also now added to the Recorder database for use in custom Analyzer reports.

Questionnaire Editing Features

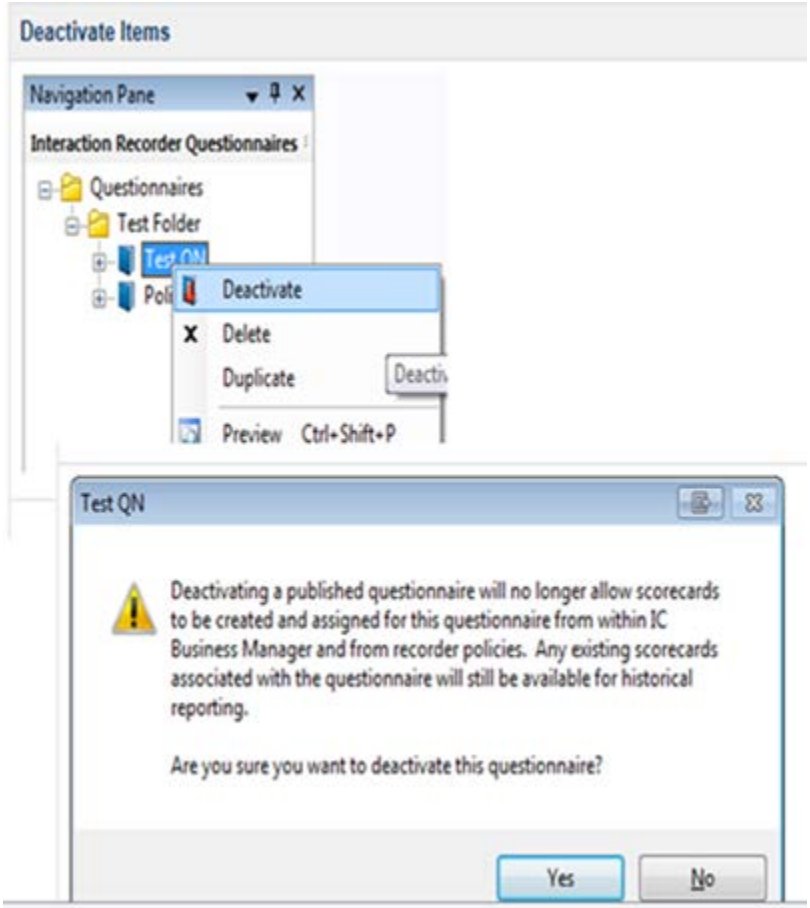
New questionnaire editing features provide the flexibility to:

- Deactivate published questionnaires.

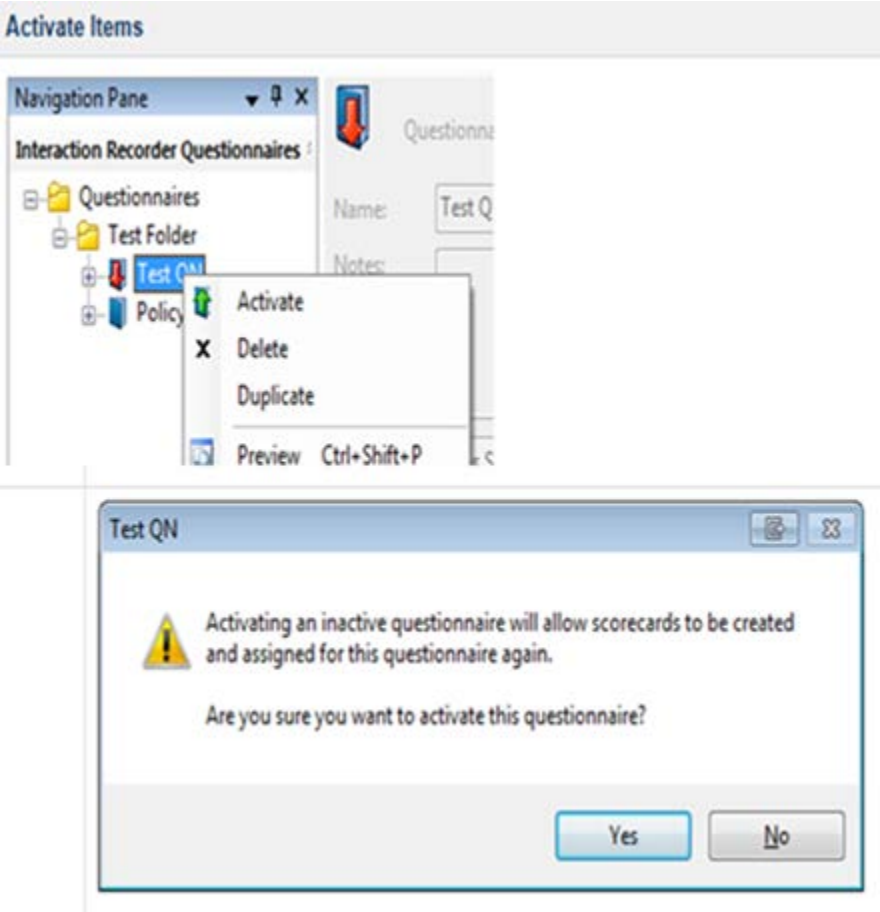
  Deactivating a published questionnaire prevents it from being used to score a recording, or to be assigned for scoring a recording. Existing scorecards associated with the questionnaire continue to be available for historical reporting. When selecting the option to deactivate a questionnaire, the user sees a pop-up notification with this information.

- Activate a deactivated/ inactive questionnaire.

  Activating a previously deactivated questionnaire republishes the questionnaire, allowing it to be assigned and used for scoring.



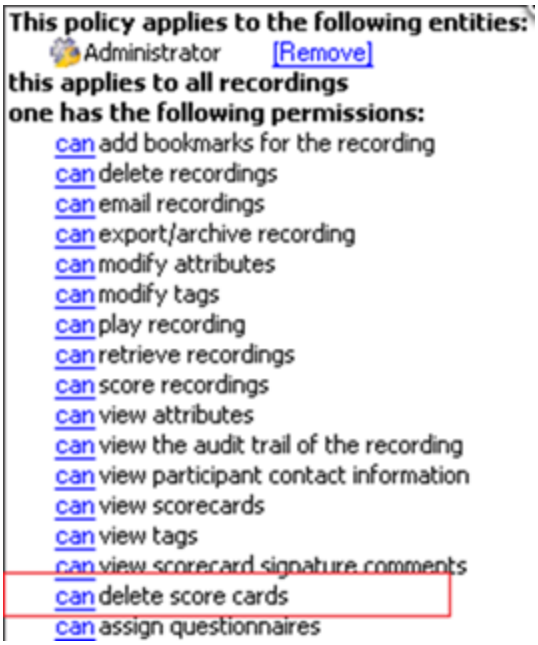
Deactivating a questionnaire



Activating a questionnaire

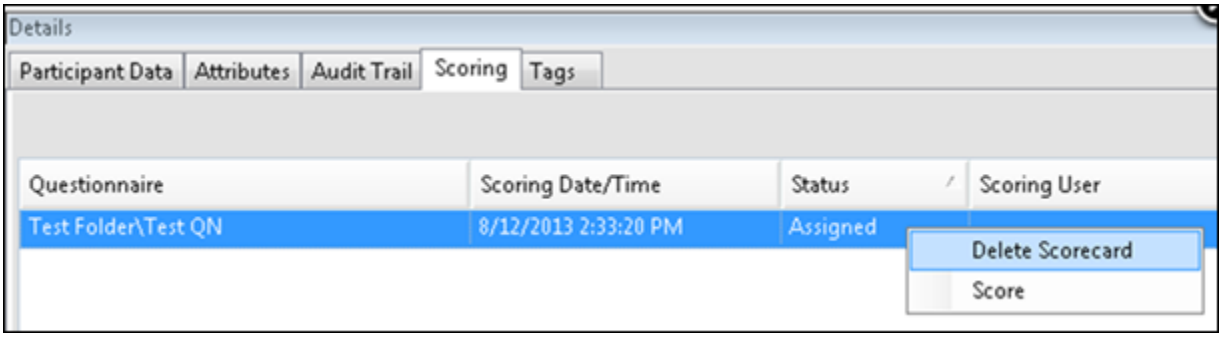
Delete Individual Scorecards

A new policy security action allows the deletion of individual scorecards from within the Interaction Recorder module in IC Business Manager.

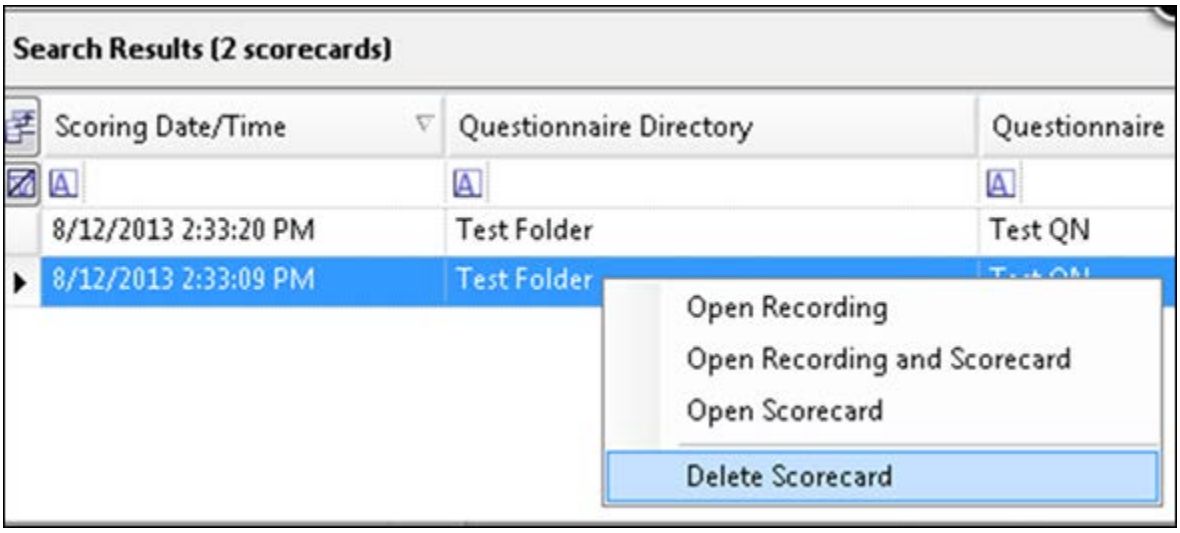


Delete a scorecard in Interaction Recorder

New security checks on the **Scoring** tab and the **Scorecard Search Results** view display a menu option to delete an individual scorecard from the database when the CanDeleteScorecards security right is associated with a recording.



Delete a scorecard from the Scoring tab



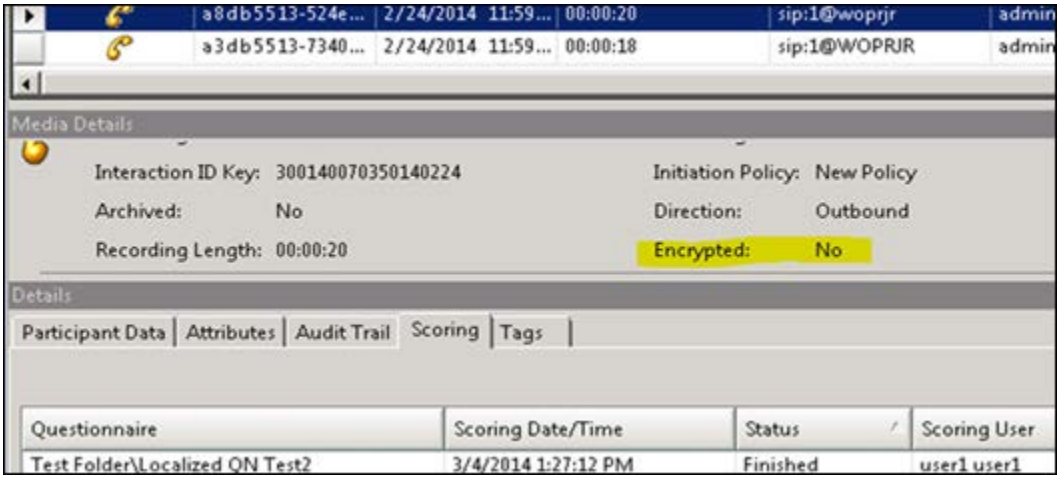
Delete a scorecard from search results

This feature is beneficial, for example, when there are instances where users prefer to delete a completed scorecard rather than simply override it with another score. This can occur when the incorrect questionnaire is used, or when inaccurate scoring occurred.

Encryption Indicator

A new field in the recording media details in IC Business Manager allows business users to easily see if a recording is encrypted.

The field displays: **Encrypted: (Yes|No)**



Encryption Indicator

Interaction Recorder Enhancements

Interaction Recorder Enhancements

Enhanced Functionality for Start/Stop Screen Recording API

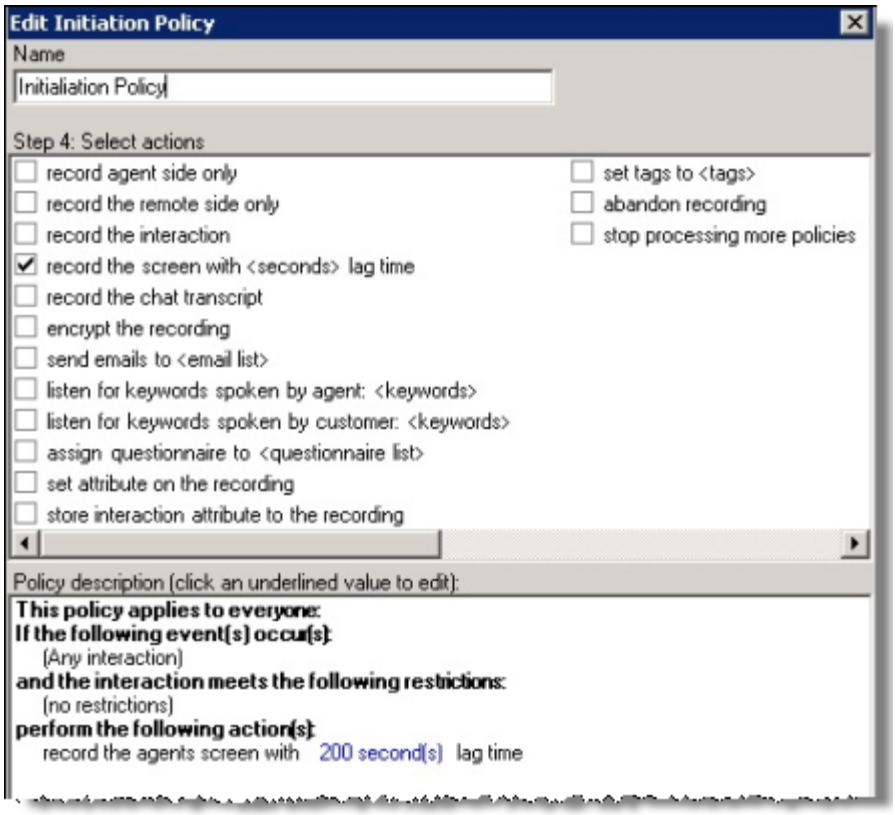
In **ININ.IceLib.QualityManagement.ScreenRecorder**, the screen recording API allows the creation of custom applications that can control the starting, stopping, and secure pauses of screen recordings. The functionality can also use an API to stop/start screen recordings based on an active work item.

For example, adding API calls can facilitate screen recordings of IPA work items, making it possible to play back individual process steps in Interaction Recorder, and evaluate them in Interaction Quality Manager. API calls are also useful for other types of screen recordings, such as for processing claims and recording back-office work.

Use of the start/stop API provides the ability to identify the length of time it takes to process work items.

New Screen Recording Lag Time Configuration Setting

Prior to SU5, a global setting for screen recording lag time was configurable in **Interaction Administrator -> Interaction Recorder->Screen Recording**. Now, when setting the recording action in Interaction Recorder's Policy Editor, you can also set the screen recording lag time with an initiation policy.



Set screen recording lag time in an initiation policy

Interaction Optimizer Enhancements

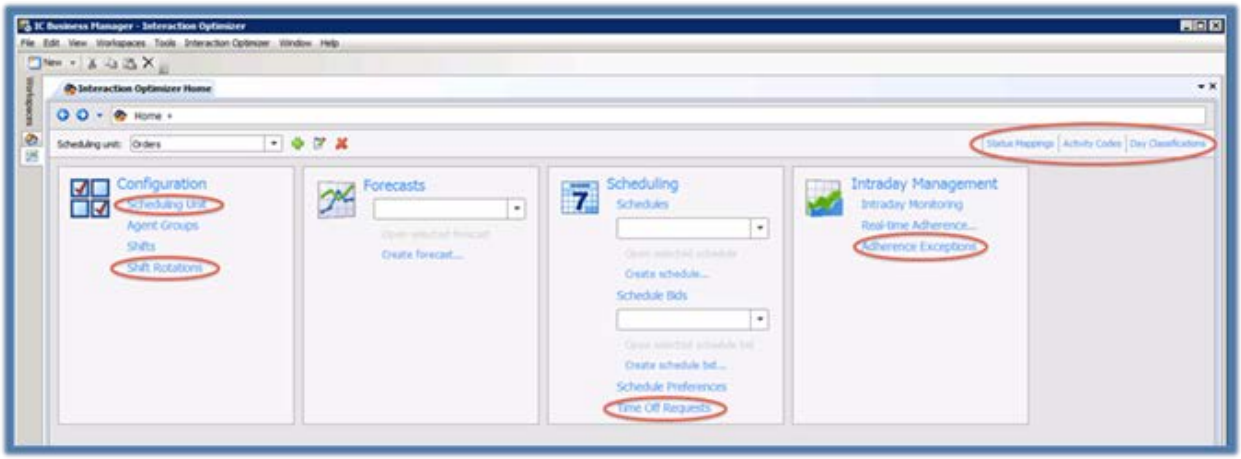
Interaction Optimizer Enhancements

ACD Simulation Scheduling Engine

The new ACD simulation scheduling engine has improved accuracy and schedule efficiency in complex ACD routing environments as it is assessing agent skill and media type assignments at a more granual level than the previous ACD simulation model. Customers who use flexible scheduling practices can meet higher service levels with the same number of staff, or the same service level with fewer staff. The new engine also supports deferred work and partial utilization simulation. With these expanded simulation models, users might notice an increase in the amount of time it takes to generate schedules. Schedule generation time can be decreased by using a stronger workstation. We recommend a minimum of 4 GB of RAM for most environments, and 8 GB of RAM for large organizations.

Enhanced Administration Features in IC Business Manager

Multiple Interaction Optimizer administrative features are now enhanced and available in Interaction Center Business Manager. These features include scheduling unit configuration, shift rotations, time off requests, adherence exceptions, status mapping, activity codes, and day classifications.



Interaction Optimizer features in IC Business Manager

- Scheduling unit configuration for the following features is now in IC Business Manager, and many of the features are enhanced to improve usability.
    - Start day of week
    - Service goal groups

      This new feature allows users to configure specific goals for service level or average speed of answer. The goals are configurable for different interaction types within a single workgroup.
    - Maximum occupancy for deferred work

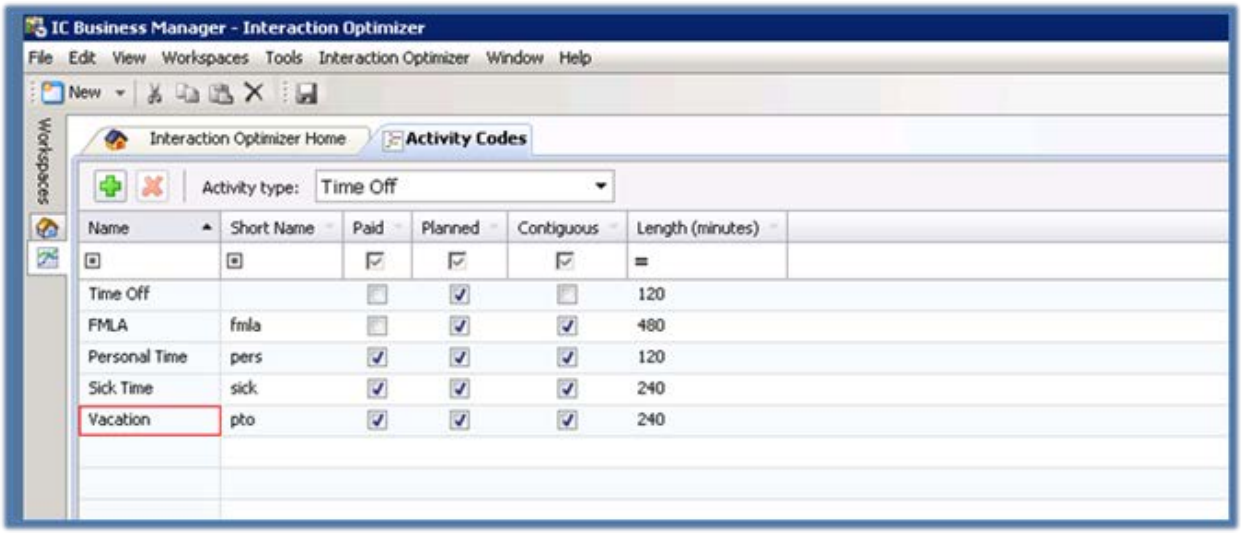
      This new feature allows users to define a maximum occupancy for deferred work. The feature helps the scheduling engine accurately project requirements and schedules for deferred work.
    - Adherence exceptions

      This feature is enhanced to allow users to configure how adherence and the new conformance metric are calculated in relation to the use of specific types of activity codes.
- Shift rotation configuration is now available in IC Business Manager. It allows users to configure an end date for each rotation.
- Time off request management is now available in new grid format within IC Business Manager, and allows users to sort and filter time off requests based on up to 21 attributes, including date/time submitted, agent ranking, activity code, and more.
- Adherence exceptions management, a feature that was previously only available in Interation Client .NET Edition for administrative users, was rewritten in IC Business Manager. Enhancements include the ability to approve an exception with a specific activity code. For more information, see Enhanced Schedule Management and Activity Codes.
- Status mappings for adherence reporting relative to an agent's ACD status is now available in IC Business Manager.
- The new activity codes feature significantly expands the ability for users to edit and manage schedules. Configuration of activity codes is available in IC Business Manager. For information about the related features, see Enhanced Schedule Management and Activity Codes.
- Day classification configuration is now available in IC Business Manager.

Enhanced Schedule Management and Activity Codes

The new schedule management and activity codes features enable users to better manage schedules and schedule edits. A user can edit any part of a schedule and republish it at any time, and can change start/stop times and other activities for past schedules to update an agent's schedule adherence rating.

The new activity codes feature enables users to configure their own unique activity codes for schedule management, schedule editing, and detailed shrinkage tracking. Shrinkage tracking includes tracking unplanned shrinkage, which is one of the inputs to the forecasting process.

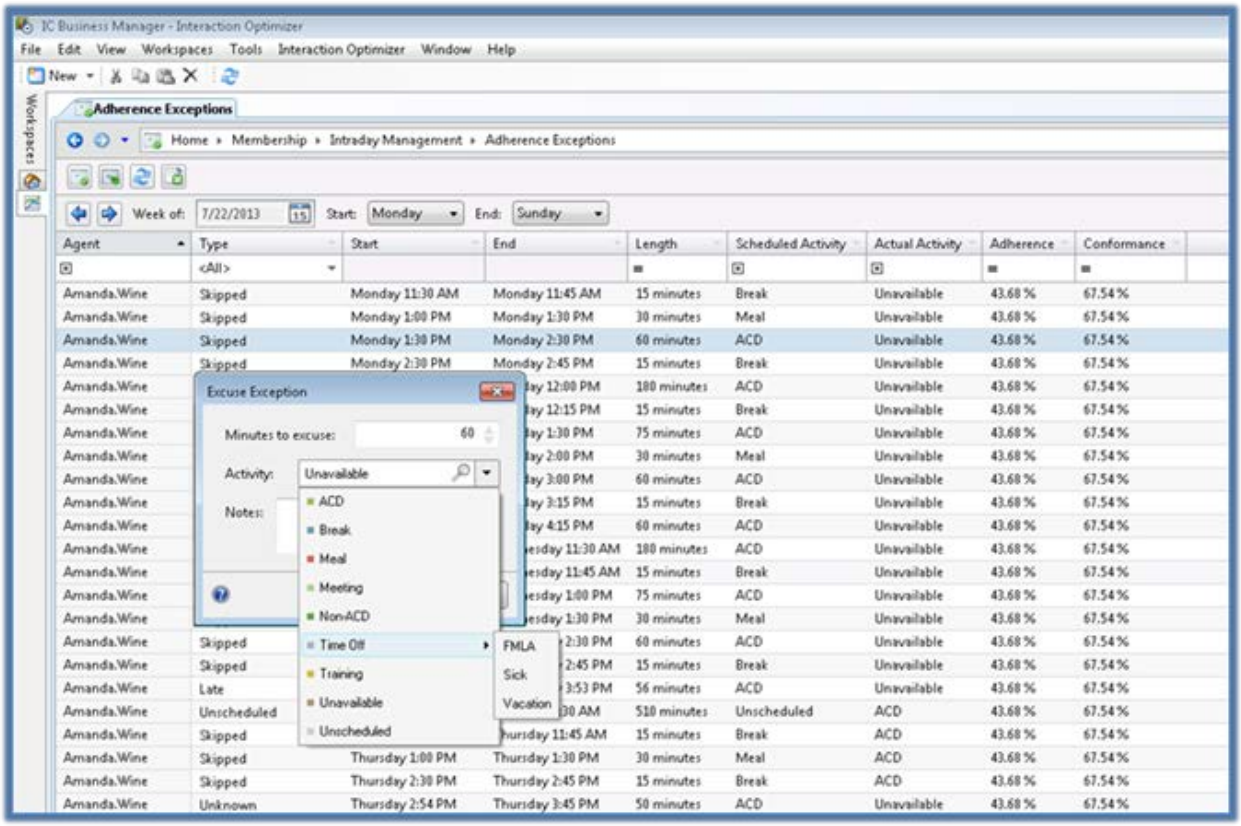


Activity Codes

Activity codes are configurable within an activity type in IC Business Manager, and are highly customizable by the user. The user can do the following:

- Provide both a name and a short name that are visible when they hover over a schedule.
- Indicate the paid or unpaid status of a code.
- Indicate whether a code is planned or unplanned.
- Indicate whether a code is contiguous.
- Specify a default length when adding an activity code to a schedule.
- Configure up to 255 codes within each activity type.

Activity codes can also be used as part of the time off request process. Agents can request a specific type of time off at the activity code level. Activity codes are now the primary method of approving an adherence exception. When a user selects an adherence exception to approve in IC Business Manager, they select the activity code they want to use as the basis of the schedule edit, which updates the agent's schedule and adherence rating.



Activity Codes

The new schedule management features require new reports, which are not yet available. The previous Schedule Adherence reports will only display data that was created while the server was running SU4 or earlier, unless a special environment variable is enabled. The reports will be replaced with new reports in a future SU. In the meantime, customers with SU5 can use the Exception Management screen to determine adherence and conformance for an agent within a specific week.

Customer Experience Improvement Program

Interactive Intelligence strives to consistently improve the quality, efficiency, and performance of Interaction Optimizer. You can help by participating in the Customer Experience Improvement Program. If you choose to participate, Interactive Intelligence collects statistical information from your system and uses it only to help improve Interaction Optimizer features and enhancements, and to help resolve issues. Interactive Intelligence does not share this information with other companies, nor does it use your data for marketing or sales purposes. All information is confidential. Participation is voluntary and you can opt in or out at any time.

To participate in the program:

1. From the Interaction Optimizer home page, select **Customer Experience Improvement Program** from the **Interaction Optimizer** menu.
2. Select **Join the Interaction Optimizer Customer Experience Improvement Program,** and then click **OK**.

To opt out of the program:

1. From the Interaction Optimizer home page, select **Customer Experience Improvement Program** from the **Interaction Optimizer** menu.
2. Select **I do not want to join the program at this time,** and then click **OK**.

Managed Phone Updates

Managed Phone Updates

This SU introduces and adds support for these new phone models, which you can configure with auto-provisioning in Interaction Administrator:

- Audiocodes 420HD
- Polycom VVX 300
- Polycom VVX 310
- Polycom VVX 400
- Polycom VVX 410
- Polycom VVX 600

Updated Firmware

This SU provides a firmware update for the Interaction SIP Station, Release 1.2.2 p013 build 17.

This new firmware fixes a delayed invite audio issue and a vulnerability scanner issue.

Speech Recognition

Speech Recognition

Email NDM 6.1.0 Testing with CIC 4.0

This support allows customers who need an email capture module with ASR to work with NR10.

Vocalizer 6.0 SAPI Testing

This support enables CIC 4.0 to work with Vocalizer 6.0, the latest Nuance TTS product release.

Support for NDM Spelling 6.1

This support allows customers who need a spelling module with ASR to work with NR10.

Support for NDM Names 6.1

This support allows customers to use NR10 to capture the most common first and last names with ASR, without having to build the entire application from scratch.

Support for NDM Address 6.1

This support allows customers who use an address capture module with ASR to work with NR10. Address capturing provides a pre-built module which allows a caller to efficiently communicate a postal address by voice.

Regionalization Support in ASR

Support for regionalization in ASR allows customers with multiple data centers to operate ASR in different regions by using selection rules. The use of regionalization avoids the operation of ASR over a WAN. This feature is especially important for CaaS and ASR.

NDM Core 6.1.3 Testing with CIC 4.0

Support for NDM Core 6.1.3 allows ASR customers to use Nuance Dialog Modules as core functionality modules without building all applications from scratch.

Loquendo TTS 7.20.9 (SAPI) Testing

CIC 4.0 now supports Loquendo Text-to-Speech 7.20.9 with SAPI. This update contains necessary bug fixes for customers running Loquendo TTS.

Certify Nuance Recognizer 10.2.4 with CIC 4.0

Support for Nuance Recognizer 10.2.4 allows CIC to work with the latest release of NR10. This version contains bug fixes and minor enhancements for ASR customers.

Localization and Language Additions
Localization and Language Additions

German Localization for IPA Designer

Interaction Process Automation Designer is now available in German.

Interoperability Testing with a Third Party Vendor
Interoperability Testing with a Third Party Vendor

Microsoft Exchange Online Testing

Interaction Center is now usable in combination with Microsoft Office 365 (Exchange Online).

New Features in 4.0 SU4

New Features in 4.0 SU4

This section lists some of the main features that were added in SU4.

Distributed Conferencing

Prior to distributed conferencing, all participants in a conference call had to be connected to the conference hosted on a single media server. This limited the number of participants in a single conference (resource constraint), and required increased bandwidth because the audio for all the participants was sent to a single media server.

With distributed conferencing, the limitation of connecting all participants together on a single media server has been removed. Media Server and TSServer can now create multiple regional conferences on appropriate media servers and connect the regional conferences together into one larger conference. This happens behind the scenes, so system users won't notice this change.

Advantages of distributed conferencing:

- Minimizes WAN bandwidth.
  Instead of all participants sending their audio across the WAN, only the audio to connect the regional conferences together will traverse the WAN.
- Allows media server load balancing.
  Conference participants are no longer required to connect to the same media server, which allows the load to be spread across multiple media servers.
- Allows for larger conferences.

Distributed conferencing completely removes the need for Interaction Conference media servers. Therefore, ICMS has been retired as of SU4.

Switchover Resiliency for Calls (Beta Release)

Interaction Center 4.0 SU3 introduced switchover resiliency for chats, emails, callbacks, and SMS objects. CIC 4.0 SU4 introduces (as a beta release) resiliency for calls that are connected when a switchover occurs.

Calls connected to CIC stay connected through the switchover event, even if they are connected and waiting in queue when the switchover occurs. Calls in queue remain connected in the same, or very close to the same, order they were in. Calls in IVR are preserved, although these calls might not be seamless. The customer might notice that the IVR menu didn't respond or that an IVR message is repeated once the switchover occurs. Calls connected to users stay connected and the user retains control over the call.

Switchover resiliency is supported only when the CIC switchover pair is co-located in the same building or network. Switchover resiliency is not supported in combination with geo-redundant switchover, where the IC servers in the switchover pair are remote from each other and connected via a WAN.

Customers interested is using this feature while still in beta should contact ProductManagement@inin.com.

Session Manager Selection Rules

Session Manager Selection Rules introduce the ability to configure Selection Rules similar to Interaction Media Server. Session Manager Selection Rules allow configuration to control Session Managers used for Icelib applications, such as Interaction Client and Interaction Center Business Manager (ICBM), based on the location from where the application is connecting. Each location can have its own list of preferred Session Managers, including configuration describing fallback options when a Session Manager won't accept any new sessions.

The new configuration options enable the following:

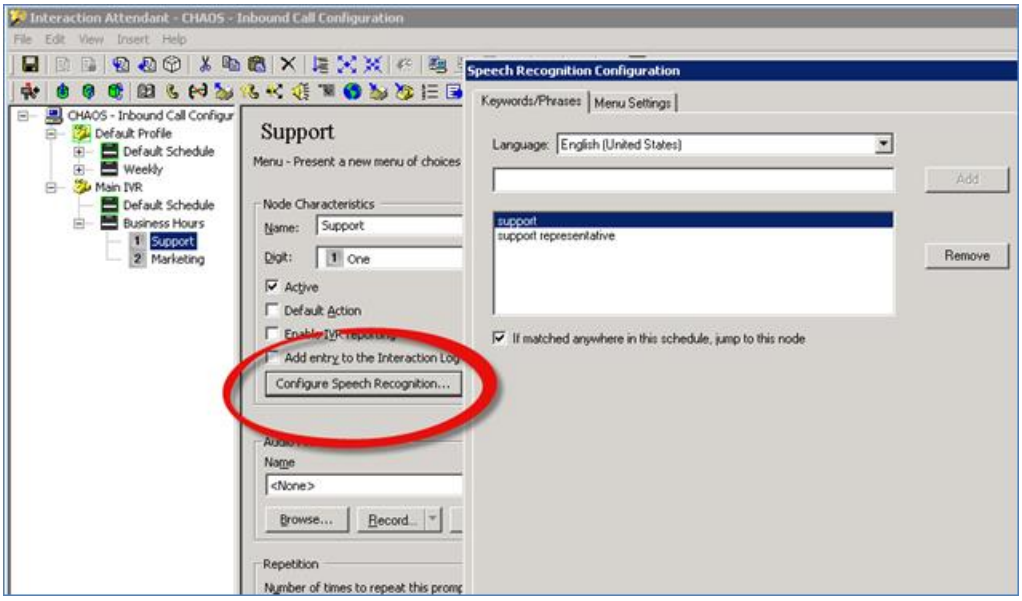
- Specify Session Managers available to clients connecting from a specific location
- Prioritize the order in which Session Managers are used for Clients connecting from a specific location
- Create an Exclusion list of Session Managers for a specific location. This list specifies Session Managers which should not be used from a specific location (e.g. due to great distance / bandwidth constraints).

Additional information about this feature can be found in the Interaction Administrator help file under Selection Rules.

Interaction Attendant – Simple Speech Recognition

Interaction Attendant users can now associate words and phrases with menu options. Callers can then speak options while in IVR instead of using DTML to select the options. To use this feature, Speech Recognition must be available and configured on the CIC system.

In Interaction Attendant, an administrator can enable profiles for Speech Recognition and configure simple words and phrases for menu nodes.



Configure Speech Recognition in Interaction Attendant

Interaction Speech Recognition Improvements

Interaction Center 4.0 SU4 contains significant improvements to the capacity and accuracy of Interaction Speech Recognition, Interactive Intelligence's built-in speech recognition engine, which currently supports grammars for numbers, currency, phone numbers, Interaction Mobile Office, and speech attendant work.

Platform Performance Improvements

SU4 contains several performance improvements, including, but not limited to, the following areas:

- **Interaction Client/IceLib**
  - Reduced impact of Administrative changes that are made in Interaction Administrator.
  - Reduced bandwidth usage for application profile setting.
- **Interaction Supervisor/StatServer**
  - Improved performance around Workgroup/User Activation.
  - Improved StatServer performance and reduced StatServer start-up time.
- **AdminServer**
  - Improved Security Right Calculation.
- **Session Manager/Alert Server**
  - Optimized requests between AdminServer and Session Manager under load.
  - Improved memory usage in Session Manager.

- **Interaction Process Automation**
    - Improved synchronization of IPA data files.
    - Made overall IPA Server improvements.

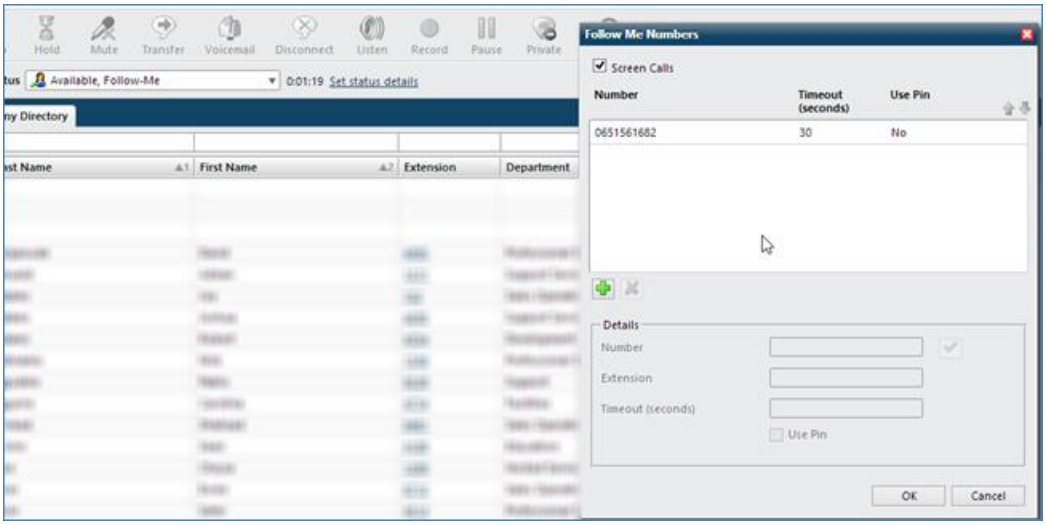
Tracing Improvements

Interaction Center 4.0 SU4 includes several tracing enhancements, including:

- Insufficient Dialing Privileges
  'Insufficient Dialing Privilege' messages appear in the IP Log.
- License Assignment
  License Assignment messages are traced at 'Status' instead of 'Verbose' tracing.
- TSServer Audiohub Tracing
  An additional tracing topic appears in the TSServer log files. This topic, 'telephony.media.audiohub.audit,' provides a detailed view of all activity within an audio hub and details about all parties involved in a conversation. This topic includes conference calls, recordings, listening activity, and coaching activity.

Interaction Client Web Edition Follow-Me Configuration

Interaction Client Web Edition now allows configuration of follow-me settings.



Follow-me Configuration

Icelib SDK – 64-bit Support

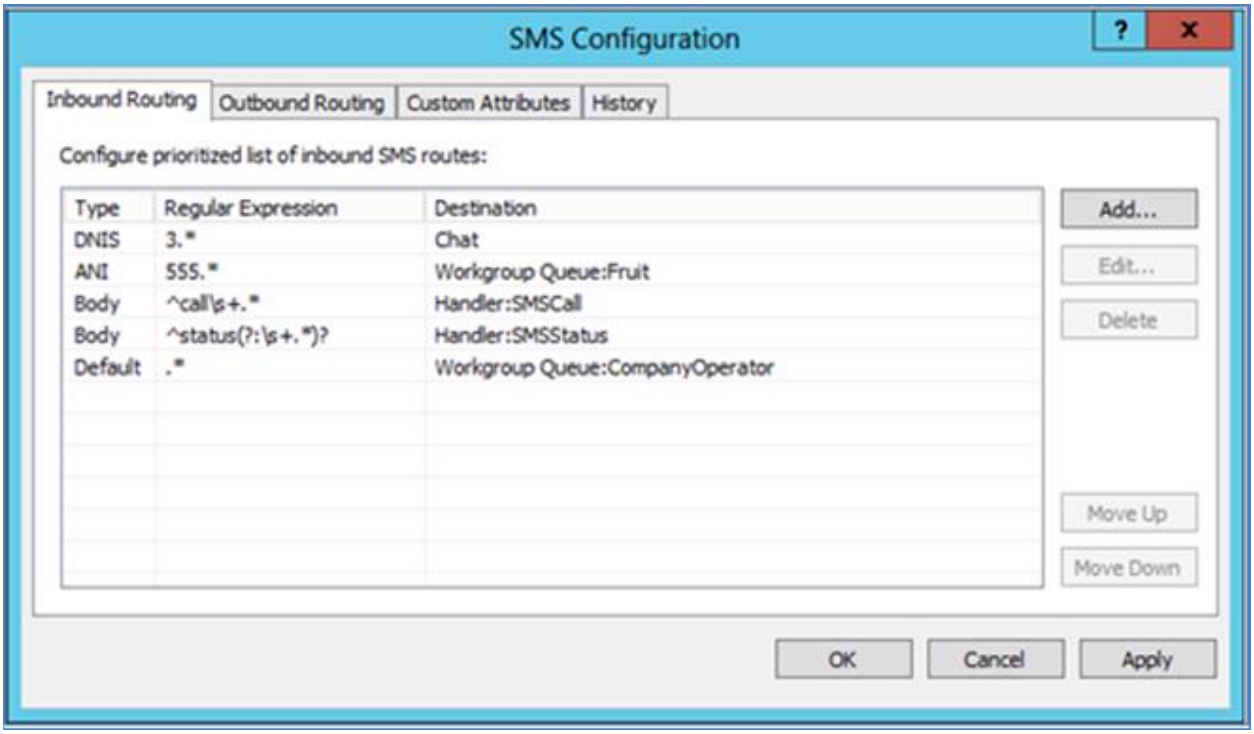
The Icelib SDK now supports 64-bit applications.

Enhanced SMS (Text Message) Support

The following are enhancements to SMS routing:

- Support for SMS routing as chat, which allows a customer and an agent to have a chat-like conversation using SMS.
- Support and configuration for multiple HTTP-based SMS brokers.
- Support for configuration of basic SMS routing rules, based on ANI, DNIS, or the body of the text message.

- Routing options include Chat, Generic Object, and Handler.
- Text masking supported with SMS Chat Routing.



SMS Routing Configuration

Create a Layout Plug-in for Administrator

The plug-in enables configuration of the Agent Locator feature in Interaction Supervisor iPad Edition. An administrator can upload floor plan diagrams and then tag stations on the diagrams. Interaction Supervisor iPad Edition users can then view agents logging in and out, agent statuses and states, and other agent information, all on the contact center's floor plan.

Localization and Language Additions

Interaction Center 4.0 SU4 includes a new Danish language pack.

It also contains a Polish language model for Interaction Analyzer.

Reporting and Interaction Reporter

Reporting and Interaction Reporter

The following reporting features are new in Interaction Center 4.0 SU4.

Report Management

Administrators or users with the appropriate rights can now use Report Management in Interaction Administrator to modify, export, and re-import metadata from Interaction Reporter reports. Report Management allows them to

modify basic report properties and import new reports or custom reports that were developed using Visual Studio. Note that development of custom reports requires Active Reports 6, which is available from Grape City.

Scheduled Reports Support for Interaction Reporter

Scheduled Reports now allows scheduling of Interaction Reporter reports.

Enhanced Version of the Interaction Details API in IceLib

The Interaction Details API in IceLib includes enhancements to allow individual segments to be examined. Previously, only the interaction details were viewable, and not the segments. Each segment now includes information about the workgroup, all parties involved, and other basic information such as the segment type, duration, and disposition.

New Quality Management Calibration Reports

These new reports show scoring variations that are based on the overall score of the same recording. The reports provide the ability to report on variations within question groups and at the individual question level to determine the root cause of scoring variations.

Trending calibration results provide contact centers with data to determine progress in calibration and ongoing sustainment of the range level of calibration (i.e., scores within 3 - 5% score variation).

These three calibration reports are new:

- Calibration Question Group Details
- Calibration Recording Summary
- Calibration Details

See the 'Sample Reports for Interaction Reporter' document for additional details and screenshots of these new reports.

New Dialer Reports

Interaction Reporter includes the following new Interaction Dialer reports:

- Dialer Campaign Success Results
- Dialer Campaign Disposition Summary
- Dialer Agent Utilization Summary
- Dialer Call Analysis Report
- Dialer Call History Report

See the 'Sample Reports for Interaction Reporter' document for additional details and screenshots of these new reports.

Interaction Recorder

Interaction Recorder

The following sections describe new features of Interaction Recorder.

New Quality Management Calibration Reports

See New Quality Management Calibration Reports.

Improved Master Key Management

A new PCI compliance-related feature provides improved security for master key file management and encrypted recordings. This feature adds an option to securely encrypt the master key file with a password. The new **Master Key**

Administrator security right can be assigned to specific users to limit who can create, change, activate, or deactivate a master key password.

Deactivating the master key password disables playback of encrypted recordings. Activating the master key password enables playback. Configuration of the password (activation and deactivation) is available in both Interaction Administration and IC Business Manager.

Use of this feature requires the **Interaction Recorder Master Key Password** feature license, which is available at no charge.

Important note: Interactive Intelligence Support cannot recover encrypted recordings if a master key password is lost.

Recording Export

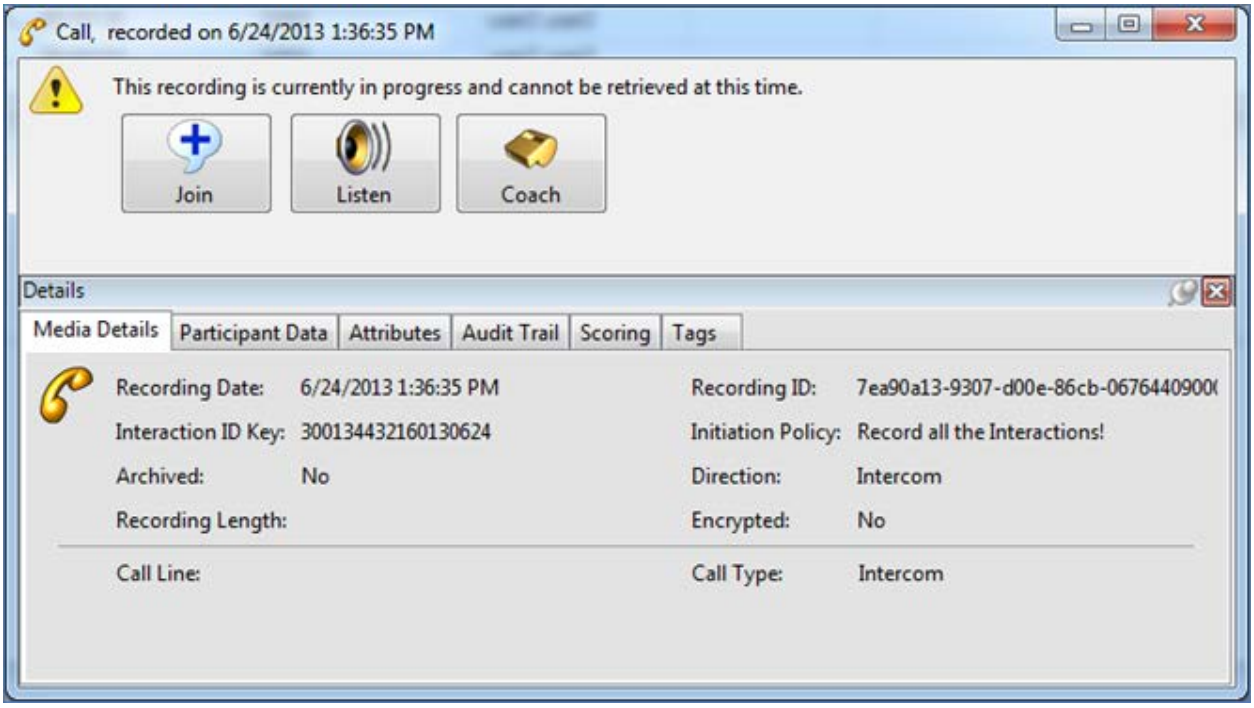
Using Interaction Center Business Manager, users can now export recordings to a single folder and rename the recordings as part of the export process.

Amazon S3 Recording Storage

Amazon Simple Storage Service (S3) is a cloud storage service offered by Amazon within the Amazon AWS environment. The available storage is divided into uniquely named buckets, which are accessible worldwide. The support added in Interaction Center 4.0 SU4 allows users to store, retrieve, and archive the recordings to and from the S3 storage buckets. This provides both on-premises and CaaS customers with a cost-effective method to store recordings for long periods (e.g., many years) while still allowing recordings to be searchable and playable inside Interaction Center Business Manager.

Live Call Monitoring in the Interaction Recorder Playback Window

While recording live interactions, users have access to buttons in the Interaction Recorder playback window. This provides the ability to join, listen (live monitor), or coach while the interaction is still in progress. If they choose to listen while the recording is in process, they can also open a scorecard (Scoring tab) to evaluate the interaction.



Live Monitoring Options

- In order for recorder's live monitoring to function, an initiation policy needs to be added to record the interaction.
- A security policy needs to be in place for the monitoring user to allow them to play and retrieve recordings.
- When users open a recording for playback, it is added to the audit trail for that recording.

Policy Editor Wrap-up Code Support

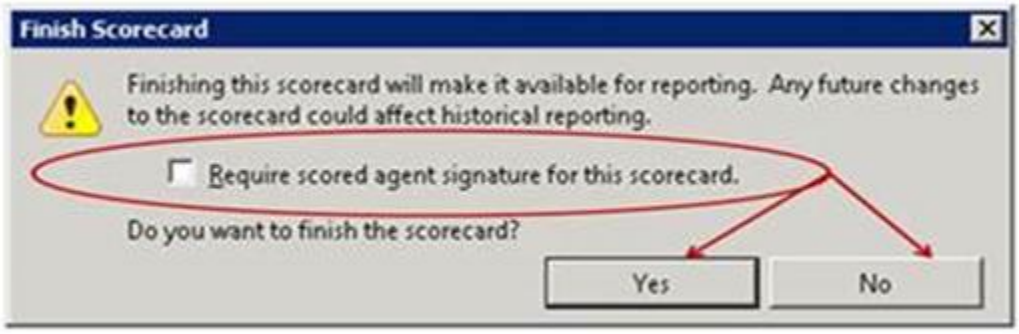
Policy Editor now supports wrap-up code conditions with retention policies. This allows for the creation of policies to retain certain recordings longer than others, depending on the outcome of the interaction.

Screen Recording Export

Interation Center Business Manager can now export a screen recording into a playable video file. The file contains the screen recording and an audio recording of the conversation. The export and transcoding into the video file (WMV format) happens on the client machine.

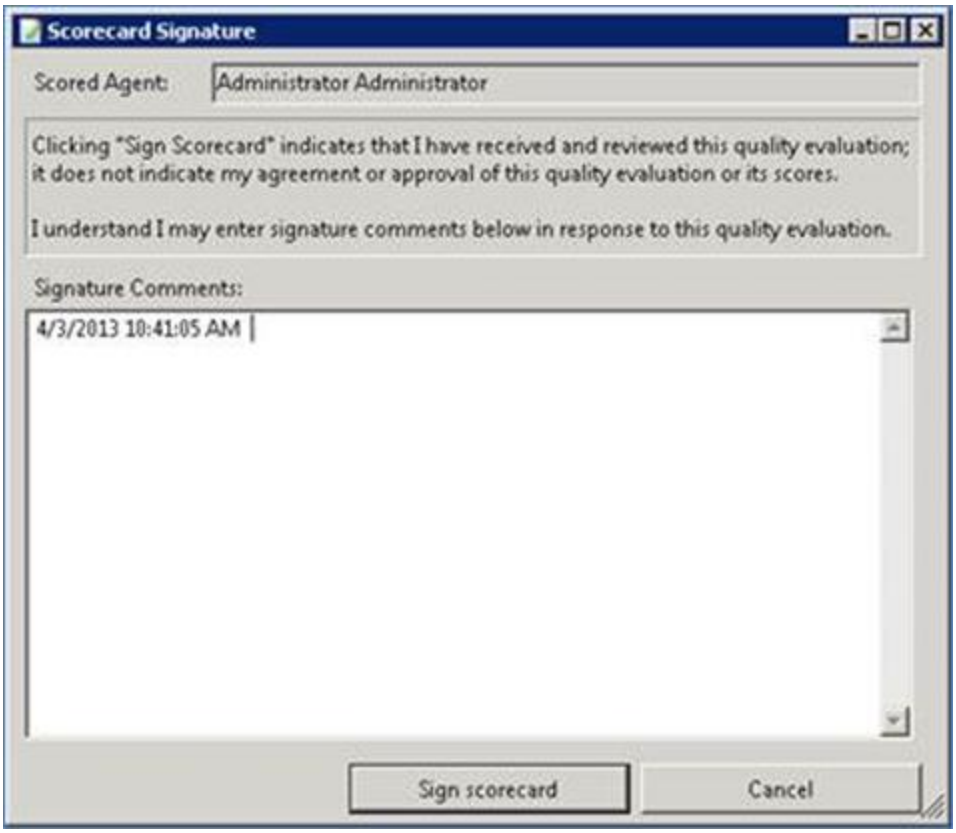
Agent Scorecard Sign-off

Upon completion of a quality scorecard, the scorer/evaluator is presented with a Finish Scorecard pop-up dialog box to confirm that they want to “finish” the scorecard – a feature that is not new. A new check box on the dialog box enables the evaluator to require the agent to sign the scorecard.



New Finish Scorecard signature option

When the check box is selected, an agent who views that scorecard in Interaction Web Portal sees a check box where they can acknowledge that they have reviewed the scorecard, and can add a comment.



Sign scorecard button and Comment field

Note the following:

- Agents with access to Interaction Center Business Manager for the purpose of viewing and completing their own scorecards, can also sign off and comment on their scorecards.
- All Interaction Recorder users on CIC 4.0 SU4 see the new sign-off option in the Finish Scorecard dialog box. However, only agents using Interaction Web Portal or Interaction Center Business Manager can "electronically" sign a scorecard.
- Customers who do not have Interaction Web Portal, or who do not give their agents access to Interaction Center Business Manager, should not require a signature.
- Printed scorecards do not have a signature field.

Recording Media Details in ICBM

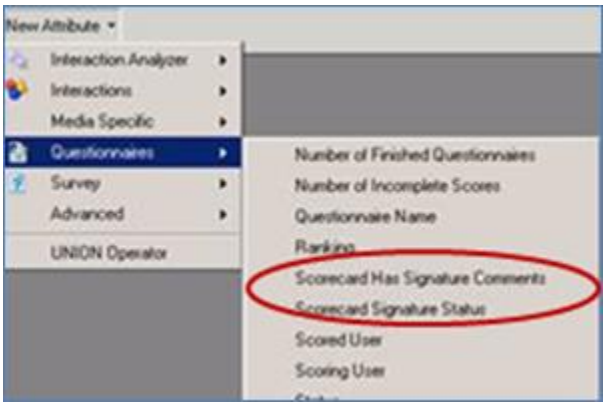
The Scoring tab in the Details dialog box contains two new columns. One column indicates the signature status, and the other column indicates whether or not the agent added signature comments.

New signature-related columns on the Scoring tab

Recording Search Attributes

Recording searches in Interaction Center Business Manager include two new questionnaire search attributes:

- Scorecard Signature Status
- Scorecard Has Signature Comments



New recording search attributes

Interaction Analyzer

Interaction Analyzer

The following sections describe enhancements to Interaction Analyzer.

Interaction Analyzer License Enforcement

As of Interaction Center 4.0 SU4, Interaction Analyzer licensing is fully enforced. Licensing is per user/workstation (similar to Interaction Recorder Access) and per language (server-based).

IMPORTANT: After updating to Interaction Center 4.0 SU4, Interaction Analyzer does not work until you assign the licenses to users/workstations. This means that you must go through all users and manually assign the Interaction Analyzer Access license. Analyzer does not analyze calls for users who don't have an assigned Interaction Analyzer Access license.

Interaction Analyzer – Improved Keyword Visibility

Interaction Analyzer users can now distinguish between a call that has no keyword spotting and a call that has keyword spotting but no spotted keywords.

These enhancements help with troubleshooting and auditing:

- Supervisor queue views display a column to indicate whether keyword spotting is enabled on the customer channel, agent channel, or both channels.
- The Interaction Recorder client distinguishes between channels that have a 0 score and channels that do not have keyword spotting.
- When calculating queue statistics, StatServer distinguishes between channels that have a 0 score and channels with no keyword spotting.

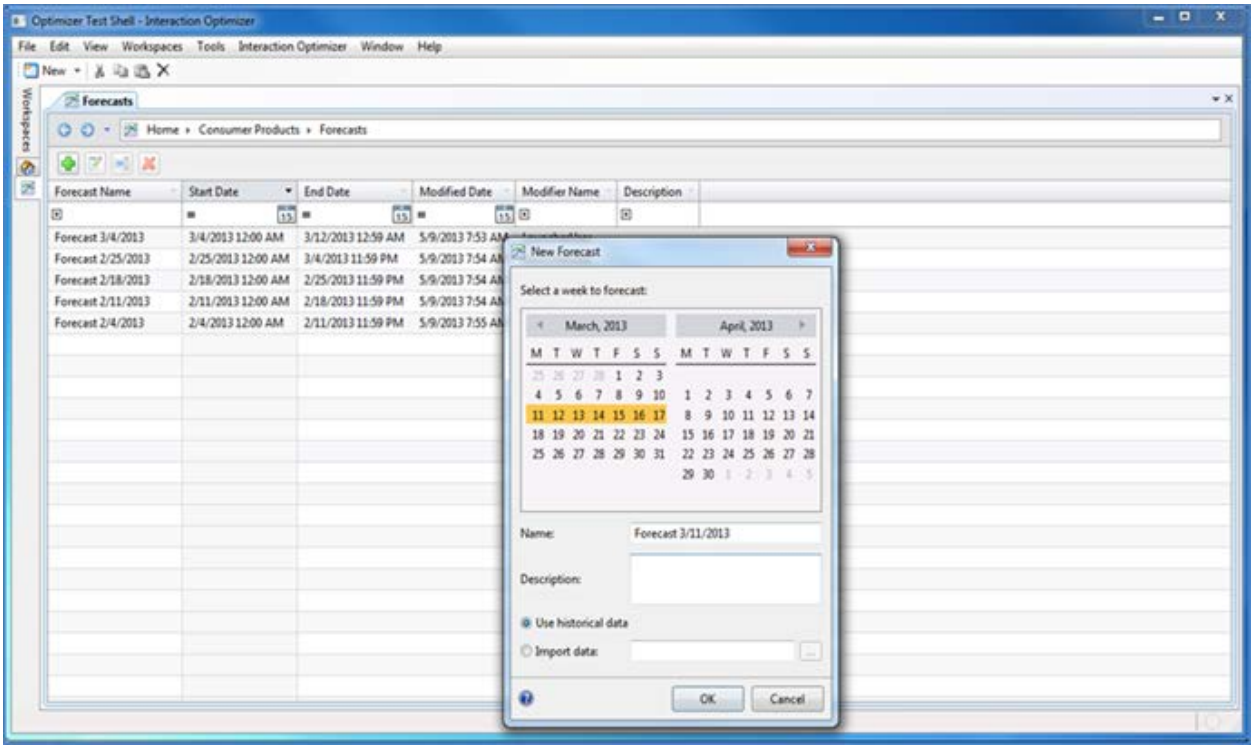
The enhancement adds a new recording search attribute, "Interaction Was Analyzed."
The interface for the search attribute allows the user to specify whether or not to include analyzed recordings in the search. Other controls in the interface allow the user to apply the new search attribute against the agent channel, the customer channel, or both channels in recordings.

Interaction Optimizer – Forecasting Enhancements

The Optimizer forecasting process in Interaction Center Business Manager now accommodates multiple types of analytic and editing capabilities. The new forecasting features in Interaction Center Business Manager include the following:

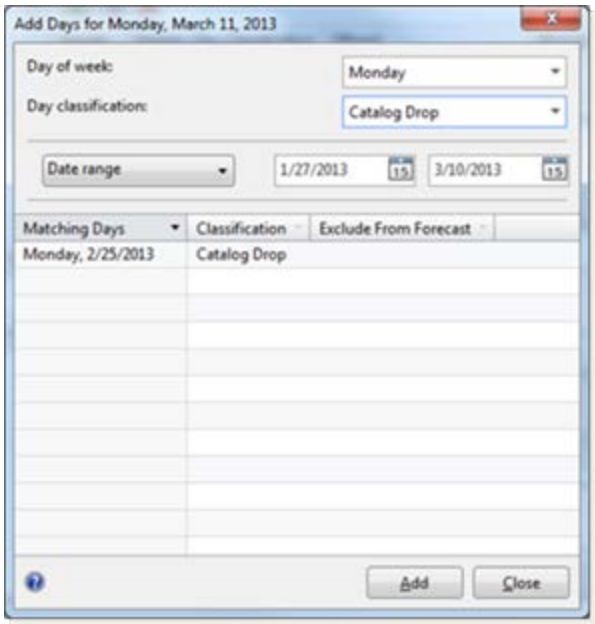
- Forecast generation
- Forecast day classification
- Source data review
- Forecast modification

The new Forecast administration screen allows a user to add a new forecast and delete an existing forecast. After selecting the option to add a new forecast, the user selects the forecast week from the calendar and indicates whether to use historical data or data from an import.



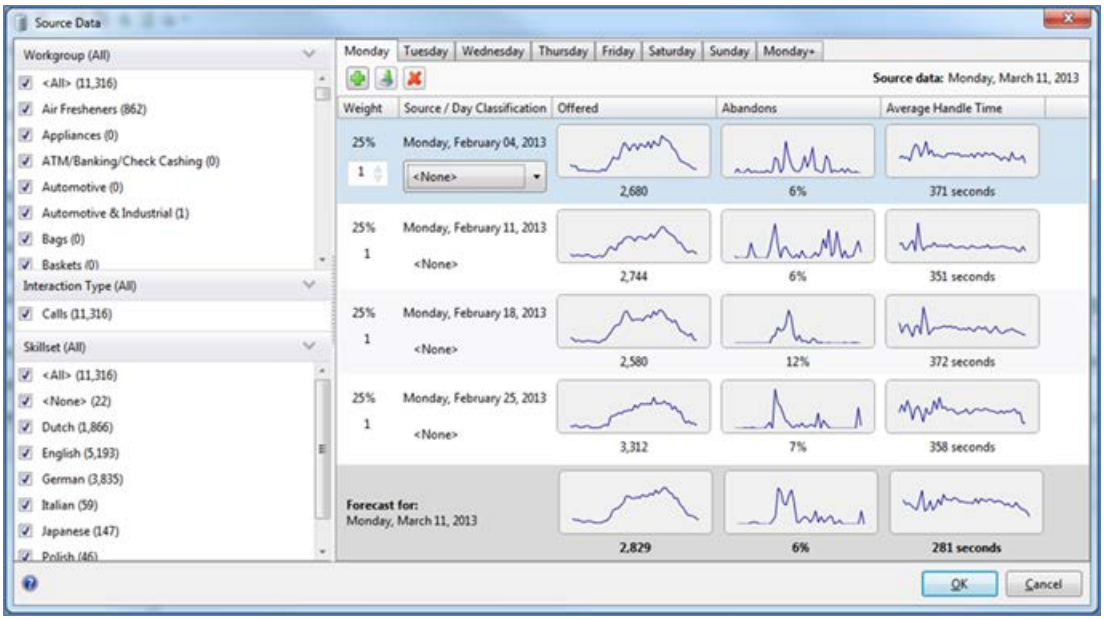
Interaction Optimizer Forecast Administration

In addition to specifying the default amount of historical data, the user can select individual days and weeks to add to the forecast, and can search for specific day classifications. In this new interface, the user can use day classifications as the source data for a forecast, or remove day classifications from the forecasting process.



Interaction Optimizer Forecast Administration – Day Classifications

The new Source Data Review in Interaction Center Business Manager displays the totals and trends for the source Interactions Offered, Abandoned, and AHT, based on the selected history. The interface allows the user to modify the individual weightings for each of the days, and add, edit, or delete days.

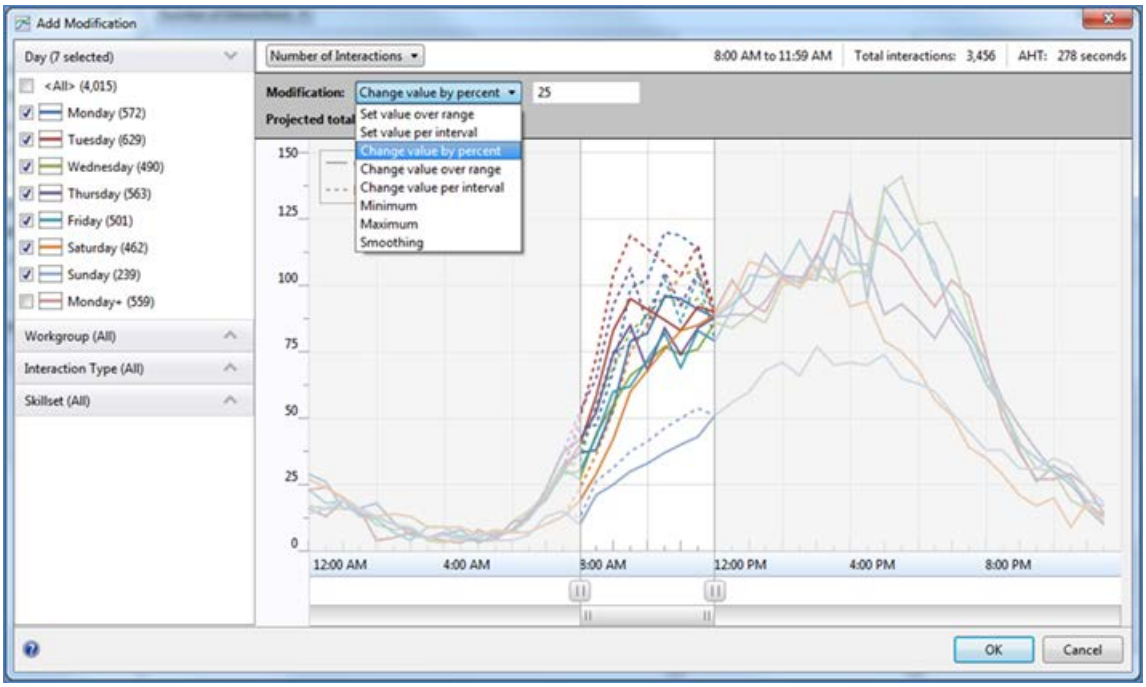


Interaction Optimizer Forecast Administration – Source Data

After generating a forecast, the user can analyze and edit the forecast from this new interface, filter and view the data at the various levels, and then modify the forecast.

Interaction Optimizer Forecast Modification

The new interface supports eight different editing options, including entering totals for the entire week, setting minimums and maximums, and using a smoothing algorithm to minimize the impact of severe peaks and valleys in the data.



Interaction Optimizer Forecast Modification

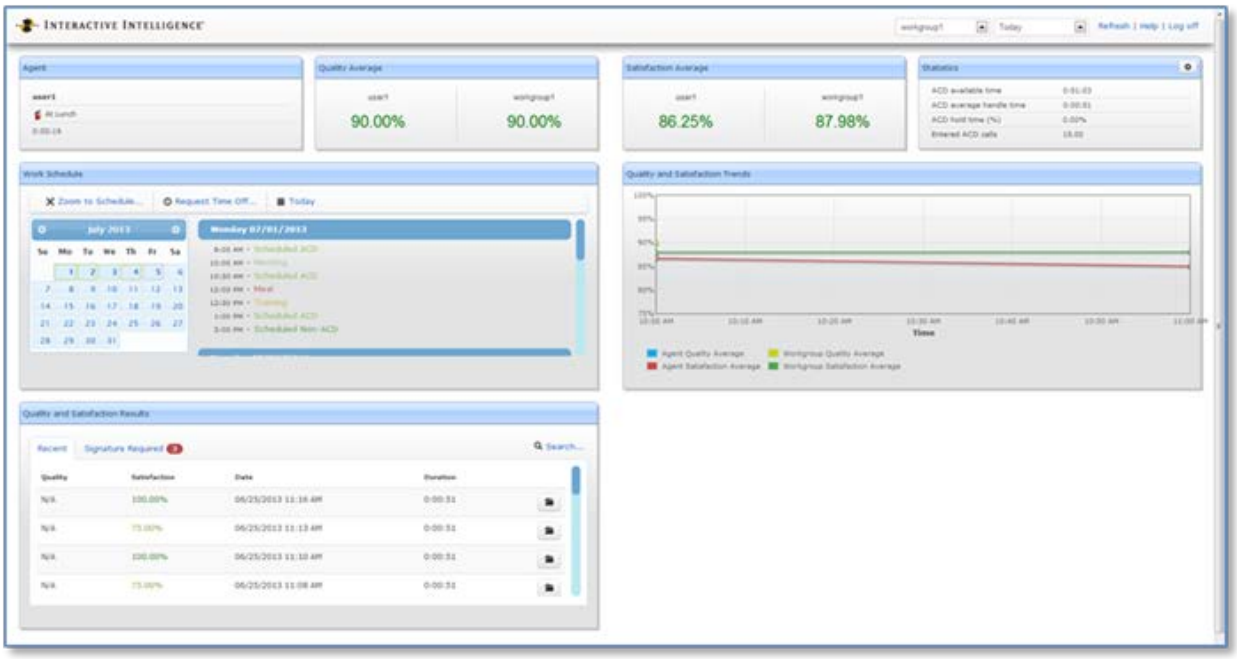
Interaction Web Portal (IWP)

Interaction Web Portal (IWP)

The following sections describe enhancements to Interaction Web Portal.

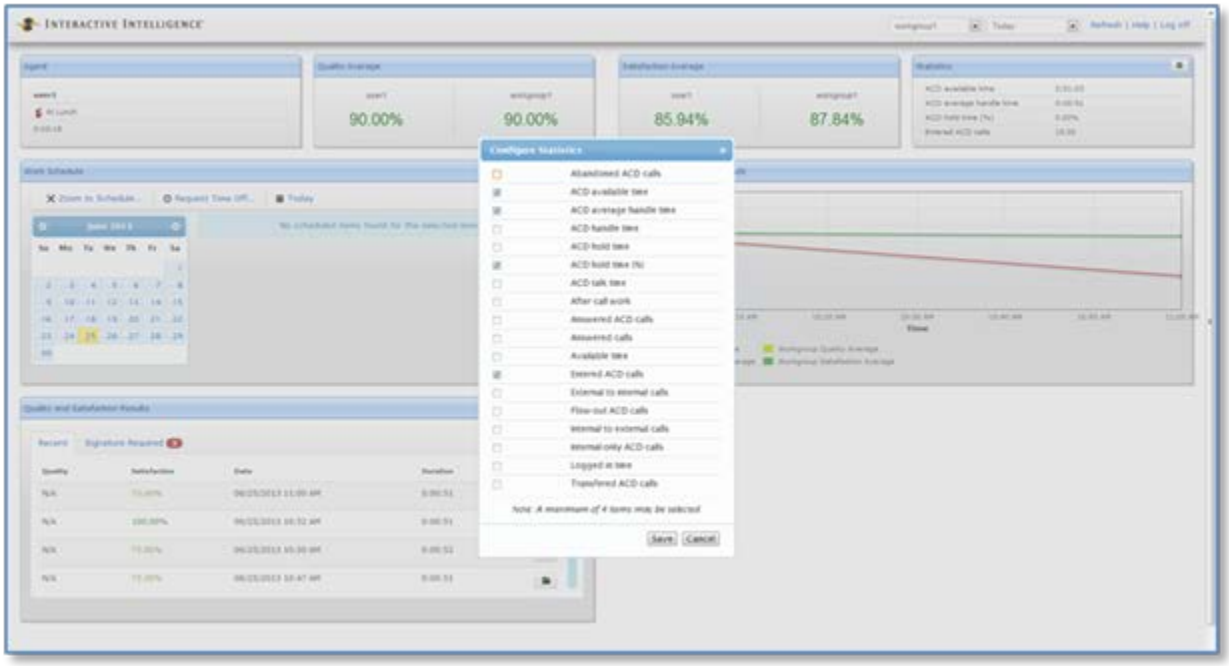
Agent Portal

In the Interaction Center 3.0 version of IWP, agents were only able to access their recordings scorecards. In Interaction Center 4.0 SU4, agents now also have access to an entire set of agent-related data and features.



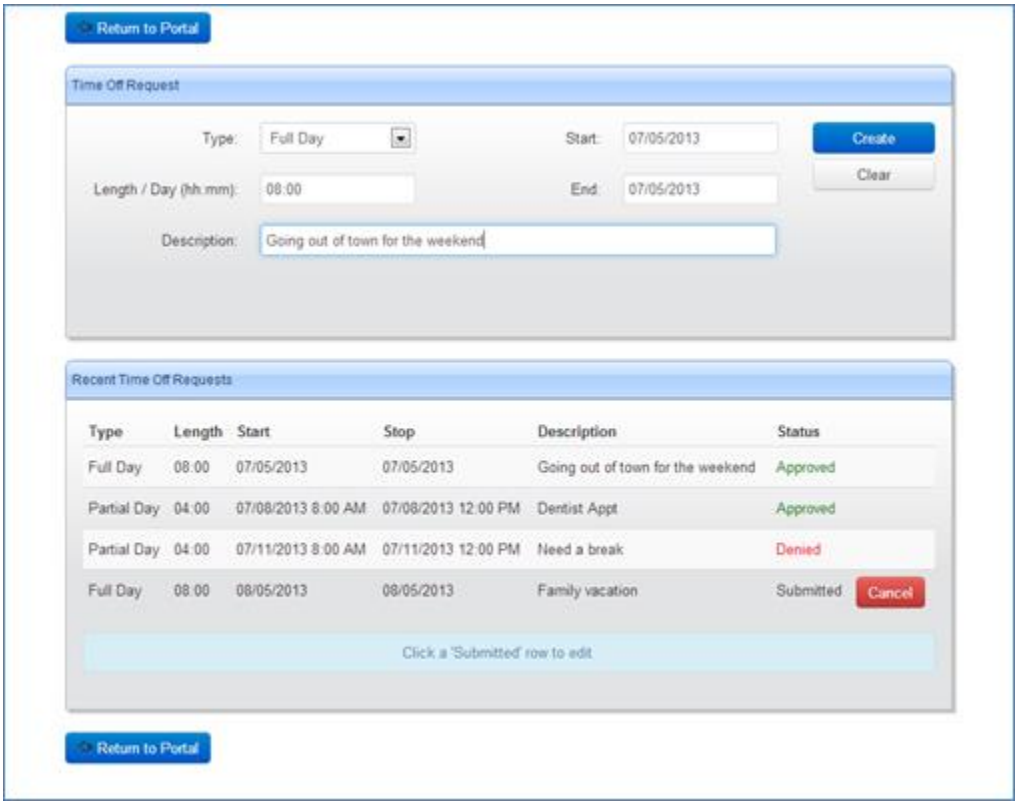
Interaction Web Portal – Agent-related Statistics

Agents can now see how their individual scores match up against their workgroup for quality and satisfaction averages. Also, they can select up to four statistics at a time to display agent-related statistics.



Interaction Web Portal – Agent Statistics Selection

Agents with the Interaction Optimizer product license can gain access to their schedules and request time off from any web-enabled computer.



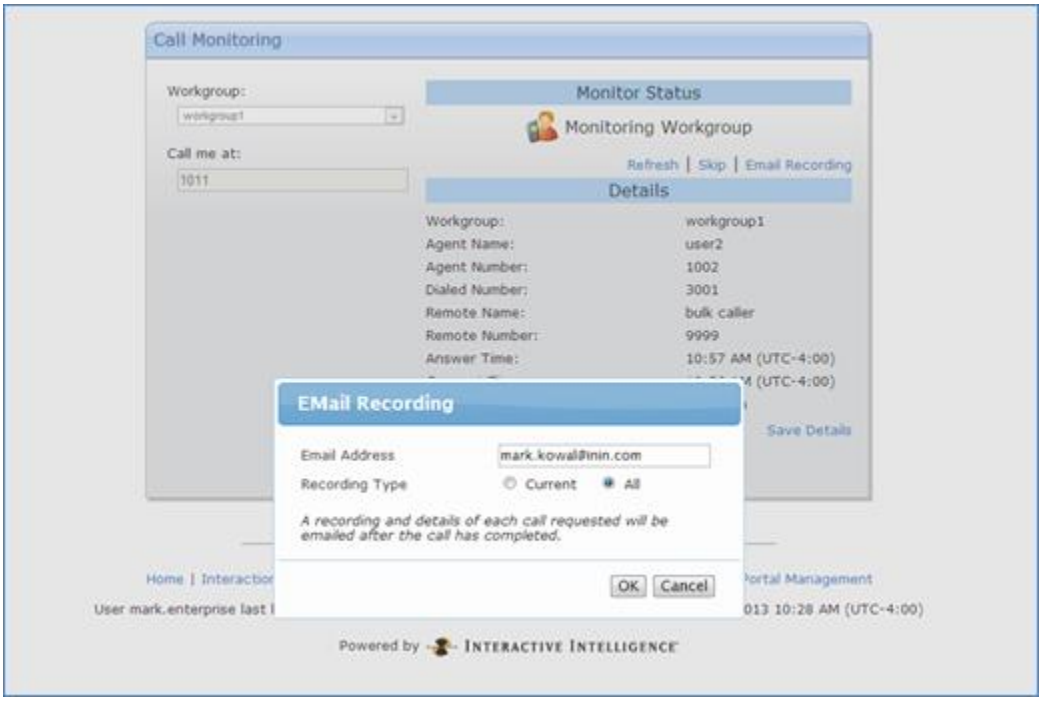
Interaction Web Portal – Agent Scheduling Information

The agent data also provides quality and satisfaction trends as well as the ability to listen to the agent's own recordings and view scorecards as they have done in the past under Quality and Satisfaction Results.

Monitoring Enhancements

There are two features that are new to Call Monitoring:

- Skip – As supervisors or outsourcers monitor calls, they can now skip a specific recording during playback. This feature allows them to skip past the current call and take the next call that an agent picks up.
- Email recording – This feature allows the person monitoring the call to access the current call or all calls via email.



Interaction Web Portal – Email Call Recordings

HTML5 Support for Statistics

The IWP statistics screens were rewritten from Microsoft Silverlight to HTML5. The HTML5 statistics page is now available on more browsers, including mobile devices and tablets.

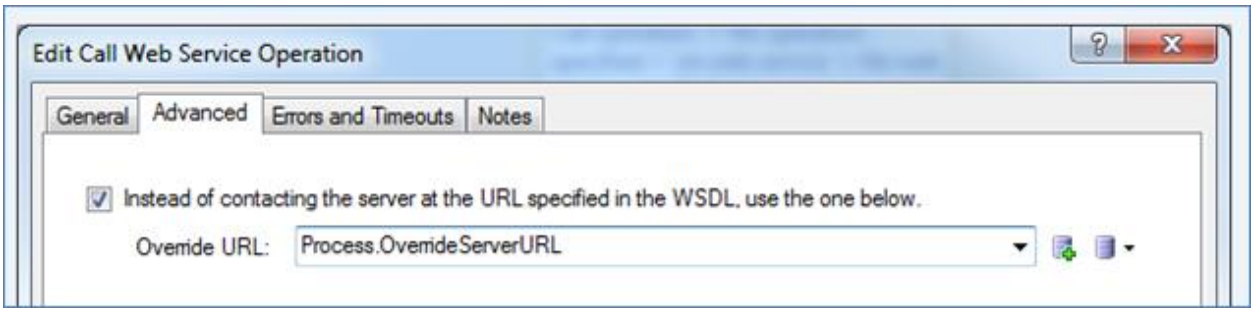
Interaction Process Automation (IPA)

Interaction Process Automation (IPA)

The following sections describe enhancements to Interaction Process Automation.

Dynamic Web Service URLs

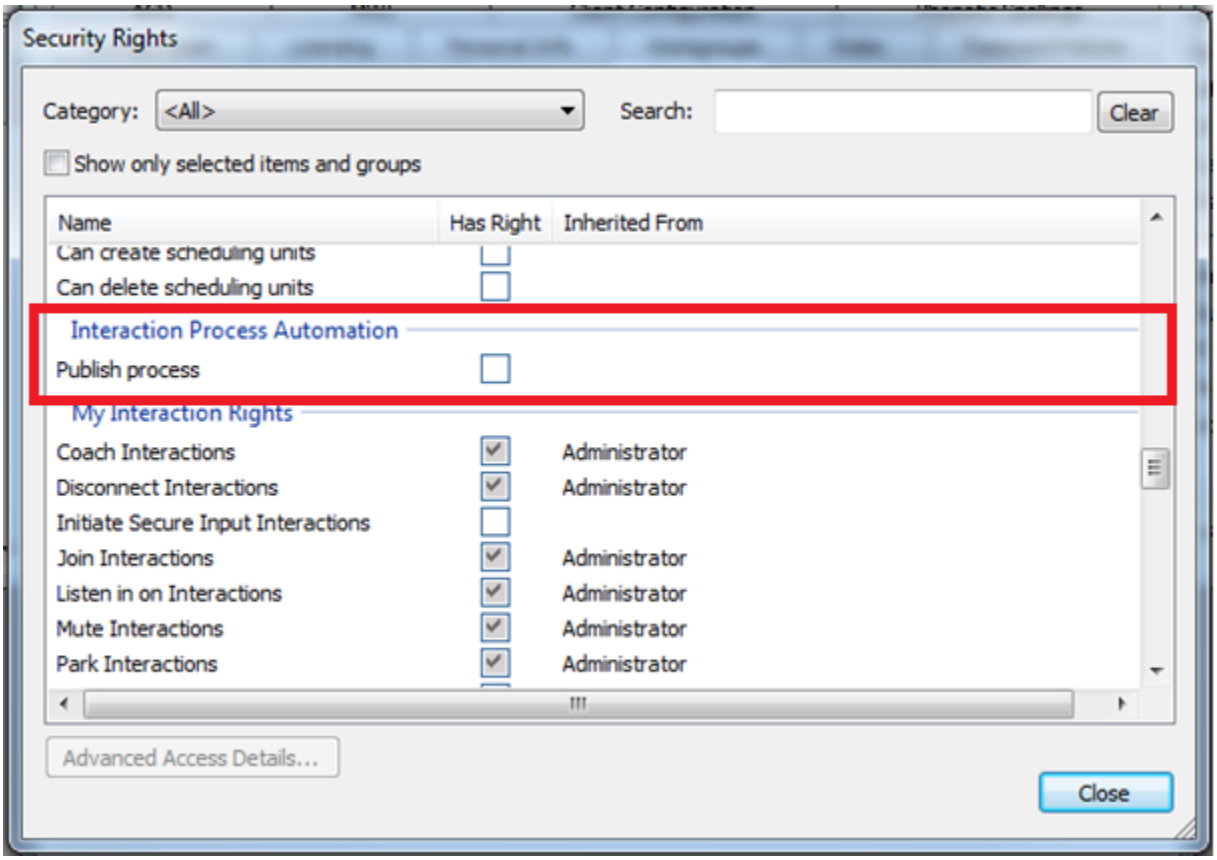
IPA now supports the ability to dynamically set the URL for a web service. During the design of the process, the user can override the currently specified web service URL and use a process variable or calculation instead. This feature is useful where the web service URL can only be determined when the process is running.



Interaction Process Automation – Dynamic Web Service URLs

Publish Process Security Right

This new security right allows administrators to grant or revoke a user's right to publish a process and to deactivate or delete a published process. This security right is configurable in the Interaction Process Automation container in Interaction Administrator. This feature is useful in situations where a user only needs to view or edit a process.

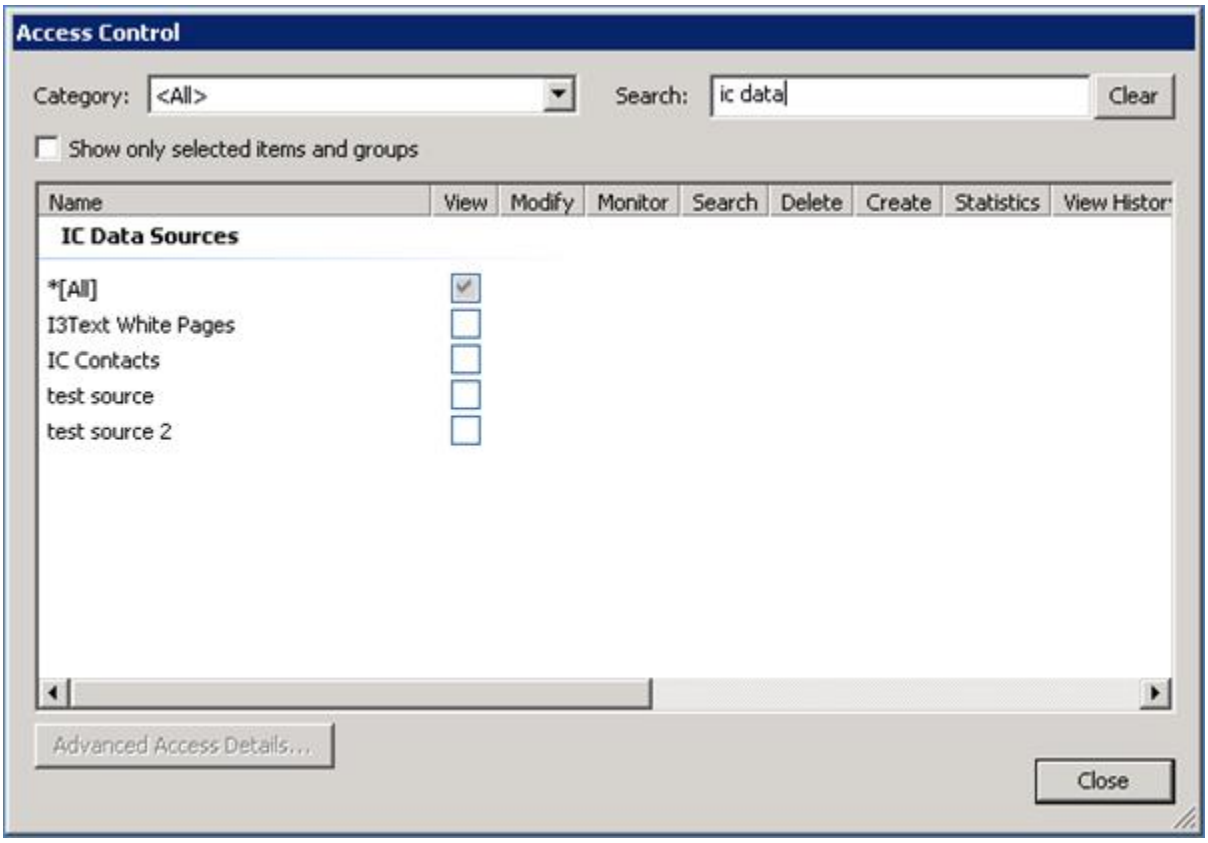


Interaction Process Automation – Publish Process Security Right

Note: During the SU4 upgrade process, all users are given the right to publish a process. The right is granted by default so that users who could publish processes prior to the upgrade can still do so after the upgrade. Administrators can then remove the right to publish a process, as required.

IPA – Data Sources Security

This new access control allows administrators to select which Interaction Center data sources a user can view and use in the IPA Process Designer. This access control is configurable in the IC Data Sources container in Interaction Administrator. If a user attempts to open an existing process that uses an IC data source to which they don't have rights to view, a notification indicates to them that they don't have the rights. This feature is useful in situations when a customer has a data source that is required for Interaction Center, but they do not want IPA processes to use that data source.



Interaction Process Automation – Data Source Security

Note: During the SU4 upgrade process, all users are given the right to view all CIC data sources. This right is granted by default to ensure that users who had access to CIC data sources prior to the upgrade can still access them following the upgrade. An administrator can then remove the rights to all or specified data sources as required.

Interoperability Testing with Third-party Vendors

Interoperability Testing with Third-party Vendors

In addition to existing tests and certifications with third-party vendors, Interactive Intelligence completed interoperability tests and certifications for the products described in the following sections, as part of Interaction Center 4.0 SU4.

Detailed information is available at http://testlab.inin.com.

Microsoft Exchange 2013

Interaction Center supports Microsoft Exchange 2013 using the EWS connector.

GroupWise 2012

Interaction Center supports Novell GroupWise 2012.

Integrations

Integrations

CIC Integration with Oracle RightNow

RightNow discontinued use of their Connect Data and XML APIs as of December 31, 2012. In previous versions of the Interaction Center integration with RightNow, there were many dependencies on these APIs. In Interaction Center 4.0 SU4, Interactive Intelligence upgraded the RightNow integration to work with the replacement, RightNow Connect Web Services API.

Because of this change, organizations that previously deployed the integration must be aware of the ramifications and the steps required to ensure that their systems are properly configured and up-to-date. In the Universal Queue Configuration Utility, each interaction queue in the Queue Sets section requires an update to Media Type Details, which appears under Routing Modifiers. This formatting changed, and the configuration must reflect the new settings for the media details to appear correctly to the agent. For more information, refer to the *IC Integration with RightNow Installation and Configuration Guide* in the Interaction Center Documentation Library.

CIC Integration with Remedy IVR

The Remedy IVR Connector provides handler tool steps to perform data dipping services within the IVR. These services include all create, read, update, and delete (CRUD) operations. This enhancement allows self-service operations prior to delivery of an interaction to the agent desktop.

CIC Integration with Microsoft Lync Server and Client Plug-in

The Microsoft Lync plug-in for Interaction Client now supports Microsoft Lync 2013. Supported features include the Lync-enabled company directory, auto off-hook functionality, and the embedded Lync client.

New Features in SU3

This section lists some of the main features that were added in CIC 4.0 SU3.

New Features in 4.0 SU3

New Features in 4.0 SU3

This section lists some of the main features that were added in SU3.

Interaction Director Support

Interaction Director 4.0 is scheduled to release around the same time as CIC 4.0 SU3. The supporting files for Director-monitored CIC 4.0 servers are installed with CIC 4.0 SU3. Interaction Director 4.0 can monitor (that is, do cross-IC server ACD routing for) a mixture of CIC 3.0 and CIC 4.0 servers. For more information about Interaction Director, see the Director 4.0 Support site.

Switchover Resiliency for Chats/Emails/Callbacks and SMS

Switchover now allows chat/email and callback request objects to remain connected in the system during a switchover.

Email interactions in a queue are re-queued, while emails connected to an agent remain connected. In case of a switchover, emails that contain HTML are converted to plain text and markup is lost. Any attachment to a draft email is not synchronized and must be attached to the draft email again after the switchover completes.

Chat interactions remain connected, and the web user won't be aware of the switch. Intercom chats remain connected and the chat history information is maintained. In case of a file transfer during a switchover, the transfer might fail and the user must restart the transfer.

Callback requests remain in the system and continue to be routed after the switchover completes.

Send Resource Priority SIP Header

A new option in CIC 4.0 allows setting and sending out resource priority SIP headers by appending information to the dial string.

Improved Time Zone Support

Organizations that run a single CIC instance and have users in multiple time zones know that it can be challenging to determine an actual time without knowing the associated time zone. For example, it can be difficult to manage opening hours in Interaction Attendant.

In several places within CIC, it is now possible to specify a time zone with a date/time value.

You can now specify time zones in the following places:

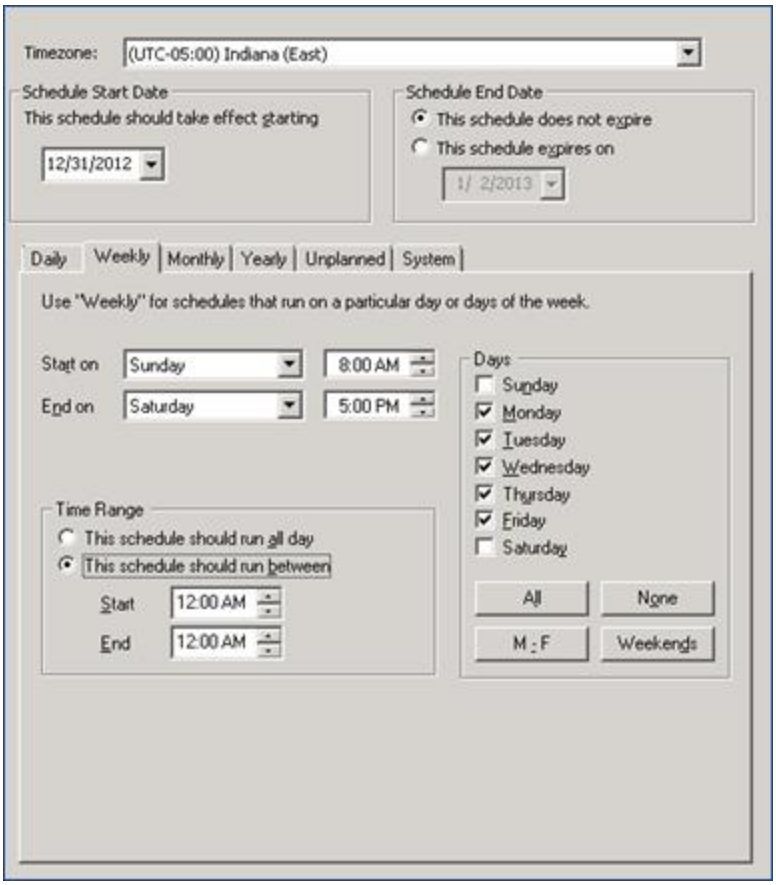
- Interaction Attendant – Scheduling

  When you specify opening hours within Interaction Attendant, it is now possible to specify the time zone in which the system should evaluate the opening hours. This allows organizations to specify, for example, a schedule from 8AM – 5PM, and configure an attendant profile to evaluate these opening hours based on the Eastern time zone. Because each profile can have a different time zone, it is possible that a different attendant profile is evaluated based on Central European time. The system automatically handles daylight savings time and switchover servers in two locations with different time zones, without the need to make changes in the schedules.

- Personal Rules
- Within the Personal Rules option in Interaction Client, there are some configurable time-based actions. In the past, these options were evaluated based on the time of the IC server and not based on the user's time zone. With the new time zone functionality, users can now configure personal rules based on their own time zones without needing to convert to the system time zone.
- TUI Announcements
- Previously, when the system announced date/time values through the TUI (for example, the date/time a voicemail message was left), the date/time was based on the server time. The end-user had to know the time zone for the server to understand when the message was left for them. With the new time zone functionality, the system announces the time and time zone so that it is clear to the end user.
- Interaction Client Until Column

  The Until column in the company directory automatically converts and displays the until times based on the user. A user who wants to know when someone will be available again doesn't have to convert the time value because it appears in their own time zone.

- For the time zone functionality to function properly, there are several new time zone related configuration options in various applications.



Interaction Attendant Time Zone Configuration

Managed IP Phones

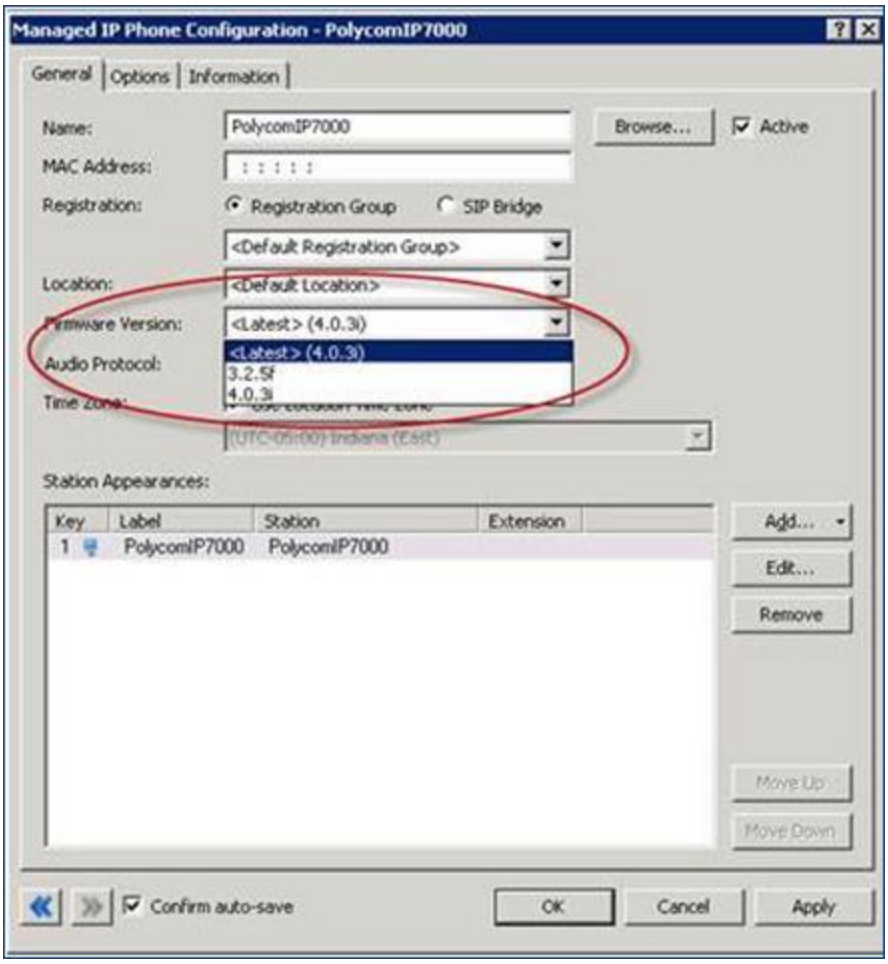
Managed IP Phones

Selectable Firmware for Managed IP Phones

Administrators can now select from a list of approved Polycom firmware versions for a specified model to apply to a managed IP phone or group of managed IP phones in Interaction Administrator.

This feature enables you to more easily control CIC 4.0 Service Update (SU) deployment to managed IP (Polycom) phones. For example, you can leave the phones on an older firmware version when an SU is first deployed, then set a few phones to the new firmware to test it, and then push out all of the phones when ready.

The selectable firmware feature also enables you to test for a regression by pushing a test phone back to an older firmware version for verification purposes.



Selectable Firmware Version feature in Managed IP Phone Configuration – General Tab

Polycom 4.0 Firmware

Polycom 4.0 firmware is included as the default firmware for Polycom phones in CIC 4.0 SU 3. The Polycom 4.0 firmware package available in CIC 4.0 SU 3 is a unified package that makes phone firmware consistent across many different models. Polycom 4.0 firmware contains a number of enhancements, including 802.1x authentication support. See the Polycom website for more information.

Note: With the new selectable firmware version feature, you can move some or all Polycom managed IP phones to the Polycom 4.0 firmware as you choose.

Media Streaming Server

Interaction Media Streaming Server is a new product that uses external audio sources, such as a CD player, iPod ®, and other devices, to stream audio to calls on hold in the CIC system. Additionally, Interaction Media Streaming Server provides voice mail playback and text-to-speech functionality.

Interaction Media Streaming Server requires a physical host computer with a sound card.

In-band DTMF Support

This feature adds support for in-band DTMF. For each line, you can configure whether to use inbound, RFC2833, or both (RFC2883, if supported, otherwise in-band). This functionality is useful as some SIP carriers don't support RFC2833.

Remote Stations Outbound Dialing Improvement

Remote station calls use **Terminate Analysis on Connect** by default. When placing a call through the client, using a remote station , the user is not longer required to say something (such as "Hello") before the outbound call is placed. Because **Terminate Analysis On Connect** is used by default for remote stations, the call is immediately placed after the remote station connects.

Managed SIP Proxy for Multiple Regions/Locations

As of SU3, it is possible to have a single managed SIP proxy provide failover service for multiple CIC regions/locations. A new configuration feature is available in Registration Groups and SIP Proxy containers in Interaction Administrator.

Interaction Attendant Enhancements

Interaction Attendant includes these enhancements:

- Dynamic Routing Option
  Several nodes in Interaction Attendant now have the option for dynamic configuration. With the dynamic configuration option, a value specified in a call attribute can be used for routing purposes. For example, instead of having to hard code the queue name in the Group Transfer node, it is now possible to use a call attribute to specify the destination queue. The call attribute can be set based on a database or SOAP lookup, allowing for dynamic routing based on external data lookups.
- Callback request announcement
  A new option in Interaction Attendant allows a final prompt to be played as soon as a callback request is scheduled. This prompt can be used to specify that the callback request has been placed in queue and to set expectations with the customer.
- Callback request Caller Data Entry option
  This option allows a value entered through the Caller Data Entry node to be used as the callback number. This feature allows a caller to enter a different number for the callback.
- When evaluating data (logical expression or selection node), an additional option specifies the data type. Both string and numeric data types are available to evaluate expressions.
- Add/Remove skill option as In Queue Action
  You can use this feature, for example, to remove required skills after an interaction waits for a specified duration.

Attendant Add/Remove Skill Queue Operation

Interaction Web Tools

Web Tools adds these features for Interaction Mobilizer:

- View callback status.
- Cancel a callback request.
- See an agent's photo (chat and callback).
- Query queue.
- Modify a callback request.
- Reconnect to a callback.

Interaction Client .NET Edition

Interaction Client .NET Edition

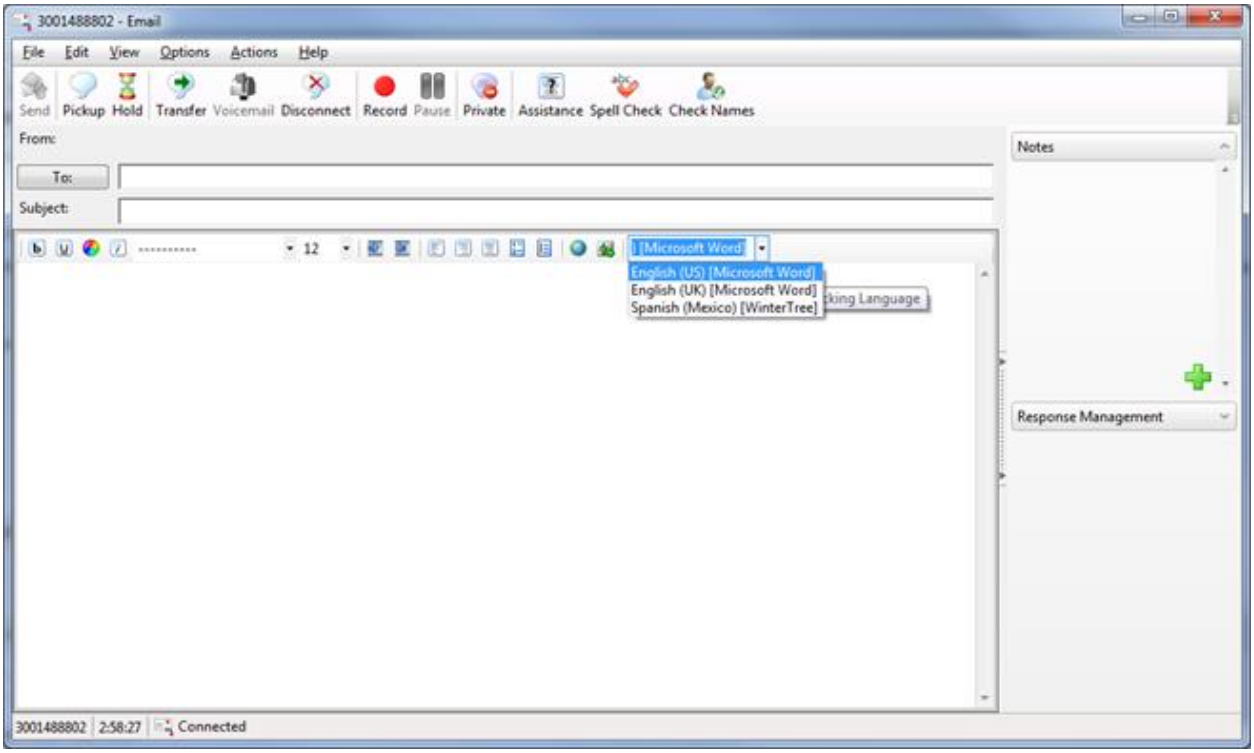
Problem Reporter

The Problem Reporter feature in Interaction Client .NET Edition allows users to report application issues directly from the application. The feature allows the user to specify the subject and description for a problem, include log files, and optionally include a screenshot. The system administrator can specify the location of the upload and an email address where problem reports should be sent.

Email Spell Checking Improvements

Interaction Client .NET Edition now allows email spell checking for multiple languages. The user selects which language to use for spell checking as part of the client configuration. The list of available languages includes those in our packaged spell checker (Wintertree), and any languages that are installed with Microsoft Word. The languages that Interaction Client .NET Edition supports are English, Danish, Dutch, Finnish, French, German, Italian, Norwegian, Portuguese (Brazil), Portuguese (Iberian), Spanish, and Swedish.

When writing an email message, the user can select the spell check language from a list.



Spellcheck language selector in Email Client

Text Masking

Text masking or filtering allows for the redaction of text from chats, emails, and the corresponding log files. The feature is currently supported with emails that enter the system via the Exchange Web Services (EWS) connector (not MAPI), as well as for all chats.

You can turn on a default filter on to mask credit card information. Additional filters can be configured to allow all kinds of strings to be masked in the system. The configuration uses regular expressions.

Interaction Client Templates

With the Client Template functionality, system administrators, supervisors, or others with the correct security rights can create client templates. A client template consists of the client layout configuration, including column selection, order, width, and the configuration of tabs and other views. All client template settings are saved on the IC server.

Once a client template has been created, you can use Interaction Administrator to apply the template to users, members of a role, or members of a workgroup. You can use the templates to create a default client layout that you can apply to new or existing system users to create a standard client layout. The layout applies to all users and reduces training time. Once a template is applied, the client for that user looks the same as configured in the template (assuming the user has the correct security rights). The user can, if they have the correct security rights, modify their client from that point forward.

Microsoft Outlook Interaction Client Add-in

The initial release of the Interaction Client Outlook add-in adds CIC functionality on the desktop within Microsoft Outlook. The add-in is embedded in Microsoft Outlook and provides the following functionality to Microsoft Outlook:

- When working with an email, appointment, or contact in Outlook, users see real-time status information for contacts who are CIC users (for example, internal employees).
- A **Quick Dial** option now appears in the context menu within Outlook Contacts.

The Outlook add-in requires Interaction Client .NET Edition to be running on the user's desktop. The Outlook add-in uses the already connected .NET Client connection to communicate with the IC server.

Interaction Client Web Edition

Interaction Client Web Edition

Add/edit Private Contacts

Interaction Client Web Edition now includes the capability to add, edit, and remove contacts to and from the Private Contacts list. Prior to this release, it was only possible to view and dial from the Private Contact list.

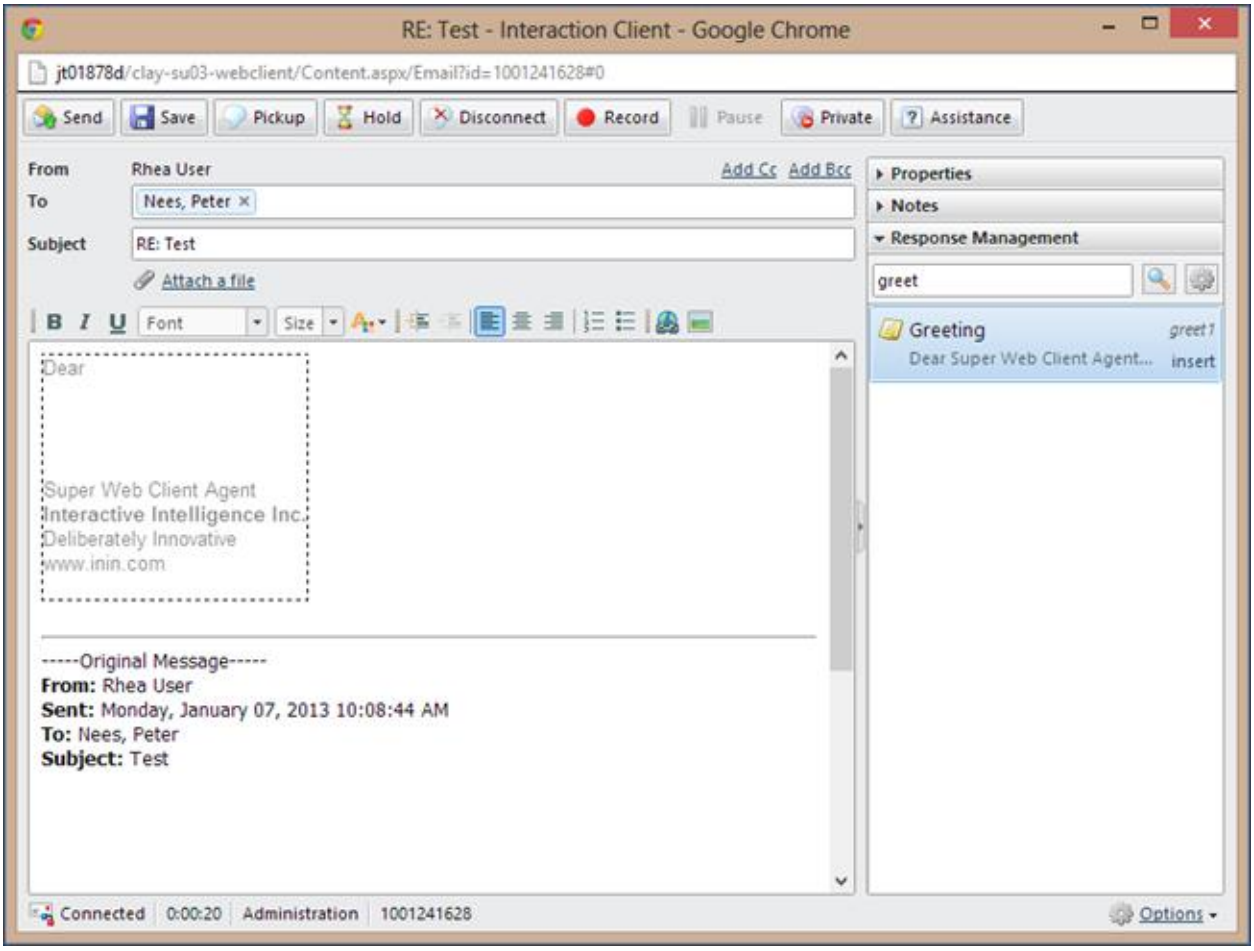
Multi-channel Interaction Web Client Enhancements

CIC 4.0 SU 2 included improvements to response management. In SU 3, Interaction Client Web Edition now supports email and chats, and spell checking is performed by the browser.

Email

SU 3 adds the ability to receive inbound emails or create outbound emails through the Interaction Client Web Edition.

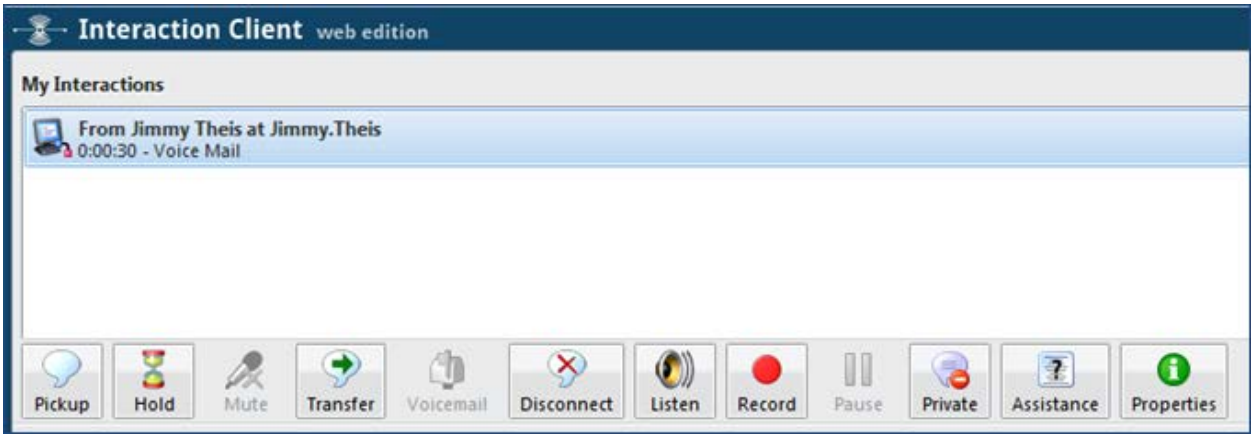
Creating a new email message through the Interaction Client Web Edition



Email response form in Interaction Client Web Edition

Chat

Interaction Client Web Edition now supports chat. Each chat appears in its own pop-up browser window. Note that chats in Interaction Client Web Edition do not yet have the embedded chat view that was added to Interaction Client .NET Edition in SU 2.

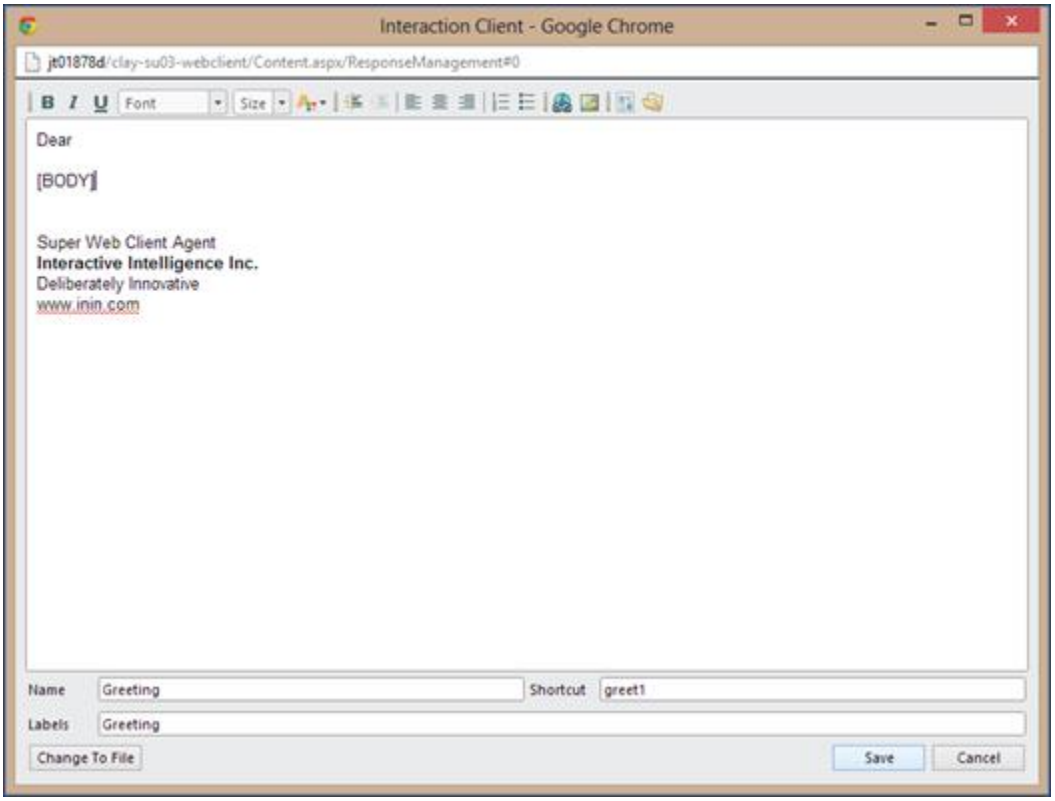


Chat in browser pop-up window

The chat pop-up window shows chat conversations and also provides access to account codes and response management.

Response Management

You can now create and modify response management entries through Interaction Client Web Edition.



Editing response management in Interaction Client Web Edition

Interaction Supervisor enhancements

Interaction Supervisor enhancements

Skill Information

This feature allows supervisors to see and filter on skills from the workgroup directory views in the Interaction Supervisor module in IC Business Manager. Customers who use skills-based routing can now see agent skills directly within the directory views.

New Statistics

The following statistics are new to workgroup views in SU 3:

- Longest Hold Time
- Interactions Held
- Interactions on Hold
- Average Hold Time
- Total Hold Time
- Agents Logged In + Activated

Call Activity View

Interaction Supervisor includes a new Call Activity view. This view allows users to see all call activity for lines or stations.

Statserver Scalability Improvement

To get better scalability out of the Statserver subsystems, there are now two separate processes to split the workload and improve performance on large-scale systems.

Secure Screen Recording Pause

You can now initiate the pausing of screen recordings, either manually in Interaction Client, or programmatically using a public API.

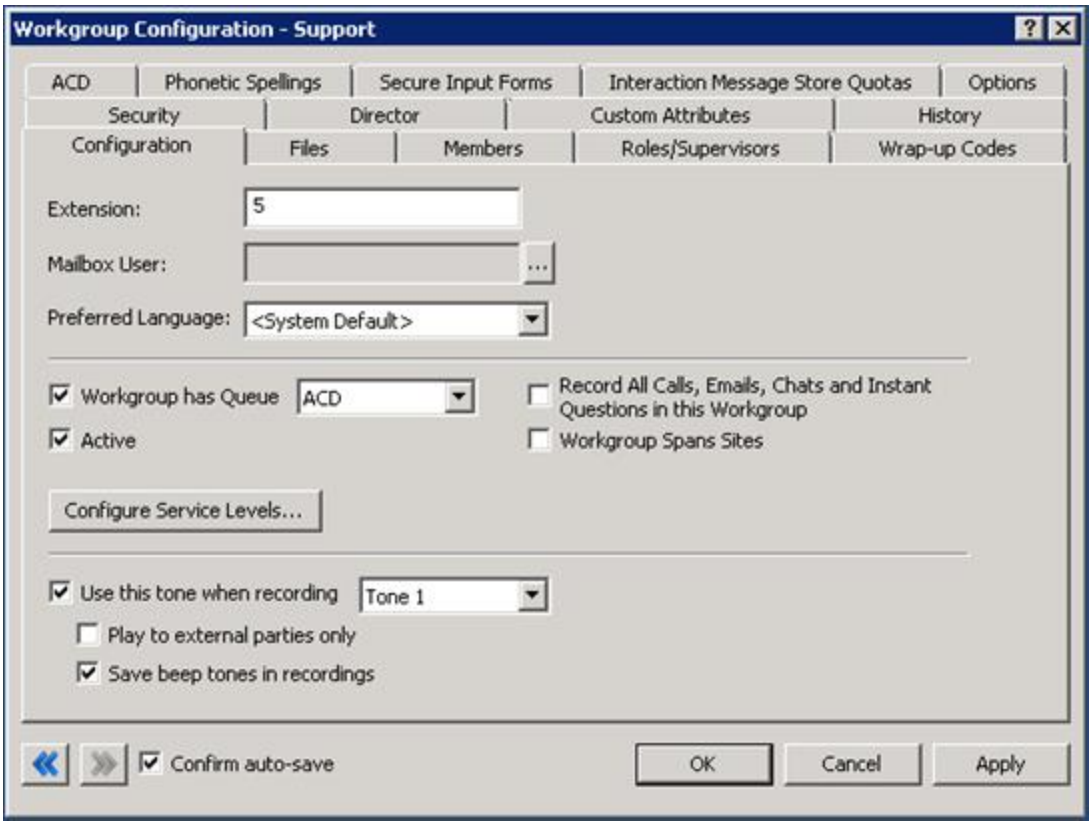
When an agent initiates a secure recording pause during a recorded interaction, the screen recording pauses for a configured period of time. As a result, the final recording contains a beep to indicate the execution of a secure segment. The secure segment is omitted from the recording and compressed. During playback, the listener hears the beep and the pause is indicated by a lock icon on the timeline in the playback window.

There is a public API call available to pause and resume screen recording. This provides the ability to use a third party desktop application to control the screen recording when entering credit card data.

Audible Tones for Recordings

A new configuration option is available to insert audible tones into a conversation between an agent and a customer. It also allows adding tones into the recording.

You can define and configure the tone setting in Interaction Administrator, and then associate it with one or more ACD Queues.



Associating Tone with ACD Queue

As shown in the figure, it is possible to specify whether the tone should be played to the external party without playing it to the agent. A second option allows you to specify whether the tone should also be included in the recording.

Interaction Recorder

Interaction Recorder

Related Items Interaction Recorder Support

This feature adds the ability to access recordings from the related interactions view. Users with appropriate access rights can directly access recordings in the related interactions view.

Scorecard - Export/Print

Supervisors can now quickly and easily send scoring results after evaluating a recording. This new feature allows the creation of a scorecard report from the current scorecard.

The Quality Scorecard report includes the information contained in the current/viewed scorecard, but displayed in a report format. Quality Scorecard reports can be generated from the scorecard results grid, from a scorecard, and from the recording search results in the Details pane.

For more information about scorecards and reports, see the *Interaction Recorder Technical Reference* in the CIC Documentation Library.

Scorecard Searching

A new scorecard-based search provides supervisors with the ability to search for scorecards based on several different attributes, and then view the resulting scorecards. New scorecard search attributes include:

- Questionnaire
- Rank Name
- Critical Accuracy Score
- Non-Critical Accuracy Score
- Scoring Date
- Scored Role
- Scoring Role
- Scoring Workgroup
- Scored Workgroup
- Calibration

You can display search results in a graph or grid in the Search Results view. Scorecard search results initially appear in a pie chart. Select specific scorecards to view the details. For more information about scorecard searches, see:

https://my.inin.com/products/recorder

Archiving and Bulk Export of Recordings

A new archiving feature provides the ability to automatically archive recordings using Interaction Recorder Policy Editor. In Interaction Recorder 4.0 SU3 and later, you can archive recordings to manage your organization's recorded interactions, such as calls, emails, and screen recordings. When you archive, the original recordings are copied in a playable format to an archive volume folder in the database. Interaction Recorder flags the recording to indicate that it was archived.

There are two ways to archive recordings:

- You can automatically archive recordings by creating an Interaction Recorder Policy Editor retention policy.
- You can manually archive recordings from the search results grid in the Interaction Recorder client.

For more information about archiving of recordings, see the *Interaction Recorder Technical Reference* in the CIC Documentation Library.

Interaction Analyzer

Interaction Analyzer

Differentiate Analyzer Keyword Icons in Recorder Playback

New icons in the Interaction Recorder playback control provide easy identification of positive, negative, or unscored keywords, and differentiates between agent and customer channel. Agent is indicated with right arrows, and a customer is indicated with left arrows.

New Interaction Recorder playback control icons

Analyzer Keyword Configuration through Recorder Policy

Interaction Analyzer now determines which conversations to analyze for keywords, based on Interaction Recorder policies instead of CIC workgroups. You can now assign your new or existing Interaction Analyzer keyword sets to roles and workgroups through Interaction Recorder Policy Editor in Interaction Administrator. This feature provides

much greater flexibility in assigning Analyzer keyword sets, and also enables the use of Interaction Analyzer for calls outside of ACD workgroups.

Analyzer Language Model – Turkish

Interaction Analyzer now supports the Turkish language.

Interaction Optimizer Rights and Navigation Enhancements

The new rights and navigation enhancements allow users to better navigate within Interaction Optimizer and control access to specific features with greater granularity. The new navigation pane replaces the tree and branch functionality with a feature menu and breadcrumb navigation options that allow users to more easily access the various parts of Interaction Optimizer without scrolling.

New rights options allow administrators to grant varying levels of access to Interaction Optimizer features in IC Business Manager. For example, an Administrator might give supervisors access to view Optimizer schedules, but not edit them.

Interaction Process Automation

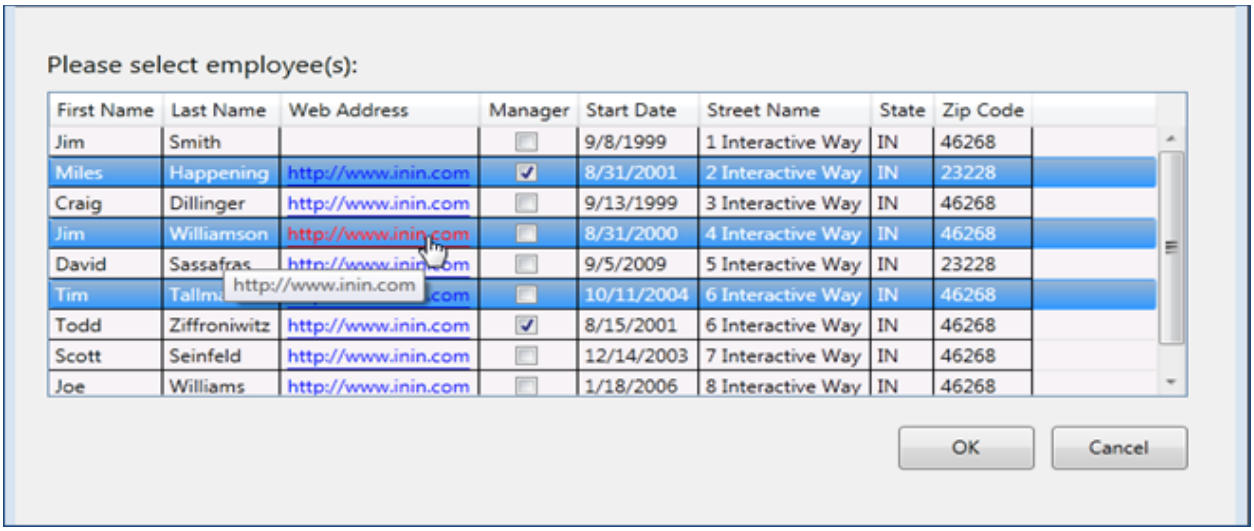
Interaction Process Automation

Grids and Lists

Interaction Process Automation Designer now allows a process author to bind complex data types and/or lists of complex data types to a data grid control for display within a work item page form. The initial functionality features a **read-only** display of the complex data type, enabling the process author to pick and choose the property fields to display. Data grid supports single and multi-selection, which is enforced at design time. Although the data elements are read-only, the grid does allow one or multiple fields to be selected as shown below:

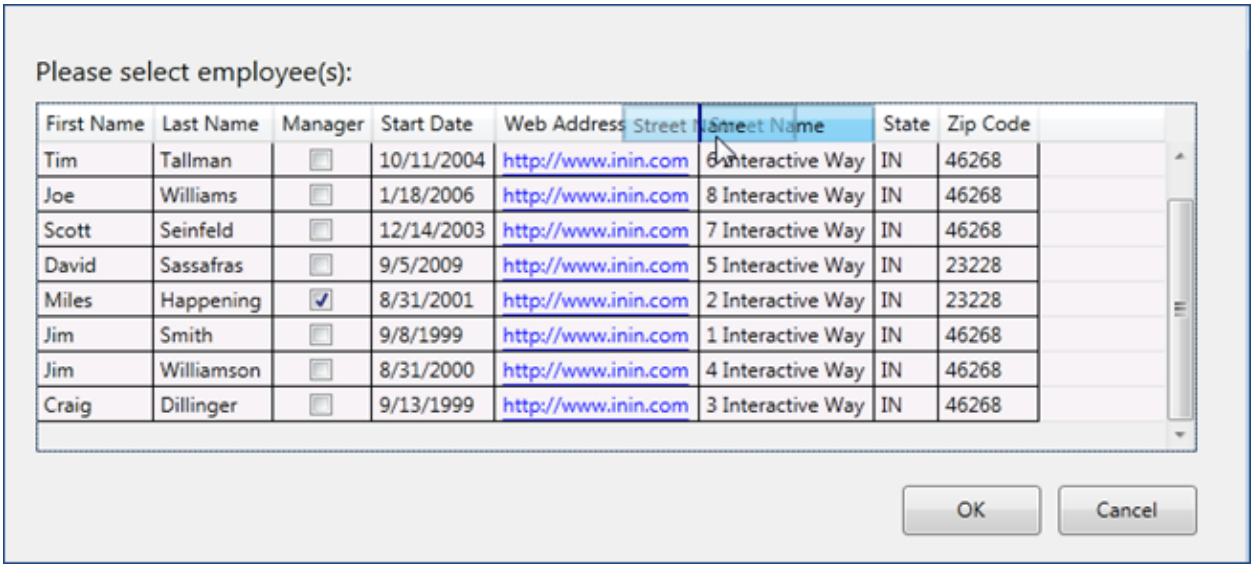
Data grid with multi-selection

Web links (URLs) appear within the grid.



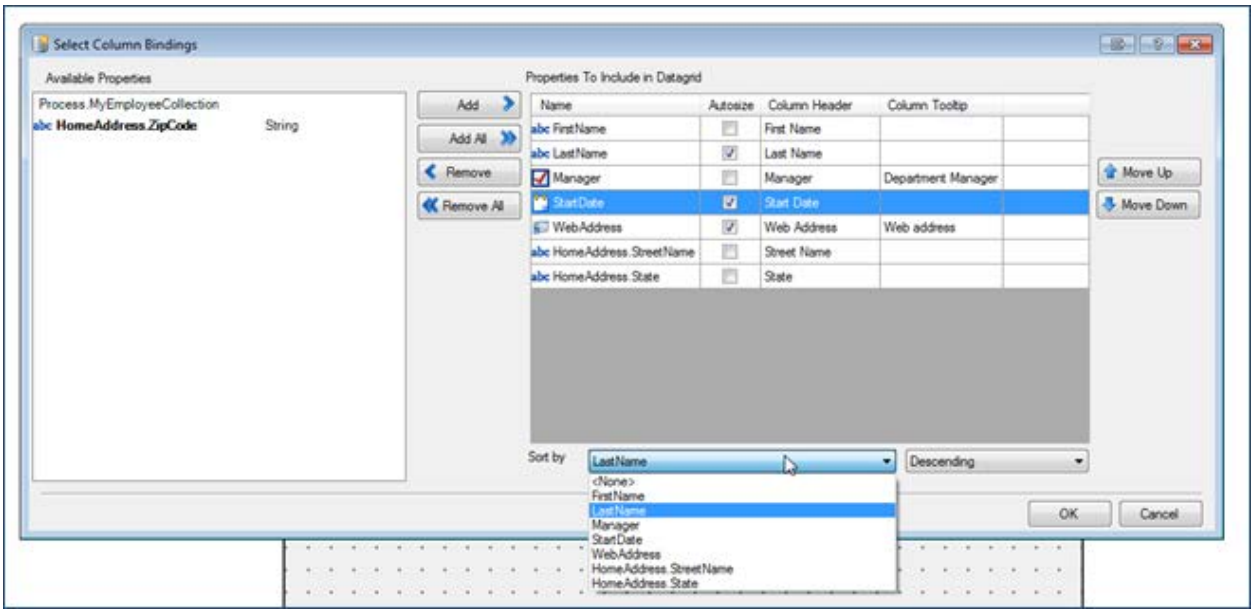
Data grid with links

If enabled at design time, column reorder is possible at run time.



Data grid reorder

When the data grid is bound to a complex type in Interaction Process Automation Designer, the properties are used to dynamically create columns.



Configuring data grid

Currency Support

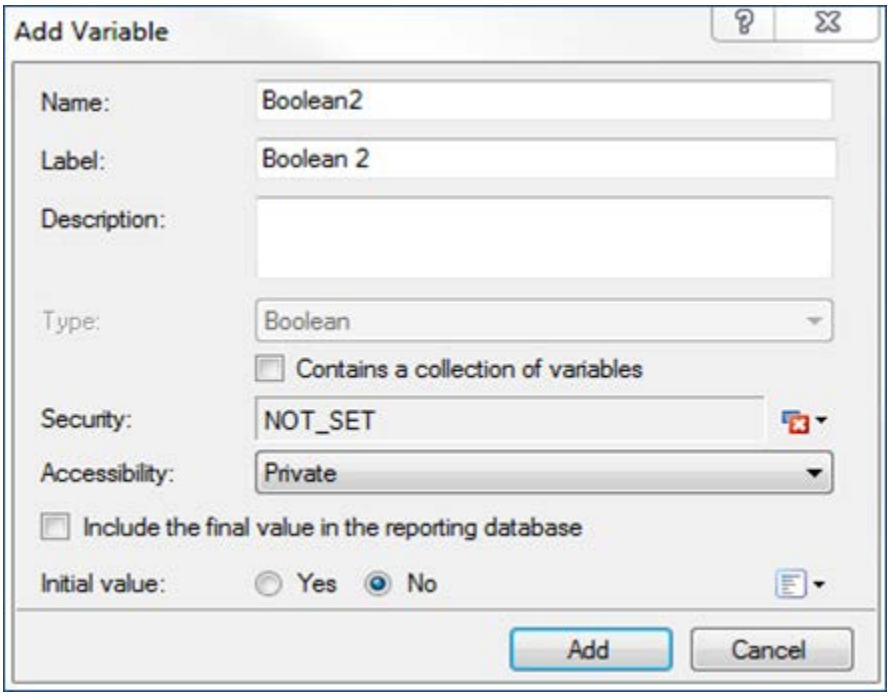
Interaction Process Automation Designer includes an improved ability to handle currency with the addition of a currency variable and improved floating point calculation precision.

Process Templates

Interaction Process Automation can enables importing of process templates purchased from the Interactive Intelligence MarketPlace.

Improved Data Security - Phase 1

To provide security, variables are not written to logs or the database unless an administrator configures the system to do so. This is done on an opt-in basis.



New option to include variable in database

Note: By default, this check box is not selected for new process variables added after SU3 is installed, and it is selected for any existing process variables created before SU3 was installed.

Interaction Web Portal (IWP)

Interaction Web Portal (IWP)

IWP Base for CIC 4.0

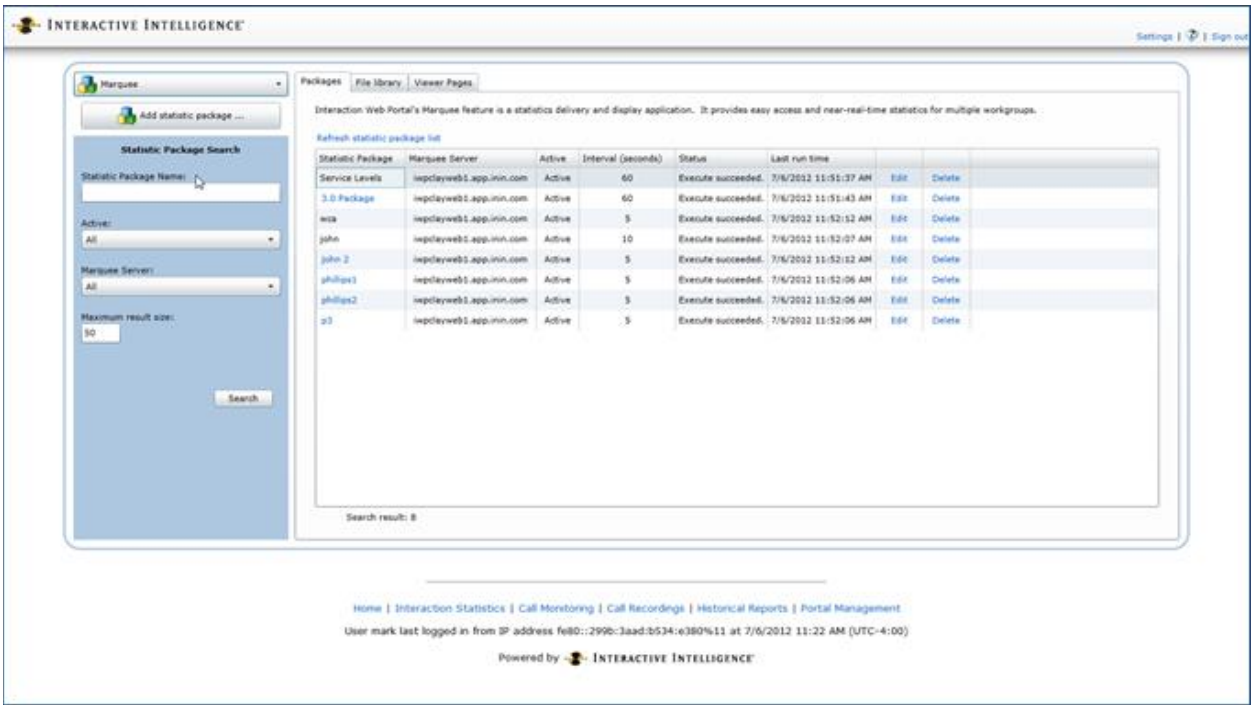
The Interaction Web Portal (IWP) product is now available in CIC 4.0. IWP features include access to statistics, recordings, reports, and live call monitoring. IWP provides web access to contact center supervisors and agents, as well as stakeholders outside of the contact center.

IWP Support for Concurrent Licensing for CIC 4.0

Concurrent licensing for users is now available within Interaction Web Portal (IWP) in CIC 4.0 SU3.

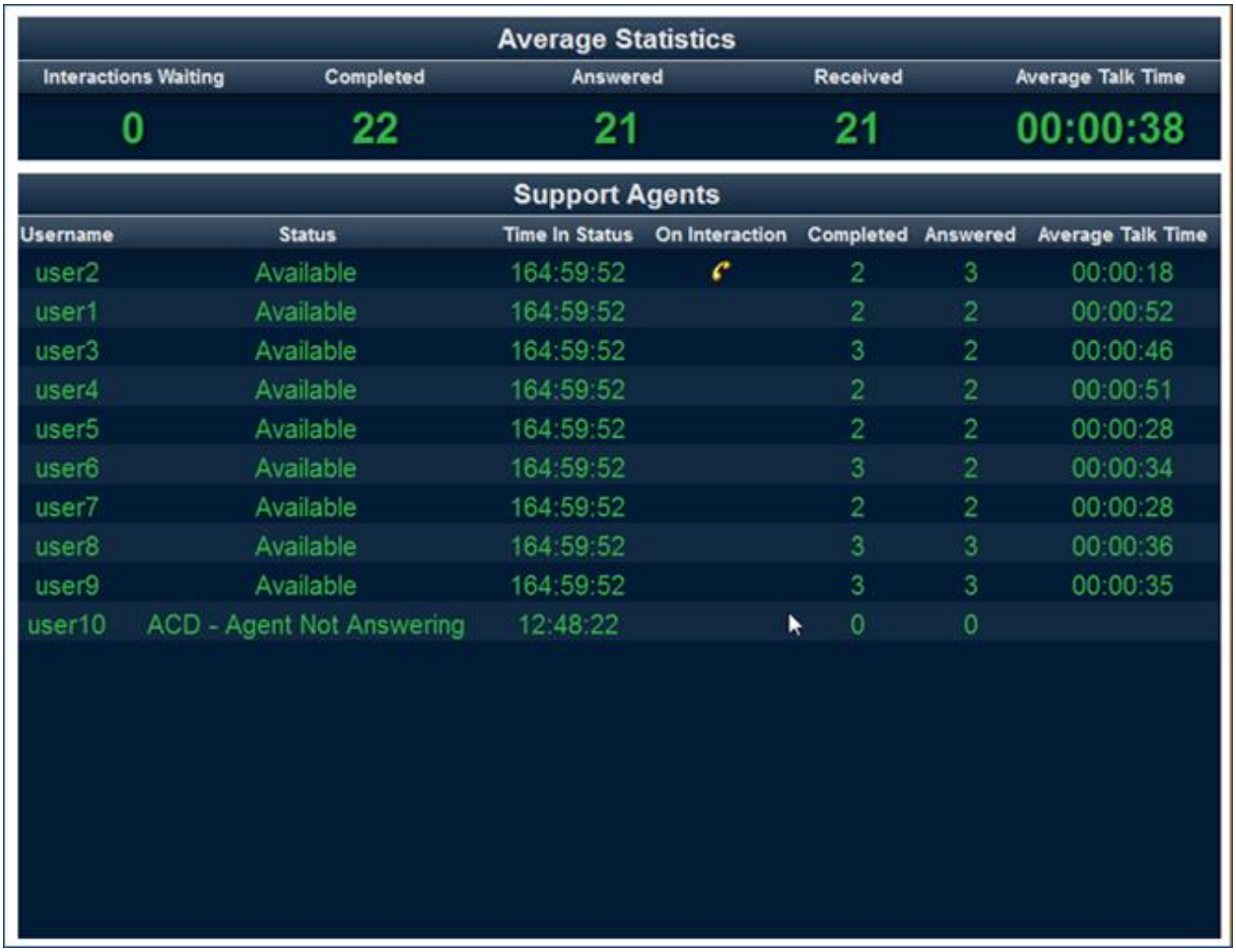
Interaction Marquee

Interaction Marquee is now available in CIC 4.0. Interaction Marquee 4.0 allows users to view and display real time statistics on wall boards, LED screens, monitors, and smartphone mobile devices. Marquee 4.0 utilizes the IWP framework and brings a simpler approach to sharing contact center statistics with workgroups and organizations.



Interaction Marquee 4.0 Configuration

Using the Interaction Marquee 4.0 configuration pages allows users to display statistics in a new format.



Average Statistics

Interactions Waiting	Completed	Answered	Received	Average Talk Time
0	22	21	21	00:00:38

Support Agents

Username	Status	Time In Status	On Interaction	Completed	Answered	Average Talk Time
user2	Available	164:59:52		2	3	00:00:18
user1	Available	164:59:52		2	2	00:00:52
user3	Available	164:59:52		3	2	00:00:46
user4	Available	164:59:52		2	2	00:00:51
user5	Available	164:59:52		2	2	00:00:28
user6	Available	164:59:52		3	2	00:00:34
user7	Available	164:59:52		2	2	00:00:28
user8	Available	164:59:52		3	3	00:00:36
user9	Available	164:59:52		3	3	00:00:35
user10	ACD - Agent Not Answering	12:48:22		0	0	

Example of Interaction Marquee output

The 3.0 version of Interaction Marquee was rewritten for CIC 4.0. New and enhanced features include:

- Web-based administration
- Simple product configuration through a web interface
- Modern HTML 5 package samples
- New statistics
- Support for multiple IC servers from one statistic package
- Web service to access package output
- Statistics viewer that rotates between statistic packages
- Support for Interaction Marquee 3.0 SXL

Integrations

Integrations

CIC Integration with Microsoft Lync

Lync Presence Sync Service

The Lync Presence Sync Service was rewritten for CIC 4.0 in SU 3. The new service sits between CIC and Lync and offers a highly customizable way to control what happens when presence/status changes occur on either system. In SU 3, the service is configured through an included XML file. In SU 4, configuration of the service will be through Interaction Administrator.

Lync-enabled Company Directory for Interaction Client .NET Edition

The Lync-enabled Company Directory for Interaction Client .NET Edition provides an alternate Company Directory tab that includes controls from Microsoft Lync embedded inside the directory. This allows a user to see both the CIC status and corresponding Lync presence of users in the organization. With the Lync Presence Sync service running, the most accurate reflection of a user's presence information is visible regardless of the role of the user within the organization. If the new Lync data source is utilized in CIC, then Lync-only users in the enterprise are included in the directory so that CIC users can use the Interaction Client company directory to look up those users.

CIC Integration with Oracle RightNow

The joint, tightly integrated solution allows customers to use the agent and web facing features from RightNow, combined with CIC's IVR, universal queuing and routing capabilities to improve communication, first call resolution rates and customer satisfaction. This is the initial release of Oracle RightNow for CIC 4.0.

CIC Integration with Salesforce/ Interaction Client Web Edition

The new release of the Salesforce.com integration focuses on getting to a platform-independent experience for users of both Salesforce.com and CIC. This can be used on Windows machines, Macs, Linux machines, as well as in terminal services platforms with published applications. Through this integration there is no software footprint on the user's workstation; everything simply runs inside a web browser. As this integration relies on the Interaction Web Client to provide CIC features, there is not full feature parity yet with the software-based CTI integration released in SU2. The Open CTI integration can route calls, emails, and web chats, but not web callbacks and generic objects. Users can still continue using the software-based CTI integration if not all desired functionality is available.

CIC Integration with Oracle Siebel

This integration enables connectivity of CIC through Siebel by providing screen pops, call control, and click-to-call from within the Siebel interface. This feature is useful for customers who want to use CIC and CRM together in one interface.

Speech Recognition

Speech Recognition

MRCP for ASR

The MRCP ASR Integration allows users to integrate CIC with other ASR vendors that are MRCP 2.0 compliant. This feature is required with Nuance Recognizer 10 or any other ASR vendors. This feature is not required for Nuance Recognizer 9, Loquendo 7 or Interaction Speech Recognition.

NDM Support for NDM-core 6.1

Nuance Dialog Module (NDM) – Core 6.1 is now supported in Nuance Recognizer 9 and 10.

NDM – Core is a J2EE component that delivers a piece of packaged call flow in VoiceXML to accelerate the delivery of high performance and high quality speech applications.

NDM-Core 6.1 provides grammars for Yes/No (Boolean), digits, item list, phone numbers, record, natural numbers, currency, date, time, credit card number, credit card expiration, alphanumeric, zip code, social security numbers, and custom context.

Any use of NDM grammars require the VoiceXML Interpreter licensing.

Nuance Recognizer 10 Support for 4.0

Nuance Recognizer 10 is supported in CIC 4.0 SU3. This feature requires the MRCP ASR Integration feature.

Interaction Speech Recognition - Native CIC Speech Recognition (ASR)

Interaction Speech Recognition (ISR) is a new feature that is embedded within the Media Server. The feature provides speech recognition and built-in grammars for the following:

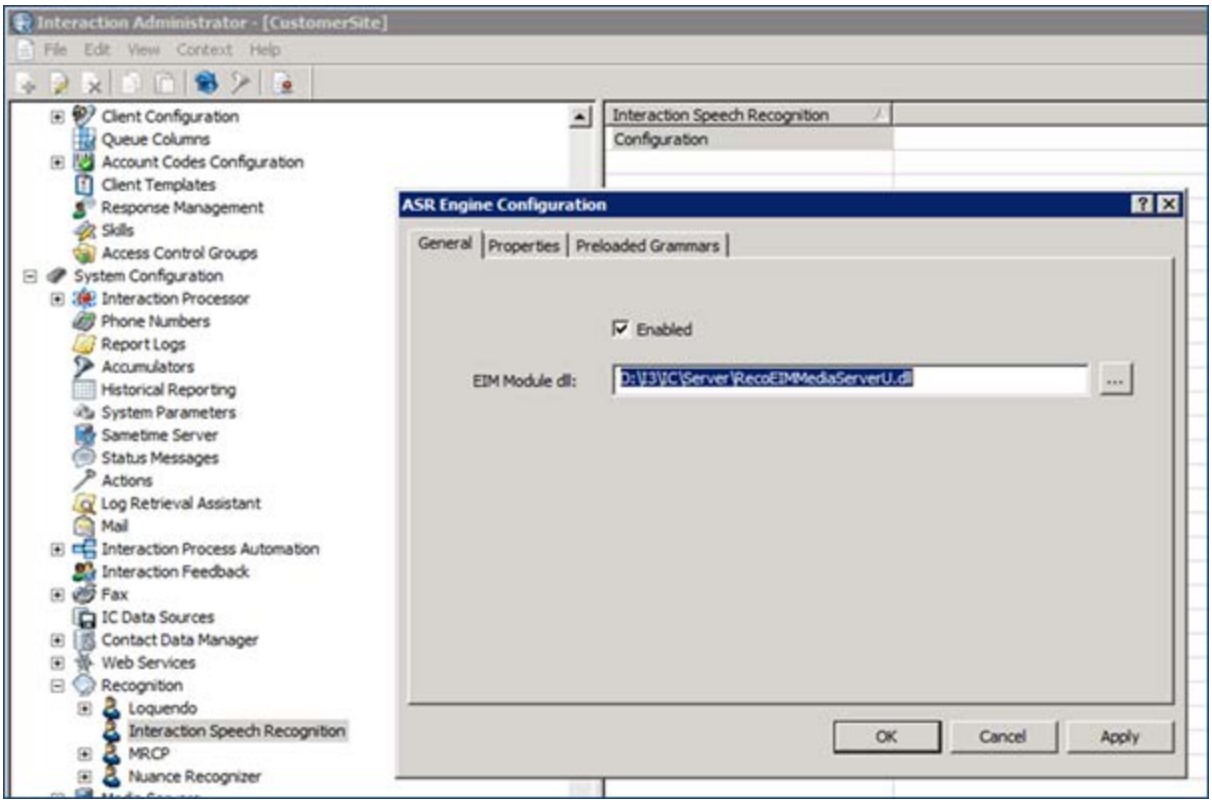
- Company directory
- Yes/No (Boolean)
- Digits
- Dates
- Time
- Numbers
- Currency
- Phone numbers

Typical ASR engines limit users to a certain number of words that can be used for a particular license. Interaction Speech Recognition does not limit the number of words within the application.

Currently, Interaction Speech Recognition only supports US English. Additional language support will be released in future service updates.

This feature is activated with the purchase of the Interaction Speech Recognition port license and runs on the media server. It does not require a separate ASR server.

Once you apply the license for this feature, select the **Interaction Speech Recognition** object in the Recognition container of Interaction Administrator, double-click the **Configuration** item, and select the **Enabled** check box.



ASR Engine Configuration

Interoperability Testing with a Third Party Vendor

In addition to existing tests and certifications with third-party vendors, Interactive Intelligence completed interoperability tests and certifications for Vmware View 5.0 as part of CIC 4.0 SU3.

Detailed information is available at http://testlab.inin.com.

New Features in SU2

This section lists some of the main features that were added in CIC 4.0 SU2.

New Features in 4.0 SU2

New Features in 4.0 SU2

This section lists some of the main features that were added in SU2.

Localization and Language Additions

Localization and Language Additions

CIC SU2 includes several new CIC language packs and Interaction Analyzer language models.

New CIC Language Packs

The following language packs are new in SU2:

- Chinese Simplified
- Chinese Traditional
- Italian

- Korean
- Norwegian
- Swedish
- Turkish
- Russian
- Serbian
- Hebrew
- Arabic

For information about other supported languages, scope of availability, and more, see the Interactive Intelligence Support site at https://my.inin.com/products/cic/Pages/Localization.aspx.

Language packs require a language-specific feature license on the IC server. You can order a language pack license through the online ordering system.

New Interaction Analyzer Language Models

CIC SU2 includes these new language models for Interaction Analyzer:

- UK English
- Brazilian Portuguese
- Canadian French
- Dutch
- Australian English
- German

Enhancements to Interaction Client .NET Edition

Enhancements to Interaction Client .NET Edition

CIC SU2 contains several new features in the Interaction Client .NET Edition.

Enhancements to the My Interactions View

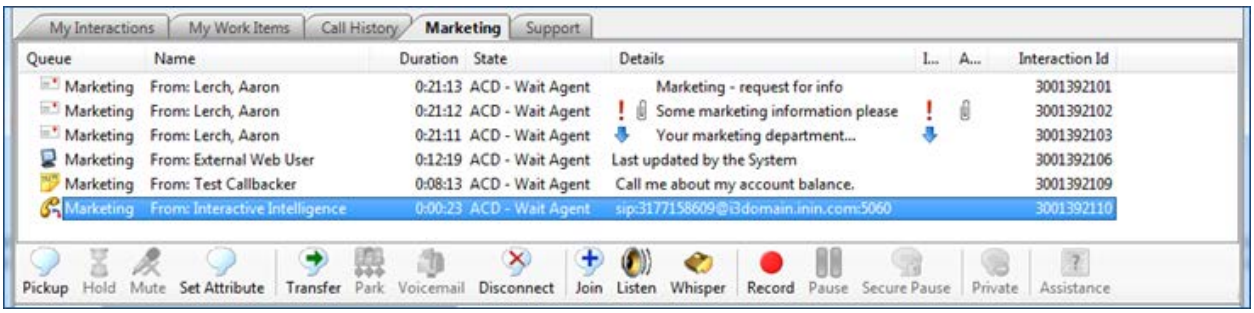
Several improvements have been made to the **My Interactions** view, specifically for multichannel users. New columns allow agents to access immediately the contextual information for an interaction.

The new columns are:

- **Details**
  This column contains context-specific information that is based on the interaction type. For calls, it displays the Remote Address (phone number). For callbacks, it displays the subject of the callback. For emails, it displays the email subject, importance, and whether there are attachments. For chats, it displays the name of the user who last typed, and the text they entered. It also shows a typing indicator (icon) to indicate that someone is typing in the chat.
- **Attachments**
  This column displays an icon indicating that an attachment exists on for an email interaction, or is blank if no attachments exist. Although this information is also available through the **Details** column, but is included here to allow sorting.

- **Chat Response Time**
  This column displays a counter that indicates how much time has elapsed since the last text was entered in the chat.
- **Importance**
  This column displays an icon that indicates whether an email is of high or low importance, and is blank for an importance level that is neither high nor low. This information is available in the **Details** column, but is included here to allow sorting.

Each of the columns described is either assigned (or restricted) based on Access Control Lists in Interaction Administrator. The new columns appear in the **My Interactions** view, but are also available when viewing different queues from both Interaction Client .NET Edition and Interaction Supervisor.

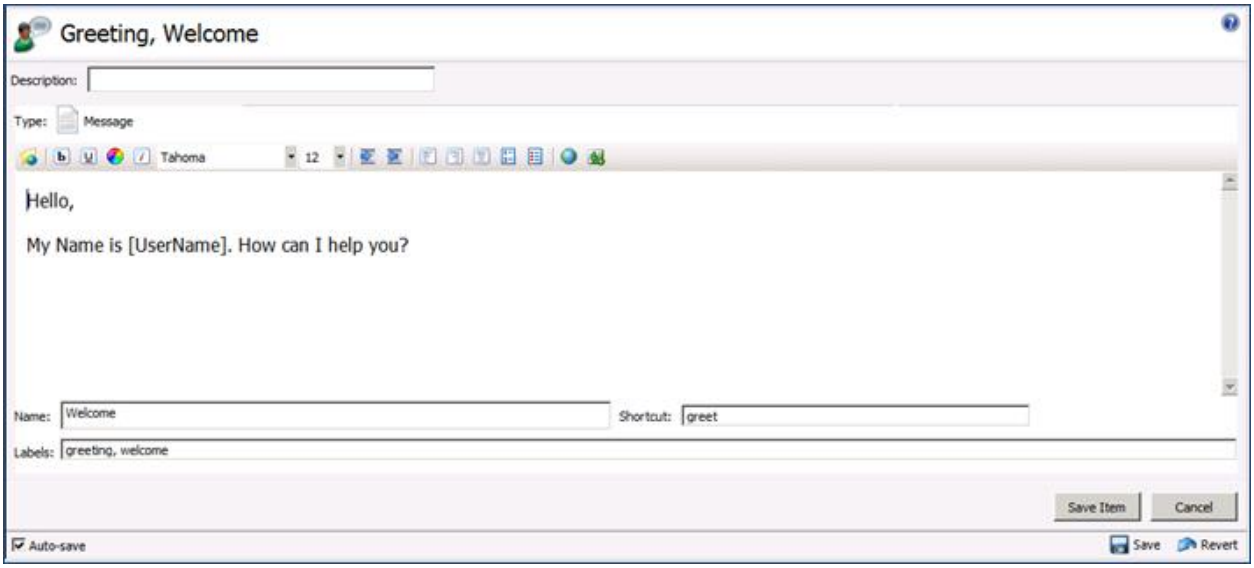


Marketing Queue with the New Columns

Improved Response Management

Response management includes changes to improve handling of multi-channel interactions.

The user interface for managing responses in Interaction Administrator and Interaction Client .NET Edition has changed significantly. The main management window allows a user to view and preview response items and categories. When adding or updating an item, you use Edit Mode, which is shown in the following figure.



Managing Responses in Interaction Administrator

The editor is based on the response type you are creating. For a message or URL, you use the HTML editor. For a file, you use the drag-drop target editor. You can now assign shortcuts to responses to allow quick access to the most commonly used responses. You can also label responses to improve search functionality and make it easier for users to get the correct response quickly.

You can now use response macros in defined responses. Response macros allow you to put a placeholder in a response. The constant, attribute, or the name of another response is automatically inserted in the response when you use it.

For example:

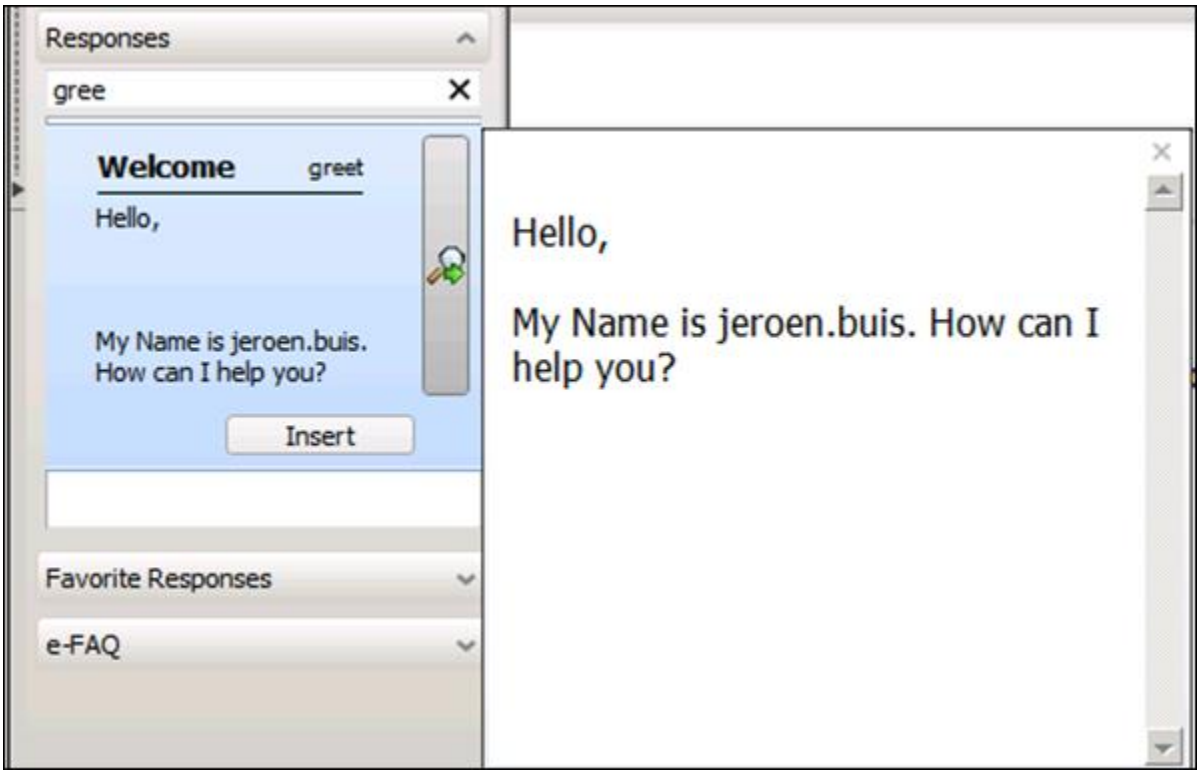
This macro: My name is [*UserName*]. Today is [*Date*]. How can I help you?

Results in: My name is Mary Jones. Today is 8/28/2012. How can I help you?

The macro allows you to put a placeholder in the response, automatically being substituted when using the response. The following types of macros are supported:

- Constants → User name, date, and time
- Attributes → Values based on interaction attributes
- Response → Another response

The response sidebar in Interaction Client now contains an in-dialog search option. Users can quickly search all responses and can preview the actual response before adding it. The following figure shows the in-dialog sidebar.

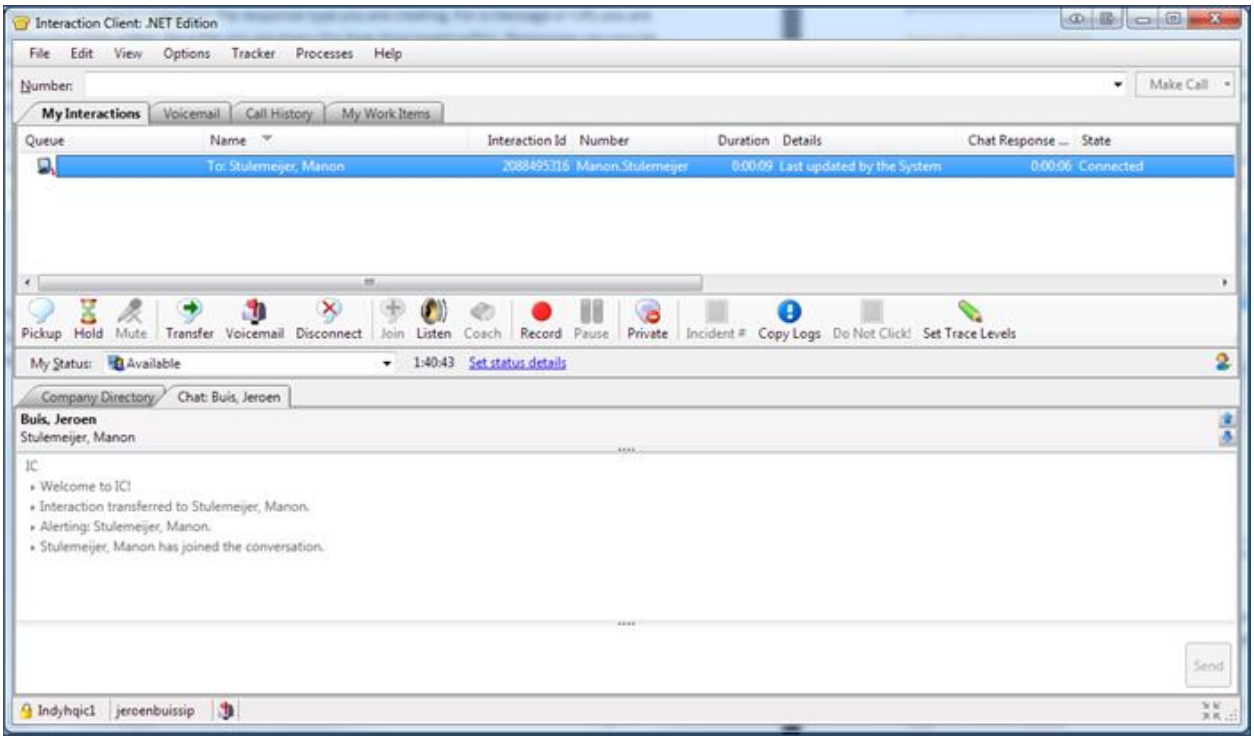


Response Search Dialog

The response search functionality also allows advanced search criteria, including the use of AND, OR, and NOT operators, exact phrase searching, grouping, and specific field searches.

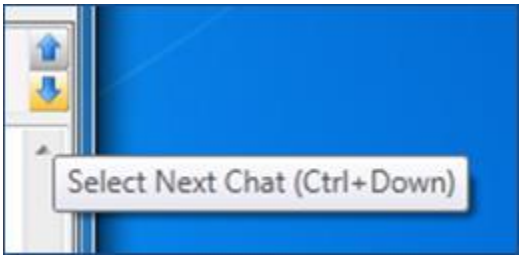
Consolidated Chat Window

CIC SU2 includes several enhancements to allow better handling of multiple chat interactions at once. Instead of having multiple forms, one for each chat interaction, the Chat view now appears in the main window.



New Chat View

Users handling multiple chat sessions can now just select the chat interaction they want to work on and the Chat view displays the selected conversation. The new **Chat Response Time** column described earlier in the document helps the user determine which chat interaction has been waiting the longest. It is also possible to navigate through the various chat sessions with the navigation buttons or hot-keys.



Chat View Navigation Controls

Another new feature is chat highlighting. An administrator can configure thresholds for time limits, and chat interactions that have exceeded the threshold are highlighted.

Interaction Client Mini Mode

The new Interaction Client Mini Mode allows you to run Interaction Client using a smaller footprint.

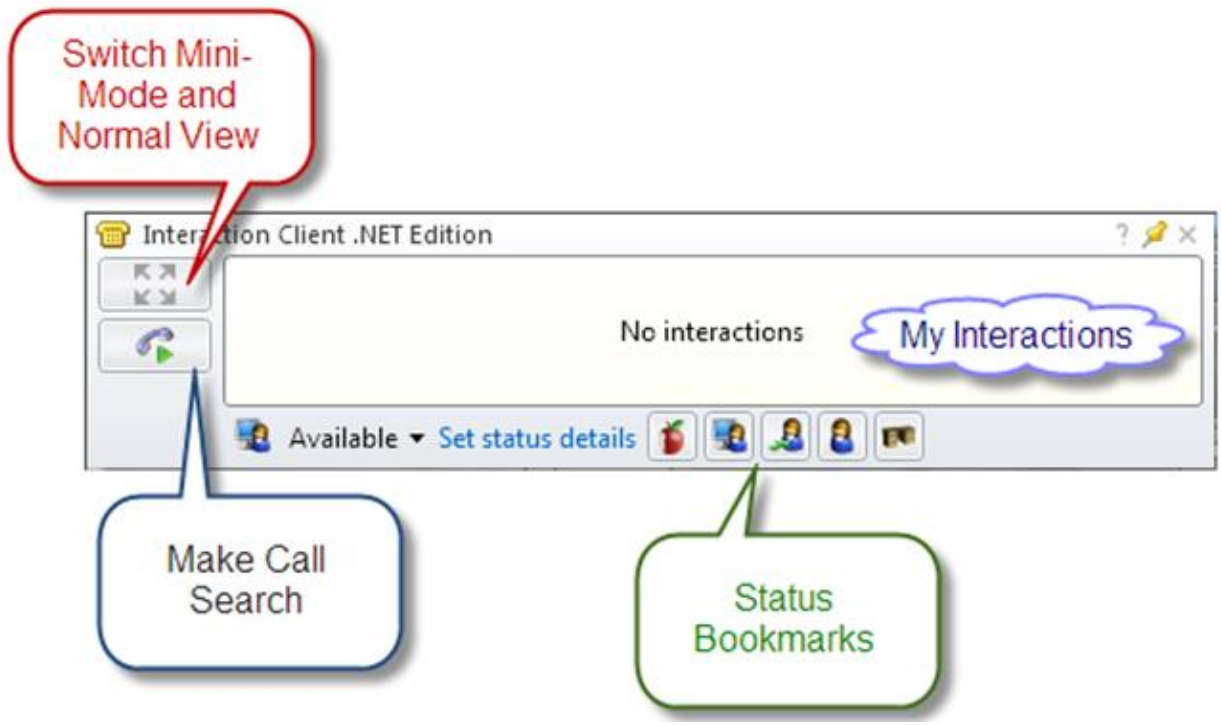
Interaction Client Mini Mode provides a compact view of your current interactions. If you have the appropriate security right, you can switch between the full Interaction Client view and one of two smaller views. Interaction Client Mini Mode supports all media types.

The Mini Mode view has these unique features:

- *Status bookmarking* allows users to bookmark and show the most commonly used status messages so that they can quickly switch between them.

- When an agent types the name of a person to dial in the Make Call window, the *call auto-complete* feature searches for the entry in the Company Directory and Call History.
- The *snap to top* feature allows a user to snap Interaction Client Mini Mode to the top of the screen. When there is no activity, the Interaction Client Mini Mode automatically disappears. When an interaction arrives, or when the user moves the mouse to the top of the screen, Interaction Client Mini Mode reappears.

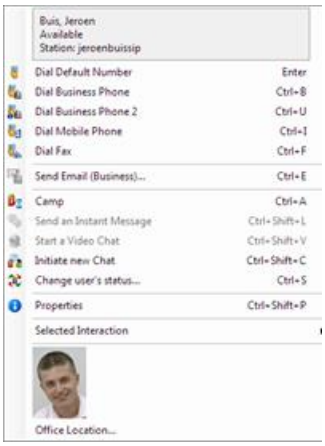
The following figure shows Interaction Client Mini-Mode:



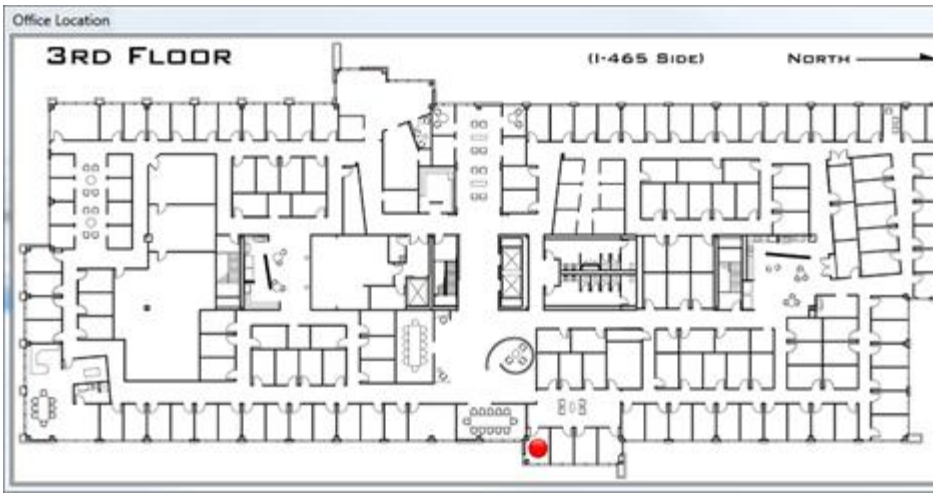
Interaction Client Mini Mode

Agent Photo and Office Location Pictures

Interaction Client .NET Edition and Interaction Supervisor now support the *agent photo* and *office location* features. Users can view agent photos and office location diagrams through the directory control in either application.



User Photo Shown in Directory



Office Location

Interaction SIP Bridge

The Interaction SIP Bridge is a new application that allows a remote worker to use a supported IP phone with a VPN connection, with no additional hardware. It is the specialized, licensed version of the Interaction SIP Proxy that can bridge SIP, RTP and HTTP provisioning information from a private LAN to a VPN tunnel. A SIP phone on the local network can be configured, managed and operated as a managed station on an IC server via the Interaction SIP Bridge. No configuration is necessary on the remote user's SOHO router/firewall.

IceLib SDK

The IceLib SDK includes additional documentation and examples.

Interaction Client Web Edition Enhancements

CIC SU2 includes these new features in Interaction Client Web Edition:

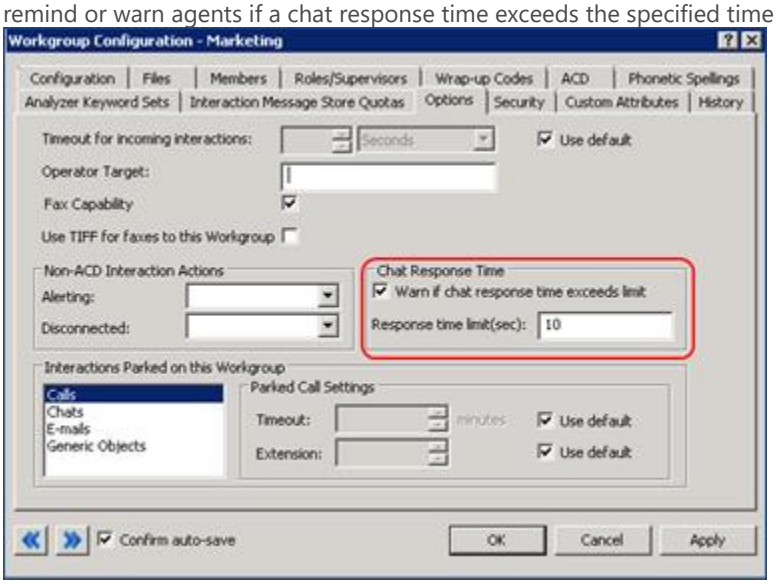
- Fax Viewer
- Most Recently Used (MRU) for status list
- Addition of Workgroup Queue statistics
- Speed Dial capabilities
- Assistance request
- Ability to change/switch logged on station
- Support for Client memos and messages

Interaction Web Chat Improvements

A new web chat interactions feature highlights a chat interaction as soon as specific conditions are met. There are two conditions for which a chat is highlighted:

1. An interaction dialog for the chat is open, the chat has been updated, and the window has not yet received focus. Previously, this condition caused the Windows taskbar entry for this dialog to flash. It still flashes, but now the chat interaction is also highlighted. Once the window receives focus, the highlighting for that interaction goes away.
2. The chat interaction is on an ACD-routed workgroup, and the workgroup configuration specifies a Chat Response Time setting (see the related figure). If an internal user does not update the chat prior to the

response time limit that is configured for the workgroup, the chat is highlighted. The highlighting goes away only after an internal user enters text into the chat. This feature is useful for organizations that want to remind or warn agents if a chat response time exceeds the specified time limit.



Chat Response Time Configuration

A typing indicator now appears for web chat interactions in Interaction Client Web Edition.

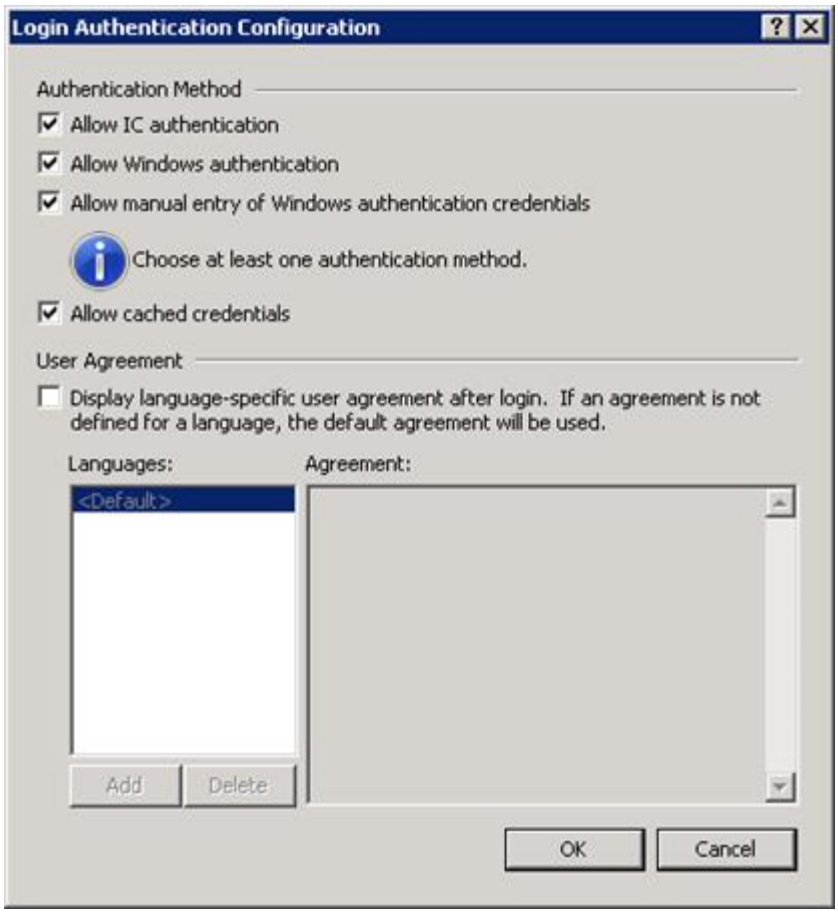
Security and Compliance Enhancements

Security and Compliance Enhancements

The following security and compliance enhancements are new in CIC 4.0 SU2.

Logon Authentication

Interaction Administrator includes new configuration options that affect client authentication methods. The following figure shows the new configuration options.



Login Authentication Configuration

With these new configuration options, an administrator can configure the system to not allow CIC user name and passwords and only allow Windows authentication. It is also possible to configure the system to disallow cached credentials, requiring users to always enter their password when starting Interaction Client.

If the **User Agreement** option is configured to display the user agreement after logon, the information from the user agreement appears after a user logs on, but before the application starts. The user must accept the agreement before they start the application.

Forward & Follow-Me Security Rights

SU2 includes new phone number classifications for the **Available, Forward** and **Available, Follow Me** statuses. This new option allows system administrators to configure separate call classifications for when the user is logged on and when using **Available, Forward** and **Follow Me**.

Users can still have rights to place International calls, but would not automatically be able to set their **Available, Forward** and **Available, Follow-Me** numbers to International numbers.

Secure Input

Secure input provides a tool to assist organizations meet PCI compliance standards. The secure input/secure IVR separates and encrypts data to protect it from theft or misuse.

Interactive Intelligence provides five Interaction Designer tools with which you can implement secure input in handlers. Because of the wide variety of secure input needs, Interaction Center does not include a standardized secure input feature. Use the handler tools to create secure input features that fit the needs of your organization.

A secure input handler starts a separate, secure session inside the customer-agent interaction. It collects the confidential information from the customer, validates it with the appropriate web service. After ending the secure session, the handler returns both the customer and agent to the main interaction.

Secure input provides two key security features: audio separation and data protection

Audio Separation

If a customer-agent interaction requires automatic validation of confidential information, such as a credit card number, secure input separates the customer's audio from other parties. This feature protects confidential data from accidental capture by the agent, coaches, monitors, and others. Interaction Center and its subsystems do not capture and do not record the customer's audio.

Data Protection

In addition to separating audio from the agent, CIC protects the secure data from access by other users of the system:

- **No tracing:** CIC processes involved in a secure session (Telephony Server, Media Server, Interaction Recorder, and so forth) avoid tracing of sensitive information.
- **Minimal access to sensitive information in memory:** Only a minimal set of authorized processes has access to sensitive data. In particular, only TsServerU.exe and ininmediaserverU.exe have access to secure data within Interaction Center. This safeguard lowers the risk of accidental disclosure.

Example of Secure Input

An external customer makes an inbound call to an agent. At some point in the interaction, the customer is ready to provide credit card information. The agent clicks the Interaction Client Secure Session toolbar button to start a secure session. At that point, audio between the agent and customer separates.

- The agent hears hold music to indicate that the call is still connected. When the call reconnects the agent with the customer, Interaction Client alerts the agent.
- The customer navigates an Interactive Voice Response (IVR) system and provides credit card information. Interaction Center sends the information to a web service that the agent's organization implemented. The web service then sends the information to the credit card issuer for validation. At the end of the IVR, Interaction Center re-establishes the audio between the customer and the agent. It informs both customer and agent of the outcome (success or failure, with a tracking number and reason for any failure).

For more information about secure input, see the *Secure Input Technical Reference,* on the Support website.

Attendant Email Selection

The email selection action provides the same type of switch statement style logic that was recently added to the call profile selection action.

Exchange Web Services – Mail Connector

Microsoft Exchange Web Services-based integration is now a supported CIC mail system, recommended as an alternative to the Microsoft Exchange MAPI-based integration. The support was originally introduced in 3.0 SU15 and is now also available in CIC 4.0.

Fax Configuration Options

A new configuration option allows configuration of the format in which faxes are received. Optionally, faxes can now be received in PNG and PDF format. These formats are required to view faxes in Interaction Client Web Edition.

Interaction Supervisor

Interaction Supervisor has new drill-down capabilities for individual sessions of the Session Manager view.

Scheduled Reports

CIC 4.0 SU2 supports Scheduled Reports. This release of Scheduled Reports only allows Historical Reports to be scheduled. A future release will add support for Interaction Reporter and Report Assistant.

Phone Number Standardization

Phone Numbers are unique when specified in E.164 notation. To avoid issues where phone numbers are not unique in deployments across country borders, CIC now stores and uses all phone numbers in E.164 notation. Users won't notice any difference as the phone number display string presented to the user does not change. Users are presented with a display string that is based on their location, while the system tracks the standardized number.

Interaction Media Server Selection Rules

Interaction Media Server Selection Rules is a Telephony Services feature in CIC 4.0 SU2. Configuration of the rules is available for prioritization of the Interaction Media Server selection process. CIC selects an Interaction Media Server based on the location of the device (station or line) that is asking for the Interaction Media Server resource.

Before SU2, CIC used one selection process for standard interactions:

1. The device's location
2. Other locations in the audio path.
3. The IC server location.
4. Any available Interaction Media Server in any other location.

CIC still uses this order in a default selection rule configuration. In SU2, however, customers can create custom selection rule configurations to change how CIC selects Interaction Media Servers to service calls.

The new configuration options enable the following:

- Selection of a wildcard (any location) to be added or removed from the list (currently always on).
- A list of excluded locations. You can use this list with <Any>.
- A group of locations with equal priority. This grouping allows all media servers in those locations to be treated as if they were in the same location.

> **Note:** Load balancing occurs between the individual media servers in the locations, rather than between locations. This distinction could mean that the Interaction Media Servers in one location are chosen more frequently because they aren't being used.

You cannot create a selection rule configuration that is empty. The configuration must specify the Interaction Media Servers to service a call.

Enhanced SIP Line Inbound Identity

To add flexibility to the configuration of call identification for data and routing purposes, and to add tighter integration possibilities, this capability was moved to the SIP Line configuration.

Some examples of settings that are available are:

- Whether to use only the numeric portion
- Whether to use the original or most recent redirection header
- Whether to use the Request URI or the To header for the DNIS

- Whether redirection information trumps the DNIS
- Whether to use P-Asserted-Identity or the From header for the ANI
- Whether to set the ANI to Unknown if the address is non-numeric
- Whether the line is for general use or station connections

Interaction Analyzer Keyword Limits on an ACD workgroup

The purpose of this feature is to prevent customers from adding too many keywords for too many workgroups on too few Interaction Media Servers. It enforces a keyword count limit for the Interaction Analyzer keyword sets that are assigned to each workgroup.

Each keyword set has an associated keyword count. For this feature, the keyword count is defined as the number of user-defined words, pronunciations, anti-words, and anti-pronunciations. Assigning a keyword set to a channel in a workgroup counts toward the keyword limit of the workgroup. Assigning the same keyword set to the other channel of the workgroup again counts against the keyword limit of the workgroup.

The speech analytics engine does not offer efficiencies for one keyword set across two channels. Instead, it considers them to be two separate processes.

Keyword sets can have keywords in multiple languages. Because Interaction Media Server only spots keywords in one language at a time, each language is counted separately.

Interaction Process Automation Enhancements

Interaction Process Automation Enhancements

The following Interaction Process Automation enhancements are new in CIC 4.0 SU2.

Dockable My Work Items Tab

Licensed IPA users can now dock the **My Work Items** tab in Interaction Client .NET Edition.

Improved IPA Work Item Transfers

This feature provides better process-level control over the transfer (reassignment) of process work items, such as whether a user can transfer a work item. This feature also supports a configurable option to transfer a work item automatically when it reaches its predetermined due date.

Interaction Process Automation Designer Enhancements

This enhancement is a collection of many small features designed to improve overall functionality and the user experience for process authors using IPA Process Automation Designer to design work items.

New Interaction Process Automation .NET Reports

IPA reports are now available through Interaction Reporter in IC Business Manager.

Interaction Feedback Enhancements

Interaction Feedback Enhancements

The following Interaction Feedback enhancements are new in CIC 4.0 SU2.

Survey Conditional Branching Logic

Branching logic allows survey authors to create more complex logic within a survey, where the response to one question determines which question is presented next to an end caller. Branching logic supports NPS-style survey methodology.

Feedback Inbound IVR (On Demand) Surveys

Customers can now easily configure and deploy agent-less IVR surveys that do not require a contact center interaction. This feature extends Interaction Feedback for fully automated surveys, enterprise or departmental surveys, and employee surveys.

Playback Call Recording from Survey Results

In the survey results view in the Interaction Feedback module in ICBM, a user can now see the Recording ID for a surveyed call as a dynamic link. Clicking the link launches the Interaction Recorder playback dialog to provide direct access to a call recording. The dialog also displays any Interaction Analyzer spotted keywords for a surveyed call.

Integrations

Support for the following integrations is included in CIC 4.0 SU2:

- Salesforce.com
- WFM (Historical and RTA)
- Remedy
- Sametime
- Heat
- Lync Telephony and Plug-in integration

This initial Microsoft Lync integration release brings some of the enterprise features of Lync to the contact center. The initial release consists of two main features. It allows configuration and use of Lync endpoints in CIC, and support a Lync client plug-in for Interaction Client .NET Edition.

Interoperability Testing with a Third Party Vendor

In addition to existing tests and certifications with third-party vendors, Interactive Intelligence completed interoperability tests and certifications for the following third-party products to validate support for CIC 4.0 SU2:

- SQL Server 2012 with CIC 4.0.
- Polycom VVX 500.
- Cisco Unified Communications Manager Express (CUCM Express) for CIC 3.0 and CIC 4.0.
- Cisco Unified Communications Manager T.38 Faxing.
- VMware View 4.6. Testing was performed on the mainstream client-side application to ensure functionality in a VMware View 4.6 environment.

Detailed information is available at http://testlab.inin.com/.

New Features in 4.0 SU1

New Features in 4.0 SU1

This section lists some of the main features that were added in SU1.

Interaction Administrator – Access Control Groups (ACG)

CIC 4.0 SU1 introduces a feature called Access Control Groups (ACG). ACGs provide a new way for customers to cleanly and easily delegate administrative rights to members in their organizations. With ACGs, a customer can allow certain users to have administrative rights on certain objects in the environment without giving them unwanted access to other objects or departments in the same environment.

With ACGs, it becomes simple to make someone the administrator of a department or location. The administrator can then create users, stations, and other objects related to the department or location, without being able to access

objects that are outside of that department or group. A full list of all the objects supported by ACGs appears later in this section.

ACGs are organized hierarchically. The following example shows a hierarchy with the Root Level (default), with East Region and West Region levels under it. The East Region and West Region both contain users, workgroups, and other objects. East Region has two child nodes: East Region – Marketing and East Region – Support. Those two nodes also contain users and workgroups.

Hierarchical Structure of Access Control Groups

With the hierarchy in place, an organization can give administrative rights to each of the ACGs. A user who gets administrative permission for East Region – Marketing can only see users, workgroups, and other objects for that ACG. The user won't be able to see or modify any of the objects in the other ACGs.

An administrator who has permissions for East Region will have access to all objects that in that ACG and its child ACGs: East Region – Marketing and East Region – Support. An administrator who has permissions for an ACG automation inherits security rights for child ACGs.

The following object types support ACGs:

- Users
- Roles
- Workgroups
- Skills
- Stations, station groups, and station templates
- IP phones, proxy groups, ring sets, and templates

- Wrap-up codes and categories
- Account codes
- Schedules
- Client configuration templates
- Password policies
- Locations
- Analyzer keyword sets

Availability of Language Packs

The following language packs are available in CIC 4.0 SU1:

- Dutch
- French
- French (Canada)
- German
- Japanese
- Polish
- Portuguese (Brazil)
- Spanish (Latin America)
- Spanish (Spain)

For information about other supported languages, scope of availability, and so on, see the Interactive Intelligence Support site at https://my.inin.com/products/cic/Pages/Localization.aspx.

Language packs require a language-specific feature license to be available on the server. Make sure you order the language pack license through the online ordering system.

To obtain the Language Pack CDs, order them from Interactive Intelligence. New in CIC 4.0 is the ability to download the .iso files from the Interactive Intelligence Support site at https://my.inin.com/products/cic/Pages/Language-Pack-CD.aspx.

For requirements, and installation and configuration instructions, see the *IC Language Pack Technical Reference* included with the Language Pack CDs and in the CIC Documentation Library.

Notes:

- In CIC 3.0 and earlier versions, languages for CIC client workstation applications were included as features in the CIC client workstation application installs. In CIC 4.0 SU 1 and later versions, Language Pack resource files for CIC client workstation applications are released as Client Language Plugin installs to simplify deployment. For more information, see the *IC Language Pack Technical Reference*.
- A “simple” localized dial plan, based on a regional dial plan (Gen2 dial plan) is available for some languages. The dial plan can be used as a starting point for a new installation, but might need some additional work based on customer requirements. Localized dial plans (.i3dplan) and accompanying localized dial plan documents are available on the Interactive Intelligence Support site at https://my.inin.com/products/cic/Pages/Localization.aspx.

Enhancements to Interaction Process Automation

Enhancements to Interaction Process Automation

This section describes several new features in Interaction Process Automation:

- IPA Custom Data Types
- IPA Database Integrations
- IPA Integration to Microsoft SharePoint
- In-Process Search
- Enhanced Time-out and Error Support

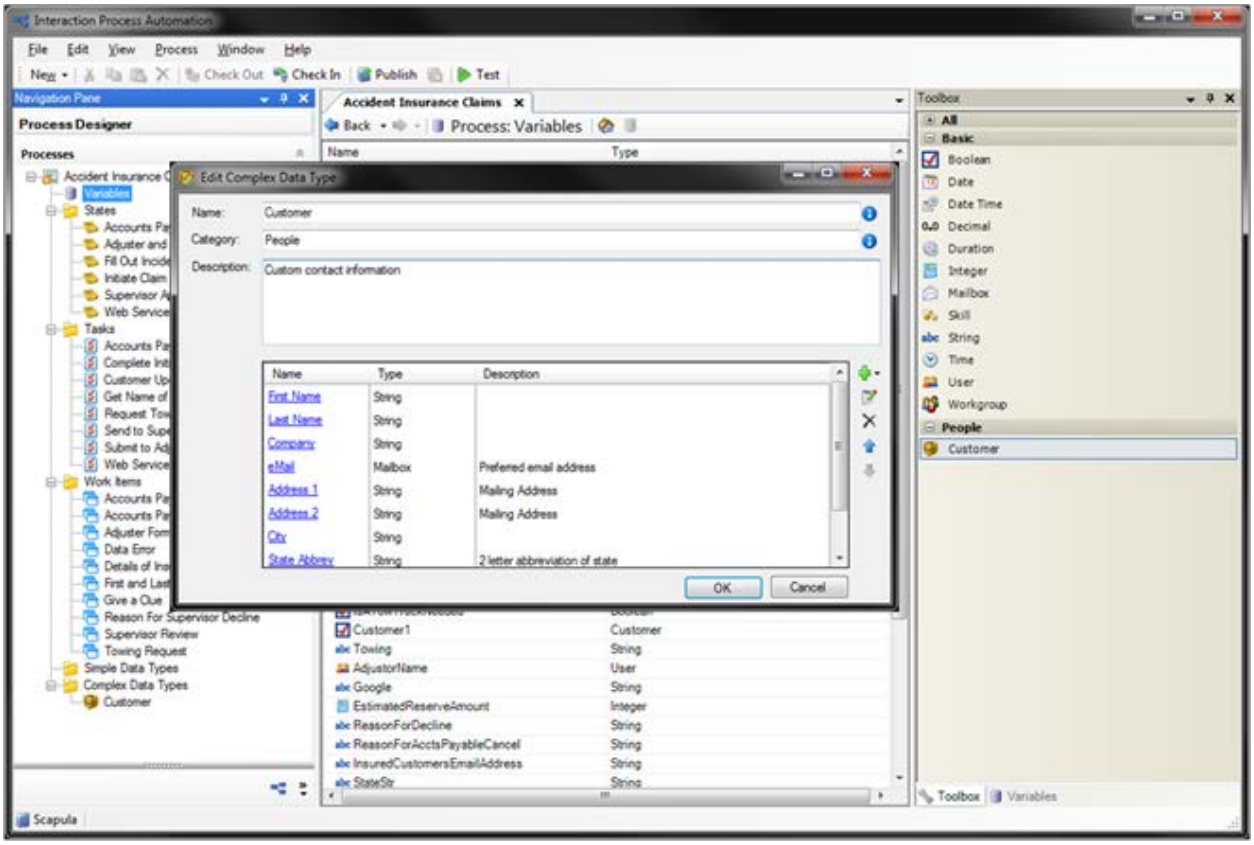
IPA Custom Data Types

Custom data types provide customers greater out-of-the-box flexibility to define the information to capture and track within a given process. Custom data types also support more advanced use of web services.

Custom data types support the definition of either simple or complex data types. Simple data types are extensions of basic data types, with constraints. For example, a simple data type might be a piece of information that must display in a specific pattern or with a specific format. A simple data type might be a 9-digit zip code.

Complex data types are “containers” that hold basic, simple or other complex data types. A complex type can represent, for example, a Customer that includes the first name, last name, company, email, address, city, state and zip code.

Process authors can now easily create custom data types within IPA Process Designer and can use them to supply input data when launching a process. For example, the customer information associated with the process could be passed in for use in the process.

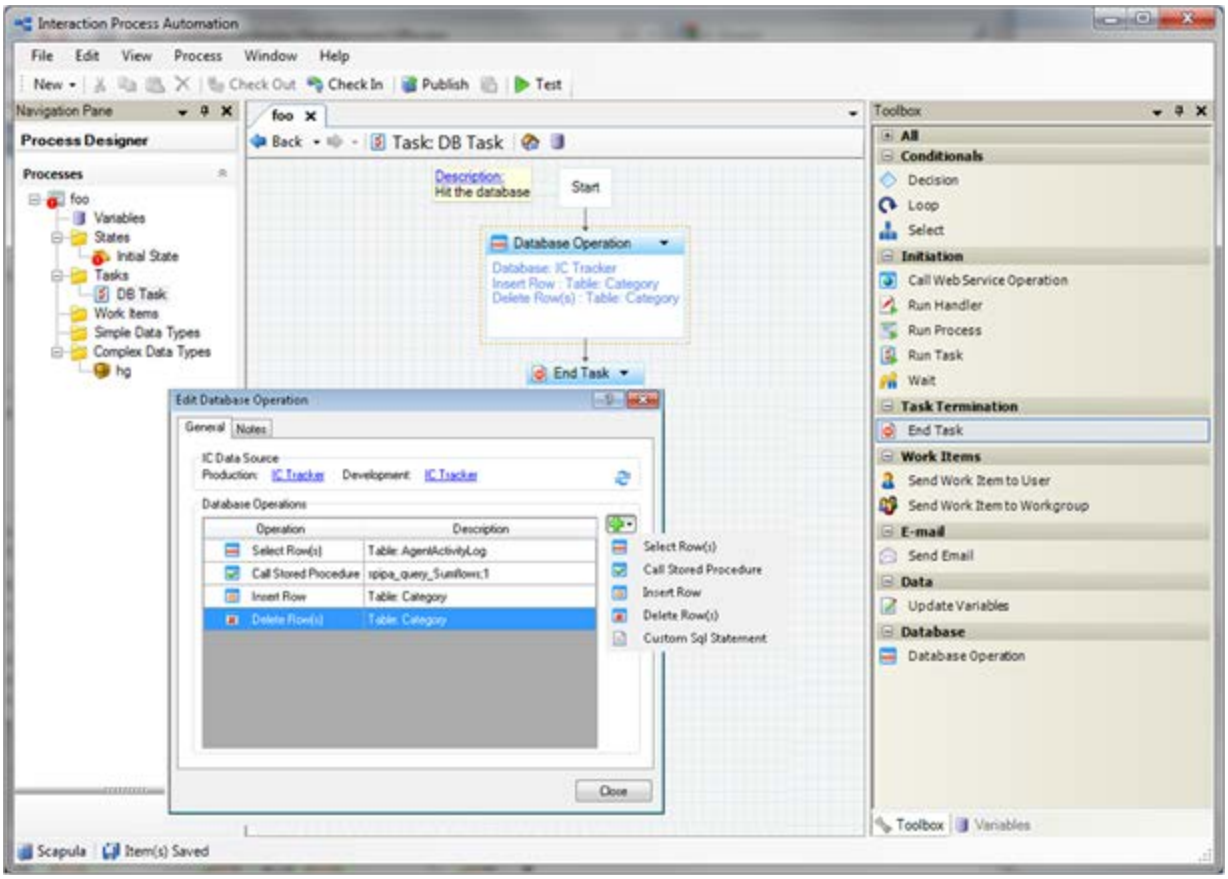


IPA Custom Data Types

IPA Database Integrations

IPA now supports a new set of actions for faster and simpler database integration. These new database actions are available in the IPA Process Designer toolbox. Like other actions, you can add database actions into a process flow by simple drag-and-drop and configuration. Process authors can now do the following:

- Choose from a list of all data sources available on their IC server (configured as a provider in Interaction Administrator).
- Specify a production or development database.
- Build in database operations to select, update and delete from a database, run stored procedures, and incorporate custom SQL statements – all without using handlers.



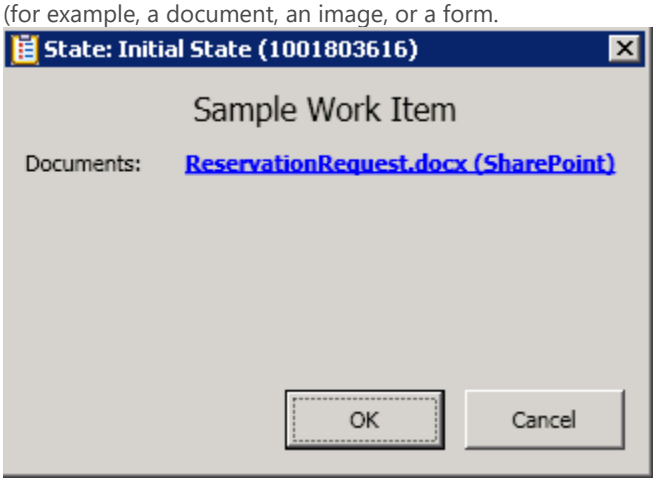
IPA Database Integrations

IPA Integration to Microsoft SharePoint

The IPA integration for SharePoint enables customers to leverage their investments in Microsoft SharePoint and work seamlessly in both applications.

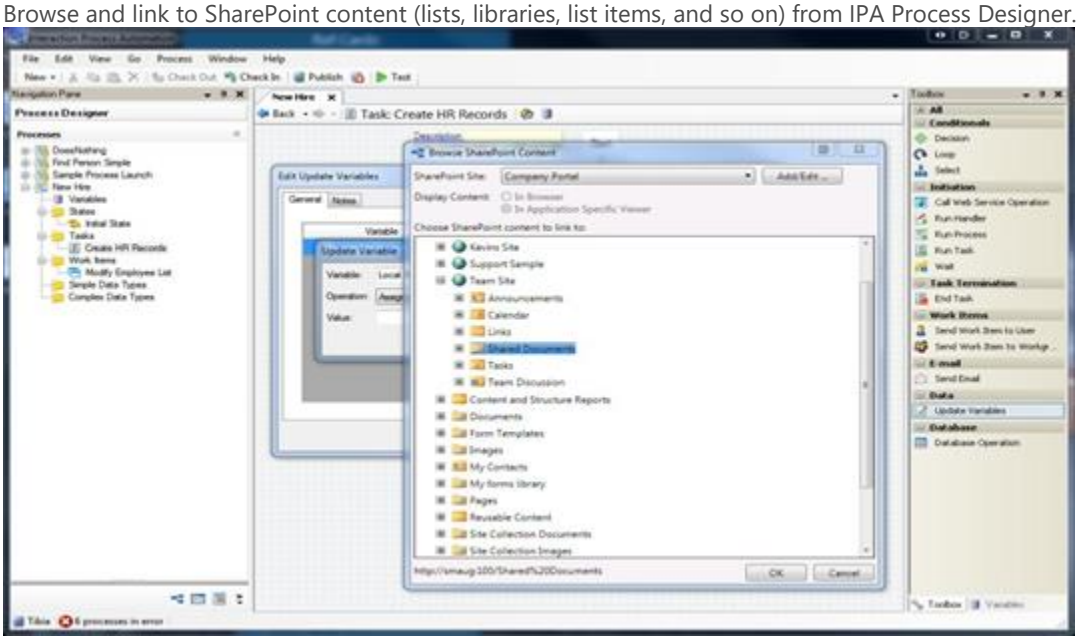
The integration allows customers to do the following:

- Access SharePoint documents from an IPA process - This feature provides a hyperlink in an IPA work item that links to a piece of content in SharePoint. The content can be anything that resides in a SharePoint list (for example, a document, an image, or a form.



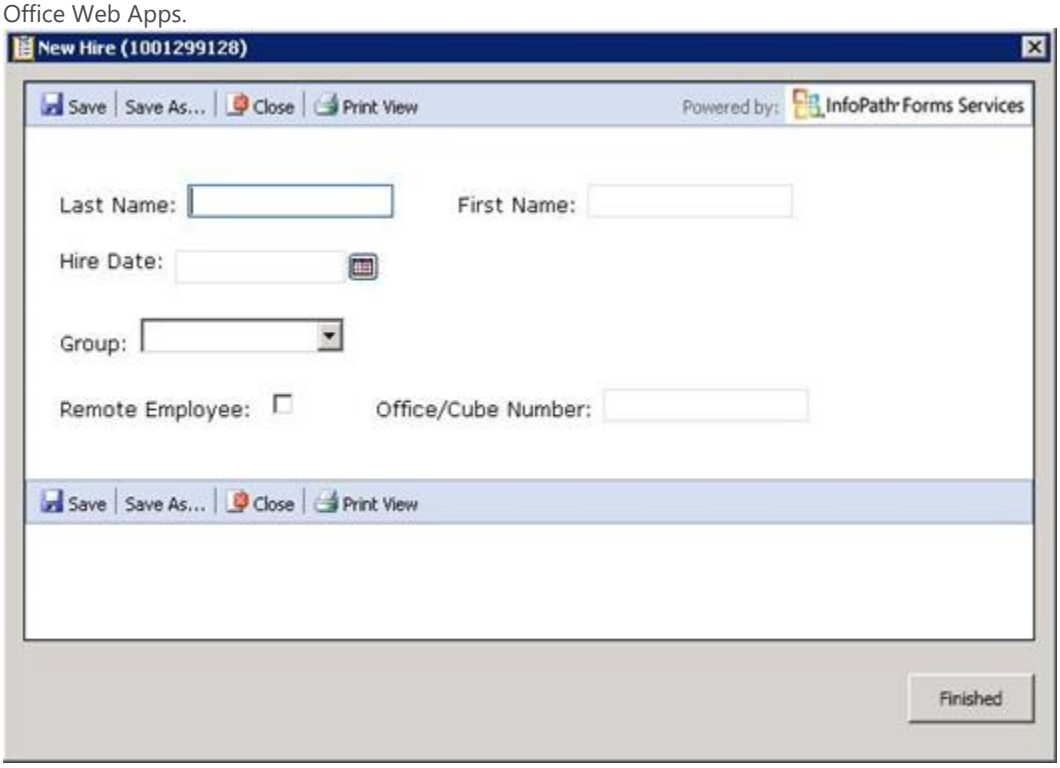
SharePoint Link in an IPA Work Item

- Browse and link to SharePoint content (lists, libraries, list items, and so on) from IPA Process Designer.



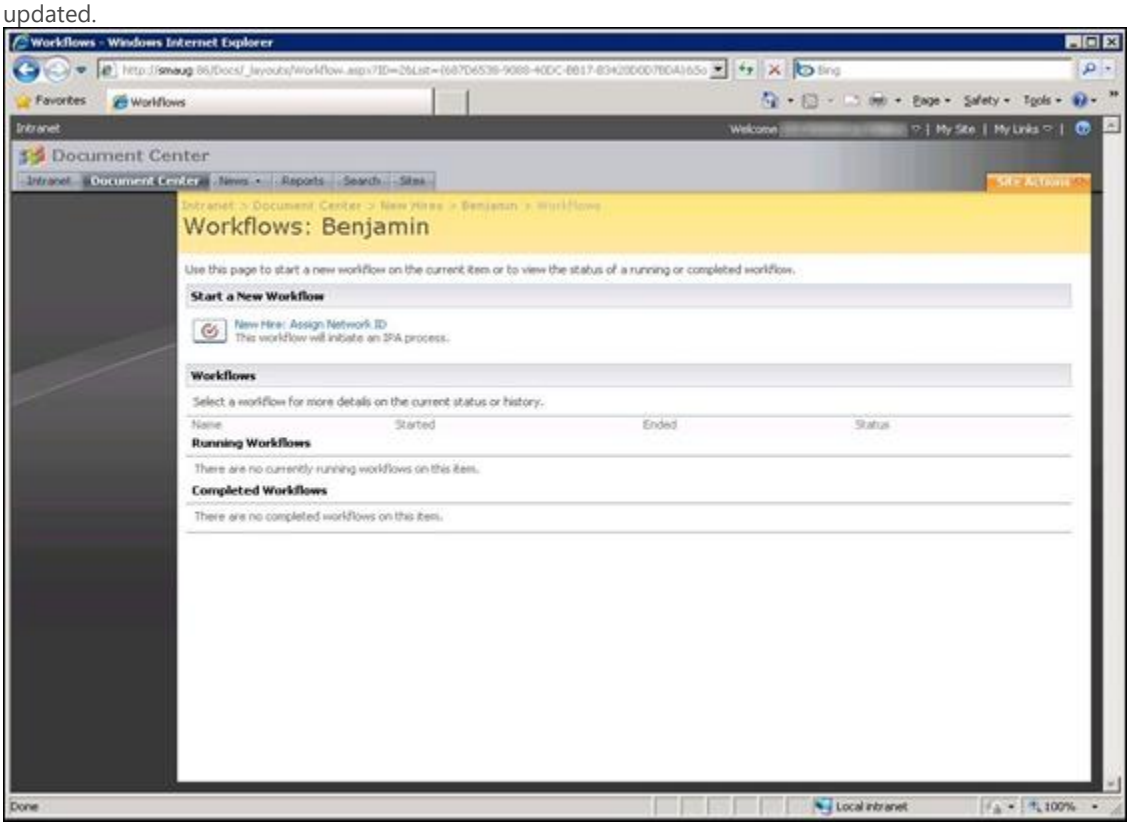
Browse from IPA Process Designer Interface

- Work with SharePoint content in IPA work items. Users can access SharePoint content from an IPA work item that contain embedded browser controls: images, Excel documents, InfoPath documents, and with SharePoint 2010: Word, PowerPoint, One Note, Visio, or any other document type supported by Microsoft Office Web Apps.



Work with SharePoint Content from an IPA Work Item

- Initiate IPA processes from SharePoint. Launch an IPA process whenever a list or document library is updated.

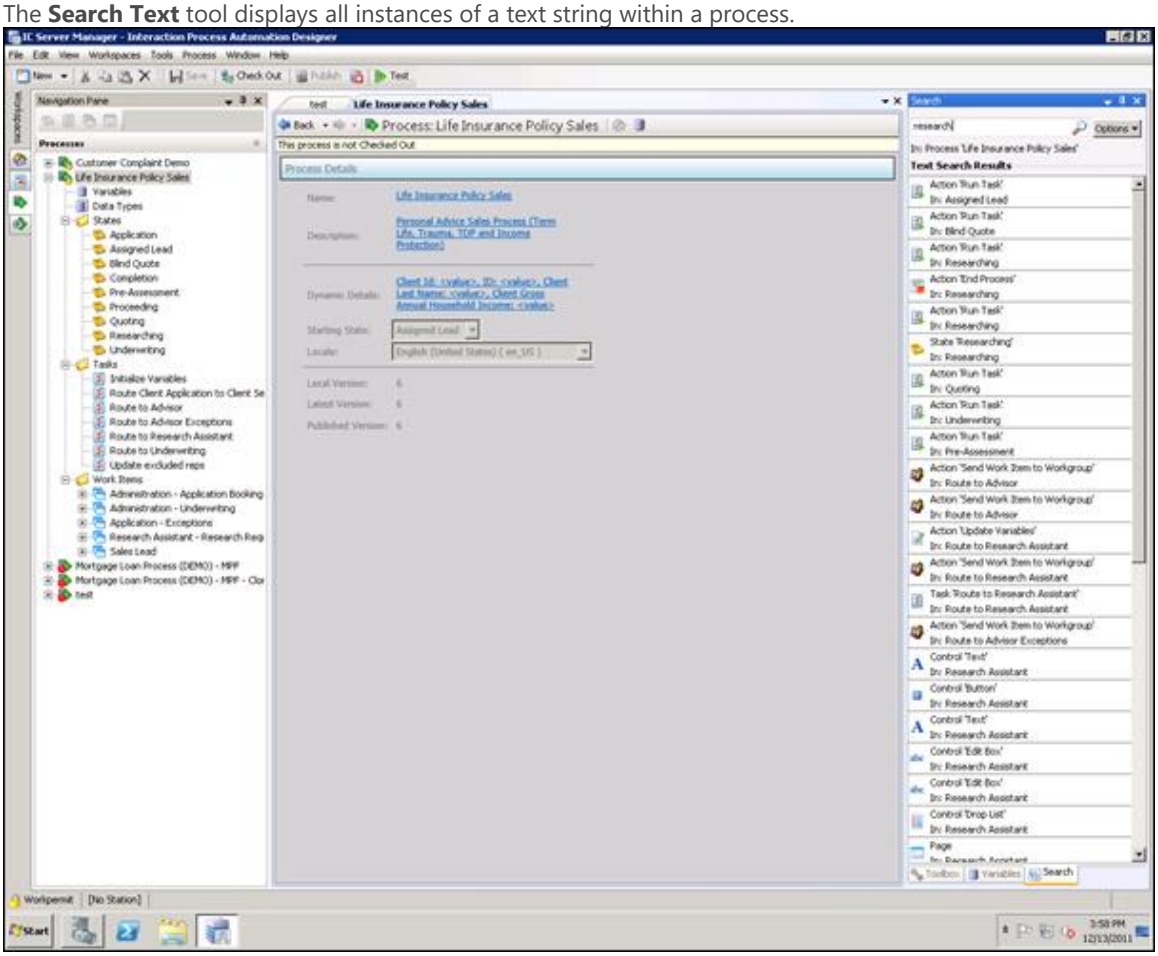


Initiate IPA Process from SharePoint

In-process Search

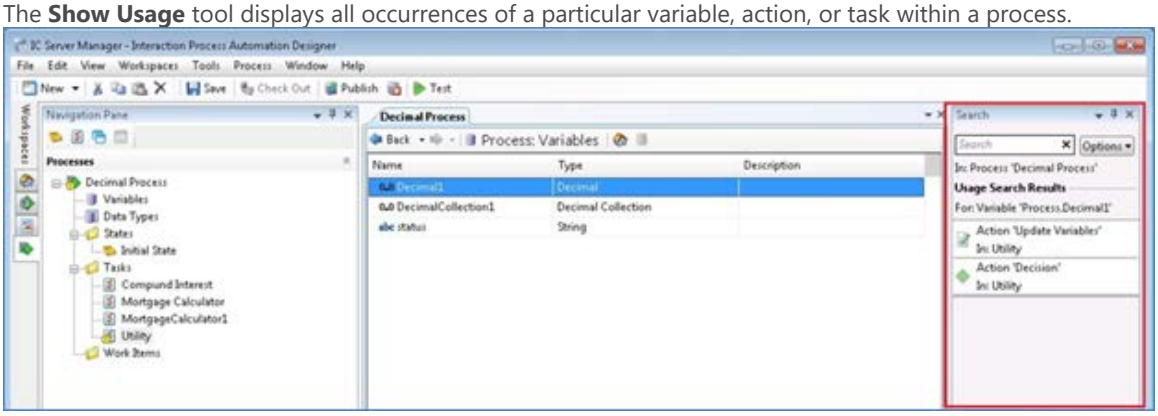
Process authors can now use two powerful search tools to improve usability when designing process flows.

- The **Search Text** tool displays all instances of a text string within a process.



Search Text Tool

- The **Show Usage** tool displays all occurrences of a particular variable, action, or task within a process.



Show Usage Tool

Enhanced Time-out and Error Support

A new tab in the IPA Run Handler, Call Web Service, and Database actions allows users to specify how to handle a timeout or error condition. If error handling is selected, a new output is added to the action so that a user can handle it appropriately. Also, a new pickup timeout for the Route Work Item to Workgroup Queue action works the same way as the existing timeout for the Route Work Item to User action.

Interaction Optimizer Schedule Bidding

The Schedule Bidding feature allows workforce managers to create unassigned schedules and assign those schedules to agents through a bidding process. Agents are ranked within an agent group and their ranking determines the order in which their schedules are assigned. Agents bid on the schedules via Interaction Client .NET Edition, and can sort/rank the schedules based on a variety of criteria before submitting their final bid to the workforce manager. Once submitted, the workforce manager processes the assignment and agents are notified of the outcome. Schedules can be assigned for more than one week and can have an end date that is many weeks/months in the future or can be assigned indefinitely as part of the Schedule Bidding Base Schedule feature.

The Base Schedule feature allows workforce managers to assign a specific schedule to an agent for multiple weeks or indefinitely. A Base Schedule is created automatically as part of the Schedule Bidding feature or can be done individually with any existing agent schedule.

Shift Definitions are now available in ICBM. Users can configure, edit and manage shift definitions from within the IC Business Manager interface with added ability to use copy and paste for shift definition criteria.

New Features in CIC 4.0

New Features in CIC 4.0

This section lists some of the main features that are new in CIC 4.0 GA.

Enterprise Class Scalability & Management

Enterprise Class Scalability & Management

CIC as a Pure Application Server

CIC version 4.0 eliminates the need for third-party voice hardware or HMP software. The Interaction Media Server appliance can now handle all CIC audio processing needs. The Interaction Media Server was developed for high volumes of audio processing and supports an NxM architecture. This means that when a single Media Server isn't sufficient for the size of the organization, a second or third Media Server can be deployed.

The Interaction Media Server's high-volume processing includes:

- Compression/Encryption
- Prompts and DTMF (IVR)
- Call analysis
- Fax
- Conference
- Speech Analytics / Word Spotting

By shifting the heavyweight audio operations from the IC server to Media Servers, the CIC server can concentrate and focus on ACD routing, generation of reporting data, and all the other tasks that the server needs to perform. With audio operations removed from the IC server, the scalability numbers for the overall platform have significantly improved over prior CIC releases.

The use of Interaction Media Servers also enhances system continuity, with the option to take selected Interaction Media Servers out of service for maintenance without impacting system performance. Multiple Media Servers can be used with a single IC server, ensuring that in case of an issue or problem with one of the Media Servers, the other available Media Servers can continue handling telephone calls.

Significant architectural changes were made to support multiple locations – this feature is referred to as *regionalization*. Locations can be configured in CIC, and then each device and user configured on the server can be associated with a location. When a resource is required, for example -- a Media Server is needed for audio processing, CIC uses the Media Server closest to the device, eliminating or reducing the use of WAN capacity. The CIC solution can be deployed and architected around existing network topology. Gateways and other configured devices which are part of the CIC solution are now all location-aware. The use of these devices throughout the locations is configured in Interaction Administrator.

Session Manager Regionalization

An earlier version of CIC introduced the ability to install a Session Manager on a separate server for scalability purposes (off-server Session Manager). Multiple off-server Session Managers (OSSM) could be deployed in large scale environments. We have taken this concept to the next level and have now also introduced regionalization for off-server Session Managers. An OSSM is assigned to a specific region/location and all the client applications (Interaction Client and Interaction Center Business Manager) running in that location will now use the local OSSM.

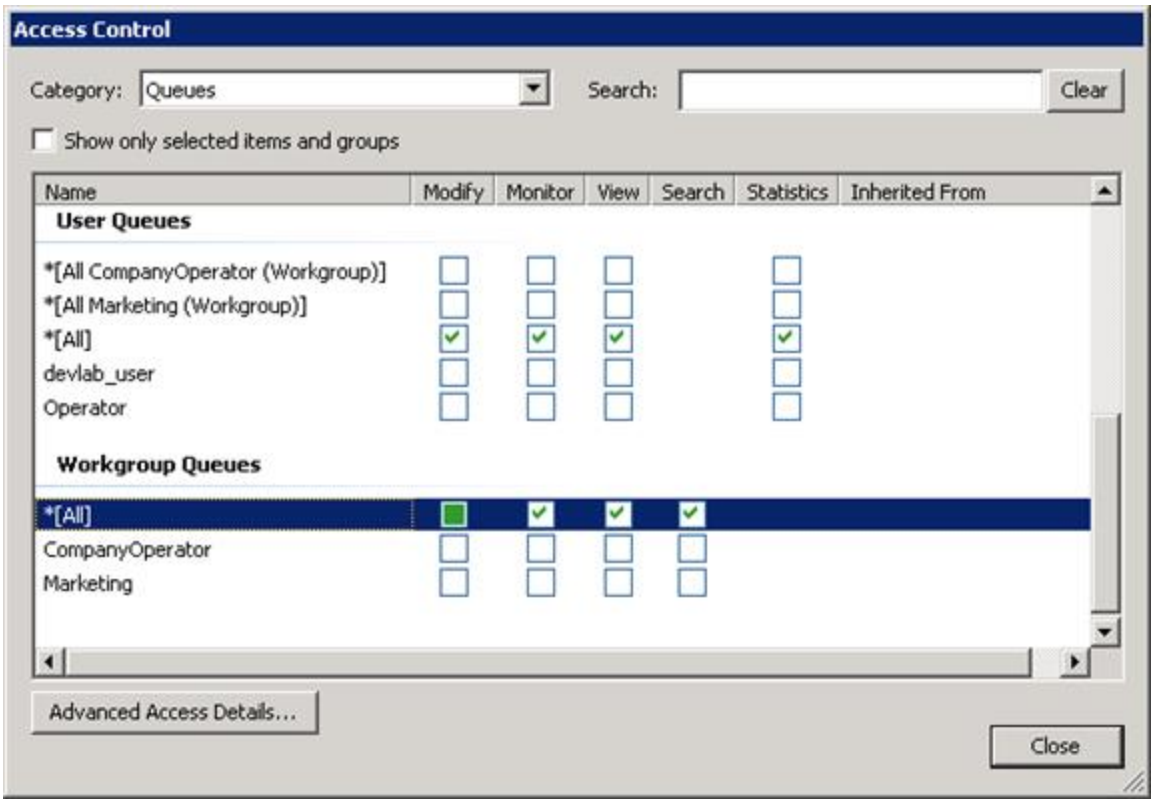
As an example, a customer with two locations, each with 100 users, can now put an OSSM in each location servicing the local client applications. Instead of having 100 client applications in the remote location connecting to the Session Manager on the IC server and using WAN bandwidth, these clients will now connect to the local Session Manager. This Session Manager in the remote location has one connection back to the IC server to receive and send updates about all activities happening on the IC server. The Session Manager distributes all the messages and information to all its connections, saving a huge amount of network traffic.

Easier and Improved Security Management

The user interface for security configuration and management in Interaction Administrator has changed significantly, allowing simplified management of these security settings. With the addition of a search function and the ability to get better insight into the security inheritance model, administration and ongoing system maintenance has become much easier. There are several new security settings that allow more granular control over existing features. The following paragraphs describe some of these changes in more detail.

Access Control

One of the biggest complaints from CIC administrators and other people responsible for configuring security settings in Interaction Administrator was the large number of drop-down lists. A system administrator had to go through a number of lists, each with several settings, to configure security settings or to determine the actual settings. CIC 4.0 eliminates that issue with the Access Control View, which is a single dialog box containing all the Queue Access Control settings. In this dialog box, CIC 4.0 now provides access to all access control settings without requiring the system administrator to scroll through a large number of lists.



Queues Access Control

As shown in Figure above, the Modify and View rights can now be viewed side by side in a single dialog. System administrators can immediately see the existing configuration, making the maintenance of security rights much easier.

Another significant change around access control rights is the breakdown or more granular control of the View and Modify rights. In CIC 3.0, it was possible to grant someone View and/or Modify rights but there was no ability to control what features were included in that definition. In CIC 4.0, access control rights are more granular and allow configuration of which specific features are available through the Advanced Access Details options. See Figure for the Access Control Details dialog.

Access Control Details dialog box

Instead of just giving a user Modify rights to a particular user or queue, it is now possible to specify more details and control a user's rights by function.

Modify rights (for an ACD Workgroup) contain the following rights:

- Activate Others
- Activate Self
- Disconnect
- Pickup
- Transfer

A new type of access right has been added around Monitoring. In the same way Modify Rights will be configured, there is a new set of Monitor Rights that contains the following rights:

- Coach
- Join
- Listen
- Record

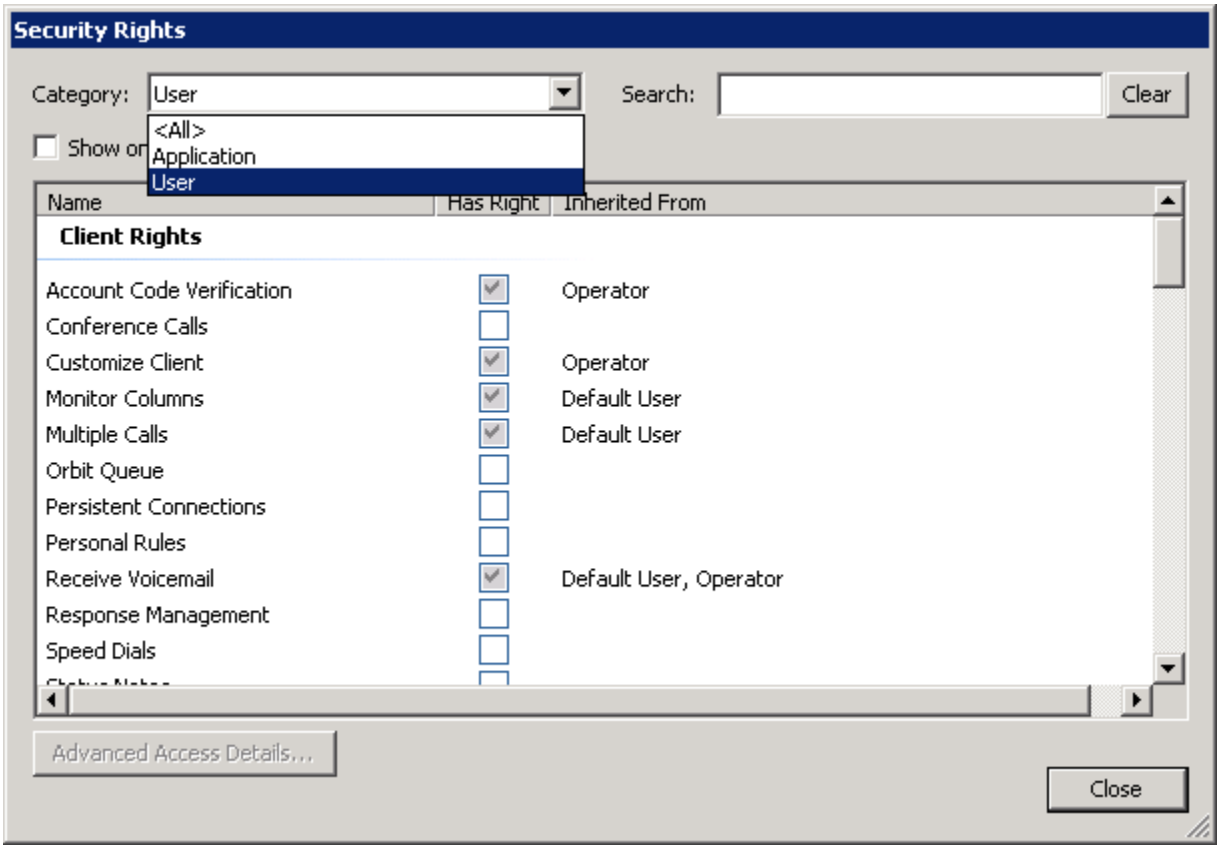
In addition to the changes described above, CIC 4.0 introduces several new access control rights:

Access Control	Description
User Statistics	Allows access to user statistics

Change User Status	Allows access to change a user's status
Monitor	Allows control to record, listen, join, and coach for user, workgroup, station and line queue
Workgroup Statistics	Allows control of workgroup statistics
View in Search	Allows control over which objects appear in Transfer Dialog Search
Attendant Profile Search	Allows access to attendant profiles in Transfer Dialog Search
Status Column	Allows access to status columns for a specific user in Interaction Client

Display Inheritance Model

The security model in CIC is built around a specific inheritance model. A user's security rights are equal to the sum of all the rights given through the default user, roles, and workgroups, based on membership and the individual user level. In CIC 3.0 and prior releases, the administrator could see in Interaction Administrator that a specific user inherited specific security rights, but there was no method to see the source of the inherited rights. System administrators had to look at all possible objects to find the actual object that gave the user access to the feature through its inheritance model. In CIC 4.0, a column in the Interaction Administrator user interface indicates the objects from which a specific security right was inherited.



Showing 'Inherit From' when viewing user security rights

As shown in Figure , the user inherited the Receive Voicemail security right from the default user and the workgroup operator. This feature significantly reduces the amount of time it takes for a system administrator to set up and maintain their system.

Additional Security Rights

Several new security settings are now configurable in Interaction Administrator. Many of these security settings control access to features that were present in prior releases but that did not have configuration options in Interaction Administrator.

Security Right	Description
Personal Rule	Allows access to Personal Rules from Interaction Client
Response Management	Allows access to the Response Management option in Interaction Client
Orbit Queue	Allows user to place objects in an orbit queue
Workgroup/Profile Tab	Allows user access to workgroup/profile information
Tracker	Allows access to Interaction Tracker from within Interaction Client
Coach Interaction	Allows the user to coach someone
Conference Calls	Allows the user to create a conference call
Speed Dials	Allows the user to create a speed dial page in Interaction Client
Status Notes	Allows the user to set status notes
Park Interaction	Allows the user to park an object

Search Capability

When configuring systems with a large number of users, workgroups, and roles, it can sometimes be challenging to find the correct object. An earlier screenshot (Figure) references the search feature added to the user interface. This option allows a user to search and filter the list with available objects based on custom search criteria, eliminating the need to scroll through long lists to find the desired user, workgroup, or role. As soon as a user starts typing the name of a workgroup or user, the resulting list displays only information that matches the search criteria.

Virtualization

CIC 4.0 supports virtualization of the CIC environment. For the latest information, see the *IC Virtualization Technical Reference* in the CIC Documentation Library.

The *IC Virtualization Technical Reference* provides best practices and strategies for successfully deploying Interactive Intelligence products on a virtualized platform, and applies to Microsoft Hyper-V and VMWare servers. The document lists Interactive Intelligence products that are currently supported, as well as not supported, for virtualization.

Concurrent Licensing

CIC 4.0 adds support for concurrent licensing. Concurrent licensing is supported for licenses that apply to users. The assigned license model in CIC 3.0 is still available.

CIC 4.0 offers two different types of licenses:

Assigned (or named) – This is the current model (CIC 3.0 and earlier) whereby a license is assigned to a user and is consumed even if the user is not logged in. You must have one license for each user to which you want to assign the license.

Concurrent license – This is a new license option in CIC 4.0. The license is assigned to a user but isn't consumed until the user logs in. In the concurrent license model, the license can be assigned to more users than there are licenses available; however the number of users who can log in is limited by the total number of concurrent licenses. For example, ten concurrent Contact Center Level 1 (CC1) licenses could be assigned to 100 users. Only the first ten users will be able to log in and get a CC1 license. The 11th user will fail to acquire the license.

Assigned and concurrent licensing can be mixed on a single IC server with the limitation that a single user must use either the concurrent or assigned mode. It is not possible for a single user to mix the two modes.

The concurrent version of a license is available on the 4.0 price sheet and appears immediately after the assigned license. Both licenses have the same name with the concurrent license having the suffix "- Concurrent." The concurrent licenses are also available in the online ordering system. Be aware that the part numbers for concurrent licenses differ from the assigned license part numbers.

Robust Recording and Quality Management

Robust Recording and Quality Management

The CIC 4.0 Interaction Recorder and Quality Management module contains significant changes and improvements. The following sections highlight these changes.

Improved Scalability

Interaction Recorder 4.0 provides significantly greater scalability than Interaction Recorder 3.0. The new version provides the ability to record up to 72,000 calls or other interactions per hour (20 recordings per second). These results are based on tests performed in a lab environment. Actual customer results may vary, depending on a multitude of variables such as hardware specifications, network bandwidth, agent activity, and so on.

Proactive Recording

Proactive recording is also referred to as cradle-to-grave recording. The primary purpose of pro-active recording is for CIC to start recording as soon as audio starts on a call (cradle) and continue that recording until the call disconnects (grave). This means that if the call starts in the IVR, and then connects to an agent, the recording includes the IVR portion of the call (as long as the recording policy has been configured to include the IVR). All interactions are recorded proactively, unless the user or interaction is excluded. Parameters for enabling proactive recording are located in the SIP line configuration in Interaction Administrator. Once proactive recording is enabled on a SIP line, it applies to all calls on the SIP line. All calls are recorded, but you don't need to retain all recordings. Policies can be configured to indicate which recordings to retain and how long recordings should be stored.

Note: Pro-active recording only applies to interactions that are calls.

Recording of IVR

Interaction Recorder IVR Recording is a license-based feature that permits playback of the IVR portion of recorded calls. The IVR recording will capture DTMF and speech-enabled IVR sessions with CIC, enabling the ability to listen and assess customers navigating through the IVR menu.

Note that IVR recording is a licensed feature. If this license is not purchased, the customer cannot access and play back the IVR portion of recorded calls. Even with the IVR recording license, if a call goes from the IVR to an agent/workstation without a license, that agent-side recording will be encumbered and not accessible until additional Interaction Recorder licenses are purchased.

Policy Editor

The configuration interface for Recorder CIC 3.0 – where recording selection, categories, categorization rules, questionnaires, and archives are configured – has been replaced in 4.0 by policies which are created in the Interaction Recorder Policy Editor in Interaction Administrator.

Interaction Recorder 4.0 adds a new wizard-driven feature to control which interactions are recorded (initiation policies), where the recordings are stored (retention policies), and who has access to them (security policies). Policies are similar to Outlook email rules and consist of conditions and actions. The actions for a policy will be run if the conditions are all true. Multiple policies' actions can be run on a single interaction or recording if those policies' conditions are all true.

Initiation Policy creation includes:

- Naming the policy
- Who the policy applies to
- What event initiates recording
- Timeframe
- Selecting criteria that apply to the policy
- Scorecards that apply to recording
- Actions that apply

Users can create tags for recordings in the initiation policy options. Recording tags can play a crucial role in the content management and security of a recording. They are also useful for organizing recordings for retrieval. For example a recording might be tagged with keep forever, and also might be a good candidate for training purposes. Allowing multiple tags to be assigned to a recording provides users the ability to search based on criteria that relates directly to their business practices. Given that larger deployments could conceivably have hundreds of millions of recordings on file, this easy to use categorization mechanism is essential for quickly retrieving desired recordings.

An example of an initiation policy is creating a new policy to record all calls, apply the policy to a customer service workgroup, for inbound calls. Other criteria might be that the policy only applies to calls during certain times – such as every day between 10 AM and 2 PM.

Retention Policy – Retention policies define storage location and duration. Without a retention policy, Interaction Recorder leave recordings on the media server.

Creating a retention policy includes selecting:

- What to store
- Where to store
- When to purge

An example of a retention policy could be to store recordings from different workgroups in different directories or archive old recordings to a file server. The retention period could be based on duration – such as for three months – or forever.

Security Policy includes selecting:

- Who (which entities) the recording policy applies to and their permissions

An example of a security policy is one that gives supervisors general recording access, but not the ability to delete, email, or export recordings.

Key benefits of Policy Editor include the ability to:

- Consolidate and simplify configuration
- Provide more granular security and user rights
- Make initiation and retention more flexible
- Set stage for managed scoring process

Remote Content Server

Interaction Recorder Remote Content Server provides multiple efficiencies in the Interaction Center environment, and makes the previously required Capture Server for screen recording unnecessary in 4.0. Additionally, RCS is the component that moves recordings to their final destination. That location is configured in the Policy Editor with Retention Policies.

The key benefits of RCS are that it provides the ability to:

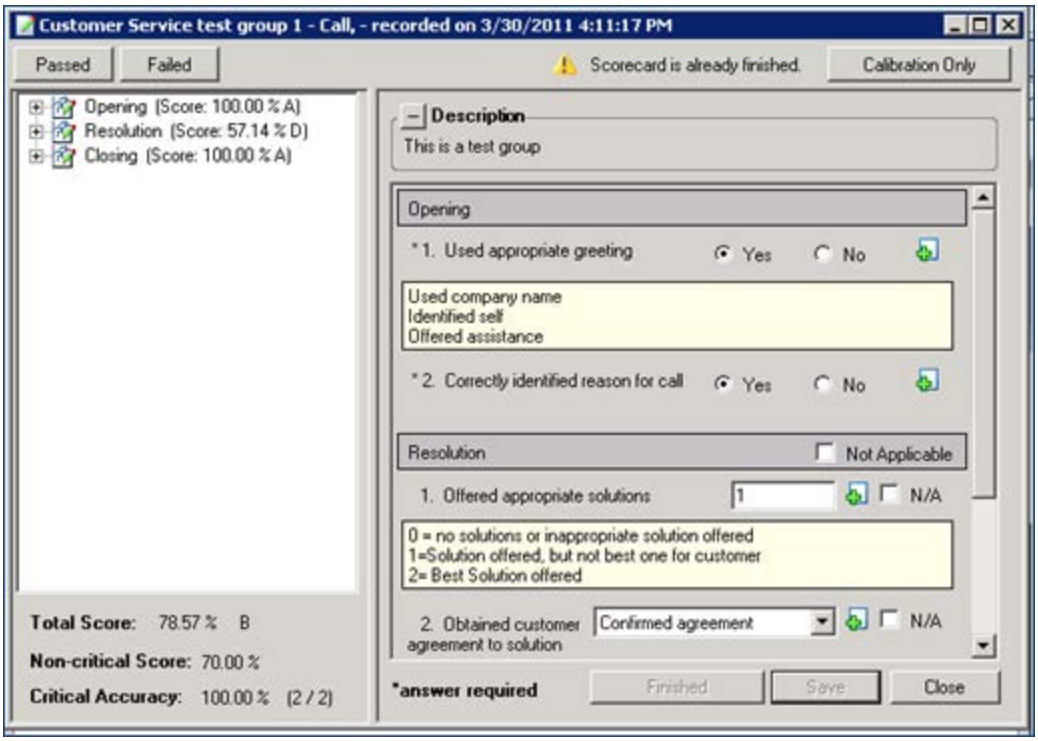
- Preserve WAN bandwidth
- Distributed processing of recordings
- Simplify capture server configuration and install

The best configuration for the Interaction Center environment includes Interaction Media Server and Interaction Recorder Remote Content Server. This configuration enables the Interaction Center server to have the most resources available for other activities when recordings are necessary.

Improved Scorecards

Interaction Recorder Scorecard has been improved for easier viewing, allowing tree view question groups, and scrolling to view the scorecard rather than the previous tabbed view. The scorecard provides a **Calibration Only** button, which prevents scored recordings from being included in agent quality score reports.

- Calibration Only button
- Tree view of groups instead of tabs



Scorecard

Improved Scorecard Report

The CIC reporting interface includes several new scorecard reports. These reports are described in more detail later in this document. The main advantages of these improved reports are:

- They are easy to read
- They include critical questions, evaluator comments, and scoring for calibration

Questionnaire Name: TestQN2 - multiple groups | Marked for Calibration | Form Score: 180.00 Percentile: 90.00 Rank: A
Recording Date: 05/02/2010 Media: Fax Recorded User ID: Lisa.Johnson Critical Score: 100.00% Non-Critical Score: 130.00

Question Group: Group 2

Importance	Question Text	Question Answer	N/A	Score Min	Score Max	Score Answer
Required	Question - integer question with comments	10		5.00	200.00	50.00
Critical	Question - true/false	True		5.00	200.00	25.00
Required	Question - free text	second free text question		5.00	200.00	0.00
Required	Question - multiple choice	four		5.00	200.00	20.00
Required	Question - multiple choice	four		5.00	200.00	20.00
Required	Question - multiple choice	four		5.00	200.00	20.00
Required	Question - multiple choice	four		5.00	200.00	20.00
Required	Question - multiple choice	four		5.00	200.00	20.00

Questionnaire Name: Questionnaire w/Comments Form Score: 10.00 Percentile: 05.00 Rank: F
Recording Date: 05/03/2010 Media: Call Recorded User ID: Critical Score: 25.00% Non-Critical Score: 5.00

Question Group: Second Group

Importance	Question Text	Question Answer	N/A	Score Min	Score Max	Score Answer
Critical	Did the agent properly greet the customer? Explain why if answered no.	No		0.00	115.00	0.00
	Comments: *these have some ore comments*					
Critical	Was the customer satisfied with the conflict resolution at the end of the call? Explain why if answered no.	No		0.00	115.00	0.00
Required	Please answer true to this question for quality purposes only.		✓	0.00	115.00	0.00
Required	Enter a value between 0 and 200.		✓	0.00	115.00	0.00

Questionnaire Name: Questionnaire w/Comments Form Score: 100.00 Percentile: 87.00 Rank: B
Recording Date: 05/02/2010 Media: Fax Recorded User ID: Lisa.Johnson Critical Score: 100.00% Non-Critical Score: 80.00

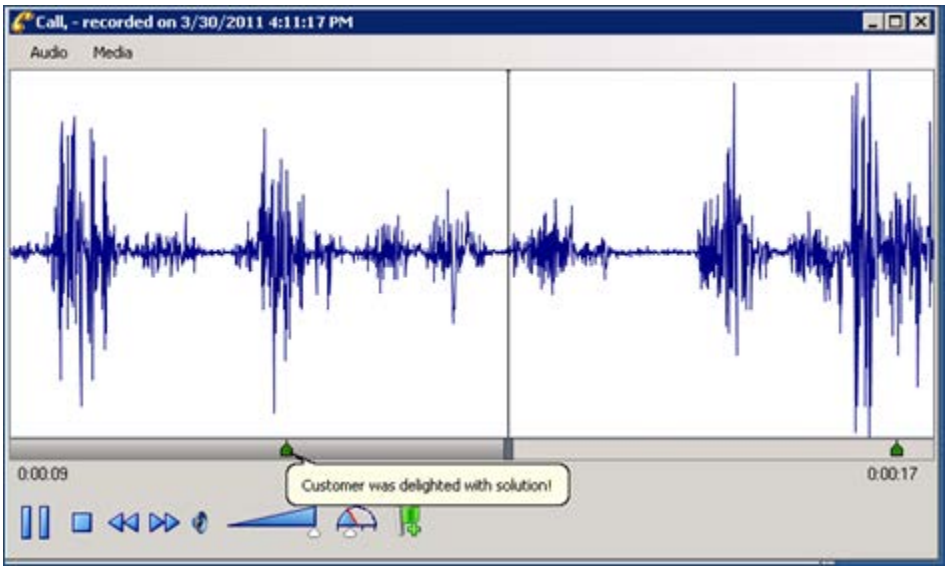
Question Group: Second Group

Importance	Question Text	Question Answer	N/A	Score Min	Score Max	Score Answer
Critical	Did the agent properly greet the customer? Explain why if answered no.	Yes		0.00	115.00	5.00
	Comments: *My comments for this question.*					
Critical	Was the customer satisfied with the conflict resolution at the end of the call? Explain why if answered no.	Yes		0.00	115.00	5.00
	Comments: *I was wondering if it would be possible to mark a couple questions NA, and add comments to a couple more so that I can get a better feel for how the report is going to lay out. I'm looking at the ScoringDetail_vw.*					
Required	Please answer true to this question for quality purposes only.		✓	0.00	115.00	0.00
Required	Enter a value between 0 and 200.	150		0.00	115.00	75.00

New Scorecard Report

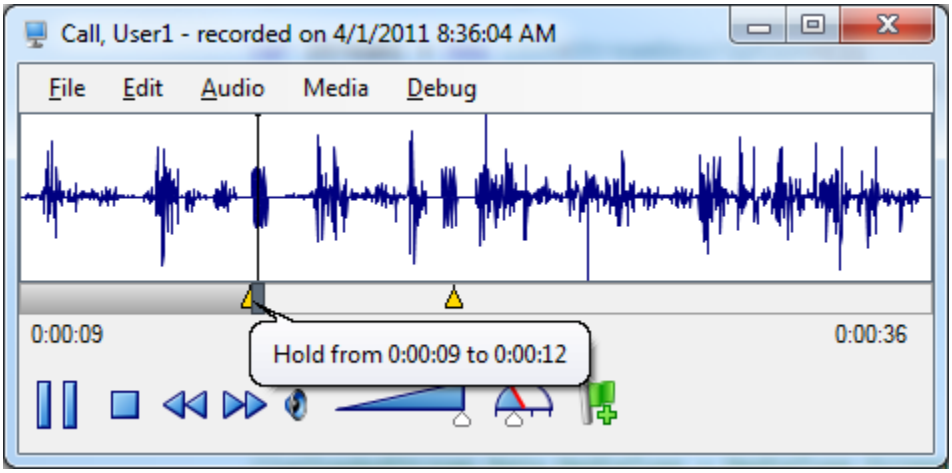
Playback Visualization

In addition to displaying the timeline, the playback feature in 4.0 provides the ability for the user to bookmark sections of the recording with annotations for coaching purposes. Annotations are indicated by green icons in the timeline, and the comment appears as the recording reaches the bookmark.



Playback Visualization

The playback feature also automatically inserts annotations for events that occurred during the call, such as placing the caller on hold. Events are indicated as yellow pyramid icons. Text describing the event appears as the recording reaches the icons during playback.



Event Indicators

Screen Recordings without an Interaction

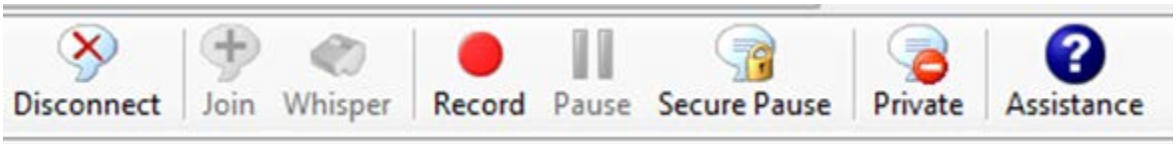
Interaction Recorder 4.0 provides the ability to initiate screen recordings independently of other interactions such as calls, email, chats, and so on. This feature is useful for back-office work such as claim processing, or for creating screen recordings for training purposes. The ability to start and stop screen recordings is also exposed via the IceLib API for programmatic access.

Secure Pause

Due to PCI requirements, many customers must comply with PCI DSS standards regarding recording and storing sensitive information. Interaction Recorder's Secure Recording Pause feature is initiated by an agent when requesting sensitive input from a caller such as SSN or credit card information.

Initiating the Secure Pause

The Secure Recording Pause is initiated from a **Secure Pause** button on the Call Control toolbar. This button appears in Interaction Client if the agent has rights to the button.



Call Control Toolbar with Secure Pause

With the feature enabled, the agent initiates the secure recording pause by clicking the button. At this point, all recordings of the interaction (and all recordings of any other monitors of this interaction, and so on) are paused for a configured period of time. While the recording is paused, feedback is given to the user regarding the amount of time remaining in the secure segment. The button displays a countdown timer.

Secure Pause Button Countdown

As soon as the time has expired, the recording resumes.

Duration of the countdown is configured in Interaction Administrator.

Enriched Reporting & Real Time Management

Enriched Reporting & Real Time Management

The following section of the document outlines features in the new Reporting and Real-Time Management module in CIC 4.0.

Interaction Supervisor

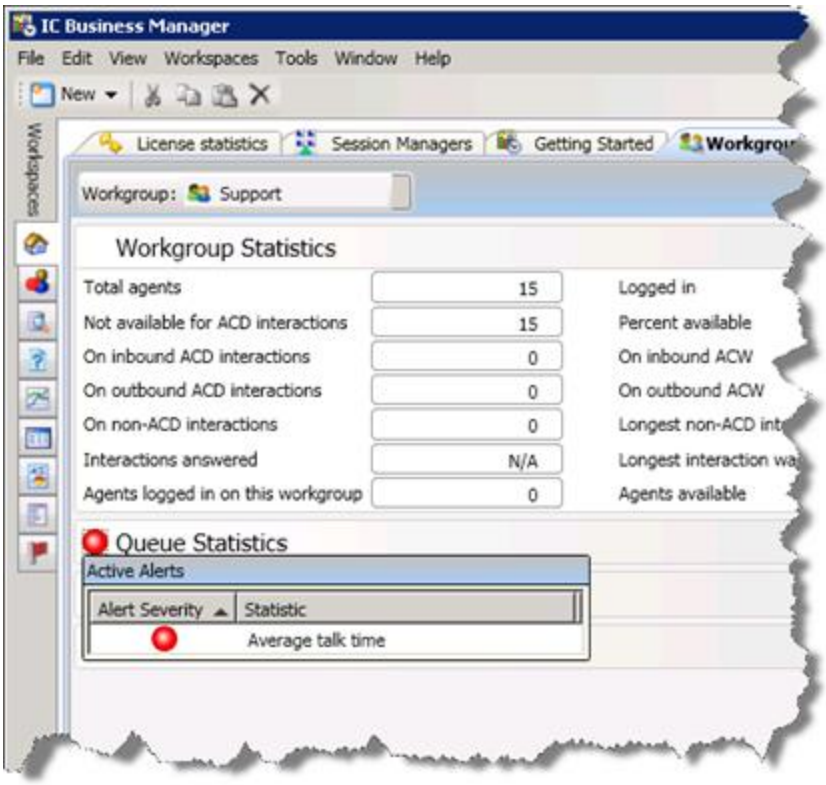
In CIC 3.0 and earlier versions, Interaction Supervisor ran independently on the desktop. As of CIC 3.0, we introduced Interaction Center Business Manager (ICBM) as a framework/unified interface for certain add-on modules like Interaction Feedback, Interaction Optimizer, Interaction Recorder, and Interaction Process Automation. In CIC 4.0, Interaction Supervisor is also a module in ICBM. Therefore, in CIC 4.0, there is not a separate Interaction Supervisor application anymore; all functionality is offered through the ICBM interface.

The rewritten Interaction Supervisor uses the latest technology to improve the look and feel of the user interface. A lot of attention was put into usability of the application when designing the new ICBM module.

Interaction Supervisor includes new features such as drill-down statistics, easier alert management and real-time concurrent license usage. The introduction of distribution and service-level target settings by workgroup and by media type is a major new feature and is described later in this document.

Interaction Center Business Manager (ICBM)

ICBM provides several advantages, especially around usability and scalability. ICBM is a framework application for several CIC add-on modules. It allows the user to create their own custom views based on the modules that are available to them. Instead of having to jump between different applications to use all the different add-on modules of CIC, users can access these modules from a single interface. A user can drag and drop the modules they need onto a view called a *workspace*. A user can create multiple workspaces, each containing different modules. Switching between workspaces is as simple as clicking on another workspace or using an assigned hot key.

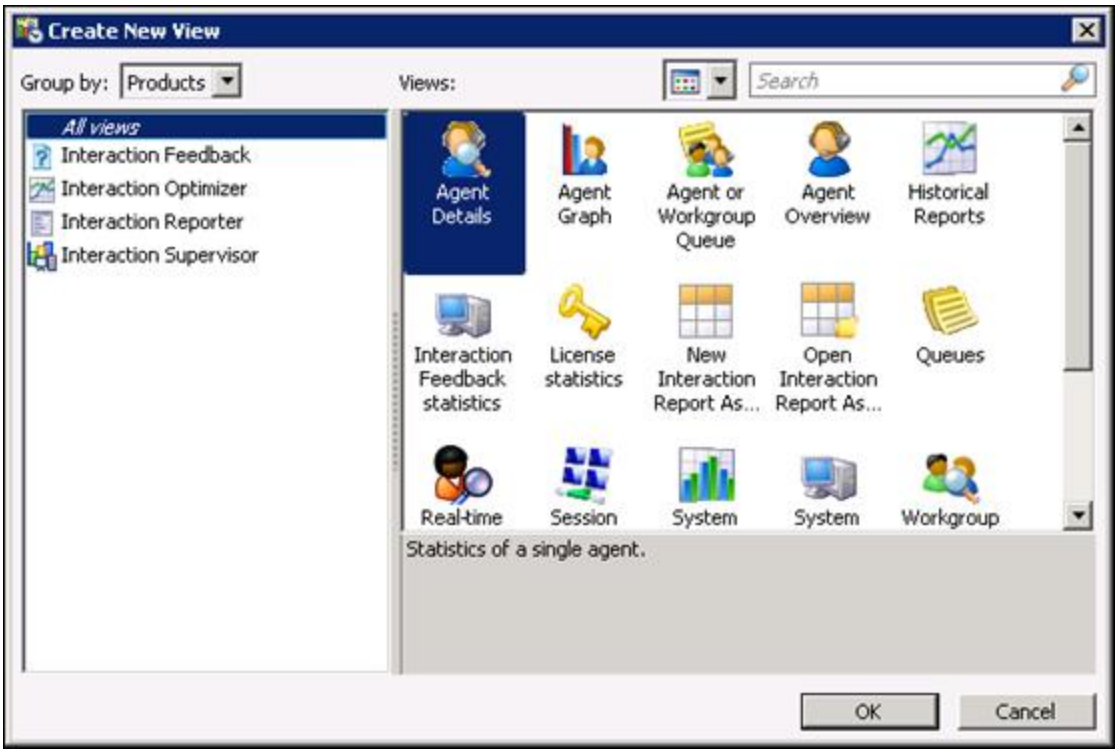


Interaction Center Business Manager displaying some Supervisor modules

For example, supervisors or Contact Center managers can easily select a real-time view from the Interaction Supervisor module, combine it with data from the Interaction Feedback module, and show this all on a single screen. ICBM allows docking of the views just like the feature in the Interaction Client .NET Edition, giving the user the opportunity to create their own views and decide which information is important for them.

In CIC 4.0, the following modules are available through the ICBM interface:

- Interaction Feedback
- Interaction Optimizer
- Interaction Process Automation
- Interaction Recorder
- Interaction Reporter
- Interaction Supervisor
- Interaction Tracker



Adding new views in ICBM

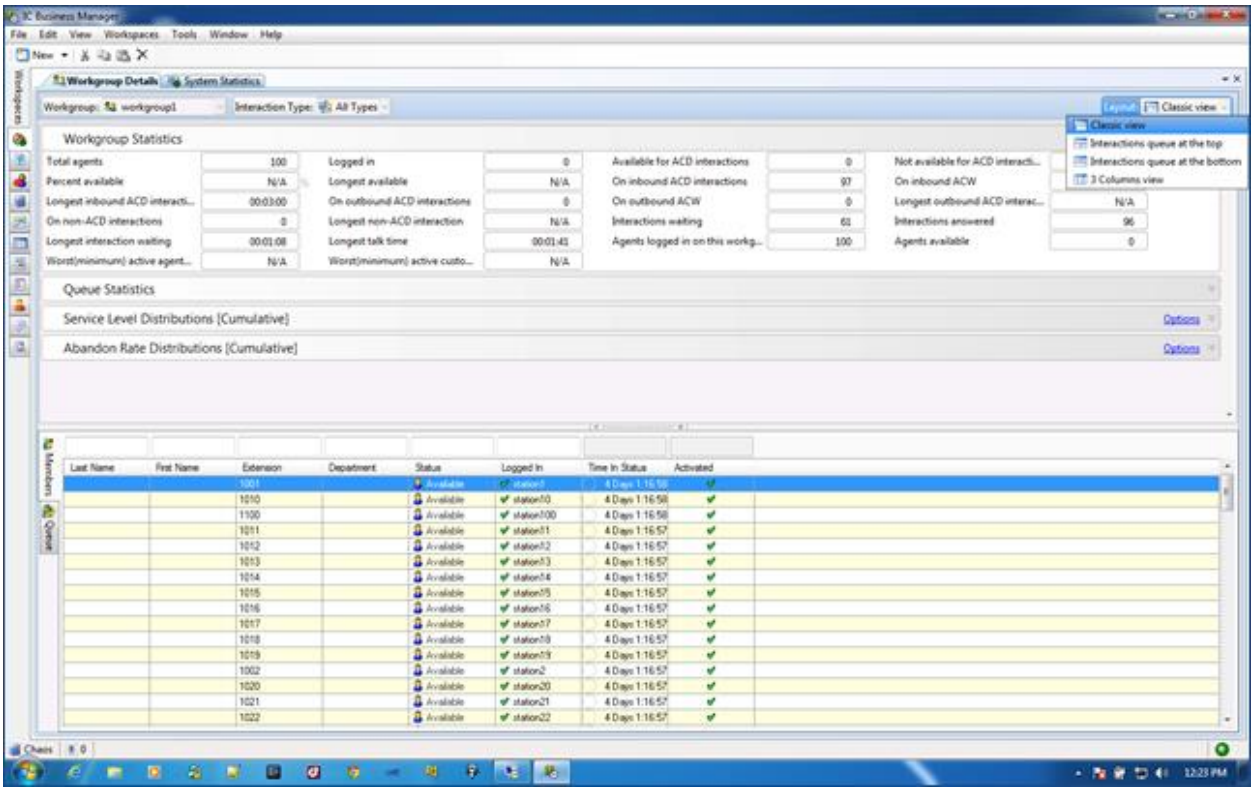
In addition to usability advantages, CIC 4.0 includes significant scalability improvements. The majority of these improvements result from ICBM and all of its modules using IceLib and Session Manager for the connection back to the IC server. This also supports the advantages previously mentioned regarding regionalization of Session Managers to ICBM and its modules.

IceLib API

As mentioned before, the connection between ICBM and the IC Server is handled through IceLib and Session Manager, which greatly increases scalability. In order for the Interaction Supervisor module to retrieve and display real time statistics through IceLib and Session Manager, IceLib now exposes all statistical information. As a result, IceLib 4.0 now offers the ability to access all statistical information, allowing customers and partners to build their own applications using real-time information.

Statistics and Graphs

Both the Statistical and Graphical modules have been rewritten with several new usability features. Users can now select which elements they want to display and collapse groups of data they don't need to see, and still see when statistical alerts are active. Several new display layouts allow users to design the layout of the screen.

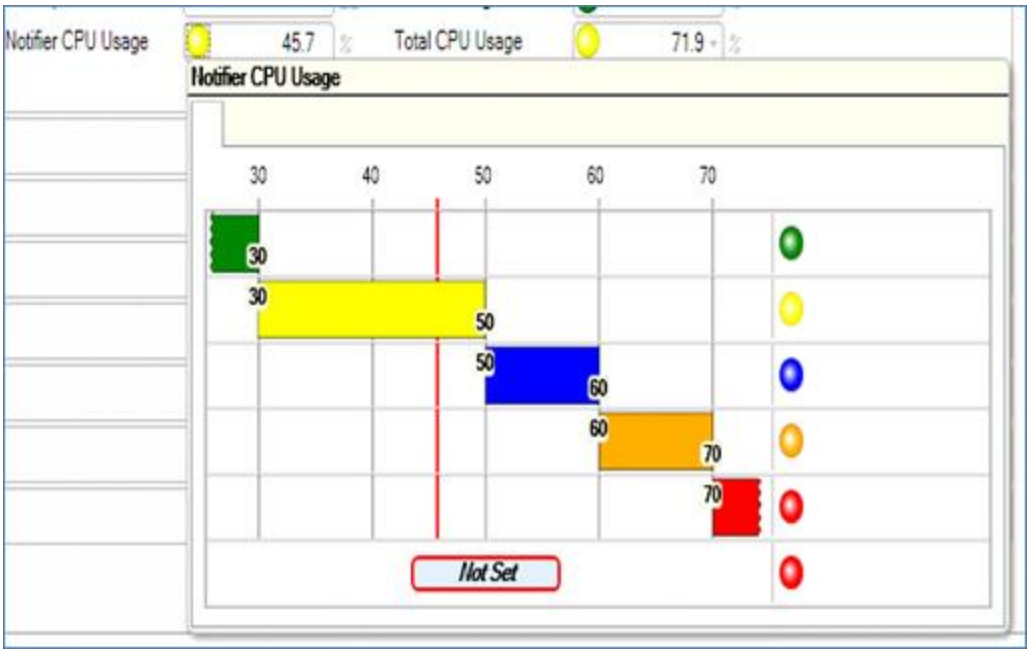


Interaction Supervisor with collapsed groups of statistics

The Graphs module allows a user to specify the color for a particular statistic. This allows users in a contact center to configure their colors consistently throughout their organization. A new feature allows the X and Y axes to display a fixed range instead of having them dynamically update based on the data shown, as in previous releases.

Alert Management

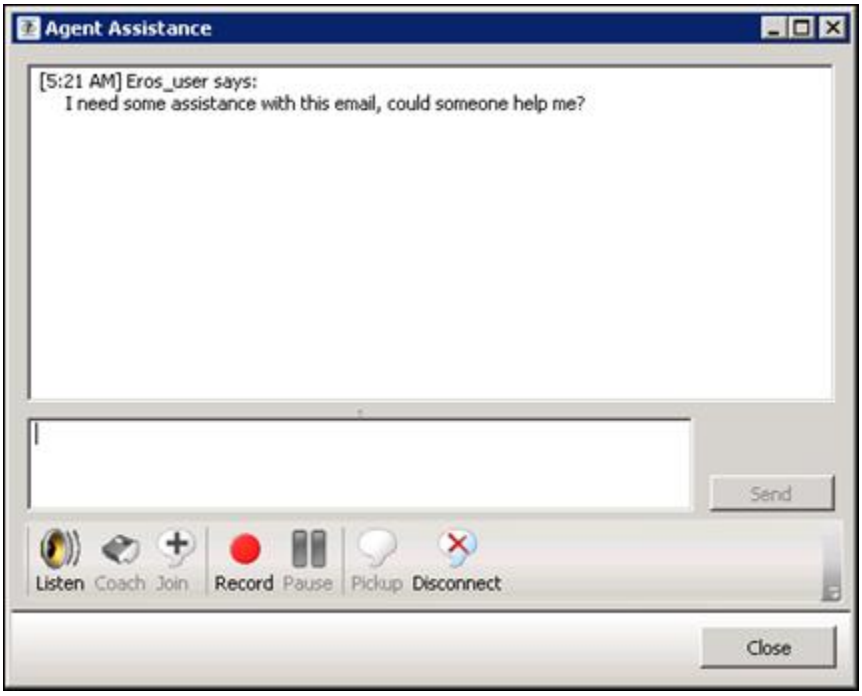
Alert Server in IC 4.0 has been changed to improve scalability. The user interface and usability of settings and configuration have been significantly changed to present a visual overview of the configured alerts. The ranges configured, including display colors and icons, are displayed to make configuration easier (Figure).



Displaying configured Alerts in ICBM

Assistance Request

The assistance request functionality has been improved to allow a chat conversation between the agent and supervisor. As soon as the chat request is accepted by the supervisor, both parties can enter text and have a real chat conversation. The supervisor also has immediate access to some key call control functions like Listen, Coach, Join and Record while typing with the agent who requested assistance.



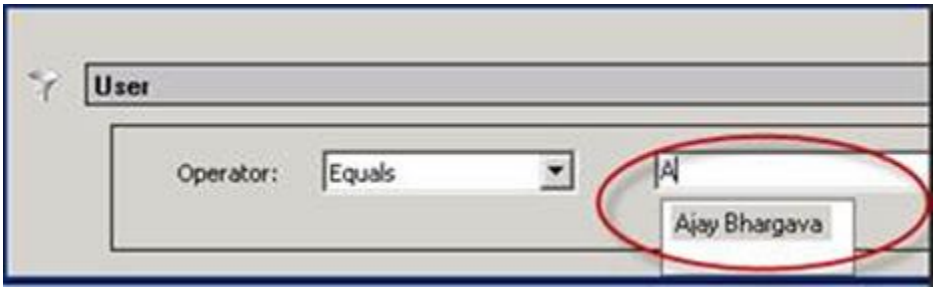
Supervisor Dialog for Assistance Request

Figure shows the new dialog that the supervisor sees when working with an agent on the supervisor assistance request.

Interaction Reporter

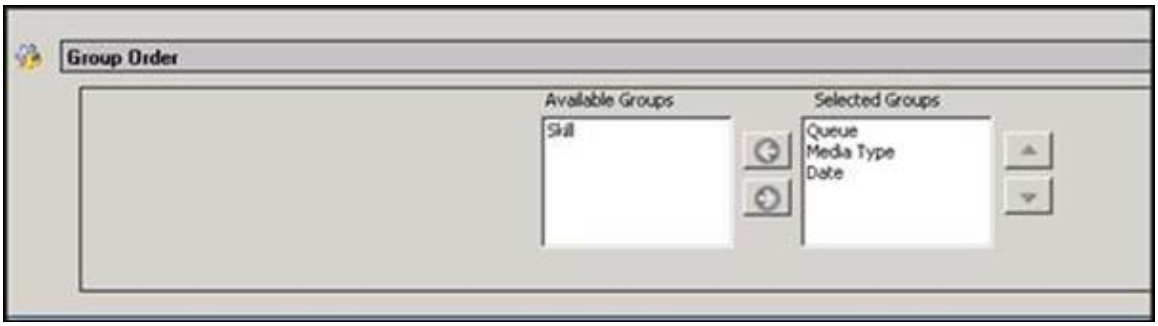
Interaction Reporter leverages .NET technology to provide a tighter integration to CIC 4.0, increased security and access controls, and more robust usability features, which include:

- **Relative Date Range Selection** - Interaction Reporter provides relative date range selections to run data for ranges like “This Year,” “Last Year,” “Yesterday,” “Today,” and so on, to reduce the need for static data ranges.
- **OR parameters** - By default, each parameter added is an AND filter where all data must match all filters/criteria selected. CIC 4.0 introduces the ability to also add OR filters.
- **Type-Ahead “Smart” Selection** - The filters automatically identify workgroups or users that match the user’s typing. This feature helps to eliminate user errors that occur from mistyping.



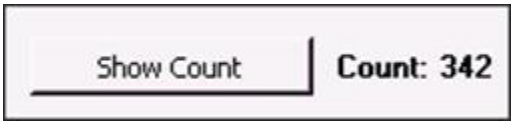
Type-Ahead "Smart" Selection

- **Filter Import / Export and Save-** Allows for filters to be saved and shared with other users.
- **Informational Parameters –** Informational input to the report that may allow additional data elements to be displayed or change the requirements for calculations.
- **Threshold Parameters** – Defines the criteria to highlight records within a report to allow the supervisor to easily identify the record that is hitting or missing a defined constraint (such as excessive hold times).
- **Group Order** - Gives the user control over how the report is grouped and summarized. The user, for example, can choose to group data by Date, and then by Queue, or by Queue, and then by Skill, and then by Date.



Group Order

- **Show Count -** Show count allows the user to see if there are any records in the database that match the current filter criteria on the screen. This option allows the user to identify whether the filter needs to be minimized to reduce heavy processing of the data and provides a quick way to identify if there will be any results.



Show Count

- **Multiple Page View -** Like other document readers, Interaction Reporter allows reports to be viewed one page at a time, with multiple pages side-by-side on the screen, in a grid, and so on.
- **Copy Button -** Allows the screen to be copied and pasted into another application.
- **Annotation Tool -** Allows users to make notes and annotate the report from within the application.

Service Level by Workgroup/Media Type

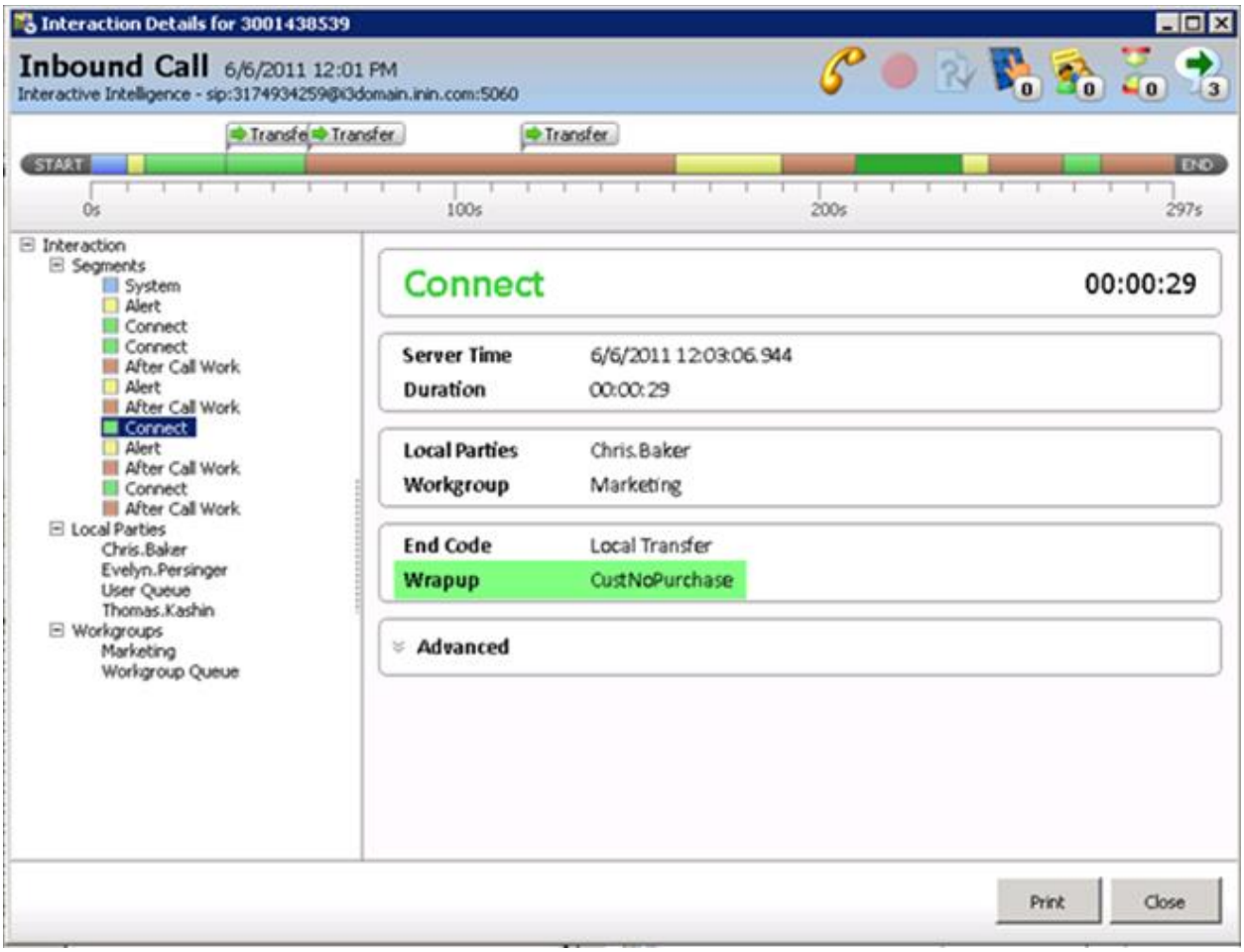
With the new data structure and logging changes, CIC supports greater service-level reporting by enabling separate distribution and service levels per media type, per queue. Each media type within each queue can be configured with up to 12 distribution levels and have its own service-level target.

As an example, emails coming in to the Support queue can have different distribution settings compared to phone calls coming into that same queue. It is up to the system administrator to configure each of the intervals by workgroup and media type.

The new Service Level Target configuration option allows a user to specify the required time in which the interaction needs to be answered. The service-level target, just like the distribution settings, is configured by workgroup and media type. If a workgroup service-level target for calls is set to 20 seconds, the system tracks the percentage of calls that are answered within this service-level target. Contact center managers and supervisors can immediately see how they perform, based on these values, relative to service-level agreements.

Interaction Detail Viewer

Interaction Detail Viewer provides call center supervisors the ability to search for and audit a particular interaction directly in their ICBM workspace. Interaction Detail Viewer provides data on each segment or state of the call, each participant, each wrap-up code that was selected, after-call work time, and various other statistics in both a text and graphical view. Visual cues allow the user to easily identify how many times a call was transferred, placed on hold, if it was recorded, and so on.



Interaction Detail Viewer

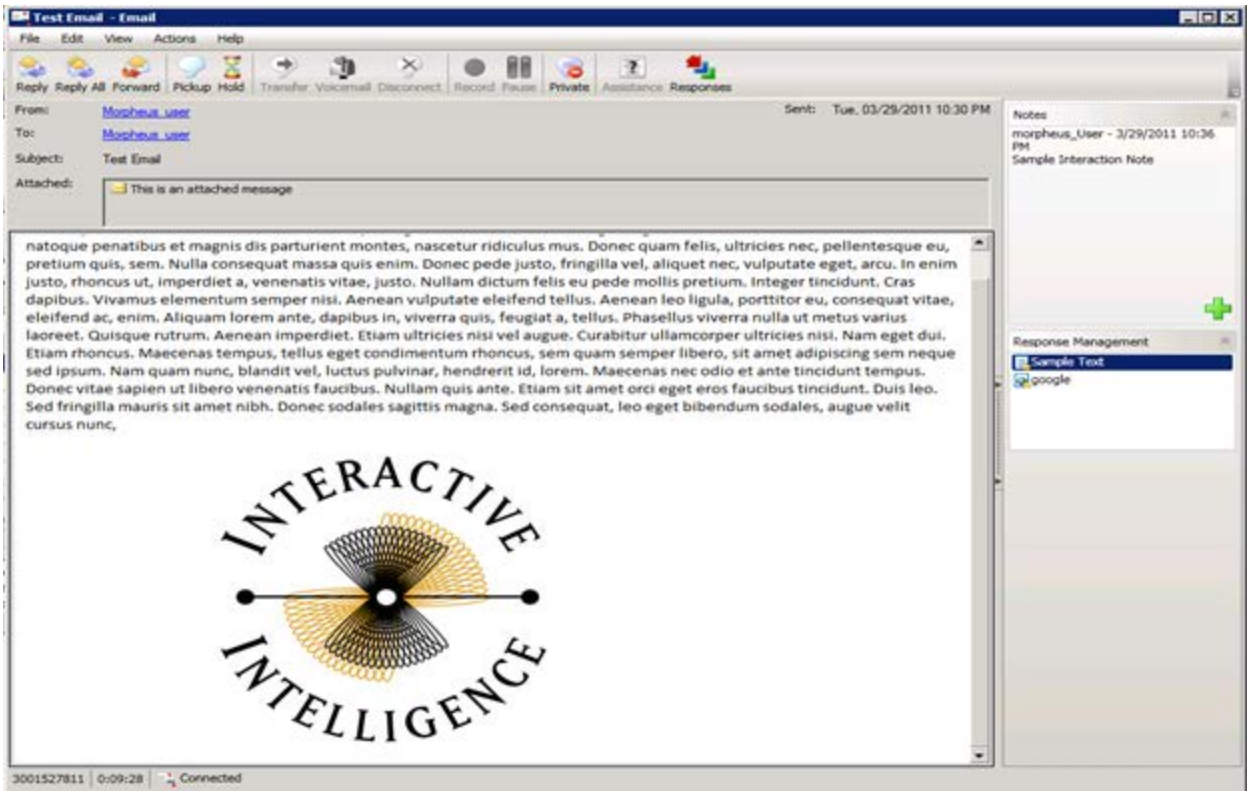
Improved Multi-channel Handling

Improved Multi-channel Handling

The following sections outline some of the changes that have been made to multi-channel handling.

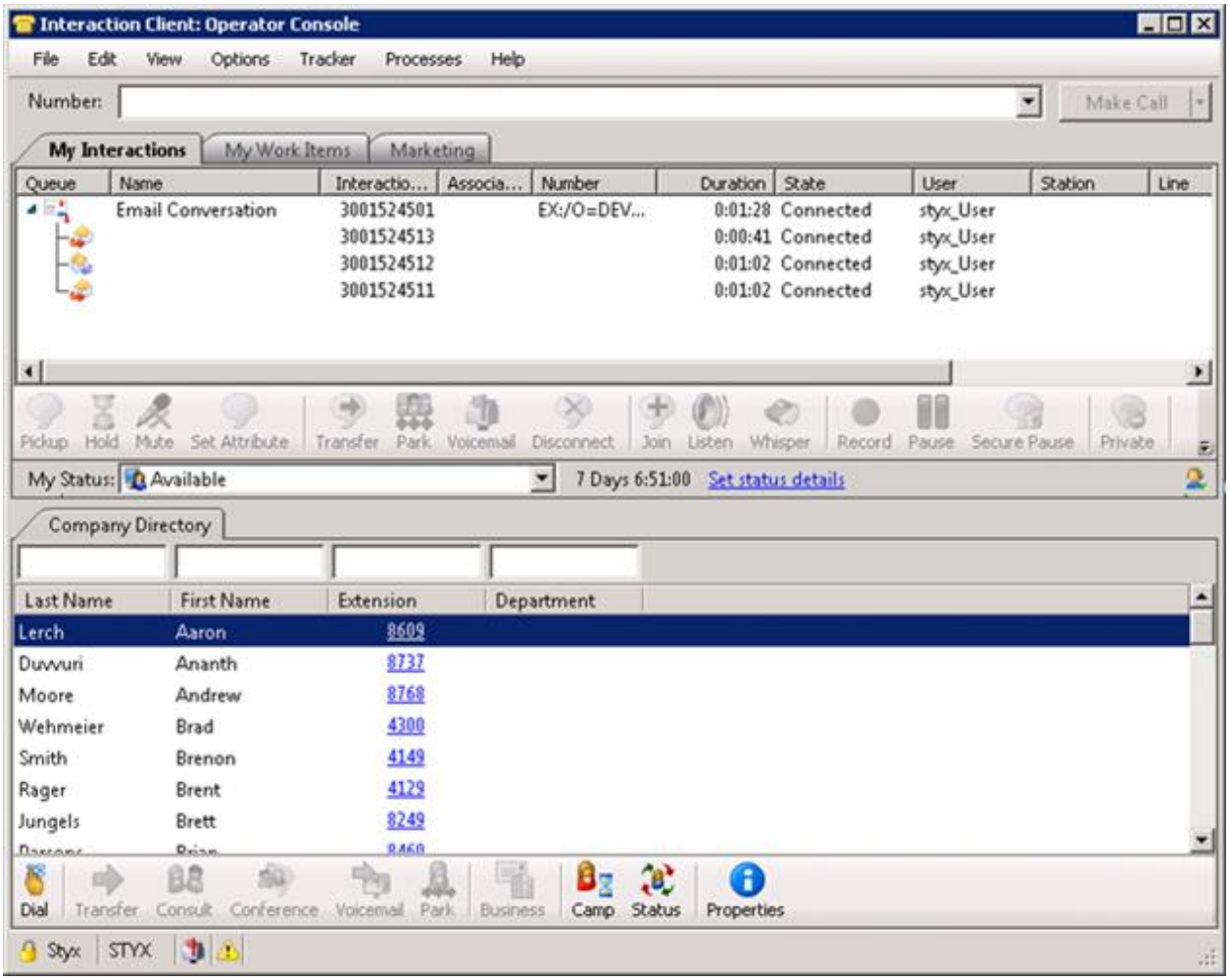
Updated Email Handling

CIC 4.0 presents a complete redesign of our email offering and introduces significant improvements compared to previous CIC releases. The key difference is that the response model has been changed to be more natural. An incoming email offered to an agent is opened in read-only mode, just as in other email applications. The email form now offers the ability to reply, reply all, and forward the message, as shown in Figure .



New Incoming Email Form with Reply, Reply All, and Forward buttons

Forwarding a message including attachments will automatically put the attachments in the outbound email as well. When a Reply or Forward action gets performed, the user still has the original read-only email option allowing them to perform multiple actions to a single email. A user could potentially forward an email to a different email addresses as well as responding to the customer just from within the client interface. While the user is performing all these actions (Reply, Forward) the Client interface keeps track of these actions and shows each of these actions as a child node in the client, making it visible to both the agent and supervisors about what is happening with an email as shown in Figure .



Interaction Client Showing different child objects for actions taken on an Email

In the Interaction Client .NET Edition, a new feature allows users to create a new outbound email directly from Interaction Client. These outbound emails can be associated with workgroups for reporting/tracking purposes and to determine the sender of the email. Each workgroup has additional configuration settings allowing system administrators to configure from which email address an outbound email is being sent. This address is used when the end-customer opens the email and replies to the message. Because these replies are handled by an ACD queue instead of an individual user, the volumes are tracked in both Interaction Supervisor and Interaction Reporter.

Improved Web Chat

CIC 4.0 significantly simplifies the deployment of web chat. Changes to the back-end architecture make this feature easier to deploy. Scalability and reliability are also significantly improved due to architecture changes. Tomcat is no longer a requirement; instead, the redesign relies on reverse proxy web server configuration.

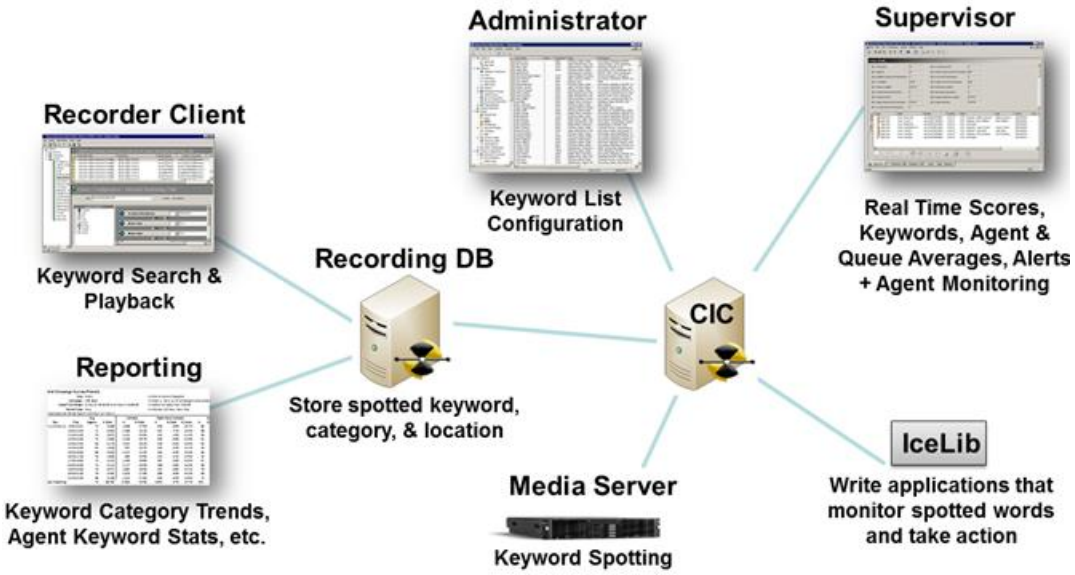
Web chat in CIC 4.0 includes an improved web front end, making it easier to customize and incorporate in corporate websites. The new front end also improves support for multiple browsers.

Enriched Contact Center Functionality

Enriched Contact Center Functionality

Interaction Analyzer

Interaction Analyzer is Interactive Intelligence's real-time word and phrase spotting product, built directly into the platform and leveraging Interactive Intelligence's own technology with no third party components. This allows for fully-integrated speech analytics with supervisors and agents being informed in real time of interaction scores and spotted keywords and phrases. Details of words and phrases spotted are stored, along with recordings, in Interaction Recorder to enable rapid searching of recordings, playback with spotted keywords and phrases, the ability to jump to specific entries, and trending analysis of types of calls, such as 'Unhappy Customer.' Because Interaction Analyzer is built into the CIC platform, deployment is simple – activate licenses, define keywords and phrases, and start using it.

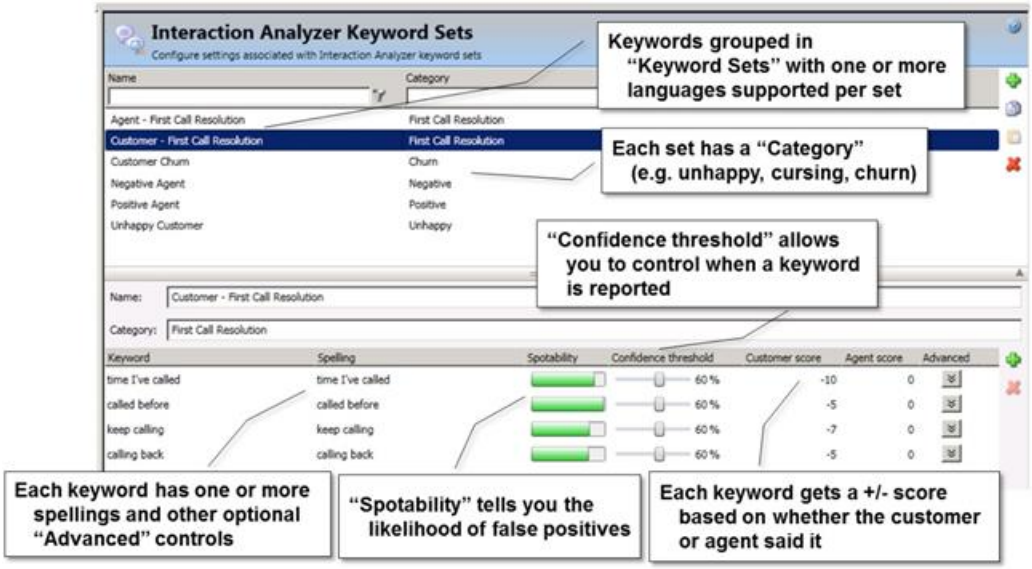


Interaction Analyzer Real Time Components

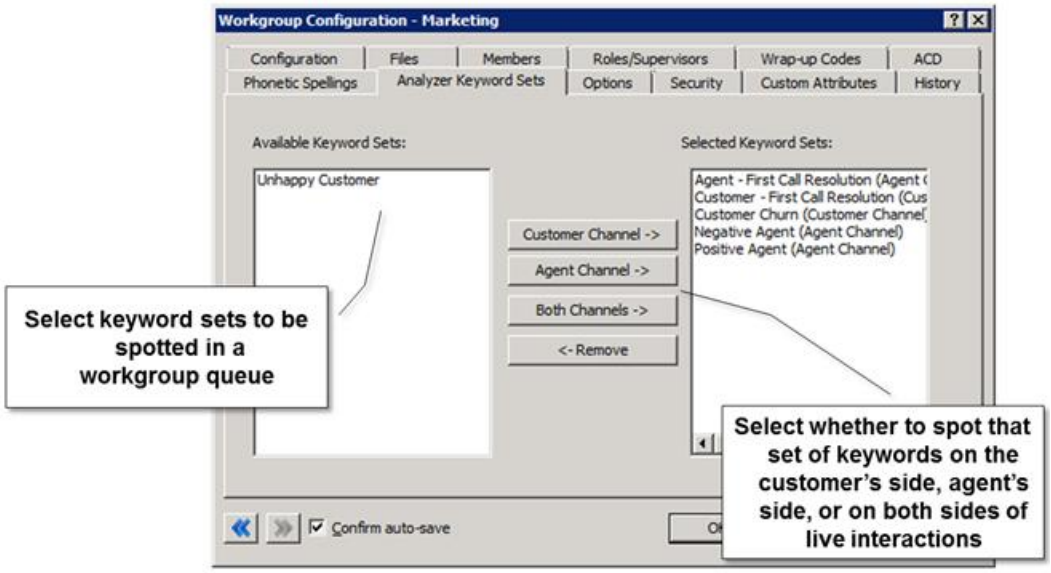
Analyzer Configuration

Interaction Analyzer is configured via Interaction Administrator. Configuration consists of 2 steps:

1. Define lists of keywords and phrases, called keyword sets.
2. Associate defined keyword sets with workgroups by channel (agent, customer, or both sides of the conversation).



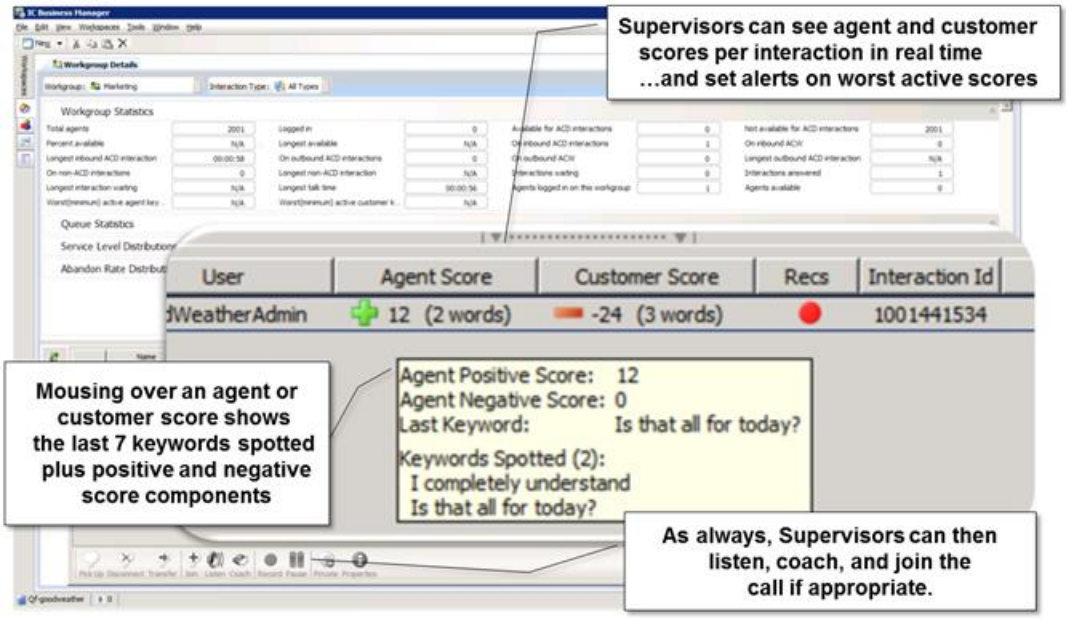
Interaction Analyzer Keyword Set Configuration



Interaction Analyzer Workgroup Configuration

Analyzer Real Time Monitoring

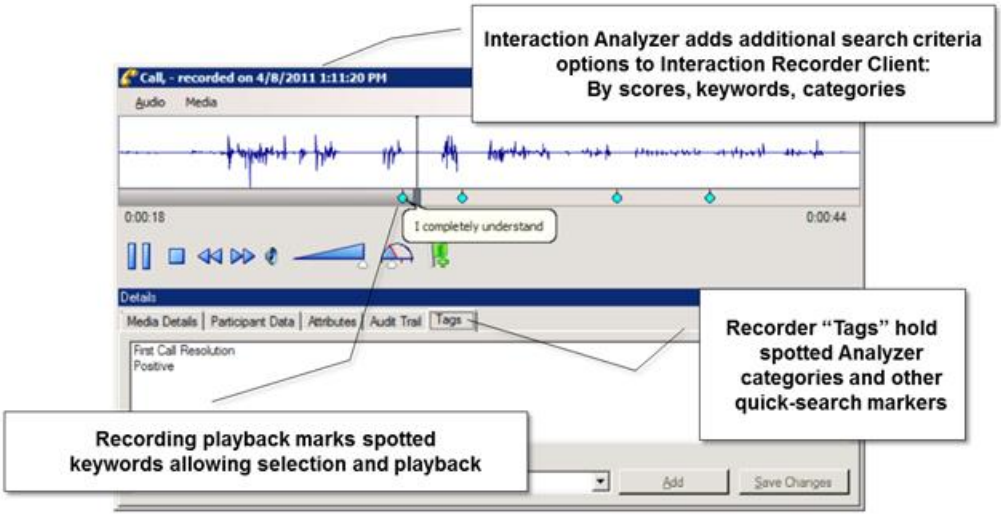
Once configured, Interaction Analyzer monitors live conversations and provides real-time updates to supervisors through the Interaction Supervisor interface. Calls are scored in real time based on spotted words and phrases to help supervisors identify calls going well or poorly. A supervisor can hover over any given score with a mouse to see the words and phrases spotted in real time, and monitor the call using the Listen, Coach, Join, and other buttons.



Interaction Analyzer Real Time Monitoring in Interaction Supervisor

Analyzer Integration with Interaction Recorder

Interaction Recorder stores all the details of the spotted keywords and phrases with the call recording. This adds even more options to recording searches, including category, keyword, and agent/customer scores (for example, "unhappy" customer calls for agent Joe, yesterday). When playing back recordings, Interaction Recorder indicates keywords and phrases in the call and allows the listener to jump directly to a desired location in the call.



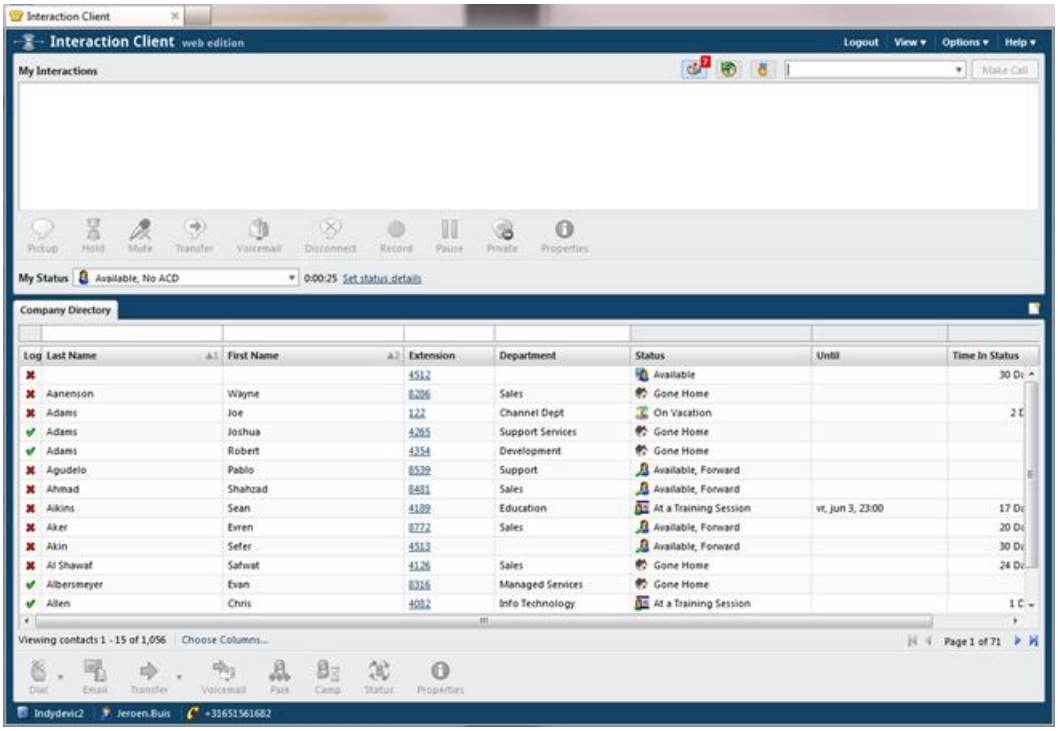
Analyzer Integration with Interaction Recorder – Recording Playback

Interaction Client Web Edition

We have continued our effort to improve the web client capabilities and have focused on adding contact center related features to Interaction Client Web Edition. In CIC 3.0, web client functionality was mainly geared toward business users; in CIC 4.0 the web client has become a version of the client that also works well for contact center

agents who handle phone interactions. Multimedia (email, chat) support is not yet available in the Web Client; this will be added in a future release. Several new contact center features have been added to Interaction Client Web Edition:

- Workgroup activation
- Wrap-up codes
- Advanced Transfer dialog
- Account codes
- Screen-pop
- Call notes
- Configure column to display (For directories)
- Time-in-status information



Interaction Client Web Edition

Requirements

Requirements

CIC 4.0 includes several architectural changes which improve both scalability and reliability.

Software and Third Party Requirements

CIC 4.0 has updated requirements for the underlying operating systems. There are also different requirements for third party software such as databases, mail platforms, and so on. The following sections describe these requirements in more detail.

For additional information about software requirements, see the Interaction Intelligence Support site at https://my.inin.com/products/cic/Pages/Software-Requirements.aspx.

Server Software Requirements

CIC 4.0 is only supported on Windows Server 2008 R2 (64-Bit). All server applications, including Media Server, off server Session Manager (OSSM), and Interaction SIP Proxy, also only support Windows Server 2008 R2.

Workstation Software Requirements

CIC 4.0 supports the following operating systems on workstations:

Operating System	32-Bit Version	64-Bit Version
Windows 7	Supported	Supported
Windows Vista	Not Supported	Not Supported
Windows XP	Limited (see below)	Not Supported
Windows Server 2008 R2 (as a workstation)	N/A	Supported

As described above, Windows XP has limited support in CIC 4.0. The following table outlines which applications are and are not supported under Windows XP.

Application	Supported
.NET Client	Supported
Fax Viewer	Supported
Voicemail Player	Supported
ININ QoS Driver	Not Supported
Screen Recorder Capture Client	Not Supported
All Other Applications	Not Supported

Email & Database Platforms

CIC 4.0 supports both Microsoft Exchange 2007 and Microsoft Exchange 2010. It also supports GroupWise 8.0, Lotus Domino 8.5, and Gmail.

Supported databases include Microsoft SQL Server 2008 R2 and Oracle 11G R2.

Hardware Requirements

For hardware requirements, see the Interactive Intelligence Support site at https://my.inin.com/products/cic/Pages/Hardware-Requirements.aspx.

Separately Released Products

Separately Released Products

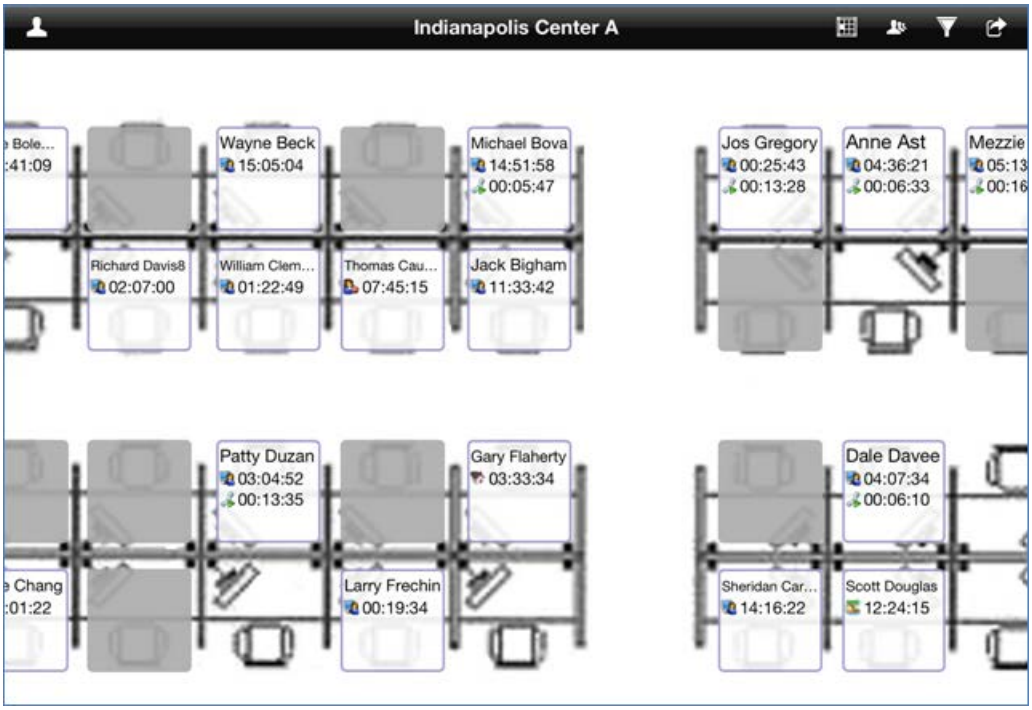
These products, while released and updated separately from CIC 4.0, have dependencies on CIC 4.0. See the appropriate product documentation on the Interactive Intelligence Support site for CIC 4.0 (and other product) SU dependencies.

Interaction Supervisor iPad Edition

Interaction Supervisor iPad Edition is a new product that allows supervisors to use many of the original Interaction Supervisor functions on iPads. The application has different views, including a workgroup dashboard, an agent dashboard, and a new Agent Locator feature.

Interaction Supervisor iPad Edition – Workgroup dashboard

The Agent Locator feature allows supervisors to get a visual representation of the contact center based on a floor plan. As soon as a user logs on to Interaction Client, the user appears in the floor plan at the desk or location from which they logged on. This feature gives supervisors an easy way to see the location of a specific user. The Agent Locater view also provides real-time information, such as a user's status and information about interactions on which the user might be working.



Interaction Supervisor iPad Edition – Agent Locator

The application requires a separate access license and is compatible with iPad Gen 2+ with iOS 6.0+. The iPad application is available in the Apple iTunes store. A 'View Demo' option is available in the application to see its capabilities.

The Interaction Supervisor iPad Edition will release shortly after the CIC 4.0 SU4 release, and licenses will be available to order.

CIC Integration with SAP ICI

The Interaction Center Integration to SAP ICI (Integrated Communication Interface) integrates the functionality of Interaction Center's Interaction Client into SAP's ICI Web Client (SAP CRM 4.x – 7.x). This integration allows the SAP agent to perform all typical phone and web chat operations without leaving the SAP application. The integration features also include routing of callbacks and generic objects.

Interaction Easy Scripter

Interaction EasyScripter is an Interaction Center add-on for Interaction Center and Interaction Dialer. It greatly simplifies script creation. Interaction EasyScripter eliminates the need to have traditional programming skills, so that customers can quickly create or alter scripts to meet their business requirements.

Latitude Integration with Interaction Dialer

The Latitude Integration with Interaction Dialer facilitates call statistics analysis and payment data, provides click-to-dial Dialer support from within the Latitude client, and creates Dialer call lists.

It also schedules call list updates, allows real-time removal of duplicate numbers to comply with State and Federal guidelines, and provides a client view geared toward the typical Latitude user.

The Latitude Integration with Interaction Dialer is a seamless integration that provides:

- Unidirectional exchange of relevant statistics and data, such as call results and acquired payments.
- Click-to-dial Dialer support from within the Latitude Client view in Interaction Client.
- Ability to create Dialer call lists based on Latitude data from within Latitude's List Builder application.
- Ability to schedule recurring Dialer call list updates based on Latitude data (List Builder query).
- Simple, scaled down Latitude Client that runs alongside Interaction Client .NET Edition on the collection agent's workstation.
- Real-time removal of duplicate numbers from Dialer call list to assist with state and federal call compliance guidelines.

CIC Integration with Oracle Sales Cloud

The Interactive Intelligence Interaction Center agent connector for Oracle Sales Cloud offers seamless information exchange for increased agent productivity and a personalized customer experience. The Oracle Sales Cloud integration is built on Interaction Center's all-in-one IP communications software suite to make the integration process easy. Improved customer experience is achieved through an integrated screen-pop of the Oracle Sales Cloud webpage. Upon delivery of a call, the interface prefills with customer data related to the call.

For the user experience, the Oracle Sales Cloud interface is embedded with Interaction Center's call control features, including transfer, hold, conference, disconnect, and click-to-call. These features put employees in even greater control to manage customer calls. In addition, the Oracle Sales Cloud interface can store all CIC-based inbound and outbound call details for monitoring purposes. Details can range from call source to length of call, and can include any comments that the employee adds about the conversation.

Note: The CIC Integration to Oracle Sales Cloud is no longer available for purchase due to recent API changes by Oracle in Release 8 of the product. These changes require a rewrite of the integration and the release date has not been determined. Send any questions to Alliances@inin.com.

CIC Integration with Salesforce Desktop

CIC Integration with Salesforce Desktop

In CIC 4.0, the Salesforce.com integration has evolved. There are now two choices for implementation: Salesforce Desktop and Salesforce Web.

Salesforce Desktop

CIC Integration with Salesforce Desktop uses the Salesforce CTI Toolkit, is installed on the user workstation, and is now on its own release cycle. The CIC Integration with Salesforce Desktop release replaces CIC Integration with Salesforce.com, which was released with CIC 4.0 SU2.

Salesforce Desktop key features:

- CTI softphone handling multimedia interactions inside of the Salesforce.com interface
- Complete presence management
- Comprehensive screen pop support
- Interaction data synchronization to Salesforce.com activity
- Interaction Dialer integration

Salesforce Web (CIC Web Integration to Salesforce.com)

CIC Integration with Salesforce Web uses the Salesforce Open CTI (all web solution). This integration was released with CIC 4.0 SU3, and continues to be released with CIC 4.0 service updates.

Change Log

Change Log Date	Changed...
November 16, 2011	Initial release.
April 17, 2012	• Added SU1 features. • Updated link to software requirements on the Support website. • Replaced description of Remote Content Server in GA section.
September 5, 2012	Added SU2 features.
February 25, 2013	Added SU3 features. Added Optimizer scheduling features to SU1. Updated description of Proactive Recording feature.
March 8, 2013	Removed information about generic objects, which won't be released until SU4.
September 25, 2013	Added SU4 features. Created a new high-level section, Separately Released Products. Updated SU3 section for Interaction Speech Recognition – Native CIC Speech Recognition (ASR).
November 22, 2013	Added Oracle Sales Cloud description to Separately Released Products section.
December 10, 2013	Added IC Integration Salesforce Desktop description to Separately Released Products section.
March 27, 2014	Added SU5 features.
July 3, 2014	Added SU6 features. Changed organization of the document to reverse chronological order. Added a new Introduction section at the beginning of the document and removed the previous Introduction section from the IC 4.0 GA release section. Removed the Interaction Center Platform section. Added a note to the Oracle Sales Cloud section to state that the integration is not currently available for purchase.
July 29, 2014	Updated documentation to reflect changes required in the transition from version 4.0 SU# to CIC 2015 R1, such as updates to product version numbers, system requirements, installation procedures, references to Interactive Intelligence Product Information site URLs, and copyright and trademark information.
October 21 , 2014	Added content for CIC 2015 R1. Changed page layout to 8.5 x 11-inch.
December 1, 2014	Updated screen captures in the 2015 R1 Interaction Analyzer Reporting section.

February 9, 2015	Added content for CIC 2015 R2.
February 23, 2015	Corrected the description of the callback retry feature, which was added in CIC 4.0 SU5.
April 29, 2015	Added content for CIC 2015 R3.
May 11, 2015	Added a description of the ININProductInfo utility to the CIC 2015 R3 section.
August 7, 2015	Added content for CIC 2015 R4 and rebranded the cover page.
August 19, 2015	Corrected the SU5 note about the removal of historical adherence reports. Those reports were not removed in SU5.
November 2, 2015	Added content for CIC 2016 R1.
November 4, 2015	Corrected the location for the Developer Portal. Replaced the Doc Library screenshot.
February 8, 2016	Added content for CIC 2016 R2.
April 26, 2016	Added content for CIC 2016 R3.
August 2, 2016	Added content for CIC 2016 R4. Added Product Notices section.
September 15, 2016	Updated Legacy Salesforce Integrations topic, extending the support date for Salesforce Web integration.
October 3, 2016	Added Internet Explorer 10 support limit for Interaction Connect.
October 4, 2016	Added Improved language models for Interaction Analyzer and Interaction Media Server section in 2016 R4 section.
October 6, 2016	Added Legacy SMS Gateway Broker Deprecated in Product Notices.
October 11, 2016	Finished updates for CIC 2017 R1

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