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Interaction Web Portal and Interaction Marquee

Installation and Configuration Guide

Abstract

This guide provides a summary of the installation process, detailed steps for installing Interaction Web Portal, instructions for configuring and starting the application, and instructions for configuring Interaction Marquee.

For the latest version of this document, see the PureConnect Documentation Library at: <http://help.genesys.com/cic>.

For copyright and trademark information, see
https://help.genesys.com/cic/desktop/copyright_and_trademark_information.htm.

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Introduction to Interaction Web Portal and Interaction Marquee

Introduction to Interaction Web Portal

The Interaction Web Portal (IWP) is a web application designed to allow supervisors, managers, executives, end clients of outsourcers and agents access into the contact center to view reports, recordings, statistics, and allow for live call monitoring of the agents.

Interaction Web Portal resides in two locations, the CIC server or servers and on a separate IIS server, and thus contains two installations. The first installation, CIC, exists on the CIC server (or servers). The second installation, the web install of Interaction Web Portal, exists on a separate IIS server. A third install, IWP LDS Configuration, exists on the web server with the Interaction Web Portal website.

When installing and configuring Interaction Web Portal, consider the following:

- IWP organizations do not span CIC servers in this release.
- IWP supports multiple organizations per CIC server.
- Switchover licenses for IWP are included in the switchover license part number.
- Active Directory Lightweight Directory Services, or AD LDS replicas, does not allow for high scalability and redundancy.

Introduction to Interaction Marquee

Interaction Marquee installs with Interaction Web Portal. Interaction Marquee is a statistics delivery and display application. It provides easy access to near-real-time statistics for multiple workgroups, and even multiple servers by a web browser or other application. It can display the same data as Interaction Supervisor.

Marquee is often referred to as an alternative to virtual wallboards, replacing small cryptic displays with customizable displays that users can view in any web browser. Users have complete control over the appearance of their statistics in Marquee.

Marquee has features that go far beyond conventional wallboards. It allows users to send statistics data to other applications, databases, and hardware interfaces using plug-ins that receive the data and carry out functions based on the design of the plug-in software.

For more information about configuring and working with Interaction Marquee, see Appendix C: "Interaction Marquee" in this guide.

For more information about using Interaction Marquee, see the Interaction Marquee help.

Reference information

The PureConnect Installation and Configuration Guide contains many references to finding documentation in the PureConnect Documentation Library.

The PureConnect Documentation Library merges all help systems and documentation installed on the IC Server into a single searchable unit. The PureConnect Documentation Library enables you to:

- Access the entire documentation set from one location.
- View or search the entire documentation set for a document title, topic, term, or keyword.

You can view the PureConnect Documentation Library at <http://help.genesys.com> or on the CIC Server from Start...Programs->PureConnect ->Online Documentation->PureConnect Documentation Library, after completing the CIC Server installation.

The PureConnect Product Information site at <https://my.inin.com/products/cic/Pages/default.aspx> is the central location for the latest CIC 2015 R1 or later release information, documentation, system software and hardware requirements, and downloads.

Interaction Web Portal licensing

License and configure users as described in the CIC Installation and Configuration Guide. There are now two license allocation methods: Assignable and Concurrent. The Assignable license allocation method is continued from previous versions of CIC.

For a single system you can allocate both Assigned and Concurrent licenses. However, all licenses for a specific user must be allocated as either Assigned or Concurrent. A standard assigned access license is consumed when assigned to the user or station and released when removed from the user or station. A concurrent access license is consumed when the user logs into the system and released when the user logs out of the system.

For more information, see:

- [Assigned license allocation method](#)
- [Concurrent license allocation method](#)

Several licenses are available for Interaction Web Portal:

- Server
- Organization
- Agent User
- Enterprise User
- Scheduled Reports

Note: Interaction Web Portal performs a daily check to identify whether you have exceeded your allowable Organization, Agent, or Enterprise license. If you exceed the licenses, Interaction Web Portal will log an error message in the Windows Application Event Log, identifying which licenses are out of compliance, the current number and type of available licenses, and the number of licenses identified. This event only appears if you exceed licenses, and an event for each license exceeded is generated. For example, "Total enterprise users have exceeded the total enterprise user license count, licenses: [{}] enterprise user: [{}]".

Server license

This Server License is a requirement for each CIC server at a customer site and allows the web portal subsystem to start on an CIC server and use the server's features. Interaction Web Portal does not run without this license.

Organization license

This counted license dictates the number of organizations created. Multiple organizations can use Interaction Web Portal by segmenting the CIC server and keeping each organization's data separate from other organizations.

Depending on your requirements, you may require multiple Organization licenses. For example, an outsourcer with 10 clients who require access to their recordings, reports, statistics, and live calls, but not data from other organizations would need 10 Organization licenses.

An organization may only need one Organization license. For example, an insurance company whose supervisors require access to the portal and agents in order to review call recordings only needs one Organization license.

Access licenses

Each user who will have access to Interaction Web Portal must have an access license. IWP has 2 types of access licenses: the IWP_Supervisor License and the IWP_Agent License.

IWP_Supervisor License

The IWP_Supervisory License is for users who want access to reporting, recordings, statistics and live call monitoring. Not all users must have access to each feature, but the IWP_Supervisor License allows for access to each of these features and is required for such access.

IWP_Agent License

An IWP_Agent License provides IWP access to agents in a contact center that would like the ability to listen to their own calls and review their scorecards. This provides agents a training opportunity to hear how they sound on the call and understand the scores that they receive.

Marquee license

To enable Interaction Marquee, install the Interaction Web Portal framework and apply this license.

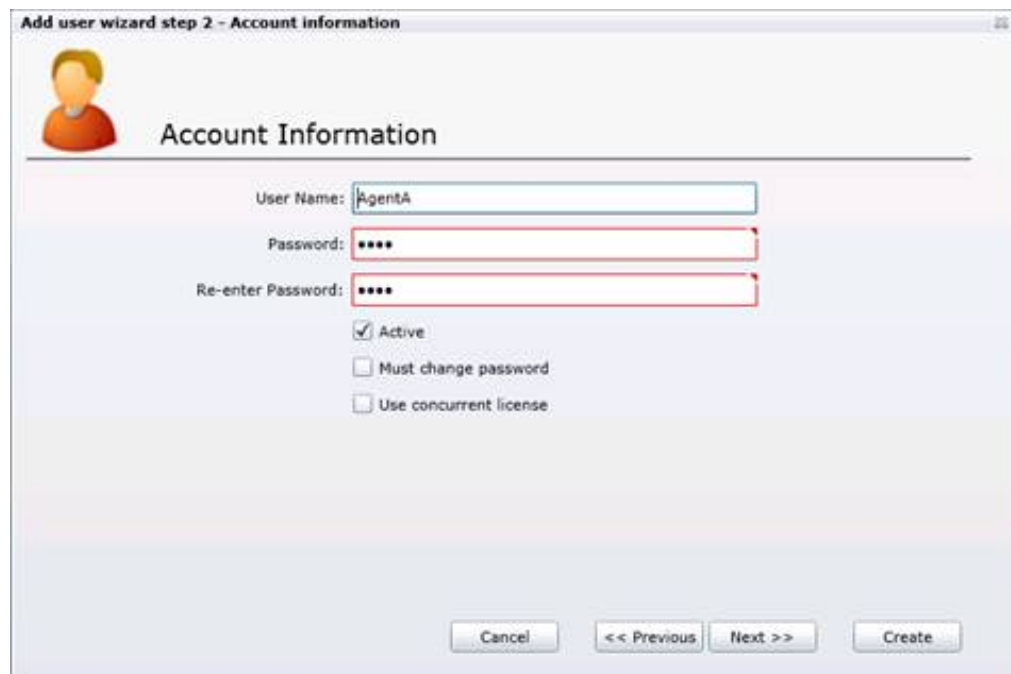
Note: Interaction Web Portal is not required to use Interaction Marquee. You can apply an Interaction Marquee license only; however, you will not have access to Interaction Web Portal features such as recordings, reports, live call monitoring, and Interaction Statistics. In addition, systems without the **I3_TENANT_IWP_ORGANIZATION** license only have access to Interaction Marquee functionality.

Scheduled Reports license (optional)

To enable Scheduled Reports, install the Interaction Web Portal framework and apply this license. This license is required only if you want to run scheduled reports. If this license is enabled, Interaction Web Portal can configure, schedule and download reports.

Assigned license allocation method

The Assignable license method allows you to allocate licenses to specific users.



The screenshot shows a software window titled "Add user wizard step 2 - Account information". Inside, there's a section titled "Account Information" with a user icon. Below this, there are three text input fields: "User Name:" containing "AgentA", "Password:" containing four asterisks, and "Re-enter Password:" containing four asterisks. Under the password fields are three checkboxes: "Active" (checked), "Must change password" (unchecked), and "Use concurrent license" (unchecked). At the bottom of the window are four buttons: "Cancel", "<< Previous", "Next >>", and "Create".

To use assigned licenses, deselect the Use concurrent license check box.

Assignable license acquisition rule

When you allocate an assignable license to a user, the user immediately acquires the license, independent of whether the user is logged on. If the user logs on to another computer, the user is logged off from the previous computer. Removing the license from the user or deleting the user releases the acquired Assignable license.

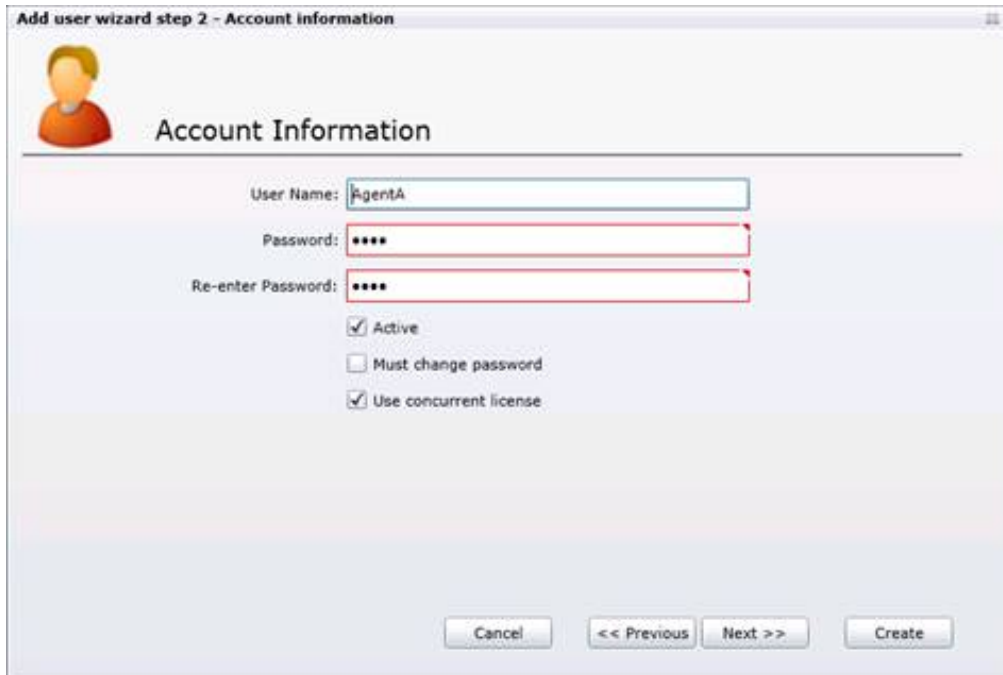
Concurrent license allocation method

Interaction Web Portal uses the concurrent license allocation method. This form of licensing allows you to allocate licenses to users only and is based on the number of simultaneous users accessing a feature or function. This license method allows users to acquire available licenses during logon instead of based on configuration.

In the concurrent license model, the license is configured in Interaction Web Portal when you add or edit a User account, but is not allocated until the user logs on to their application. CIC maintains a list of users, licenses available, and licenses in use.

The concurrent license allocation method offers:

- Flexibility and easier administration.
- Automatic reallocation of licenses based on shift changes.
- Reduction in license counts and management.



The screenshot shows a web-based form titled "Add user wizard step 2 - Account information". It features a user icon and the heading "Account Information". The form contains three text input fields: "User Name:" with the value "AgentA", "Password:" with masked characters "****", and "Re-enter Password:" with masked characters "****". Below these fields are three checkboxes: "Active" (checked), "Must change password" (unchecked), and "Use concurrent license" (checked). At the bottom of the form are four buttons: "Cancel", "<< Previous", "Next >>", and "Create".

To use concurrent licenses, select the **Use concurrent license** check box.

Concurrent license acquisition rules

The rules for Concurrent license acquisition are:

- A user who logs on to Interaction Web Portal with a license configured as Concurrent acquires a Concurrent license. When the user logs off, the system releases the acquired Concurrent license. If the user logs on to another machine, the system logs the user off of the previous machine.
- If a specific user acquires a license and that license is reacquired for that same user (by any application on any machine), the previously acquired license is used and the license count does not increase.

Interaction Web Portal requirements

This section describes the software requirements for Interaction Web Portal.

Web server

Refer to [CIC System Software Requirements](#) for the latest Web server requirements.

- Microsoft IIS 10
- Microsoft IIS 8.5
- IIS Media Services (See [Download and install IIS Media Services](#))
- Lightweight Directory Services (LDS) Role

Microsoft .NET Framework

Refer to [CIC System Software Requirements](#) for the latest Microsoft .NET Framework requirements.

Web browsers

Refer to [CIC System Software Requirements](#) for the latest Web browser requirements.

Server components

Note: Running Off Host Session Manager (OSSM) on Interaction Web Portal or Marquee servers is not supported.

- CIC 2015 R1 or later
- **Optional:** Interaction Recorder for call recording access. For information on installing and configuring Interaction Recorder, see the *Interaction Recorder Technical Reference* located in the PureConnect Documentation Library.
- **Optional:** Interaction Scheduled Reports for reporting access. For information on installing and configuring Interaction Scheduled Reports, see the [Appendix D: Configure Scheduled Reports for IWP](#) and the *CIC Scheduled Reports Installation and Configuration Guide* in the PureConnect Documentation Library.

TCP ports

To ensure proper access to all IWP features, configure TCP ports in your firewall. The ports allow the IWP web server to communicate to the database and the CIC server. For more information, see [Appendix B: Set up TCP Ports for Interaction Web Portal](#).

Desktop Experience feature on Windows Server 2016

With Windows Server 2016, you cannot install Server with Desktop Experience after the operating system installation. The Desktop Experience feature on Windows Server 2016 is optionally installed during Windows Installation using the Setup wizard. You must choose Windows Server (Server with Desktop Experience) when you install Windows Server 2016. You cannot install Server with Desktop Experience after installation.

Interaction Marquee hardware sizing

Interaction Marquee allows for gathering and aggregating thousands of statistics across multiple CIC servers. This ability presents challenges when determining the right hardware for your implementation. Consider the example of two companies who are implementing Interaction Marquee. The first company plans to watch 50,000 statistics, while the second company plans to watch 25,000 statistics. The second company needs more powerful hardware. To help understand why, the following sections provide insight into the variables involved in determining the right hardware requirements for your implementation.

- [General hardware guidelines](#)
- [Understand Marquee variables that impact CPU and memory](#)
- [Understanding Marquee variables impacting network traffic](#)
- [Marquee performance best practices](#)

General hardware guidelines

Hardware requirements for a Marquee server vary greatly depending on certain variables. For example, the number of statistics being shown, the interval at which those statistics are updated, and other considerations. These variables make it impossible to provide exact sizing guidelines for every usage level. Instead, hardware guidelines for three typical usage levels follow. Choose the usage level that most closely resembles your own, and use the suggested hardware for that usage level as a point of departure when sizing your hardware

Note: The amount of magnetic storage is not a factor in these guidelines.

Usage level	Implementation details
Minimum hardware implementation: 2 cores, 4GB of memory	• Your implementation of Interaction Marquee is expected to monitor 25,000 statistics or less • Your average package execution interval is 15 seconds or above. If your execution interval is lower than 15 seconds, your average CPU utilization will increase to the point where additional cores are required • You have one viewer page per package With this configuration, Marquee could have an approximate network load of 1Mbps, depending on CIC server load and number of viewer pages. Most of the 1Mbps should be expected to the Marquee service process, and only about 20% of traffic going to the package viewer page updates being processed by IIS. This assumes no more than one viewer page per package is running.
Medium hardware implementation: 8 cores, 8GB of memory	• Your implementation of Interaction Marquee is going to monitor between 25,000 and 80,000 statistics • Your average package execution interval is above 10 seconds. • You have less than 50 configured packages • You have an average of 2 viewer pages per package With this configuration, Marquee could have an approximate network load of 4Mbps depending on CIC server load and number of viewer pages. As the average number of viewer pages per package increases, it can be expected that a higher percentage of network traffic going towards viewer page updates, nearly 50% (2Mbps).
Large hardware implementation: 12+ cores, 12GB of memory	• Your implementation of Interaction Marquee is expected to watch in excess of 80,000 statistics • You expect to configure more than 50 packages and have an average execution interval of about 5 seconds • You have an average of over 2 viewer pages per package With this configuration, Marquee should expect a network load in excess of 4Mbps, depending on CIC server load and number of viewer pages. With over 2 active viewer pages per package, it is expected to exceed 2Mbps percent network utilization handled by the ASP.NET w3wp.exe worker process.

Understand Marquee variables that impact CPU and memory

Interaction Marquee uses four main variables to determine CPU and memory sizing:

- [Estimated number of statistic packages](#)
- [Estimated number of unique statistics the server will watch](#)
- [Average package execution interval](#)
- [Average number of client's access per package](#)

Understanding the balance of these four variables will help you determine hardware requirements and when it might be time to upgrade. Monitoring these variables and the impact they have on performance by using tools like Microsoft Windows Performance Monitor will keep your Marquee server running smoothly.

Estimated number of statistic packages

Each statistic package within Interaction Marquee runs a timer at regular intervals. The more executing packages increases CPU and memory requirements.

Estimated number of unique statistics the server will watch

The number of packages is not the only consideration—the total number of statistics being watched on a given server is also a big factor. For example, one server might have 100 packages and only watch 1000 total statistics. A second server could have only 10 packages and watch 20,000 statistics. A unique statistic is defined not just as the statistic name but also a specific statistic with a specific set of parameter values. For example, below are two unique CIC statistic URI's for the same statistic, or two watched statistic subscriptions.

```
>ININ.Workgroup_AverageTalkTime?ININ.People.WorkgroupStats_Workgroup=Marketing&ININ.Queue_Interval=CurrentPeriod  
ININ.Workgroup_AverageTalkTime?ININ.People.WorkgroupStats_Workgroup=Sales&ININ.Queue_Interval=CurrentPeriod
```

Marquee only has one statistic subscription if you configure two “like” statistics with the same parameter values. So there is a difference between the number of statistics configured on an Marquee server versus the number of subscribed statistics. For example, even though two packages might use these statistics, they are only considered as one subscription for the Marquee server.

```
ININ.Workgroup_AverageTalkTime?ININ.People.WorkgroupStats_Workgroup=Sales&ININ.Queue_Interval=CurrentPeriod  
ININ.Workgroup_AverageTalkTime?ININ.People.WorkgroupStats_Workgroup=Sales&ININ.Queue_Interval=CurrentPeriod
```

Average package execution interval

Each package within Interaction Marquee has an “Interval” at the end, in which it executes (in seconds). The average interval rate at which packages executes is the factor with highest impact in overall system performance. If this average is low (Marquee has a lower limit of 3 seconds for this setting) and many packages are configured, average CPU utilization can be high.

Average number of client's access per package

While Interaction Marquee can be configured with many package types, the most common is the HTML viewer page that can be viewed in a browser. Any one package can have any number of clients requesting the package results. For example, hundreds of browsers can access and poll a single statistic package result set. The rate at which a browser will poll the Marquee server for results is again controlled by the individual package execution interval. If a package is configured with a 5 second interval, each browser opened to the URL of the viewer page will make a request every 5 seconds. A large number of open viewer pages can flood a server with requests, driving up CPU usage, disk IO, network traffic, and cause the web server to consume more memory.

Understanding Marquee variables impacting network traffic

Marquee has five variables that impact its load on network traffic.

- [The estimated number of unique statistics that a server will watch](#)
- [The volume of interactions and users on the CIC server](#)
- [The average package execution interval for your configured statistic packages](#)
- [The average number of client access per package](#)
- [The content of developed packages](#)

By understanding these variables, the load Interaction Marquee puts on network resources can be anticipated. Using a tool like Microsoft Windows Resource Monitor (note: this is different than Windows Performance Monitor) the impact Interaction Marquee is having on network traffic can be seen and tracked. Windows Resource Monitor allows network activity by process to be monitored. There are two processes that should be monitored to see the impact Interaction Marquee is having on network resources.

- ININ.IWP.Marquee.WinService.exe process. This is the main Marquee windows service that executes statistic packages. As communication with CIC Server(s) increases, the total bytes per second for this process will increase.
- W3wp.exe process. This is the Internet Information Services (IIS) worker process that handles requests from statistic package viewer pages.

Given these two processes make up the total of Interaction Marquees network traffic, the majority of the traffic is generally tied to the ININ.IWP.Marquee.WinService.exe process.

The estimated number of unique statistics that a server will watch

As the total number of unique statistics being watched increases the total bytes per second will increase for the ININ.IWP.Marquee.WinService.exe process. The number of statistics by themselves does not present significant load, less than 400 bytes per second per 10,000 configured statistics given an CIC server is idle. It only when combined with the CIC server load and average execution rate of packages that the network load increases for this process.

The volume of interactions and users on the CIC server

As the volume of interactions and users increases on a CIC server likewise the volume of communication between the Marquee and CIC increase. As more statistics change values, these statistic updates are communicated to Marquee. By watching the total bytes per second for the ININ.IWP.Marquee.WinService.exe process changes in volume on the CIC server can be seen and tracked.

The average package execution interval for your configured statistic packages

As already stated the average interval rate at which packages executes is the factor with highest impact in overall system performance. This can also be seen in the impact it has on network performance. Lower average interval execute rates will cause an increase in the rate of communication with the CIC server and can be seen in the total bytes per second used by the ININ.IWP.Marquee.WinService.exe process. In addition the lower increased execute rate will cause more frequent communication between the running viewer pages. This also increases the total bytes per second for the w3wp.exe process as IIS handles the additional requests.

The average number of client access per package

As more statistic package viewer pages are opened the increase in the total bytes per second be seen for the IIS w3wp.exe process. For example, configure one statistic package using a standard shipping Agent-Status.xslt template using one work group with 250 users in that workgroup. For everyone one viewer page that is opened to this package approximately 8000 bytes per second can be seen increased network traffic the w3wp.exe process handles. A higher average number of viewer pages open per package will change the makeup of Interaction Marquee's total network usage. More traffic will be consumed by the w3wp.exe process.

The content of developed packages

Besides the number of executing clients, the content of any given package can impact the total bytes per second the IIS w3wp.exe process handles. In the above example, approximately 8000 bytes per second was seen with the standard shipping Agent-Status.xslt template. If a different template was used that will cause a difference in the bytes per second that each open client increases network load. Any custom package templates developed should be tested to know the impact they have on network resources.

Marquee performance best practices

Follow these best practices to keep your Marquee server healthy.

- [Dedicate a server for Interaction Marquee](#)
- [Use Windows Performance Monitor after large package changes and from time to time checkups](#)
- [KeepPureConnect tracing levels on the marquee server at a default status \(41\) level](#)

Dedicate a server for Interaction Marquee

Given the significant changes in Marquee performance based on different configurations we suggest that you dedicate a server for your Marquee implementation. This will allow the web server, the Marquee/IWP web site, and LDAP to run on one server. This becomes more important for larger scale implementations of Interaction Marquee.

Use Windows Performance Monitor after large package changes and from time to time checkups

Microsoft Performance Monitor can help you keep track of how your Marquee server is handling its load. You should monitor, CPU, memory, disk, and Network counters. Additionally you should monitor the ININ.IWP.Marquee.WinService process.

<https://technet.microsoft.com/en-us/library/cc749249.aspx>

Use Windows Resource Monitor (note: this is different than Windows Performance Monitor) after large package changes and from time to time checkups to monitor network load. With the use of Windows Resource Monitor you should track the ININ.IWP.Marquee.WinService.exe and w3wp.exe processes noting changes to the total bytes per second for these processes.

<http://blogs.technet.com/b/askperf/archive/2012/02/01/using-resource-monitor-to-troubleshoot-windows-performance-issues-part-1.aspx>

Anytime packages are changed to increase the number of statistics by more than a few thousand statistics consider running Performance monitor for a period of time to see the impact of package changes. Do this when a few packages are added that have really low execution intervals. It is also good to run the monitor for a period of time as a checkup on how your Marquee server is performing.

Keep PureConnect tracing levels on the marquee server at a default status (41) level

Interaction Marquee and IWP support standard tracing provided by PureConnect. Keep these tracing levels at standard shipping levels unless trying to diagnose or troubleshoot issues.

When properly sized hardware is chosen based on the variables described in this document and best practices are followed Interaction Marquee can become a power tool in your enterprise.

Enable and configure IIS and IIS Media Services

Interaction Web Portal uses IIS and its Media Services extension module to stream audio obtained from recordings for use with playback features. Windows Server 2008 ships a 'Configure Your Server Wizard' to help you properly configure your server in the desired mode.

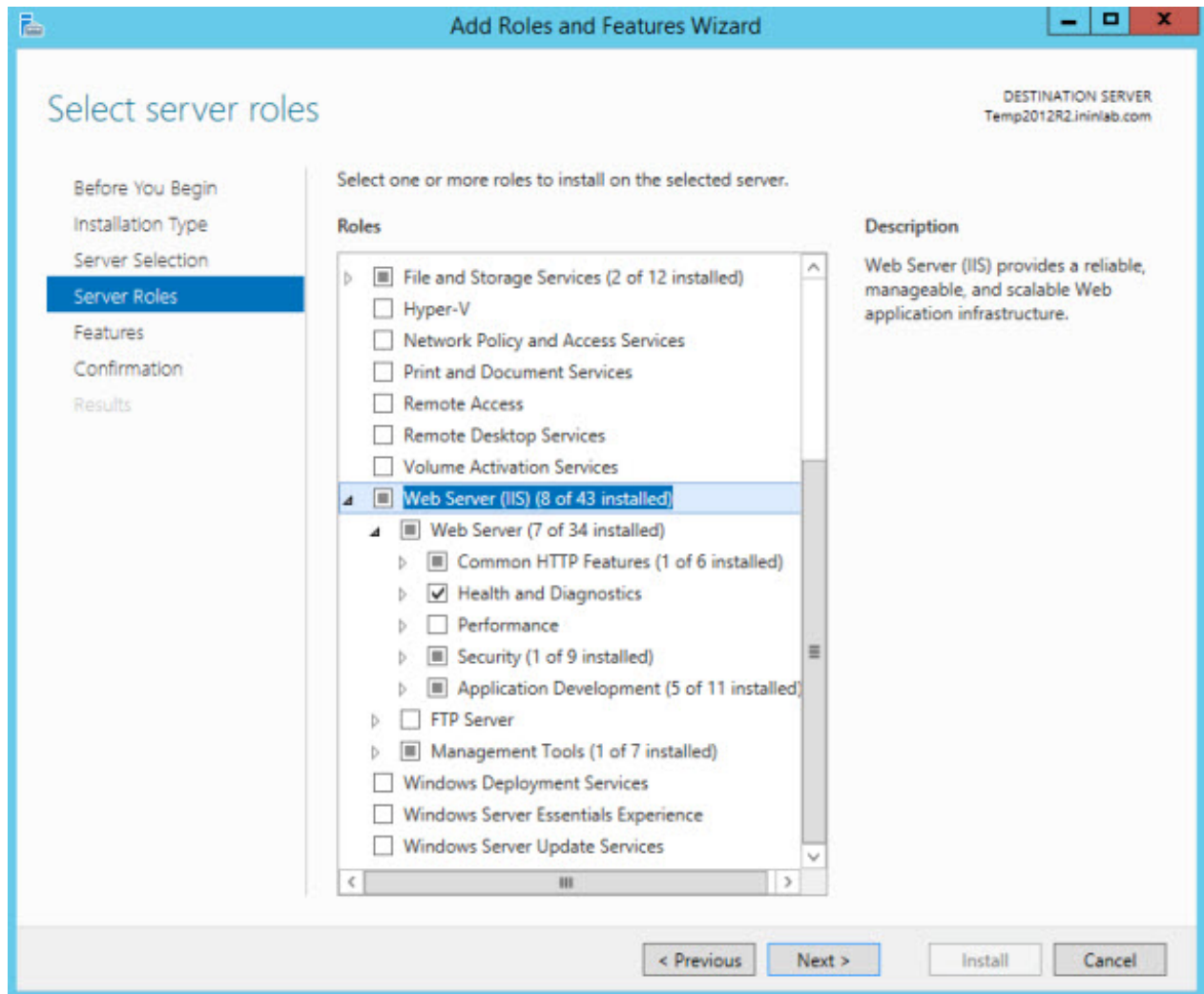
This section describes how to:

- [Enable IIS for Interaction Web Portal](#)
- [Activate Windows Communication Foundation \(WCF\)](#)
- [Download and install IIS Media Services](#)

Enable IIS for Interaction Web Portal

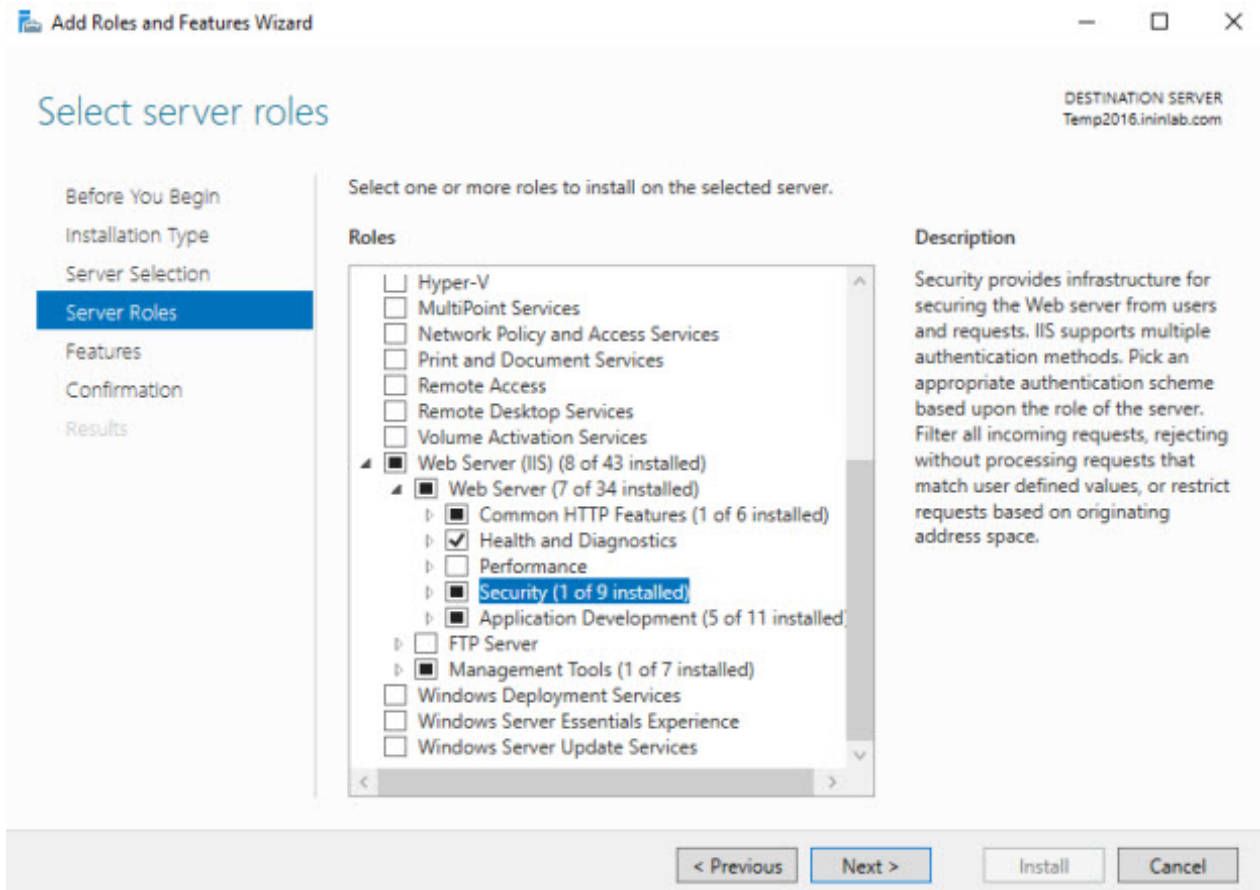
Enable IIS for Windows Server 2012 R2

1. From the **Start** menu, select **Administrative Tools > Server Manager**.
2. Select **Add roles and features** from the Dashboard.
3. Select **Next** twice.
4. Select **Server Roles**.
5. In the **Roles** area, select:
 - Web Server**. Under **Web Server** select:
 - **Common HTTP Feature** - Under **Common HTTP Feature**, select **Static Content**, **Default Document**, **Directory Browsing**, and **HTTP Errors**.
 - **Application Development** - Under **Application Development**, select **ASP .NET**, **.NET Extensibility**, **ASP**, **CGI**, **ISAPI Extensions**, **ISAPI Filters**, and **Server Side Includes**.
 - **Health and Diagnostics** - Under **Health and Diagnostics** select **HTTP Logging**, and **Request Monitor**.
 - **Security** - Under **Security**, select **Request Filtering**.
 - Management Tools**. Under **Management Tools**, select **IIS Management Console**.



Enable IIS for Windows Server 2016

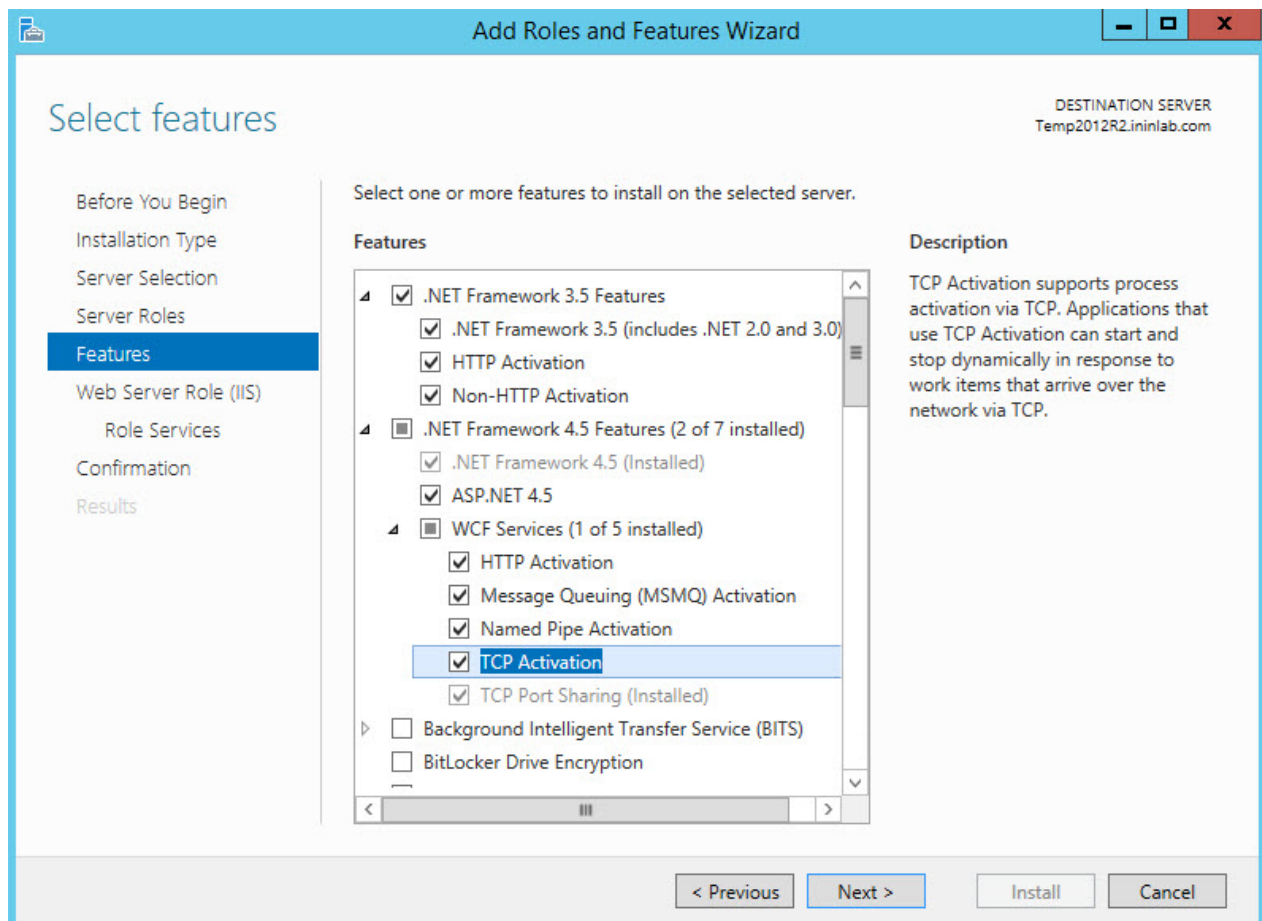
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 - **Health and Diagnostics** - Under **Health and Diagnostics** select **HTTP Logging**, and **Request Monitor**.
 - **Security** - Under **Security**, select **Request Filtering**.
 - Management Tools**. Under **Management Tools**, select **IIS Management Console**.



Activate Windows Communication Foundation (WCF)

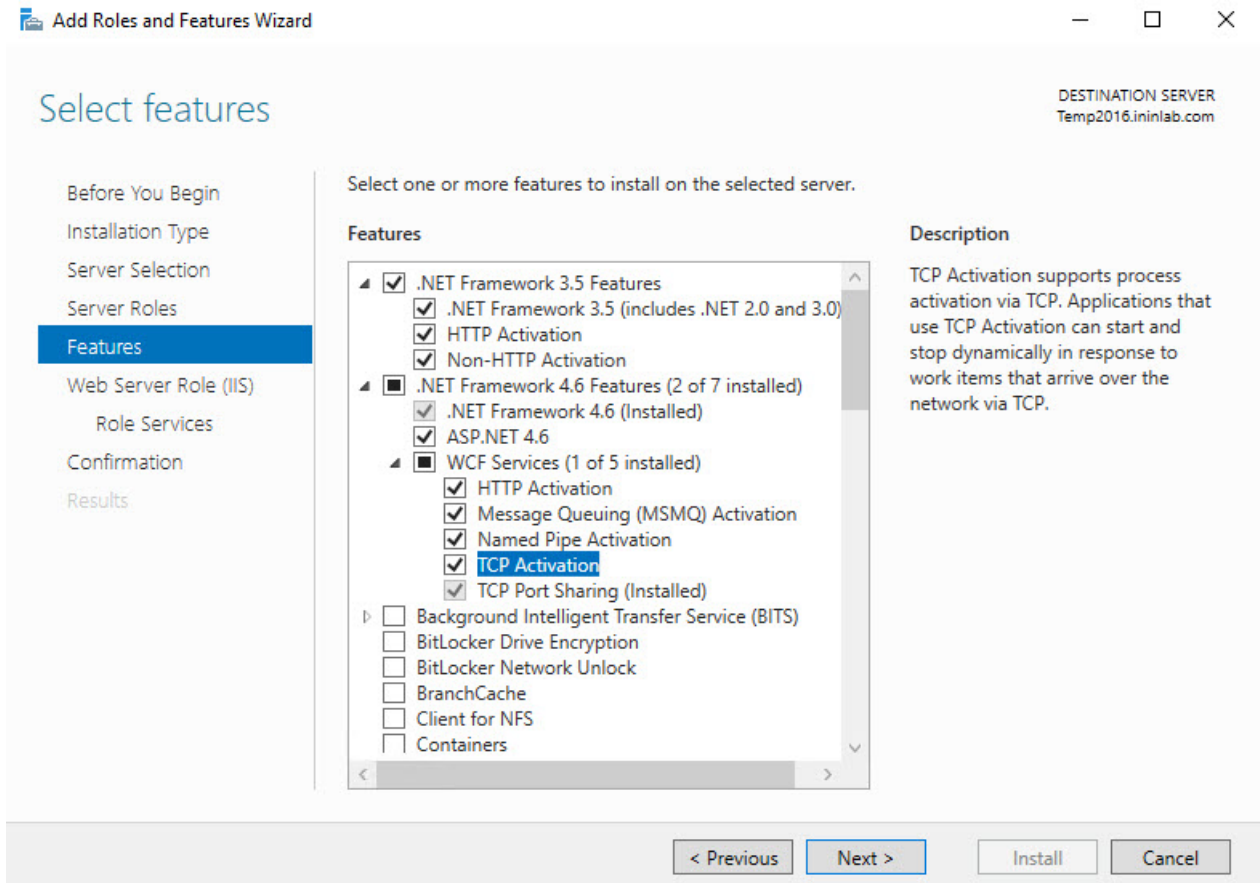
Activate WCF for Windows Server 2012 R2

1. From the **Start** menu, select **Administrative Tools > Server Manager**.
2. Select **Add roles and features** from the Dashboard.
3. Select **Next** twice.
4. Select **Features**.
5. In the Features area, expand the:
 - **.NET Framework 3.5 Features** and select **HTTP Activation** and **Non-HTTP Activation**.
 - **.NET Framework 4.5 Features** and select **WCF Services**.
6. Under **WCF Services** select:
 - **HTTP Activation**
 - **Message Queuing (MSMQ) Activation**
 - **Named Pipe Activation**
 - **TCP Activation**
 - **TCP Port Sharing**



Activate WCF for Windows Server 2016

1. From the **Start** menu, select **Administrative Tools > Server Manager**.
2. Select **Add roles and features** from the Dashboard.
3. Select **Next** twice.
4. Select **Features**.
5. In the Features area, expand the:
 - **.NET Framework 3.5 Features** and select **HTTP Activation** and **Non-HTTP Activation**.
 - **.NET Framework 4.6 Features** and select **WCF Services**.
6. Under **WCF Services** select:
 - **HTTP Activation**
 - **Message Queuing (MSMQ) Activation**
 - **Named Pipe Activation**
 - **TCP Activation**
 - **TCP Port Sharing**



Download and install IIS Media Services

Interaction Web Portal uses IIS and its Media Services extension module to stream audio obtained from recordings for use with playback features. Before you can begin using streaming audio, download and install IIS Media Services.

Important: To install IIS Media Services on Windows Server 2016 or newer, see PureConnect Customer Care KB article https://genesyspartner.force.com/customercare/pkb_Home?id=kA40B0000008udFSAQ&.

To download and install IIS Media Services:

1. From [CIC Utilities and Downloads](#), select **IIS Media Services Installation from Microsoft** to download the IISMedia64.zip file.

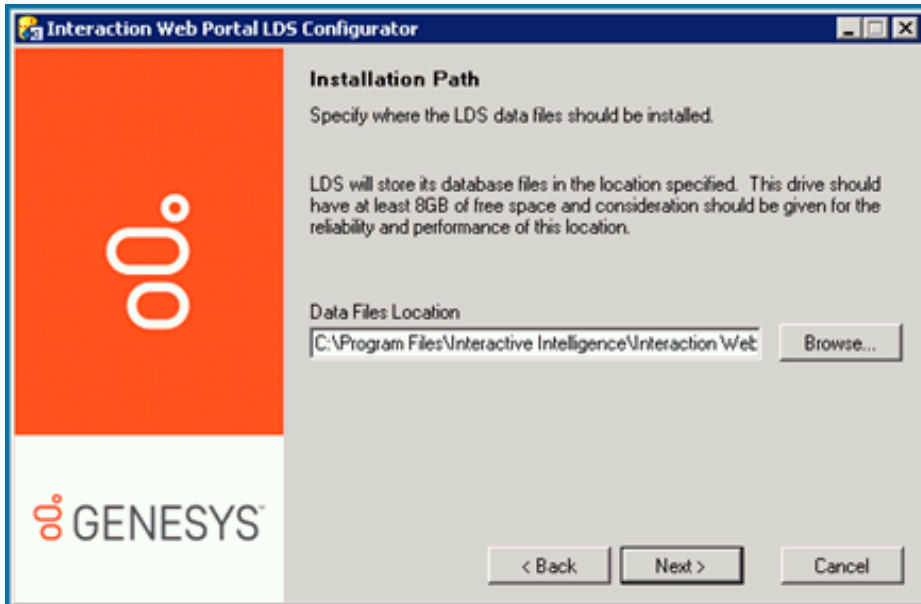
Install Active Directory Lightweight Directory Services (AD LDS)

Before you install Interaction Web Portal, first install Active Directory Lightweight Directory Services (AD LDS). The Interaction Web Portal LDS configurator, which prepares the AD LDS for use with Interaction Web Portal, was placed in the CIC server directory when you installed CIC.

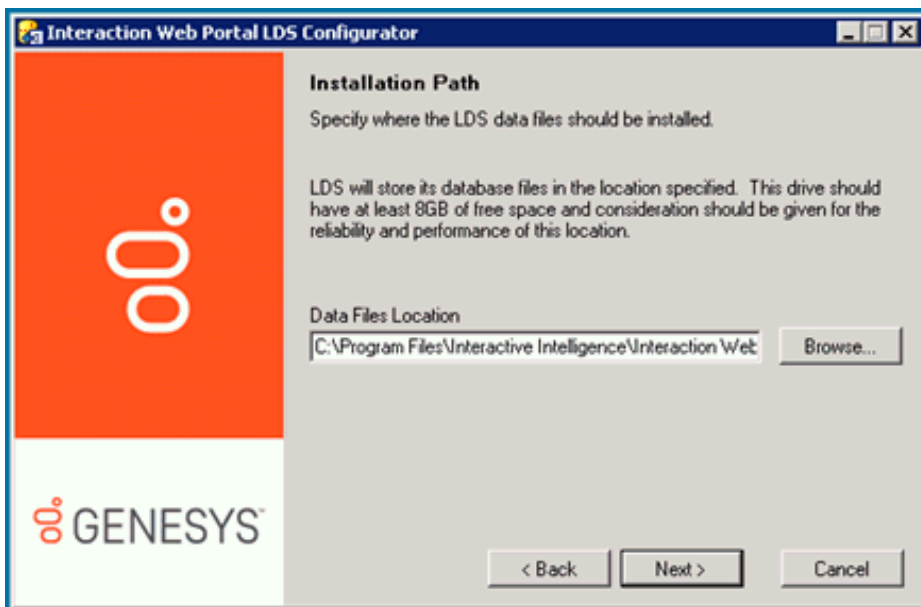
You can install AD LDS on a Windows Server supported by PureConnect. AD LDS resides in the CIC server directory under `ICServerName\IC_WorkstationPreReqs\IWebPortal`.

To install Active Directory Lightweight Directory Services (AD LDS) if you have not previously installed Interaction Web Portal:

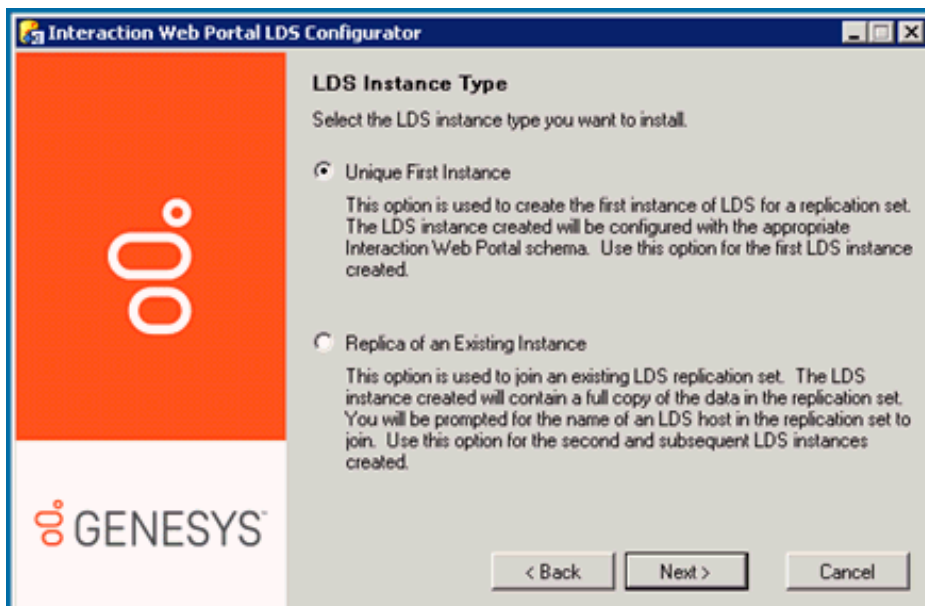
1. Navigate to the `ICServerName\IC_WorkstationPreReqs\IWebPortal` directory and double-click `ININ.IWP.LdsConfig.exe`. The **Welcome to the Interaction Web Portal LDS Configurator** dialog box appears.



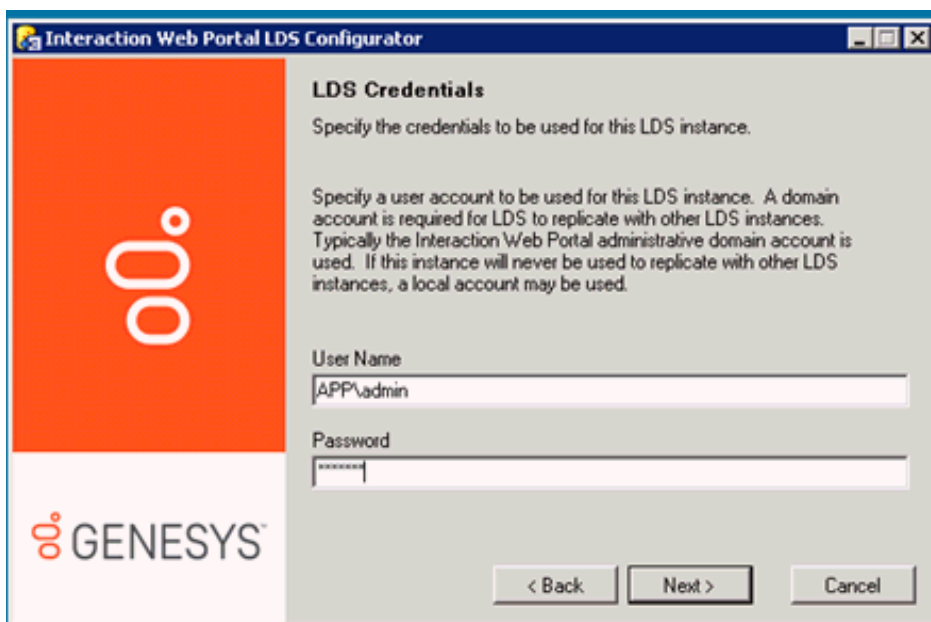
2. Click **Next**. The **Installation Path** dialog box appears.



3. In the **Data Files Location** field, confirm the location to install LDS data files. To search for a directory, click the **Browse** button.
4. Click **Next**. The **ADAM Instance Type** dialog box appears.



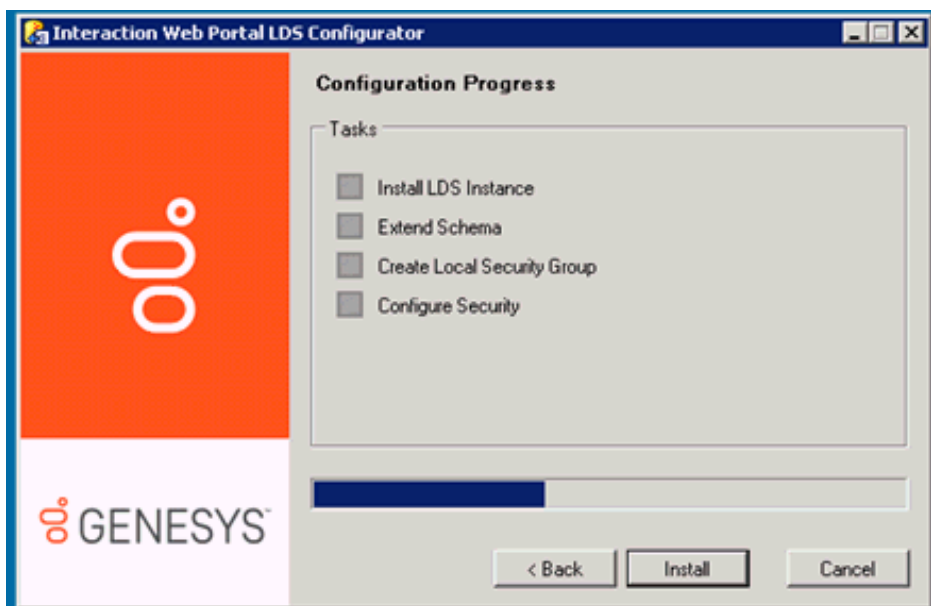
5. Select the LDS instance type you want to install and click **Next**. The **LDS Credentials** dialog box appears.



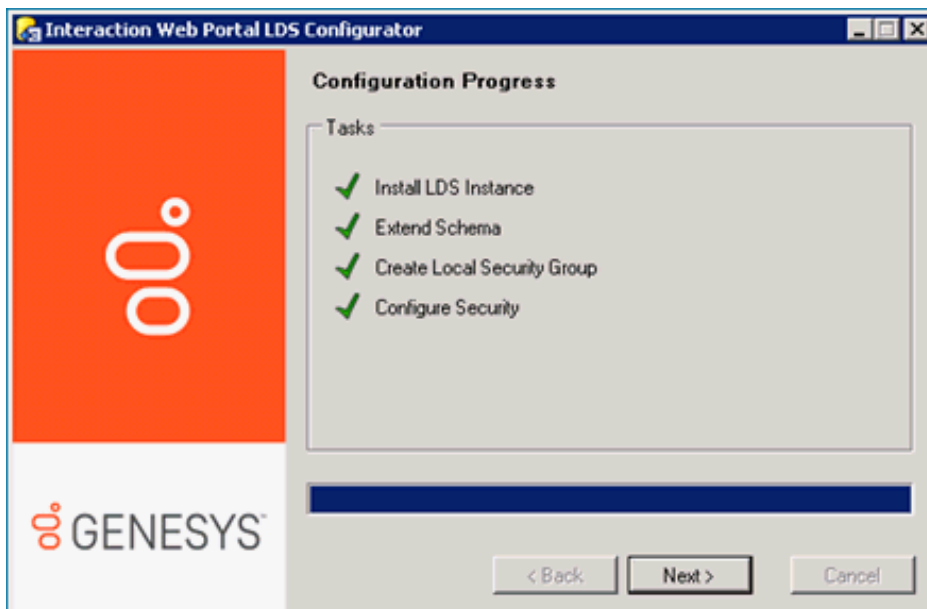
6. In the **User Name** and **Password** fields, enter the domain name and account credentials for the LDS administrator.
7. Click **Next**. The **Configuration Overview** dialog box appears.



8. Click **Install**. The **Configuration Progress** dialog box appears and displays task installation progress check marks as the installation progresses.



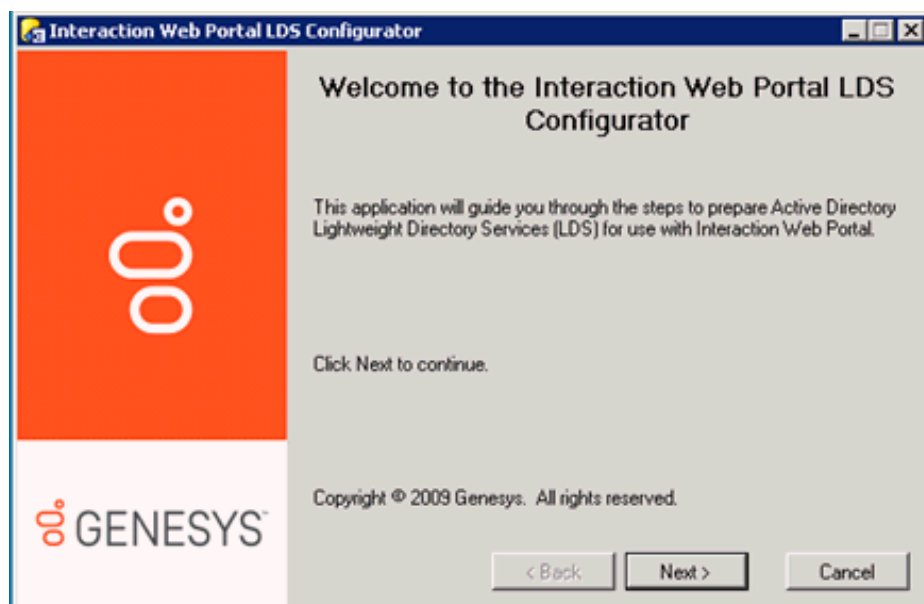
9. When green check marks appear next to each task in the configuration process, click **Next**.



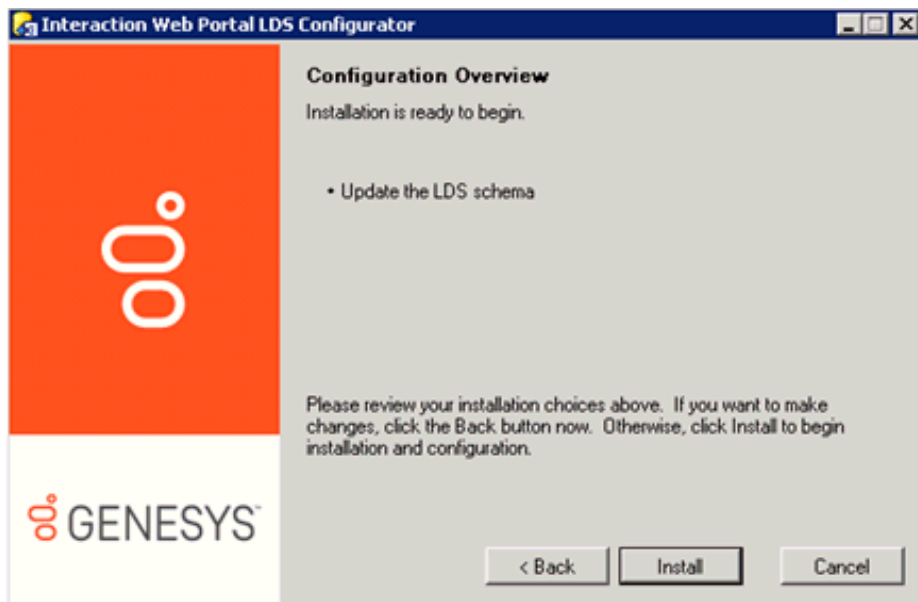
10. When the installation is complete, click **Finish**.

To install Active Directory Lightweight Directory Services (AD LDS) if Interaction Web Portal is already installed:

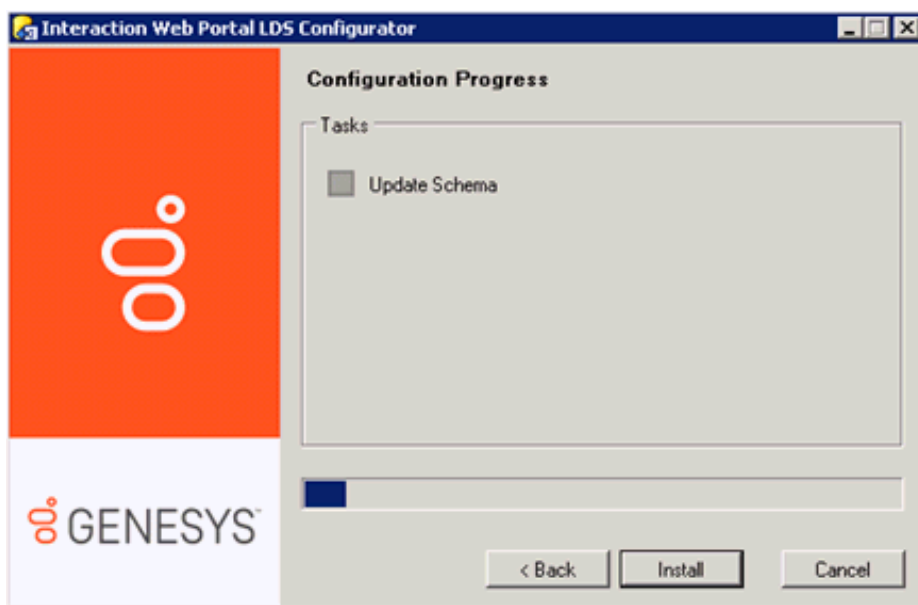
1. Navigate to the `ICServerName\IC_WorkstationPreReqs\IWebPortal` directory and double-click `ININ.IWP.LdsConfig.exe`. The **Welcome to the Interaction Web Portal LDS Configurator** dialog box appears.



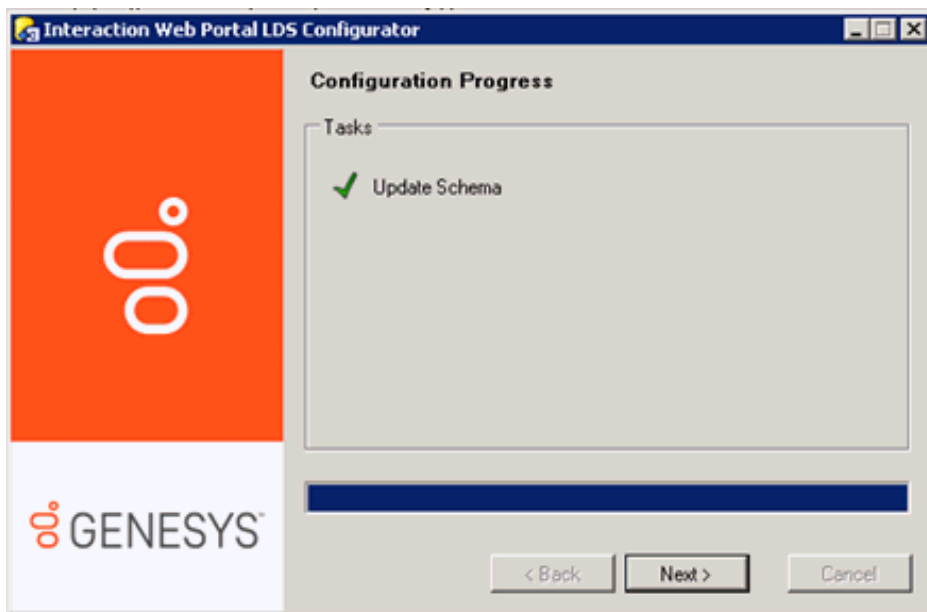
2. Click **Next**. The **Configuration Overview** dialog box appears.



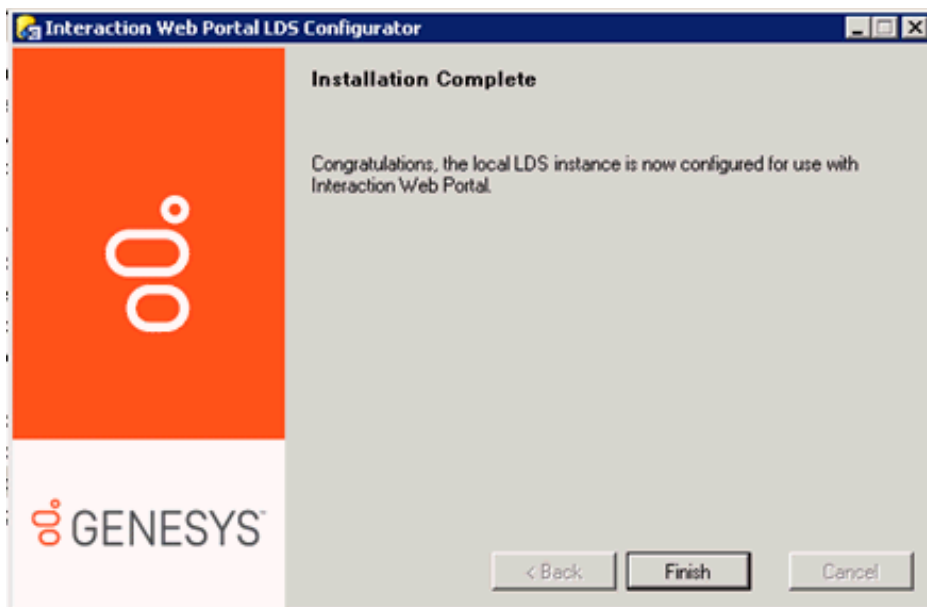
3. Click **Install**. The **Update Schema** dialog box opens.



4. Select the **Update Schema** check box and click **Install**.
5. The **Configuration Progress** dialog box appears and displays a task installation status bar as the installation progresses. When a green check mark appears next to the **Update Schema** task in the configuration process, click **Next**.



6. When the installation is complete, click **Finish**.



Install Interaction Web Portal

This section describes installation requirements and instructions for installing Interaction Web Portal. Interaction Web Portal installation includes a self-signed SSL certificate. All desktop links open https URLs.

[Installation requirements](#)

[Install Interaction Web Portal](#)

Note: You can still access Interaction Web Portal through an HTTP connection. Best practice recommends you enable the Required SSL, located in the SSL settings of your web server, to force all Interaction Web Portal server traffic over https. HTTP is still enabled; therefore, secure your web server.

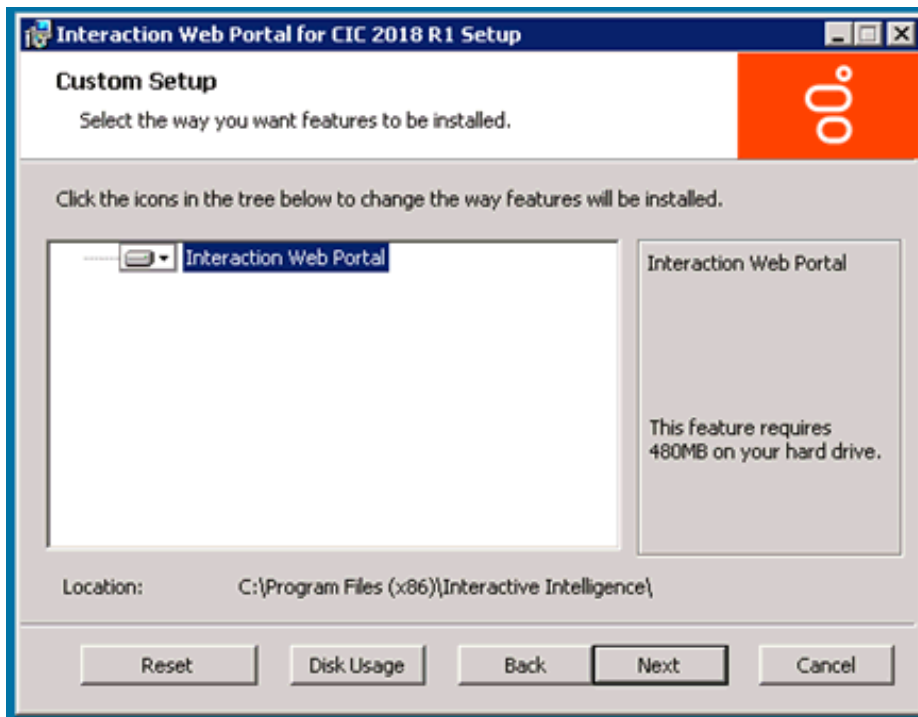
Installation requirements

Before installing Interaction Web Portal, ensure that:

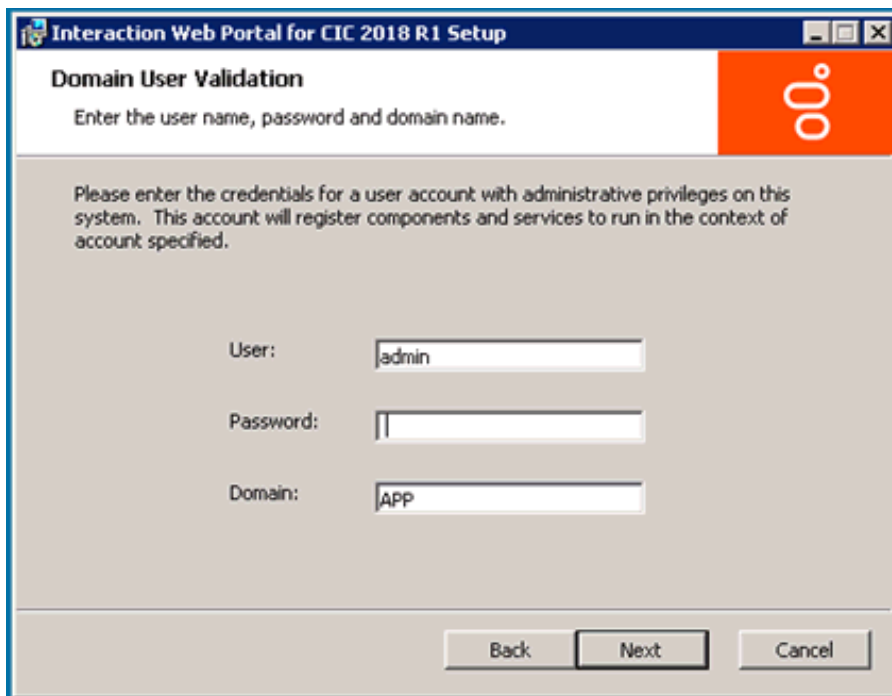
- Interaction Center Service is running
- Microsoft .NET 3.5 and 4.7 or later framework is installed on the web server
- You have the appropriate licenses as described in the Licensing section of this document
- Interaction Web Portal LDS (Lightweight Directory Services) is installed
- Scheduled Reports Monitor Server is installed

Install Interaction Web Portal

1. If you have not done so already:
 - a. Download the CIC 2015 R1 or later .iso file from the PureConnect Product Information site at <https://my.inin.com/products/Pages/Downloads.aspx>.
 - b. Copy the .iso file to a file server (non-CIC server) with a high bandwidth connection to the server(s) on which you will be running the CIC 2015 R1 or later installs.
 - c. Mount the .iso file and share the contents to make them accessible to the server(s) on which you will be running the CIC 2015 R1 or later installs.
2. Navigate to the \Installs\Off-ServerComponents directory on the file server.
3. Copy the **InteractionWebPortal_2015R1.msi** file to the server on which you plan to run this install and double-click to launch it. The **Interaction Web Portal Setup Wizard for CIC 2015 R1** dialog box appears.
4. Click **Next**. The **Custom Setup** dialog box appears.



5. Confirm the feature requirements are met and the Interaction Web Portal will be installed to the appropriate location and click **Next**. The **Domain User Validation** dialog box appears.



6. In the **User**, **Password**, and **Domain** fields, type the appropriate credentials for a user account with administrative permissions.
7. Click **Next**. The **IC Admin account** dialog box appears.

IC Admin account
Identify a user account.

Specify the user account under which the Interaction Center service runs. This will allow the recorder server to encode recordings for streaming playback on the web server.

User Account:

Domain:

8. Identify the CIC Administrator account:
 - a. In the **User Account** field, enter the name of the administrator, or click **Browse** to search for the appropriate user.
 - b. Click the arrow at the end of the **Domain** drop down list and select the CIC domain name.
9. Click **Next**. The **Website Information** dialog box appears.

Website Information
Provide the website's name, application and application pool.

WebSite Name:

Application Name:

Application Pool Name:

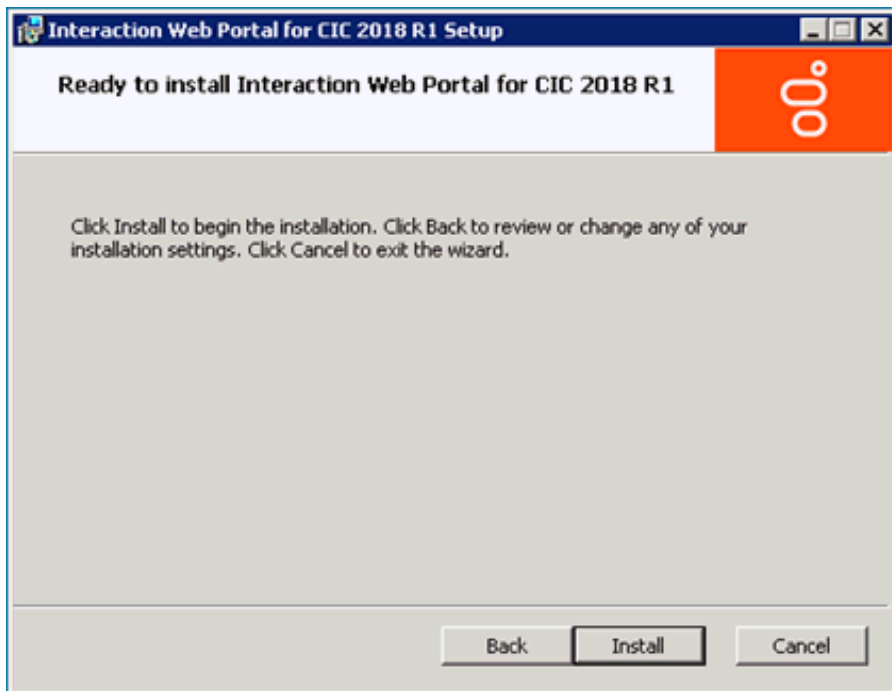
10. Click arrow at the end of the **WebSite Name** drop down list and select a website in which to create a virtual directory. Default Web Site is selected by default.
11. Click **Next**. The **LDAP Host Credentials** dialog box appears.

12. In the **Host**, **User ID**, **User Password**, and **Confirm Password** fields, enter the **LDAP Host** credentials.

Note: To prevent potential constraint violations, do not use **Localhost** host as the host name; provide a fully qualified domain name (FQDN) or the IP address of the AD Lightweight directory Services (LDS) host. You can enter multiple LDAP hosts in the Host field, separating each host with a space. Designating multiple hosts prevents portal failure if one host goes offline.

13. In the Authentication drop-down list, select **Negotiate**.
14. Click **Next**. The **Interaction Web Portal LDAP Root** dialog box appears.

15. Leave the current settings and click **Next**. The **Ready to install Interaction Web Portal** dialog box appears.



16. Click **Install**. The **Installing Interaction Web Portal** dialog box appears. It displays a Status bar and messages as the installation progresses.
17. When the installation is complete, click **Finish** in the **Completed the Interaction Web Portal Setup Wizard** dialog box.

Interaction Web Portal post-installation tasks

After you complete the installation procedures for Interaction Web Portal, perform post installation tasks, including:

- [Create an Interaction Web Portal Service administrator account](#)
- [Configure CIC to play back recordings](#)
- [Install Silverlight 5.0 and Configure CIC servers to use IWP under Portal Management IC System](#)
- [Configure timeout values](#)

Create an Interaction Web Portal Service administrator account

An Interaction Web Portal Service Administrator account must be created in Interaction Administrator. Assign the Administrator Role to this account.

Once created, the administrator credentials are set in the Interaction Web Portal Organization Management CIC Server Configuration page. All connectivity from Interaction Web Portal to the CIC server is established through this account.

When a user runs a custom search for call recordings in Interaction Web Portal, the Service Administrator account is used to check the security policies and not the user account that runs the search.

Note: Your CIC Administrator should set the Interaction Web Portal Service Administrator account password to never expire by setting the maximum password age to 0. If an Interaction Web Portal Server Administrator's password expires, users cannot log on to the portal.

Configure CIC to play back recordings

In CIC, a user can only retrieve recordings if the administrator sets up a policy. To create the policy:

- [Add the Desktop Experience feature](#). Note: If you use Remote Content Servers (RCS), install the Desktop Experience there.

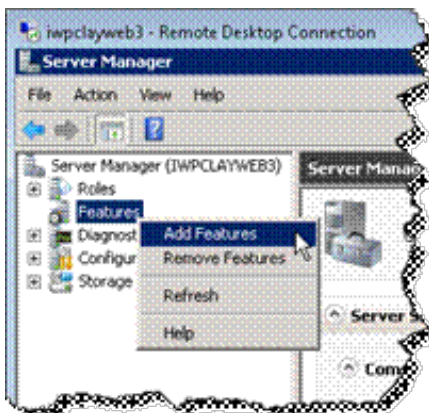
Note: For Windows Server 2016, you specify the Server with Desktop Experience option as part of the Windows Server 2016 install. Prior versions of Windows allow you to install this feature post installation.

- [Set up the retrieve recordings policy in Interaction Administrator](#)

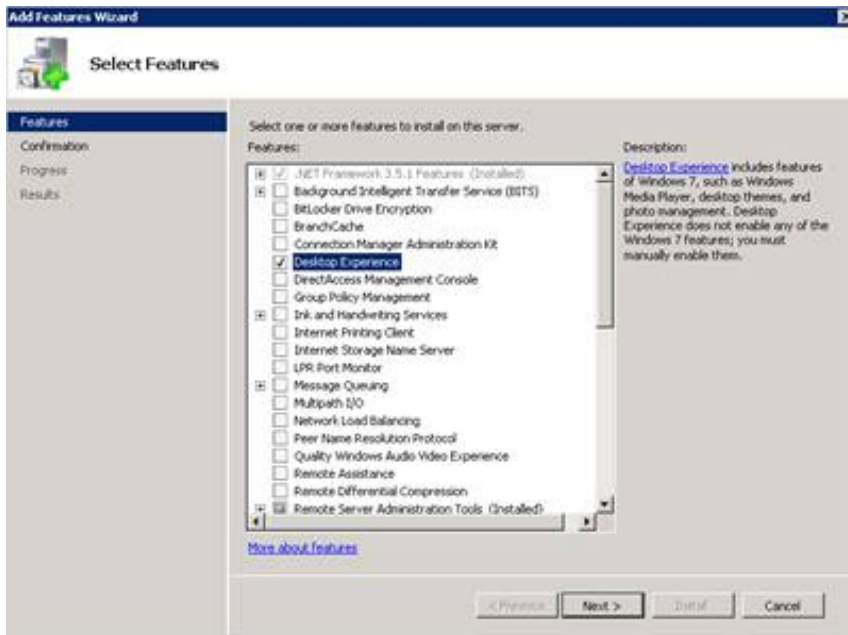
Add the Desktop Experience feature

Note: For Windows Server 2016, you specify the Server with Desktop Experience option as part of the Windows Server 2016 install. Prior versions of Windows allow you to install this feature post installation.

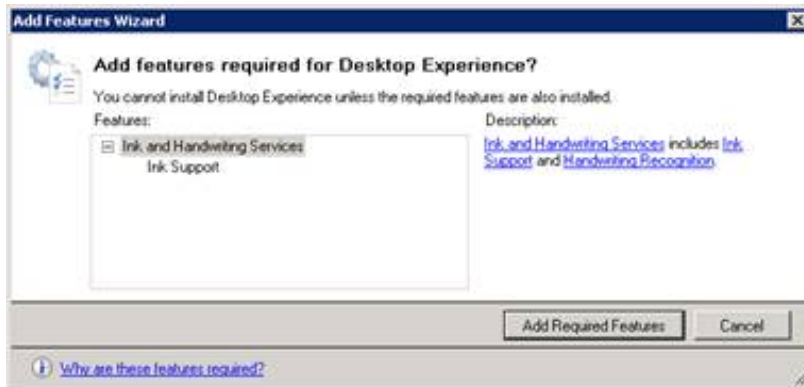
1. Open **Server Manager** and right-click the **Features** node.



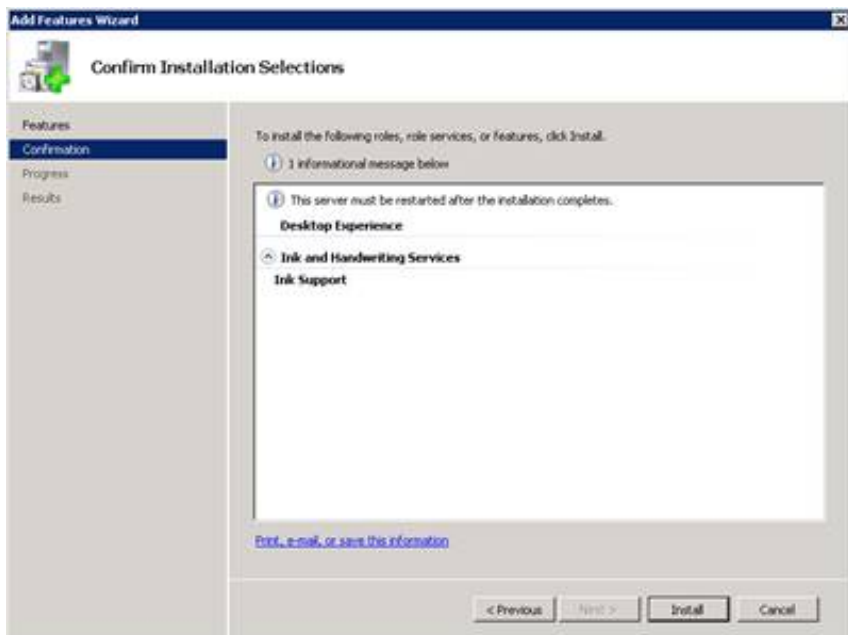
2. Select **Add Features** from the menu that appears. The **Select Features** dialog box opens.



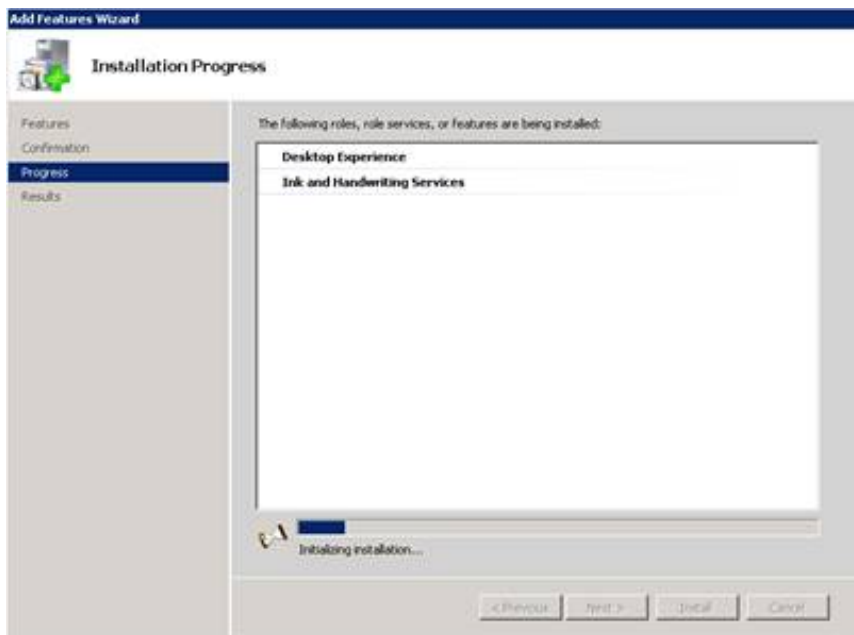
3. Select the **Desktop Experience** check box. The **Add features required for Desktop Experience?** dialog box opens.



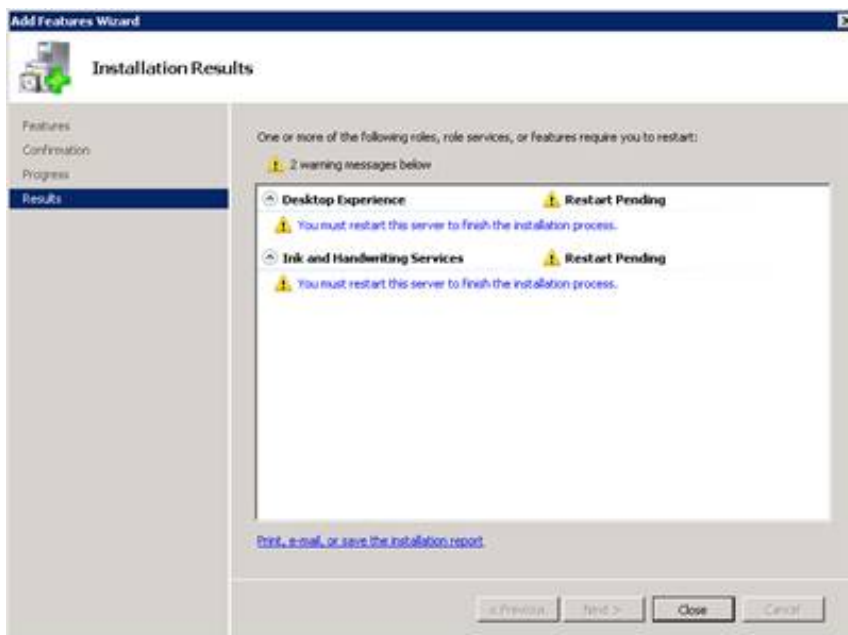
4. Click **Add Required Features**, and then click **Next**. The **Confirm Installation Selections** dialog box opens and displays a message to restart the server after the system installs the feature.



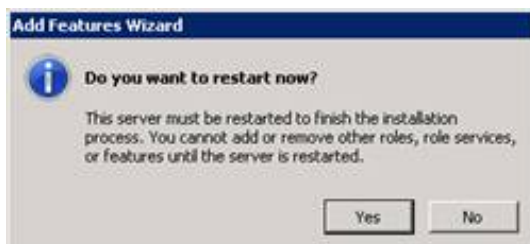
5. Click **Install**. The system installs the feature and displays a progress bar showing the status of the installation.



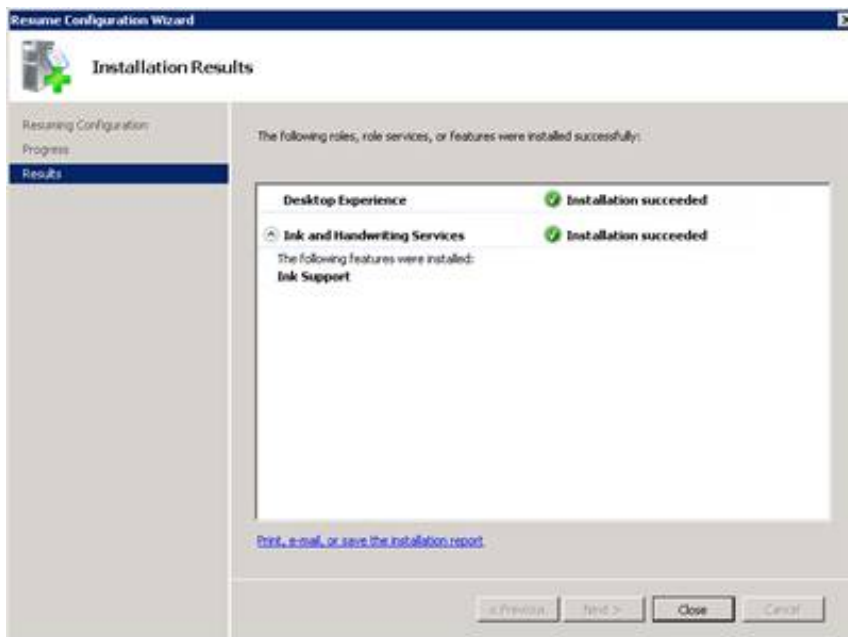
6. When the installation is complete, the **Installation Results** dialog box opens and displays a message to restart the server.



7. Click **Close**. A message appears, asking if you want to restart the server.

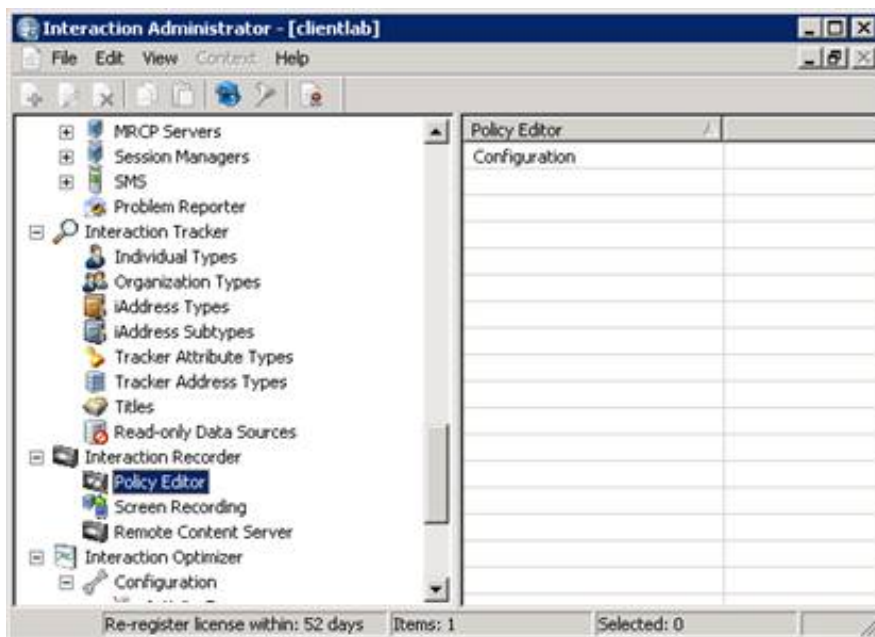


8. Click **Yes** to restart the server. When the server restart completes, the **Installation Results** dialog box reappears with a summary of results. Optionally click the Print, email, or save the installation report link and then click **Close**.

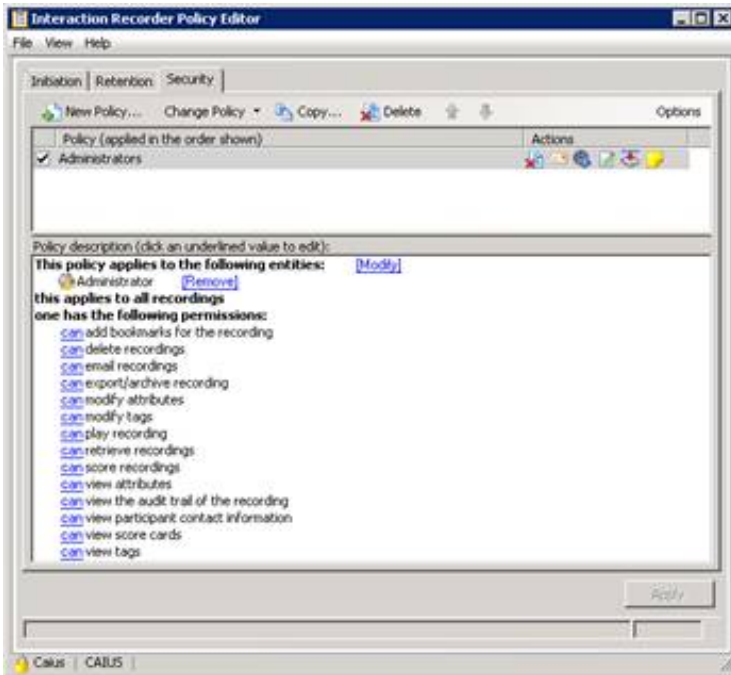


Set up the retrieve recordings policy in Interaction Administrator

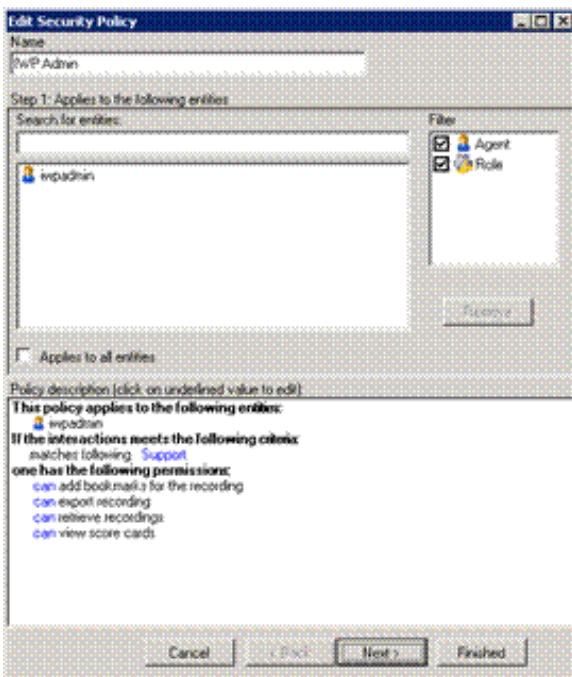
1. Open **Interaction Administrator**, expand the **Interaction Recorder** node and select **Policy Editor**.



2. In the right pane, double-click **Configuration**. The **Interaction Recorder Policy Editor** window opens.
3. Click the **Security** tab.



4. Click the arrow at the end of the **Change Policy** drop down list and select **Edit Policy**. The **Step 1 Applies to the following entities** dialog box opens.



- In the **Name** box, type **IWP Admin** (or another descriptive name for the Interaction Web Portal administrator).
 - In the **Search for Entities**, type **iwpadmin**.
5. Click **Next**. The **Step 2: Select Criteria** dialog box opens.



6. Select the **matches the following <workgroup>** check box and in the **Policy Description** area click **<workgroup>**. The **Select Workgroup** dialog box opens.



7. In the **Search for workgroups** area, type **Support** and from the drop-down list, select **Support** and then click **OK**. The **Step 3: Select Actions** dialog box opens.



8. Remove the check marks from the all check boxes except:
 - Add bookmarks
 - Export/archive the recording
 - Retrieve the recording
 - View score cards
9. Click **Finished** and then click **Apply**. The **Re-evaluate security policies** dialog box opens.



10. Select **Re-evaluate security for all recordings** and then click **OK**.
11. Close Interaction Recorder Policy Editor and Interaction Administrator.

Install Silverlight 5.0 and Configure CIC servers to use IWP under Portal Management IC System Configuration

The first time you log on to Interaction Web Portal, download Silverlight 5.0.

To run Interaction Web Portal and install Silverlight 5.0:

1. Double-click the **Interaction Web Portal** browser icon on your desktop. The logon dialog box appears.

2. In the **User Name** and **Password** fields, type the LDAP logon credentials created during the LDS installation and click Log on. The **Interaction Web Portal** browser appears.
3. Click **Get Microsoft Silverlight**. The **Do you want to run or save this file?** dialog box appears.
4. Click **Run**. The system downloads **Silverlight.exe**. It displays a status bar and messages as the download progresses.
5. When the download is complete, the **Install Silverlight** dialog box appears. Click **Install Now**.



6. When installation is complete, the system returns to Interaction Web Portal. Click the **Portal Management** link at the bottom of the **Interaction Web Portal** page.
7. Click the **Users** drop-down list and select **IC Server Configuration**. The **IC Server Configuration** page opens.

8. In the **LDAP Credentials** area, enter the LDAP **User** and **Password** credentials and then click **Logon**.

Tip: Configure different credentials for **LDAP Credentials** and the **IC server credentials** in Step 10. For example, for the LDAP User credential, enter NTDomain credentials (example: domain\admin.)

9. In the **IC Servers** area, under **IC server names** select the appropriate CIC server name.
10. In the **IC server credentials** area, enter the **User** and **Password** credentials and click **Add**.

Tip: Configure different credentials for **IC server credentials** and the **LDAP Credentials** in Step 8. For example, for the IC server User credential, enter **iwadmin**.

Note: Each CIC server pair can have only one Interaction Web Portal connection (specifically the LDAP data source for Interaction Web Portal). CIC does not support multiple Interaction Web Portal servers for one CIC server pair. CIC can communicate with only one Interaction Web Portal LDAP instance/host. However, multiple CIC servers can connect to the same Interaction Marquee server (for example, Dev or QA). By adding one server from the CIC server pair to Interaction Web Portal, both servers can connect to Interaction Web Portal.

If you attempt to add a second server in the same pair, you receive the following message:

The [ServerName] server already has its Interaction Web Portal instance configured to another LDAP server, therefore it cannot be added. An Interaction Center server can only handle one instance of Interaction Web Portal at one time. Go to that server and delete the Interaction Web Portal LDAP data source from the IC Data Sources container in Interaction Administrator. Once that is done the server can then be added.

11. Click **Finish**. The logon dialog box appears.
12. In the **User Name** and **Password** fields, type the logon credentials and click **Logon**. **Interaction Web Portal** opens and is successfully installed.
13. To begin creating organizations, adding users, and configuring the application, click the **Portal Management** link at the bottom of the page. The IC Server Configuration page opens.
14. Click the **IC Server Configuration** drop down list and select the area to configure.

Note: For information on setting up Interaction Web Portal, click the help button.

Configure timeout values

You can specify the length of time that Interaction Web Portal performs an operation before timing out and returning an error. You can set a timeout value for searching, loading, and binding. If you do not set a timeout value, Interaction Web Portal uses the default of:

- 8000 milliseconds for searching (for example, searching for a user, workgroup, or interaction).
- 4000 milliseconds for loading a view or page.
- 4000 milliseconds for binding to the LDAP connection.

You specify the timeout values for Interaction Web Portal by using the **Additional Information** field in LDAP Data Source Configuration found in Interaction Administrator. For more information, refer to Interaction Administrator help.

Work with Interaction Marquee

Interaction Marquee is a statistics delivery and display application. It provides easy access to near-real-time statistics for multiple workgroups, and even multiple servers by a web browser or other application. It can display the same data as Interaction Supervisor.

Marquee is available inside the Interaction Web Portal framework and is automatically installed with Interaction Web Portal.

Note: Interaction Web Portal is not required to use Interaction Marquee. You can apply an Interaction Marquee license only; however, you will not have access to Interaction Web Portal features such as recordings, reports, live call monitoring, and Interaction Statistics. In addition, systems without the **I3_TENANT_IWP_ORGANIZATION** license only have access to Interaction Marquee functionality.

Marquee is often referred to as an alternative to virtual wallboards, replacing small cryptic displays with customizable displays that users can view in any web browser. Users have complete control over the appearance of their statistics in Marquee.

Marquee has features that go far beyond conventional wallboards. It allows users to send statistics data to other applications, databases, and hardware interfaces using plug-ins that receive the data and carry out functions based on the design of the plug-in software.

In Interaction Marquee, you must:

- Select workgroups and queues to monitor.
- Select the information to display and how to update the display.
- Select where to display the information (such as in a web browser or wallboard device).

This section includes:

- [Using Marquee](#)
- [Interaction Marquee Packages](#)
- [Convert an Interaction Marquee 3.0 package to Interaction Marquee 4](#)
- [Update XPath queries](#)
- [Create a manifest](#)
- [Create a ZIP file](#)
- [Create a package](#)
- [Use a legacy package](#)
- [Conversions for Interaction Marquee XML output](#)
- [Intervals](#)
- [Service Level and Abandoned Rate for a legacy package](#)
- [Agent Statistics](#)

Using Marquee

1. Configure Interaction Web Portal Marquee Packager, including selectdata and the format in which to display it.
2. Create Marquee packages that send near-real-time data to the output method you choose.
3. Configure the data output devices (client workstations, wallboards, and so on) to access and display data from the Marquee packages.

Note: Running Off Host Session Manager (OSSM) on Interaction Web Portal or Marquee servers is not supported.

Interaction Marquee Packages

The following figure shows the Marquee Packager list of packages—the user interface for most package operations:

Statistic Package	Marquee Server	Active	Interval (sec)	Status	Last run time		
Toolkit	iwpwebdemo.app.inin.com	Active	10	Execute succeeded.	8/10/2012 5:17:50 PM	Edit	Delete
vertical	iwpwebdemo.app.inin.com	Active	10	Execute succeeded.	8/10/2012 5:17:55 PM	Edit	Delete
horizontal	iwpwebdemo.app.inin.com	Active	10	Execute succeeded.	8/10/2012 5:17:55 PM	Edit	Delete
details	iwpwebdemo.app.inin.com	Active	10	Execute succeeded.	8/10/2012 5:17:50 PM	Edit	Delete
status	iwpwebdemo.app.inin.com	Active	15	Execute succeeded.	8/10/2012 5:17:50 PM	Edit	Delete

Interaction Marquee license

To enable Interaction Marquee, install the Interaction Web Portal framework and apply the required `I3_FEATURE_MARQUEE` license.

Convert an Interaction Marquee 3.0 package to Interaction Marquee 4.0

Interaction Marquee packages format CIC workgroups or queue data and send it to various output devices. Interaction Marquee 4.0 includes several more viewable statistics, including statistics for Director, Dialer, and System.

Because adding these statistics updated the XML structure the package feature uses, to use the new statistics, update 3.0 packages to the new Interaction Marquee 4.0 XML format.

To ensure a successful conversion, complete the following:

- Update the XPath queries
- Create a statistics manifest

Update XPath queries

Update XPath queries in the XSL file to find statistic values from the new XML structure. Use the conversions listed in the "Conversions for Interaction Marquee XML Output" section of this guide to help convert these values.

For example, if you used the `/page/workgroups/workgroup/name` XPath to retrieve a workgroup name, change it to the Marquee 4.0 XPath value listed under the Workgroup Name:

```
/Statistics
/IcServer
/ININ.Workgroup
/ININ.People.WorkgroupStats_Workgroup
/@name
```

You can make similar changes when you work with statistics. For example, if you used the `/page/workgroups/workgroup/agentsavailable` XPath to get the number of agents available, now use the following XPath:

```
/Statistics
/IcServer
/ININ.Workgroup
/ININ.People.WorkgroupStats_Workgroup
/ININ.Workgroup_AgentsAvailable
```

Interval structure changed from Interaction Marquee 3.0 to Interaction Marquee 4.0. Now, the name of the interval is an attribute, much like the change to workgroup name. For example, if you used the following XPath to find a statistic:

```
/page
/workgroups
/workgroup
/queue
/currentperiod
/averagewaittime
```

Now, you should use:

```
/Statistics
/IcServer
/ININ.Workgroup
/ININ.People.WorkgroupStats_Workgroup
/ININ.Queue_Interval[@name="CurrentPeriod"]
/ININ.Workgroup_AverageWaitTime
```

If you have only one average wait time in your XML output file, you can find the stat without specifying the interval:

```
/Statistics
/IcServer
/ININ.Workgroup
/ININ.People.WorkgroupStats_Workgroup
/ININ.Queue_Interval
/ININ.Workgroup_AverageWaitTime
```


Create a manifest

You can create a manifest that specifies the statistics for a package by text, saving time when you create the package. The manifest is an *.ininStatKeys file. Each statistic value specified in the manifest is on a separate line.

When you select the statistics from an XSL, use the manifest value located in the "Conversions for Interaction Marquee XML Output" section of this document. For example, for Agents Available, use:

```
ININ.Workgroup_AgentsAvailable?ININ.People.WorkgroupStats_Workgroup=<SUB>
```

To create a statistic value for each workgroup you select in a web user interface, it is best practice to use <SUB> for the Workgroup value.

To create a value for Average wait Time for All Intervals, use:

```
ININ.Workgroup_AverageWaitTime?ININ.People.WorkgroupStats_Workgroup=<SUB>&ININ.Queue_Interval=<ALL>
```

For most parameters, to retrieve statistic values use <ALL>. However, to retrieve only average wait time for the *current period*, use:

```
ININ.Workgroup_AverageWaitTime?ININ.People.WorkgroupStats_Workgroup=<SUB>&ININ.Queue_Interval=CurrentPeriod
```

Because service level and abandoned rate have dynamic parameterspecify, specify the value for each parameter and therefore cannot use <ALL> for service level or abandoned rate. You can, however, still use <SUB> to pick up all the workgroups using the specified parameters.

This example shows only calls for current period using the 60-second accumulative histogram interval:

```
ININ.Workgroup_ServiceLevelDistribution?ININ.People.WorkgroupStats_Workgroup=<SUB>&ININ.Queues_InteractionType=Call&ININ.Queue_Interval=CurrentPeriod&ININ.Queue_AccumulativeHistogramInterval=60
```

Interaction Marquee 4.0 installs HTML Examples.zip and Reader Board Examples.zip. Use these files as a guide when you create the manifest file. These .zip files are installed in the **Interaction Marquee File Library**. To obtain a copy of either package, click **View and Download**, then click **Download**. To modify these files and upload a new version, best practice recommends that you rename them and then select Add Marquee file. For more information, see "About the Examples" in the Interaction Marquee help.

To generate a sample manifest containing all available statistics, see "About Configuration Files" in the Interaction Marquee help. Service level and abandoned rate are not available in the default sample.

Create a ZIP file

When you create a package, Interaction Marquee 4.0 only reads a manifest if you package it in a .zip file with the XSL or XSLT file. Interaction Marquee locates the manifest by the XSL name. For example, if your XSL package name is **package.xsl**, the manifest file must reside at **package/package.ininStatKeys**. For more information, see "About the Examples" in the Interaction Marquee 4.0 help.

Create a package

After you create a ZIP file, upload it to the file library and create a package.

Use a legacy package

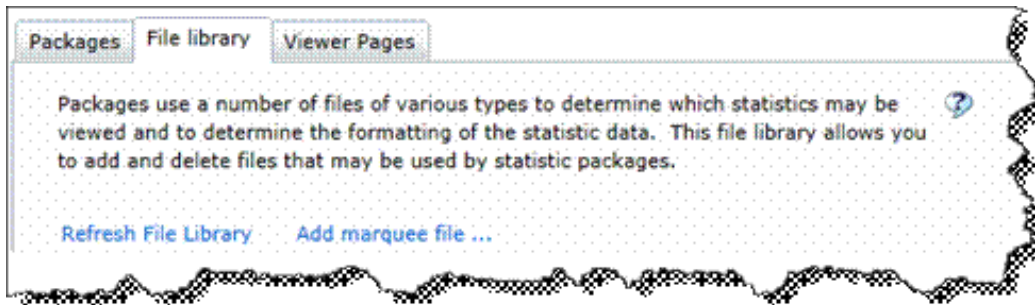
If your package does not require the new statistics, you can convert the output into Interaction Marquee 3.0 XML format. This process allows you to continue using the old XSL file.

To convert the output:

1. Create a .zip file of the package and include:
 - The <package>.xsl file
 - A manifest that includes all the statistics you'll need.

Note: For more information, see "Create a Manifest" and "Create a ZIP file" in this document. If you use the service level or abandoned rate statistics, see "Service Level and Abandoned Rate for a Legacy Package" in this document.

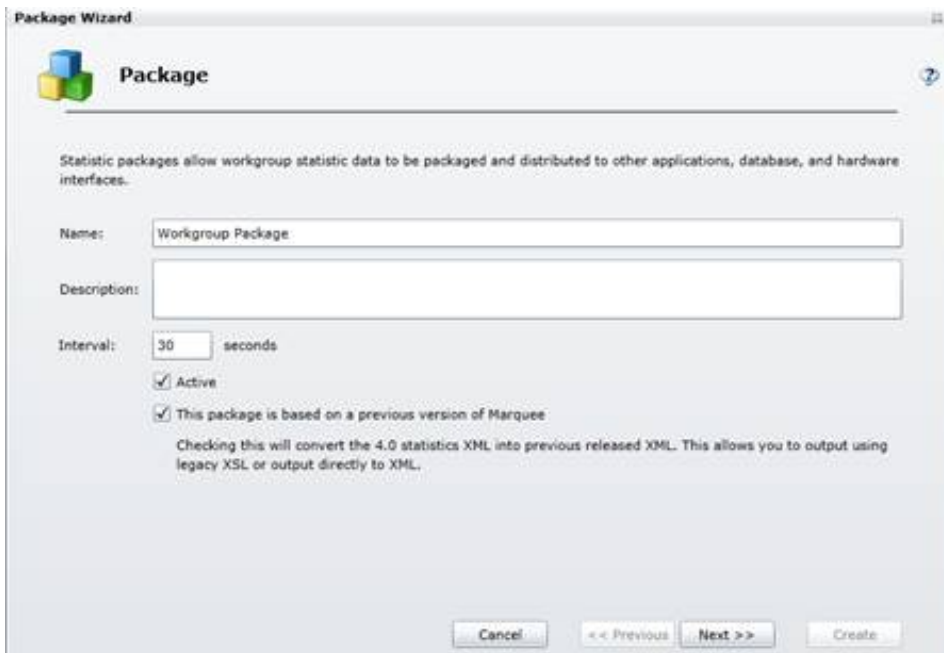
2. In Interaction Marquee, click the **File Library** tab and click **Add marquee file....**



3. Navigate to the .zip package and click **Open**.
4. Click the **Add statistic package** button.

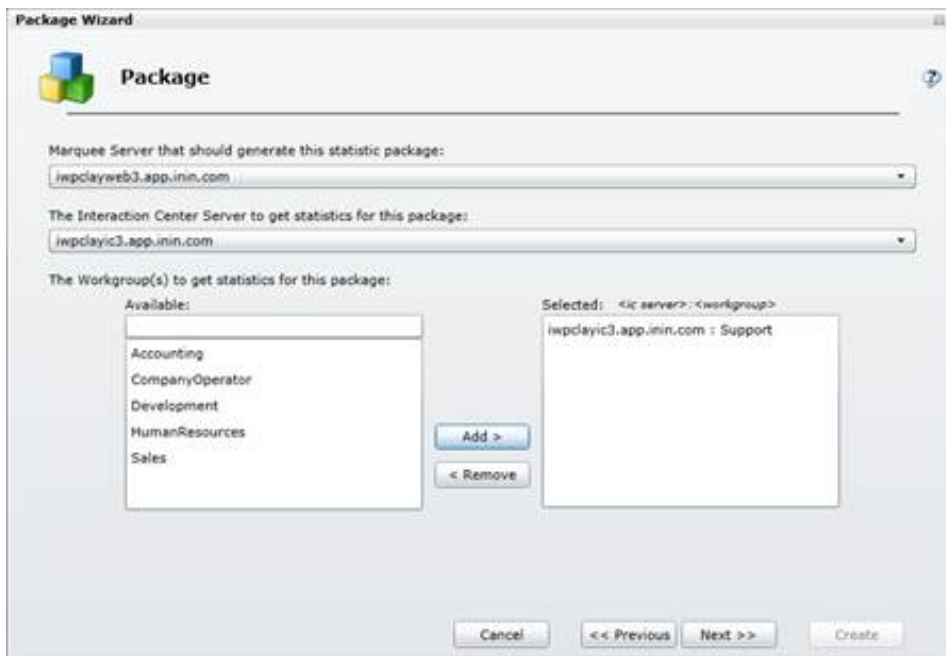


5. In the **Package Wizard** window, complete the following:
 - In the **Name** field, type a package name.
 - Optionally modify the **Interval** in seconds.
 - Select the **This package is based on a previous version of Marquee** check box.



Note: When you select this check box, Interaction Marquee 4.0 converts the generated output into XML generated by an Interaction Marquee 3.0 system.

6. Click **Next**. The Package Wizard displays workgroups from which to obtain statistics for the package.



Package Wizard

Package

Marquee Server that should generate this statistic package:

The Interaction Center Server to get statistics for this package:

The Workgroup(s) to get statistics for this package:

Available:

- Accounting
- CompanyOperator
- Development
- HumanResources
- Sales

Add >

< Remove

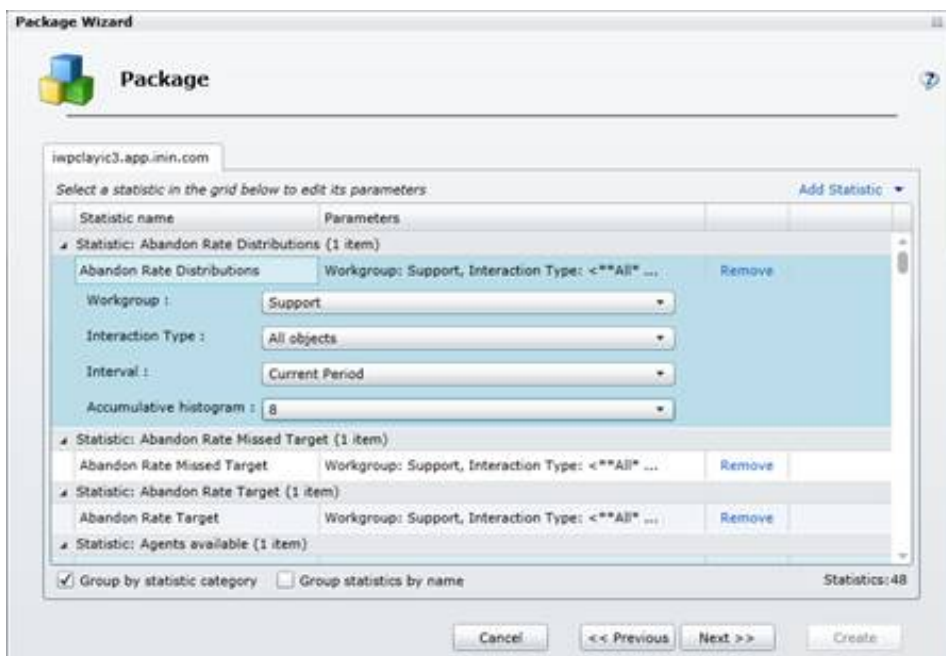
Selected: <ic server>:<workgroup>
iwpplayic3.app.inin.com : Support

Cancel **<< Previous** **Next >>** **Create**

7. Select at least one workgroup used by the package and click the **Add** button.
8. Click **Next**. The Package Wizard displays package output type options.
9. Select a package output type, fill in the parameters, and click **Next**.

Note:For the XSL style sheet, select the XSL file from your ZIP package.

10. In the **Select a statistic in the grid below to edit its parameters** dialog box opens, the statistics needed by your XSL file should be automatically added by your manifest. Click **Next**.



Package Wizard

Package

iwpplayic3.app.inin.com

Select a statistic in the grid below to edit its parameters: **Add Statistic**

Statistic name	Parameters	
Statistic: Abandon Rate Distributions (1 item)		
Abandon Rate Distributions	Workgroup: Support, Interaction Type: < **All* ...	Remove
Workgroup :	Support	
Interaction Type :	All objects	
Interval :	Current Period	
Accumulative histogram :	8	
Statistic: Abandon Rate Missed Target (1 item)		
Abandon Rate Missed Target	Workgroup: Support, Interaction Type: < **All* ...	Remove
Statistic: Abandon Rate Target (1 item)		
Abandon Rate Target	Workgroup: Support, Interaction Type: < **All* ...	Remove
Statistic: Agents available (1 item)		

☒ Group by statistic category ☐ Group statistics by name

Statistics: 48

Cancel **<< Previous** **Next >>** **Create**

11. Optionally add a viewer page and message and click **Create**. The package will begin sending data.

Conversions for Interaction Marquee XML output

This section contains XPath examples for the statistic values found in Marquee 3.0 and their Marquee 4.0 counterparts. It also includes the value to use in your manifest. XML is case-sensitive, so be sure to use the correct case when dealing with these paths.

Statistic	XPath and Manifest Configuration
Package Name	Marquee 3.0 XPath: /page/name Marquee 4.0 XPath: /Statistics/PackageName
Package Description	Marquee 3.0 XPath: /page/description Marquee 4.0 XPath: /Statistics/Description
IC Server Name	Marquee 3.0 XPath: /page/server Marquee 4.0 XPath: /Statistics/IcServer/@name
Package Creation Time	Marquee 3.0 XPath: /page/created Marquee 4.0 XPath: /Statistics/Created
Package Message	Marquee 3.0 XPath: /page/adhocmessage Marquee 4.0 XPath: /Statistics/Message
Workgroup Name	Marquee 3.0 XPath: /page/workgroups/workgroup/name Marquee 4.0 XPath: /Statistics/IcServer/ININ.Workgroup/ININ.People.WorkgroupStats_Workgroup/@name
Total Agents	Marquee 3.0 XPath: /page/workgroups/workgroup/agents Marquee 4.0 XPath: /Statistics/IcServer/ININ.Workgroup/ININ.People.WorkgroupStats_Workgroup/ ININ.Workgroup_TotalAgents Manifest: ININ.Workgroup_TotalAgents?ININ.People.WorkgroupStats_Workgroup=<SUB>

Agents Available	Marquee 3.0 XPath: /page/workgroups/workgroup/agentsavailable Marquee 4.0 XPath: /Statistics/IcServer/ININ.Workgroup/ININ.People.WorkgroupStats_Workgroup/ ININ.Workgroup_AgentsAvailable Manifest: ININ.Workgroup_AgentsAvailable?ININ.People.WorkgroupStats_Workgroup=<SUB>
Agents Logged In	Marquee 3.0 XPath: /page/workgroups/workgroup/agentsloggedin Marquee 4.0 XPath: /Statistics/IcServer/ININ.Workgroup/ ININ.People.WorkgroupStats_Workgroup/ININ.Workgroup_AgentsLoggedIn Manifest: ININ.Workgroup_AgentsLoggedIn?ININ.People.WorkgroupStats_Workgroup= SUB>
Longest Available	Marquee 3.0 XPath: /page/workgroups/workgroup/longestavailable Marquee 4.0 XPath: /Statistics/IcServer/ININ.Workgroup /ININ.People.WorkgroupStats_Workgroup/ININ.Workgroup_LongestAvailable Manifest: ININ.Workgroup_LongestAvailable?ININ.People.WorkgroupStats_Workgroup=<SUB>
Longest Outbound ACD Interaction	Marquee 3.0 XPath:/page/workgroups/workgroup/longestoutbound Marquee 4.0 XPath: /Statistics/IcServer/ININ.Workgroup/ININ.People.WorkgroupStats_Workgroup/ ININ.Workgroup_LongestOutboundACDInteraction Manifest:ININ.Workgroup_LongestOutboundACDInteraction?ININ.People. WorkgroupStats_Workgroup=<SUB>
Longest Inbound ACD Interaction	Marquee 3.0 XPath:/page/workgroups/workgroup/longestinbound Marquee 4.0 XPath:/Statistics/IcServer/ININ.Workgroup/ININ.People.WorkgroupStats_Workgroup/ ININ.Workgroup_LongestInboundACDInteraction Manifest:ININ.Workgroup_LongestInboundACDInteraction? ININ.People.WorkgroupStats_Workgroup= <SUB>
Longest Non-ACD Interaction	Marquee 3.0 XPath:/page/workgroups/workgroup/longestnonacd Marquee 4.0 XPath:/Statistics/IcServer/ININ.Workgroup/ININ.People.WorkgroupStats_Workgroup/ ININ.Workgroup_LongestNonACDInteraction Manifest:ININ.Workgroup_LongestNonACDInteraction?ININ.People.WorkgroupStats_Workgroup= <SUB>
Number on Inbound ACD Interactions	Marquee 3.0 XPath:/page/workgroups/workgroup/numberoninbound Marquee 4.0 XPath:/Statistics/IcServer/ININ.Workgroup/ININ.People.WorkgroupStats_Workgroup/ ININ.Workgroup_OnInboundACDInteractions Manifest:ININ.Workgroup_OnInboundACDInteractions?ININ.People.WorkgroupStats_Workgroup= <SUB>
Number on Inbound ACW	Marquee 3.0 XPath:/page/workgroups/workgroup/numberoninboundinacw Marquee 4.0 XPath:/Statistics/IcServer/ININ.Workgroup/ININ.People.WorkgroupStats_Workgroup/ ININ.Workgroup_OnInboundACW Manifest:ININ.Workgroup_OnInboundACW?ININ.People.WorkgroupStats_Workgroup=<SUB>

Number on Outbound ACD Interactions	Marquee 3.0 XPath:/page/workgroups/workgroup/numberonoutbound Marquee 4.0 XPath:/Statistics/IcServer/ININ.Workgroup/ININ.People.WorkgroupStats_Workgroup/ININ.Workgroup_OnOutboundACDInteractions Manifest:ININ.Workgroup_OnOutboundACDInteractions? ININ.People.WorkgroupStats_Workgroup= <SUB>
Number on Outbound ACW	Marquee 3.0 XPath:/page/workgroups/workgroup/numberonoutboundinacw Marquee 4.0 XPath:/Statistics/IcServer/ININ.Workgroup/ININ.People.WorkgroupStats_Workgroup/ININ.Workgroup_OnOutboundACW Manifest:ININ.Workgroup_OnOutboundACW?ININ.People.WorkgroupStats_Workgroup= <SUB>
Interactions Answered	Marquee 3.0 XPath:/page/workgroups/workgroup/callsanswered Marquee 4.0 XPath:/Statistics/IcServer/ININ.Workgroup/ININ.People.WorkgroupStats_Workgroup/ININ.Workgroup_InteractionsConnected Manifest:ININ.Workgroup_InteractionsConnected?ININ.People.WorkgroupStats_Workgroup= <SUB>
Interactions Waiting	Marquee 3.0 XPath:/page/workgroups/workgroup/callswaiting Marquee 4.0 XPath:/Statistics/IcServer/ININ.Workgroup/ININ.People.WorkgroupStats_Workgroup/ININ.Workgroup_InteractionsWaiting Manifest:ININ.Workgroup_InteractionsWaiting?ININ.People.WorkgroupStats_Workgroup= <SUB>
Longest Talk Time	Marquee 3.0 XPath:/page/workgroups/workgroup/longesttalktime Marquee 4.0 XPath:/Statistics/IcServer/ININ.Workgroup/ININ.People.WorkgroupStats_Workgroup/ININ.Workgroup_LongestTalkTime Manifest:ININ.Workgroup_LongestTalkTime?ININ.People.WorkgroupStats_Workgroup= <SUB>
Longest Wait Time	Marquee 3.0 XPath:/page/workgroups/workgroup/longestwaiting Marquee 4.0 XPath:/Statistics/IcServer/ININ.Workgroup/ININ.People.WorkgroupStats_Workgroup/ININ.Workgroup_LongestWaitTime Manifest:ININ.Workgroup_LongestWaitTime?ININ.People.WorkgroupStats_Workgroup= <SUB>

Intervals

For statistics with Intervals, pay special attention to the interval you are using and replace `currentperiod` or `CurrentPeriod` in your path where needed. The possible values for Marquee 3.0 are `currentperiod`, `currentshift`, `previousperiod`, and `previousshift`. The possible values for Marquee 4.0 are `CurrentPeriod`, `CurrentShift`, `PreviousPeriod`, and `PreviousShift`.

Statistic with Interval	XPath and Manifest Configuration
Average Talk Time	Marquee 3.0 XPath: <code>/page/workgroups/workgroup/queue/currentperiod/averagetalktime</code> Marquee 4.0 XPath: <code>/Statistics/IcServer/ININ.Workgroup/ININ.People.WorkgroupStats_Workgroup/ININ.Queue_Interval[@name="CurrentPeriod"]/ININ.Workgroup_AverageTalkTime</code> Manifest: <code>ININ.Workgroup_AverageTalkTime?ININ.People.WorkgroupStats_Workgroup=<SUB>&ININ.Queue_Interval=<ALL></code>
Average Wait Time	Marquee 3.0 XPath: <code>/page/workgroups/workgroup/queue/currentperiod/averagewaittime</code> Marquee 4.0 XPath: <code>/Statistics/IcServer/ININ.Workgroup/ININ.People.WorkgroupStats_Workgroup/ININ.Queue_Interval[@name="CurrentPeriod"]/ININ.Workgroup_AverageWaitTime</code> Manifest: <code>ININ.Workgroup_AverageWaitTime?ININ.People.WorkgroupStats_Workgroup=<SUB>&ININ.Queue_Interval=<ALL></code>
Interactions Answered	Marquee 3.0 XPath: <code>/page/workgroups/workgroup/queue/currentperiod/numberanswered</code> Marquee 4.0 XPath: <code>/Statistics/IcServer/ININ.Workgroup/ININ.People.WorkgroupStats_Workgroup/ININ.Queue_Interval[@name="CurrentPeriod"]/ININ.Workgroup_InteractionsAnswered</code> Manifest: <code>ININ.Workgroup_InteractionsAnswered?ININ.People.WorkgroupStats_Workgroup=<SUB>&ININ.Queue_Interval=<ALL></code>
Interactions Completed	Marquee 3.0 XPath: <code>/page/workgroups/workgroup/queue/currentperiod/numbercompleted</code> Marquee 4.0 XPath: <code>/Statistics/IcServer/ININ.Workgroup/ININ.People.WorkgroupStats_Workgroup/ININ.Queue_Interval[@name="CurrentPeriod"]/ININ.Workgroup_InteractionsCompleted</code> Manifest: <code>ININ.Workgroup_InteractionsCompleted?ININ.People.WorkgroupStats_Workgroup=<SUB>&ININ.Queue_Interval=<ALL></code>
Interactions Entered	Marquee 3.0 XPath: <code>/page/workgroups/workgroup/queue/currentperiod/numberofcalls</code> Marquee 4.0 XPath: <code>/Statistics/IcServer/ININ.Workgroup/ININ.People.WorkgroupStats_Workgroup/ININ.Queue_Interval[@name="CurrentPeriod"]/ININ.Workgroup_InteractionsEntered</code> Manifest: <code>ININ.Workgroup_InteractionsEntered?ININ.People.WorkgroupStats_Workgroup=<SUB>&ININ.Queue_Interval=<ALL></code>
Interactions Abandoned	Marquee 3.0 XPath: <code>/page/workgroups/workgroup/queue/currentperiod/numberabandoned</code> Marquee 4.0 XPath: <code>/Statistics/IcServer/ININ.Workgroup/ININ.People.WorkgroupStats_Workgroup/ININ.Queue_Interval[@name="CurrentPeriod"]/ININ.Workgroup_InteractionsAbandoned</code> Manifest: <code>ININ.Workgroup_InteractionsAbandoned?ININ.People.WorkgroupStats_Workgroup=<SUB>&ININ.Queue_Interval=<ALL></code>

Service Level and Abandoned Rate for a legacy package

Service level and abandoned rate changed significantly from version 3.0 to 4.0. No exact comparison between the two exists. In order to make it possible for the values to be displayed similar to the way they were displayed in 3.0, we've changed the key from the old values (1, 2, 3, and so on) to the new values available in the Accumulative Histogram parameter (10, 20, 30, and so on).

To include either of these statistics in the output when creating a legacy package, use `ININ.Queues_InteractionType=Call` and include one of the other workgroup queue parameters using the desired Interval (i.e. `CurrentPeriod`) to generate the XPath

/page/workgroups/workgroup/queue/<periodname> in the output. Here is a list of all the workgroup queue parameters that may be included in the manifest to allow the service level and abandoned rate statistics to be generated:

- ININ.Workgroup_AverageTalkTime
- ININ.Workgroup_AverageWaitTime
- ININ.Workgroup_InteractionsAnswered
- ININ.Workgroup_InteractionsCompleted
- ININ.Workgroup_InteractionsEntered
- ININ.Workgroup_InteractionsAbandoned

When including one of these statistics with service level or abandoned rate, make sure to use all the same intervals. <ALL> can be used for the intervals of these statistics, but you must specify the exact interval for service level and abandoned rate. For example, if you want the total service level for the PreviousPeriod, you would use these two lines in the manifest:

- ININ.Workgroup_ServiceLevelDistribution?ININ.People.WorkgroupStats_Workgroup=<SUB>
&ININ.Queues_InteractionType=Call&ININ.Queue_Interval=PreviousPeriod
&ININ.Queue_AccumulativeHistogramInterval=total
- ININ.Workgroup_AverageTalkTime?ININ.People.WorkgroupStats_Workgroup=
<SUB>&ININ.Queue_Interval=PreviousPeriod

The default values in 3.0 were closer to the ININ.Queue_PartialSumHistogramInterval parameter. However, because this parameter is not yet supported, you must use what is available in the ININ.Queue_AccumulativeHistogramInterval parameter.

Service Level

Marquee 3.0 XPath:

```
/page
/workgroups
/workgroup
/queue
/currentperiod
/servicelevels
/servicelevel
/value
```

Marquee 4.0 XPath:

```
/Statistics
/IcServer
/ININ.Workgroup
/ININ.People.WorkgroupStats_Workgroup
/ININ.Queues_InteractionType
/ININ.Queue_Interval[@name="CurrentPeriod"]
/ININ.Queue_AccumulativeHistogramInterval
/ININ.Workgroup_ServiceLevelDistribution
```

Manifest Parameters:

ININ.People.WorkgroupStats_Workgroup=<SUB>

ININ.Queues_InteractionType=<All>

ININ.Queues_InteractionType=Call

ININ.Queues_InteractionType=Chat

ININ.Queues_InteractionType=Generic

ININ.Queue_Interval=CurrentPeriod

ININ.Queue_Interval=CurrentShift

ININ.Queue_Interval=PreviousPeriod

ININ.Queue_Interval=PreviousShift

There are many values for ININ.Queue_AccumulativeHistogramInterval. See your sample manifest to get the correct combinations based on your system and its modification. In general, it works this way. When ININ.Queues_InteractionType=<All>:

ININ.Queue_AccumulativeHistogramInterval=0
 ININ.Queue_AccumulativeHistogramInterval=1
 ININ.Queue_AccumulativeHistogramInterval=2
 ININ.Queue_AccumulativeHistogramInterval=3
 ININ.Queue_AccumulativeHistogramInterval=4
 ININ.Queue_AccumulativeHistogramInterval=5
 ININ.Queue_AccumulativeHistogramInterval=6
 ININ.Queue_AccumulativeHistogramInterval=7
 ININ.Queue_AccumulativeHistogramInterval=8
 Otherwise:
 ININ.Queue_AccumulativeHistogramInterval=10
 ININ.Queue_AccumulativeHistogramInterval=120
 ININ.Queue_AccumulativeHistogramInterval=20
 ININ.Queue_AccumulativeHistogramInterval=240
 ININ.Queue_AccumulativeHistogramInterval=30
 ININ.Queue_AccumulativeHistogramInterval=45
 ININ.Queue_AccumulativeHistogramInterval=60
 ININ.Queue_AccumulativeHistogramInterval=90
 ININ.Queue_AccumulativeHistogramInterval=total

Sample:

ININ.Workgroup_ServiceLevelDistribution?ININ.People.WorkgroupStats_Workgroup=<SUB>&ININ.Queues_InteractionType=<All>&ININ.Queue_Interval=CurrentPeriod&ININ.Queue_AccumulativeHistogramInterval=8	
Abandoned Rate	Marquee 3.0 XPath: <pre>/page/workgroups/workgroup/queue/currentperiod/abandoneds/abandoned/value</pre> Marquee 4.0 XPath: <pre>/Statistics/IcServer/ININ.Workgroup/ININ.People.WorkgroupStats_Workgroup/ININ.Queues_InteractionType/ININ.Queue_Interval[@name="CurrentPeriod"]/ININ.Queue_AccumulativeHistogramInterval/ININ.Workgroup_AbandonedRateDistribution</pre> Manifest Parameters: These parameters work the same as service level parameters. See "Manifest Parameters" under "Service Level" for more information

Sample:

```
ININ.Workgroup_AbandonedRateDistribution?ININ.People.WorkgroupStats_Workgroup=<SUB>
&ININ.Queues_InteractionType=<***All***>&ININ.Queue_Interval=CurrentPeriod&ININ.Queue_
AccumulativeHistogramInterval=8
```

Number of Agents in Status	Marquee 3.0 XPath: <pre>/page/workgroups/workgroup/agentstatus/status/value</pre> Marquee 4.0 XPath:<pre>/Statistics/IcServer/ININ.Workgroup/ININ.People.WorkgroupStats_Workgroup/ININ.People_Stat us/ININ.Workgroup_AgentsInStatus</pre> Manifest Parameters: <pre>ININ.Workgroup_AgentsInStatus?ININ.People.WorkgroupStats_Workgroup= <SUB>&ININ.People_Status=<ALL></pre>
--	--

Agent Statistics

Because the new format and old format for XML output are not compatible, include a statistic with the same workgroup from a statistic not in this category. For example, if you add the “Logged In” statistic from the “Support” workgroup, then also add another statistic from that workgroup, such as “Total Agents”. In that case you would have two statistics in your manifest:

- `ININ.IceLib.People.UserStatus_LoggedIn?`
`ININ.IceLib.People.UserStatus_Workgroup=Support&ININ.IceLib.People.UserStatus_UserId=<ALL>`
- `ININ.Workgroup_AgentsLoggedIn?ININ.People.WorkgroupStats_Workgroup=Support`

Statistic	XPath and Manifest Configuration
Name	Marquee 3.0 XPath: <code>/page/workgroups/workgroup/agentstats/agent/name</code> Marquee 4.0 XPath: <code>Statistics/IcServer/ININ.IceLib.People/ININ.IceLib.People.UserStatus_Workgroup/ININ.IceLib.People.UserStatus_UserId/@name</code>
Current Status	Marquee 3.0 XPath: <code>/page/workgroups/workgroup/agentstats/agent/currentstatus</code> Marquee 4.0 XPath: <code>/Statistics/IcServer/ININ.IceLib.People/ININ.IceLib.People.UserStatus_Workgroup/ININ.IceLib.People.UserStatus_UserId/ININ.IceLib.People.StatusMessageDetails_MessageText</code> Manifest: <code>ININ.IceLib.People.StatusMessageDetails_MessageText?</code> <code>ININ.IceLib.People.UserStatus_Workgroup=</code> <code><SUB>&ININ.IceLib.People.UserStatus_UserId=<ALL></code>
Current Status Key	Marquee 3.0 XPath: <code>/page/workgroups/workgroup/agentstats/agent/currentstatuskey</code> Marquee 4.0 XPath: <code>/Statistics/IcServer/ININ.IceLib.People/ININ.IceLib.People.UserStatus_Workgroup/ININ.IceLib.People.UserStatus_UserId/ININ.IceLib.People.StatusMessageDetails_Id</code> Manifest: <code>ININ.IceLib.People.StatusMessageDetails_Id?ININ.IceLib.People.UserStatus_Workgroup=</code> <code><SUB>&ININ.IceLib.People.UserStatus_UserId=<ALL></code>
Time in Status	Marquee 3.0 XPath: (in seconds): <code>/page/workgroups/workgroup/agentstats/agent/timeinstatus</code> Marquee 4.0 XPath (time the status began): <code>/Statistics/IcServer/ININ.IceLib.People/ININ.IceLib.People.UserStatus_Workgroup/ININ.IceLib.People.UserStatus_UserId/ININ.IceLib.People.UserStatus_StatusChanged</code> Manifest: <code>ININ.IceLib.People.UserStatus_StatusChanged?ININ.IceLib.People.UserStatus_Workgroup=</code> <code><SUB>&ININ.IceLib.People.UserStatus_UserId=<ALL></code>
On Phone	Marquee 3.0 XPath: <code>/page/workgroups/workgroup/agentstats/agent/onphone</code> Marquee 4.0 XPath: <code>/Statistics/IcServer/ININ.IceLib.People/ININ.IceLib.People.UserStatus_Workgroup/ININ.IceLib.People.UserStatus_UserId/ININ.IceLib.People.UserStatus_OnPhone</code> Manifest: <code>ININ.IceLib.People.UserStatus_OnPhone?ININ.IceLib.People.UserStatus_Workgroup=</code> <code><SUB>&ININ.IceLib.People.UserStatus_UserId=<ALL></code>
Logged In	Marquee 3.0 XPath: <code>/page/workgroups/workgroup/agentstats/agent/loggedin</code> Marquee 4.0 XPath: <code>Statistics/IcServer/ININ.IceLib.People/ININ.IceLib.People.UserStatus_Workgroup/ININ.IceLib.People.UserStatus_UserId/ININ.IceLib.People.UserStatus_LoggedIn</code> Manifest: <code>ININ.IceLib.People.UserStatus_LoggedIn?ININ.IceLib.People.UserStatus_Workgroup=</code> <code><SUB>&ININ.IceLib.People.UserStatus_UserId=<ALL></code>

Retrieve raw JSON and XML statistical data from the Marquee web service

In Interaction Marquee 4.0 SU5, use the web service to retrieve raw statistical data in XML or JSON by adding a request to your custom code. See the following example:

- [Example: XML](#)
- [Example: JSON](#)

Example: XML

This example displays a request for data in XML, and the resulting response.

Datarequest

GET <http://iwpcplayweb1.app.inin.com:8070/GetPackageData?id=c02881d8-49d0-4086-a083-dbc113ceeebb> HTTP/1.1
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8

Data Response

HTTP/1.1 200 OK
Content-Type: application/xml

```
<?xml version="1.0" encoding="utf-8"?>
<Statistics>
  <IcServer name="Iwpclayic1">
    <ININ.Workgroup>
      <ININ.Workgroup_NumberAvailableForACDInteractions>9</ININ.Workgroup_NumberAvailableForACDInteractions>
    </ININ.People.WorkgroupStats_Workgroup>
  </ININ.Workgroup>
</IcServer>
<PackageName>aaa</PackageName>
<Description></Description>
<Created>20130711T152049914Z</Created>
<Message></Message>
<MessageExpires>20130711T200621142Z</MessageExpires>
</Statistics>
```

Example: JSON

This example displays a request for data in JSON, and the resulting response.

Datarequest

GET <http://iwpcplayweb1.app.inin.com:8070/GetPackageData?id=c02881d8-49d0-4086-a083-dbc113ceeebb> HTTP/1.1
Accept: application/json,text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8

Data Response

HTTP/1.1 200 OK
Content-Type: application/json

```
"Statistics":{
  "IcServer":{
    "name":"Iwpclayic1",
    "ININ.Workgroup":{
      "ININ.People.WorkgroupStats_Workgroup":{
        "name":"workgroup1",
        "ININ.Workgroup_NumberAvailableForACDInteractions":"9"
      }
    }
  },
  "PackageName":"aaa",
  "Description":"",
  "Created":"20130711T165114783Z",
  "Message":"",
  "MessageExpires":"20130711T200621142Z"
}
```

Appendix A: Best practice and other Interaction Web Portal tips

This section describes best practice recommendations that, while not required, are proven techniques offered to improve standard operating procedures and help enhance Interaction Web Portal behavior.

Best practice recommendations include:

[Set up an HTTP to HTTPS redirect for Interaction Web Portal](#)

Set up an HTTP to HTTPS redirect for Interaction Web Portal

You can configure Interaction Web Portal to redirect from HTTP, which sends data as plain text, to HTTPS, which encrypts the data sent and received with SSL. Configuring a redirect can improve the user experience.

You may receive *HTTP Error 403.4 – Forbidden. The page that you are trying to access is secured with Secure Sockets Layer (SSL)* when you try to browse to <http://mydomain.com/iwp>.

To configure automatic redirection from HTTP to HTTPS

1. From the **Start** menu, select **Control Panel > Administrative Tools > Internet Information Services (IIS) Manager**.
2. In the **Connections** area, click the **+** to expand the computer name, then click the **+** to expand the **Sites** node.
3. Click the website to which Interaction Web Portal is installed.
4. Select **Features View** at the bottom of the window.
5. Double-click **HTTP Redirect**. Or right-click **HTTP Redirect** and click **Open Feature**.
6. Click to select the **Redirect requests to this destination** check box, and then type the absolute Interaction Web Portal URL. For example, <https://mydomain.com/iwp>.
7. In the Redirect Behavior section, click to select the Only redirect requests to content in this directory (not subdirectories) check box.
8. In the **Status code** list, select **Found (302)**.
9. Click **Apply** to save the settings.
10. Run the **IISRESET** command to put the settings into effect.

Appendix B:Set up TCP Ports for Interaction Web Portal

Configure specific Interaction Web Portal TCP ports in your firewall to allow the IWP Web Server to communicate to the database and the CIC server. Specify these ports to access all IWP features, for example, reporting purposes, recording access, and questionnaire scoring analysis.

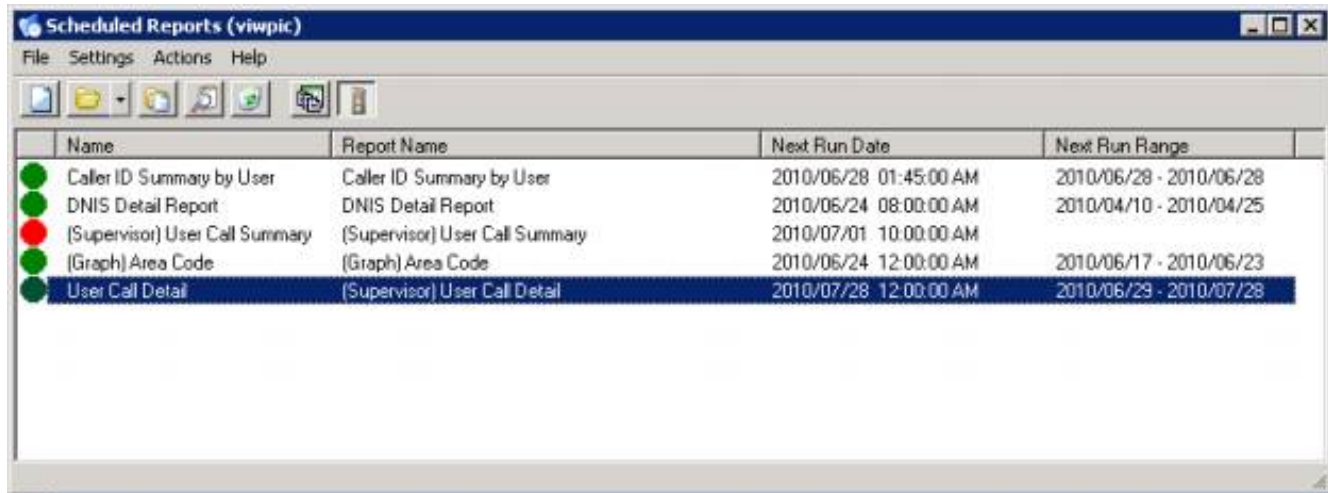
Typically, the TCP ports are entered after an administrator establishes a Data Management Zone (DMZ) configuration behind the network firewall. Where and how the ports are entered depend on the firewall.

The following table lists the TCP ports and how they are used for IWP:

Port	Protocol	Use
3952	TCP	Session Manager PureConnect port for client connections to the CIC server.
389 or 636(TLS/SSL)	TCP	LDAP or LDAPS - Lightweight Directory Services is used to store IWP configuration.
445	TCP	Microsoft-ds Copying recordings from the CIC server to the media folder for streaming.
1433	TCP	Ms-sql-s Scheduled reports access.
8106 (IIRC)	TCP	Provides access to recordings from the CIC server or remote content server.
8070	TCP	Interaction Marquee package data updates.

Appendix C: Scheduled Reports

Interaction Scheduled Reports is required in order to use the Reports Access in IWP. Once reports are created in Interaction Scheduled Reports, you can select which reports are available for use, and then specify when and how often a report is run. IWP uses reports defined in Interaction Administrator and configured in Interaction Scheduled Reports.



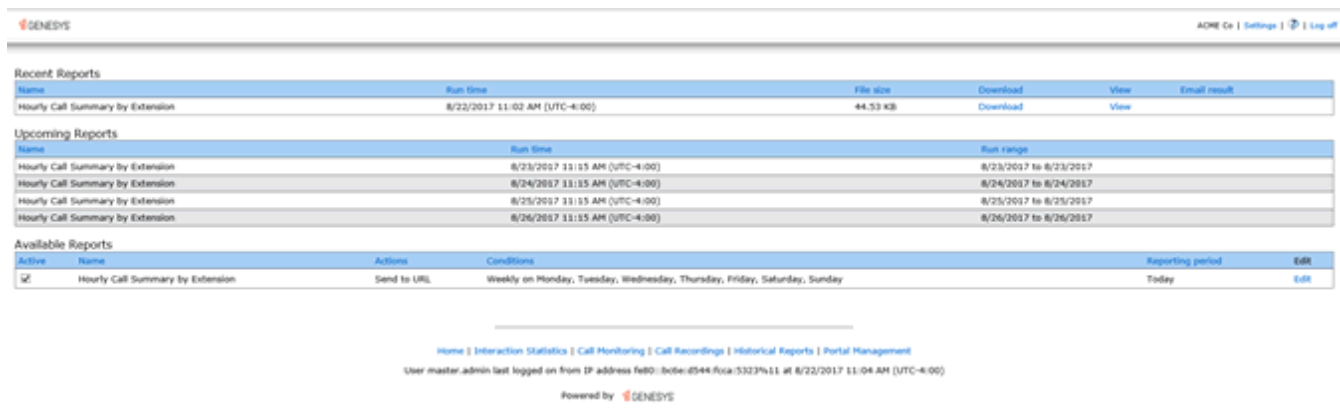
Name	Report Name	Next Run Date	Next Run Range
● Caller ID Summary by User	Caller ID Summary by User	2010/06/28 01:45:00 AM	2010/06/28 - 2010/06/28
● DNIS Detail Report	DNIS Detail Report	2010/06/24 08:00:00 AM	2010/04/10 - 2010/04/25
● (Supervisor) User Call Summary	(Supervisor) User Call Summary	2010/07/01 10:00:00 AM	
● (Graph) Area Code	(Graph) Area Code	2010/06/24 12:00:00 AM	2010/06/17 - 2010/06/23
● User Call Detail	(Supervisor) User Call Detail	2010/07/28 12:00:00 AM	2010/06/29 - 2010/07/28

This appendix includes:

- [View reports in Interaction Web Portal](#)
- [Set up IWP for Scheduled Reports](#)

View reports in Interaction Web Portal

In IWP, you can view recent reports, upcoming reports and available reports, which can be run manually. Administrators can view and download any recently run report.



Name	Run time	File size	Download	View	Email result
Hourly Call Summary by Extension	8/22/2017 11:02 AM (UTC-4:00)	44.53 KB	Download	View	

Name	Run time	Run range
Hourly Call Summary by Extension	8/23/2017 11:15 AM (UTC-4:00)	8/23/2017 to 8/23/2017
Hourly Call Summary by Extension	8/24/2017 11:15 AM (UTC-4:00)	8/24/2017 to 8/24/2017
Hourly Call Summary by Extension	8/25/2017 11:15 AM (UTC-4:00)	8/25/2017 to 8/25/2017
Hourly Call Summary by Extension	8/26/2017 11:15 AM (UTC-4:00)	8/26/2017 to 8/26/2017

Active	Name	Actions	Conditions	Reporting period	Edit
☒	Hourly Call Summary by Extension	Send to URL	Weekly on Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday	Today	Edit

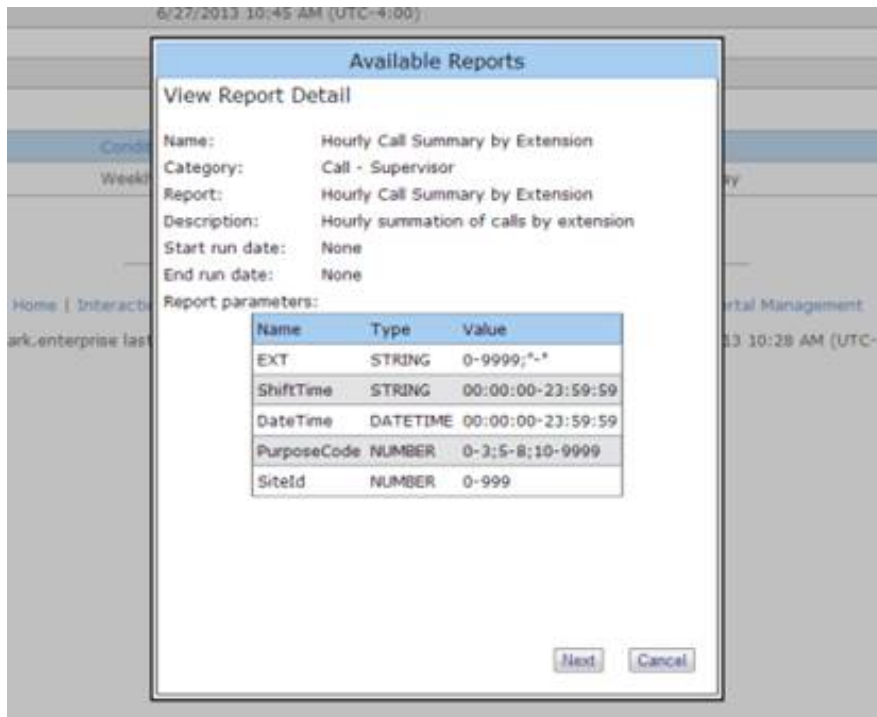
You can also access predefined reports and set such delivery options as run time and frequency needed through a reporting wizard, as shown in the following dialog boxes.

This section includes:

- [View report details](#)
- [Specify the report destination](#)
- [Specify the report frequency](#)

View report details

Review the name, category, description, start and run dates, and the predefined parameters set for the selected report.



6/27/2013 10:45 AM (UTC-4:00)

Available Reports

View Report Detail

Name: Hourly Call Summary by Extension
Category: Call - Supervisor
Report: Hourly Call Summary by Extension
Description: Hourly summation of calls by extension
Start run date: None
End run date: None

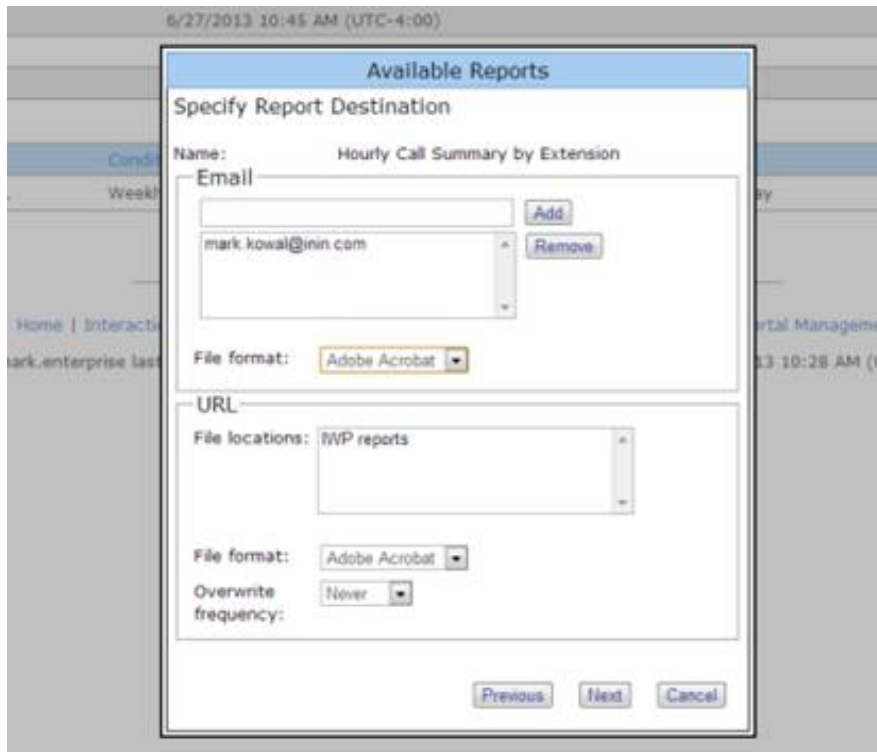
Report parameters:

Name	Type	Value
EXT	STRING	0-9999;*-*
ShiftTime	STRING	00:00:00-23:59:59
DateTime	DATETIME	00:00:00-23:59:59
PurposeCode	NUMBER	0-3;5-8;10-9999
SiteId	NUMBER	0-999

Next Cancel

Specify the report destination

Select email recipients, the format in which you want the report output to be delivered, file locations, and whether or not to overwrite previously run versions of the report.



6/27/2013 10:45 AM (UTC-4:00)

Available Reports

Specify Report Destination

Name: Hourly Call Summary by Extension

Email

mark.kowal@inlin.com Add Remove

File format: Adobe Acrobat

URL

File locations: IWP reports

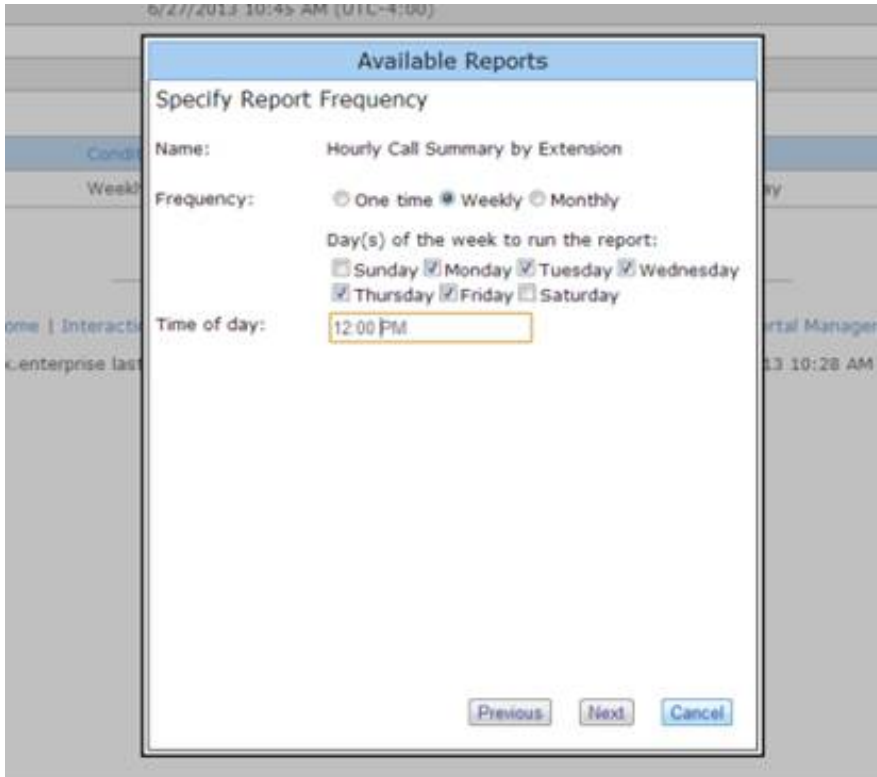
File format: Adobe Acrobat

Overwrite frequency: Never

Previous Next Cancel

Specify the report frequency

Determine how often you want the report to run, and what time you want to run it.



The screenshot shows a dialog box titled "Available Reports" with a sub-header "Specify Report Frequency". The "Name" field is "Hourly Call Summary by Extension". The "Frequency" section has three radio buttons: "One time", "Weekly" (which is selected), and "Monthly". Below this, the "Day(s) of the week to run the report:" section has checkboxes for each day of the week: Sunday (unchecked), Monday (checked), Tuesday (checked), Wednesday (checked), Thursday (checked), Friday (checked), and Saturday (unchecked). The "Time of day:" field is a text box containing "12:00 PM". At the bottom of the dialog are three buttons: "Previous", "Next", and "Cancel".

Set up IWP for Scheduled Reports

Before you can begin using Scheduled Reports, you must first configure IWP to use this feature. In this section:

- [Create a directory share in which to store reports](#)
- [Install the Scheduled Reports Client installation files](#)
- [Install the Scheduled Reports Monitoring Server \(SRMS\)](#)
- [Verify the Custom Passthrough Log is active](#)
- [Configure the Scheduled Reports installation](#)
- [Assign the appropriate security right to IWP's administrative user](#)

Create a directory share in which to store reports

Create a directory share on the CIC Server to which Scheduled Reports can store reports. This will allow you to access reports and set permissions, as well as view and manage open files and users connected to the share. You can create the share in any location suitable to your company requirements.

Install the Scheduled Reports Client installation files

The CIC Scheduled Reports installs and related files are available to install from the PureConnect Customer Interaction Center (CIC) .iso file. The install is located under \Installs\Off-ServerComponents.

1. If you have not done so already:
 - a. Download the CIC 2015 R1 or later .iso file from thenPureConnect Production Information site at <https://my.inin.com/products/Pages/Downloads.aspx>.
 - b. Copy the .iso file to a file server (non-IC server) with a high bandwidth connection to the server(s) on which you will be running the CIC installs.
 - c. Mount the .iso file and share the contents to make them accessible to the server(s) on which you will be running the CIC installs.
2. Navigate to the \Installs\Off-ServerComponents directory on the file server.
3. Copy the Scheduled Reports .msi for 2015 R2 or later file to the 64-bit Windows Server server operating system machine on which you plan to run this install.

Install the Scheduled Reports Monitoring Server (SRMS)

The main function of the **Scheduled Reports Monitoring Service** is to send notifications to the CIC Handlers when a scheduled report is ready to run. It also monitors the Scheduled Reports Database tables on five-minute intervals for changes to current scheduled reports.

Note: Before you install the **Scheduled Reports Monitor Server** application, first install **Microsoft .NET Framework 4.7 or later**. This installation is a requirement for monitoring servers running Scheduled Reports. For more information, see the *Scheduled Reports Installation and Configuration Guide* located in the PureConnect Documentation Library.

To install the Scheduled Reports Monitor Server:

1. From the shared location, double-click **ScheduledReportsServer.msi**. The **Scheduled Reports Monitor Server for CIC Setup** dialog opens.
2. Click **Next**. The **Custom Setup** dialog opens.
3. Optionally click the **Scheduled Reports Monitor Server** icon to access the custom installation features.
4. Optionally select the way features are installed by clicking the appropriate feature icon.
5. Click **Next**. The **IC Server Name** dialog opens.
6. In the **IC Server Name** field, enter the CIC server to which you want to connect.

Note: If you have multiple CIC servers to which Scheduled Reports communicates, enter only one CIC server name now. Additional CIC server names are defined with the PureConnect Scheduled Reports Configurator Tool later in the implementation.

7. Click **Next**. The **Ready to install Scheduled Reports Monitor Server** dialog opens.
8. Click **Install** to begin the installation process. The **Installing Scheduled Reports Monitor Server** dialog opens. It displays a **Status** bar and messages as the installation progresses.
9. When the installation is complete, click **Finish** in the **Completed the Scheduled Reports Monitor Server Setup Wizard**.
10. The **You Must Restart Your System** dialog displays when a restart is required to finish the configuration changes made to Scheduled Reports Monitor Server. Click **Yes** to restart your system.

Verify the Custom Passthrough Log is active

An important post-installation task is required when the **Scheduled Reports Monitor Server (SRMS)** installation is complete. The CIC and Scheduled Reports Administrator must verify that the Custom Passthrough Log is active.

Scheduled Reports handlers insert data into the SQL Server or Oracle database using the **LoggingCustomPassthrough** tool step. **Microsoft Message Queuing (MSMQ)** lets users reliably send data to custom logging tables with the same reliability as CIC data. Since this tool step is being used, Custom Passthrough is required on the Customer Interaction Center (CIC) server.

To verify that the Custom Passthrough Log is active:

1. Open **Interaction Administrator**.
2. Click the **System Configuration** node and then click the **Report Logs** container.
3. Double-click **Custom Passthrough Log**. The **Report Log Configuration** dialog opens.
4. On the **Basic** tab, ensure the **Active** check box is selected.

Note: This dialog is the only location where Custom Passthrough is established for a CIC server.

5. Click **OK** to save your changes and close the **Custom Passthrough Log**.

Configure the Scheduled Reports installation

Now you're ready to configure the Scheduled Reports configuration. This includes configuring the Scheduled Reports monitoring service and working with the PureConnect Scheduled Reports Configurator Tool to set up the data repository. Here, you will:

- Complete CIC connection parameters for the server on the IC Connection tab
- Set up database connection parameters for the server on the DB (database) Connection tab
- Use the Error Notifications dialog to allow e-mail error notifications to be sent to the CICAdministrator and to create a customized list of e-mail addresses for error notification
- Set file overwrite frequency values, valid time and interval settings, and available scheduling times for users when they generate scheduled report on the scheduling tab
- Specify valid export formats, available printers, and report categories. An accessible file location must be configured to point to the directory share specified earlier in the IWP scheduled reports configuration.

For detailed instructions, see the *Scheduled Reports Installation and Configuration Guide* located in the PureConnect Documentation Library.

Assign the appropriate security right to IWP's administrative user

Ensure the IWP's administrative user has the **Interaction Reporter Administrator** security right. For information on how to assign security rights, see "Security Rights" in the *Interaction Administrator help*.

Change log

Date	Changes
26-August-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.
19-January-2015	Updated documentation to include assigned licensing feature and clarify Interaction Marquee licensing.
07-October-2015	Added Appendix D to reflect installation and configuration of Scheduled Reports. Updated Microsoft .NET Framework requirements. Also updated cover page for rebranding and most recent copyright and trademark information.
07-December-2015	Moved Interaction Marquee from an appendix to a separate section in the document, called Work with Interaction Marquee. Added a section in Work with Interaction Marquee to provide guidance regarding memory, bandwidth, and CPU requirements. Replaced installation images to reflect company branding.
18-October-2016	Updated "Download and install IIS Media Services" section to include new link and instructions for install.
03-May-2017	Updated "Install Interaction Web Portal" section and "Install the Scheduled Reports Monitoring Server" section from .Net Framework 4.0 to 4.5.2 or later.
11-July-2017	Updated Microsoft .NET Framework 4.5.2 requirement to Microsoft .NET Framework 4.5.2 or later.
21-August-2017	Updated for rebranding. Updated references to IC, Interactive Intelligence, CIC, PureConnect. Updated title page and copyright page.
07-September-2017	Added "Configure timeout values" section under post-installation tasks.
26-October-2017	Updated requirements to include Windows Server 2016.
08-November-2017	Updated "Introduction to Interaction Web Portal" section to indicate that Active Directory Lightweight Directory Services, or AD LDS replicas, does not allow for high scalability and redundancy.
11-January-2018	• Conversion to HTML. • Removed Windows Server 2008 R2 as a requirement for 2018 R3.
14-February-2018	Updated Requirements and Post-installation tasks sections to include note about installing Desktop Experience feature during Windows Server 2016 install.
04-May-2018	Updated for .NET Framework 4.7. Replaced .NET Framework requirements with link to Software Requirements page.
10-May-2018	Updated procedures for Windows Server 2012 R2 and 2016 in Enable and configure IIS and IIS Medias Services section.
25-September-2018	Updated Install Silverlight 5.0 and Configure CIC servers to use IWP under Portal Management IC System procedure to include tip for User credentials (LDAP and IC server credentials).
01-October-2018	Updated link to install IIS Media Services in Web server requirements section.

04-October-2018	Updated KB link in Download and install IIS Media Services section.		
16-July-2019	Reorganized the content only, which included combining some topics and deleting others that just had an introductory sentence such as, "In this section..."		
05-August-2019	Changed ".NET Framework 4.5 Features" to ".NET Framework 4.6 Features" in Step 5 of the Windows Server 2016 section of Activate Windows Communication Foundation (WCF) topic.		
01-October-2019	Updated link to Microsoft IIS Media Services install in Download and install IIS Media Services topic.		
05-November-2019	Updated KB link in Download and install IIS Media Services topic.		
11-November-2019	In Download and install IIS Media Services topic, updated KB link and added link to use CIC Utilities and Downloads to access zip file.		
19-November-2019	Updated "Install Silverlight 5.0 and Configure CIC servers to use IWP under Portal Management IC System Configuration" topic to note in step 10 that each CIC server pair can have only one IWP connection.	13 - N ov e m be r- 20 19	Updated "Create an Interaction Web Portal Service administrator account" topic to explain that the Service admin account is used to check the security policies when a user runs a search.