



Uptivity WFO Administration Manual, v5.7

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on Premises

Uptivity WFO Administration Manual, v5.7

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Uptivity WFO offers inContact customers a choice of deployment options. For more information about WFO for premise or hybrid environments, visit www.Uptivity.com. To learn more about WFO in the cloud, visit www.incontact.com.

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Introduction

Audience

This document is designed for users who will serve as administrators of Uptivity WFO for their organizations. Readers should have a high level of familiarity with usage of a PC and its peripherals, the Windows operating system, their organization's ACD/PBX, and the business rules that affect both how Uptivity WFO will be initially set up and how it will be used on a daily basis.

Goals

The goal of this document is to provide knowledge, reference, and procedural information necessary to serve as an Uptivity WFO application administrator. The document is NOT intended as a specific system or network design document, nor is it designed to educate the reader on contact center and IT administration concepts or best practices.

Assumptions

This document assumes that Uptivity WFO has been installed and integrated with your PBX if applicable.

Need-to-Knows

The *Uptivity WFO User Manual* contains general knowledge and procedures related to using the Web Portal, and may prove a helpful reference.

Depending on the components and modules used in your Uptivity WFO implementation, you may find these additional documents useful:

- Applicable *Customer Guide* for your PBX/ACD integration
- *Clarity WFM Administration Manual*
- *Uptivity Speech Analytics Administration Guide*
- *Uptivity Survey Administration Guide*
- *Uptivity Desktop Analytics Administration Guide*
- *Uptivity WFO On-Demand User Guide*

Several Uptivity WFO features use pop-up menus and other windows that may be considered as "pop-ups" by some browsers. inContact recommends that you configure your browser to allow pop-ups for the Uptivity WFO site.

Uptivity WFO supports standard Windows methods for selecting multiple items in a list: press and hold the Shift key while clicking to select consecutive items or press and hold the CTRL key while clicking to select non-consecutive items.

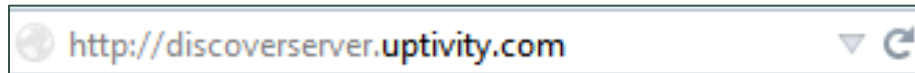
In some cases, Uptivity WFO provides more than one way to accomplish a task or access a feature. The procedures in this manual explain the primary method, but also note the **Alternative** where applicable.

What's New in this Version

- Agents can now be enabled for inView Performance Management, so that their metrics can be viewed and activities managed using the optional inView integration with Uptivity WFO. See [inViewPermissions \(for organizations using inView Performance Management\)](#).

Uptivity WFO Basics

Most administration tasks are performed in the Discover Web Portal, which you can access using a web browser. Internet Explorer, Firefox and Google Chrome have been tested and work well with Uptivity WFO. Your Uptivity WFO installation team will provide you with a web address for the portal. If your system topology calls for multiple Web Portals, each will have a unique hostname and IP address.



Clarity WFM uses a different Web Portal than Uptivity WFO. If your installation includes both Clarity WFM and Uptivity WFO, your team will provide you with two web addresses. However, once you have logged into the Web Portal for either, you can switch back and forth between the two from within the applications.

Information visible from the Interactions List page of the Discover Web Portal is determined by user permissions and by Call List settings. You can request a custom default setting configuration that is applied whenever you create a user account. Ask your Uptivity WFO team for additional information.

The version number for your Uptivity WFO software appears in the upper-right corner of the login page. This version number can be useful for locating correct documentation for your software and obtaining support for your system.



Uptivity WFO has a default account with system administrator level privileges. Your Installation team will provide you with the account username and password. You should change your password from the default as soon as possible. If your system is configured to use AD authentication, this application-level account will not be available to you. The Web Portal must be configured to allow either Database or Hybrid Mode authentication for application-level accounts to be used.

Uptivity WFO allows you to customize field names and terminology in the Web Portal to fit your unique environment. Therefore, screen examples and field names used in this manual may differ from those seen in your implementation. For more information, see [Terminology Overview](#).

Uptivity WFO Licensing

Uptivity WFO is a licensed product. Call recording and other functionality will not work if the Uptivity WFO software license file is not present, is invalid, has expired or is corrupt. The license is unique to your system and is created and loaded during installation.

Uptivity WFO licenses are based on a MachineID that contains information about the hardware and software configuration of the Uptivity WFO server. Therefore, making major changes to your Uptivity WFO system (for example, changing the Windows machine name, changing a motherboard, and so forth) will cause your license to become invalid. The server will not function until a new license is created and applied to the system.

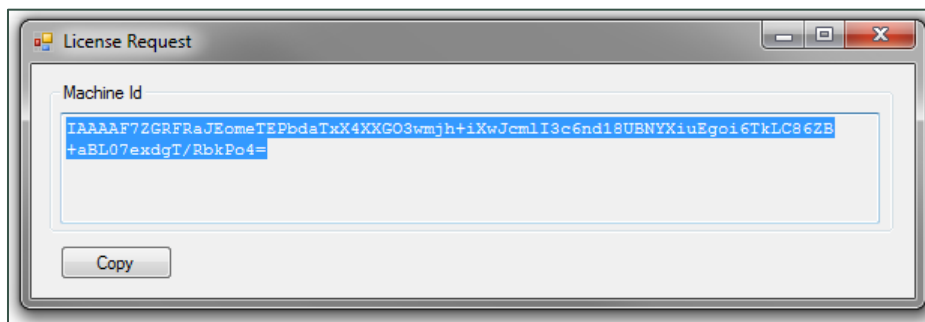
inContact recommends any such maintenance be scheduled for an approved maintenance time, as the system will be non-operational after the maintenance until a new license is applied. Contact your Uptivity Support team if any such maintenance is planned, so a new license can be issued immediately after system maintenance is completed.

In order to create a new license file, a new Machine ID must be generated on the server and supplied to Uptivity WFO Support. This must occur **after** any maintenance is completed.

Request a New License

To request a new license from Uptivity WFO Support:

1. Open the Recorder directory on your Uptivity WFO server.
2. Run the "LicenseRequest.exe" application to open a License Request window displaying the new Machine ID.

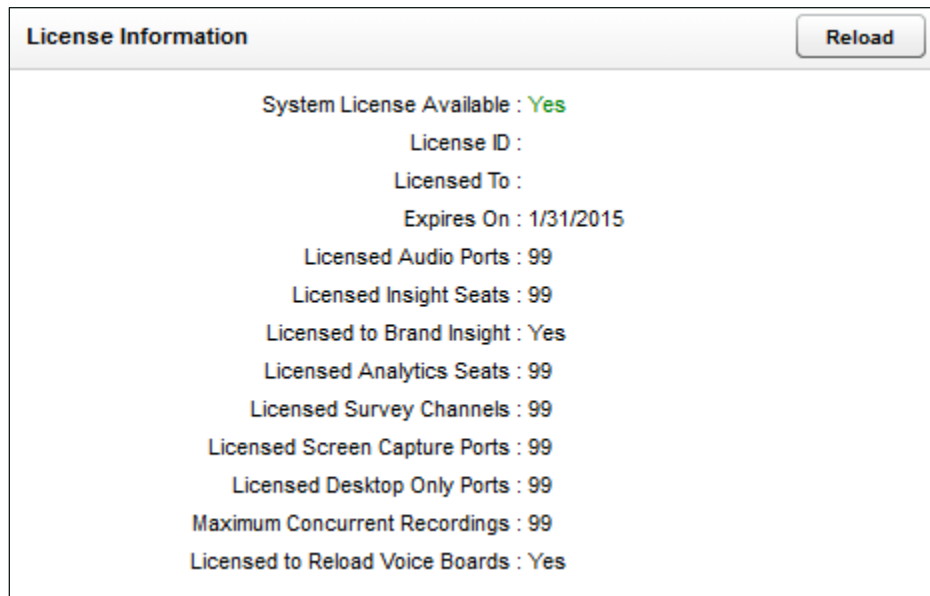


3. Click **Copy**.
4. Paste the Machine ID into an email and send it to the Uptivity WFO Support team, who will reply with a new license file.
5. Save the license file to the CallCopy directory on the Uptivity WFO server.

View License Information

To view license status:

1. Click the **Reporting** tab in the Discover Web Portal and expand **System Reports** in the left navigation menu.
2. Click **License Info**.
3. If **System License Available** is **Yes**, but no licenses are showing, click **Reload**.



If the license information looks correct, but call recording and other functions are not working, this may indicate problems with your license file. You may also see Windows server repeatedly attempting to start the Uptivity WFO services and modules in Windows Task Manager. In this situation, contact Uptivity WFO Support to investigate.

Configuring Roles & Permissions

Roles & Permissions Overview

Permissions and **Roles** work together to define what users can do in Uptivity WFO. You will first create one or more roles and associate specific permissions with it. Then you will assign individual users, groups, or both to the role(s) based on the permissions that user or group needs. Key facts about roles include:

- A role can be assigned to multiple users.
- A user can be assigned multiple roles.
- Role permissions are cumulative. For example, Role A has Permission 1, and Role B does not have Permission 1. If a user is assigned both Role A and Role B, that user will have Permission 1.
- Uptivity WFO permissions do not conflict.
- Uptivity WFO allows you to create an unlimited number of roles. Having more roles allows security to be more granular and targeted to the needs of specific users. But more roles can be confusing to administer, and users may not know what roles they need when they request access.

At the time of installation, Uptivity WFO includes:

- One default role: DiscoveryDefaultAgent. You cannot delete this role but you can edit its permissions.
- A Superuser account with all permissions. The Superuser access level is not considered a role. You can grant Superuser access to individual users, but inContact recommends that you limit the number of superusers for security reasons.

Before creating users, develop a single plan that governs the use of groups and roles. The following two generic plans may help you decide the best plan for your organization.

Plan 1: Small Team

In this scenario, a company has one location, and 30 agents are divided evenly to work three eight-hour shifts. Each shift has a supervisor who reviews call records and performs quality evaluations. The company owner and another employee administer the network and Uptivity WFO. All calls are for the company's products.

The company could create:

- An Agent role and an Agent group. All agents are placed in the group, and the role allows them to review their own calls and evaluations.

- A Supervisor role and a Supervisor group. All supervisors are placed in the group, and the role allows them to review any agent's calls, perform evaluations, and live monitor agents.
- A system administrator role assigned to the company owner and administrator. These users can create users, change system settings, and also perform tasks that supervisors do.

Plan 2: Multiple Teams

In this scenario, the company has three locations, and 120 agents who work a variety of shifts. All agents answer calls for the company's products. Some agents answer calls for a new Product X. Another group answers Spanish callers. This more complex organization could use the following role structure:

- An Agent role and an Agent group. All agents are placed in the group, and the role allows them to review their own calls and evaluations.
- A Supervisor role and a Supervisor group. All supervisors are placed in the group, and the role allows them to review any agent's calls, perform evaluations, and live monitor agents.
- Spanish Agent role and Spanish Agent group. Only certain agents are placed in this group. The role is assigned only to this group.
- Spanish Supervisor role and Spanish Supervisor group for those supervisors who evaluate Spanish-speaking agents.
- Product X role and Product X group. Any supervisor can evaluate these calls, so the Supervisor group is given permission to this group. Having a group for Product X allows users to search for and report on calls for this product.
- A system administrator role assigned to the company owner and administrators. These users can create users, change system settings, and also perform tasks that supervisors do.

Roles can also be created to fine-tune permissions for features like quality management and reporting. Creating specialized roles like QM Form Designer or Reporting Admin and assigning it to a few agents or supervisors maintains the base roles while allowing the flexibility to assign the feature-specific role.

Roles			
Search: <input type="text"/> <input type="button" value="Go"/> <input type="button" value="Clear"/>			
<input type="button" value="Assign Users to Roles"/> <input type="button" value="Delete Roles"/> <input type="button" value="Copy Role"/> <input type="button" value="Add Role"/>			
Id	Name	Description	Last Modified
279	SurveyTest		11/25/2013 10:23 AM
1	DiscoveryDefaultAgent	This role contains the basic permissions normally available to all users. The role may be edited but may not be deleted.	2/10/2014 10:07 AM
280	ClarityUser		2/11/2014 11:25 AM
278	ClaritySuper		12/27/2013 2:53 PM
276	CCSuper	Typical permissions for a call center team lead or group supervisor	2/4/2014 9:31 AM
277	CCManager	Typical permissions for a call center manager	2/4/2014 9:30 AM

Displaying items 1 - 12 of 12

The **Roles** list shows the existing roles and when they were last modified. The system automatically generates the Role ID and uses this to track the role. This enables you to change the name of a role if necessary.

Create a Role

To create a role:

1. Click the **Administration** tab and expand **Permissions** in the left navigation menu.
2. Click **Roles** and then click **Add Role**.
3. Type a name for the role and, optionally, a description.
4. Select the checkbox(es) for the permission(s) needed for the role. For more information, see [Permissions Reference](#).
5. Associate the role with one or more Uptivity Groups, ACD Groups and ACD Gates if desired. For more information, see [Configure Permissions for Uptivity Groups](#) and [Configure Permissions for ACD Groups or ACD Gates](#).
6. Click **Save**.

Edit a Role

To edit a role:

1. Click the **Administration** tab and expand **Permissions** in the left navigation menu.
2. Click **Roles** and then double-click the name of the desired role.
3. Make any desired changes and then click **Save**.

Copy a Role

Copying a role assures consistent permissions assignment. For example, you might have one role for a group and want to create a group that will perform the same actions in Uptivity WFO but handle a different type of call. Copying the role and giving it a different name assures that the agents have exactly the same permissions.

1. Click the **Administration** tab and expand **Permissions** in the left navigation menu.
2. Click **Roles** and then click the role to be copied.
3. Click **Copy Role**.
4. Type a name for the role and then click **Save**.

Delete a Role

Deleting roles removes permissions from users to which the role was attached, but does not delete the users themselves.

1. Click the **Administration** tab and expand **Permissions** in the left navigation menu.
2. On the Roles page, click **Delete Roles**.
3. Select one or more of the Available Roles.
4. Click the right arrow to move the Role from the Available Roles column to the Roles to Delete column.
5. Click **Delete** and then click **Back**.

Configure Permissions for Uptivity Groups

Group permissions give a user access to call records and other items created by members of an Uptivity Group. The user also needs relevant Player Permissions, such as Allow Viewing of Video. Assigning permission to an Uptivity Group does not make a user with that permission a member of the group. For details, see [Uptivity Groups Overview](#). A role has access permissions to all Uptivity Groups shown in the **Attached Group** list.

To assign Uptivity Group permissions to a role:

1. Follow the procedure to [Create a Role](#) or [Edit a Role](#).
2. In the **Associated Uptivity Group** section, select the desired group(s) under **Unattached Uptivity Group**.
3. Click the right arrow to move the selected group(s) to **Attached Uptivity Group** and then click **Save**.

To remove Uptivity Group permissions from a role:

1. Follow the procedure to [Edit a Role](#).
2. In the **Associated Uptivity Group** section, select the desired group(s) under **Attached Uptivity Group**.
3. Click the left arrow to move the selected group(s) to **Unattached Uptivity Group** and then click **Save**.



Configure Permissions for ACD Groups or ACD Gates

Most PBX/ACD systems offer one or more means of grouping agents. Depending on the system, terminology may vary: labor groups, hunt groups, skills, gates and queues are just a few of the naming conventions.


Group and ACD Gate permissions give users access to call records and other items created by members of these types of groups. The users also need any relevant [Player Permissions](#). Assigning user permission to a Group or ACD Gate does not make that user a member of the group, gate or queue. Those memberships must be assigned on the PBX.

If no groups are specified, users with this role will be able to view all ACD groups. If groups are specified in the role, all groups still appear in the Call List Quick Filter Menu, but only calls for the specified groups will be available. This behavior is consistent with how Uptivity Group and Agent quick filters work in the Call List.

To provide a role with access to recordings from an ACD Group or Gate:

1. From your PBX, identify the desired ACD Group(s), ACD Gate(s), or both.
2. Follow the procedure to [Create a Role](#) or [Edit a Role](#).
3. Under **Group**, type any ACD Group name(s) in the text field under the list, exactly as they appear in your PBX/ACD, and then click the **Add**  icon.
4. Under **ACD Gate**, type any ACD Gate name(s) in the text field under the list, exactly as they appear in your PBX/ACD, and then click the **Add**  icon.
5. Click **Save**.

To remove a role's access to recordings from an ACD Group or Gate:

1. Follow the procedure to [Edit a Role](#) and then select the desired ACD Group(s) from the **Group** list.
2. Click the **Delete**  icon and then click **Save**.

Edit Role Assignments for Multiple Users

You can assign roles to individual users when you create the user (see [Add a User](#)), and add/remove roles by editing the user (see [Edit a User](#)). To edit role assignments for multiple users at once:

1. Click the **Administration** tab and expand **Permissions** in the left navigation menu.
2. Click **Roles** and then click **Assign Users to Roles**.
3. Click the desired role.
4. Move users from **Available Users** to **Attached Users** to assign the role; move users from **Attached Users** to **Available Users** to remove the role assignment.
5. Click **Save**.

Permissions Reference

Permissions in Uptivity WFO can be very granular, allowing you to restrict users to only those tasks, groups, agents, and recordings to which they need access to perform their jobs. This section lists all of the Uptivity WFO permission and provides a brief description of each.

Clarity WFM permissions are best understood in the context of the tasks to which they relate. Very few Clarity tasks require only a single permission. This section provides only a list of the Clarity WFM permissions you will see in the Web Portal. For a full discussion of Clarity permissions, see the "Configuring Permissions, Roles & Accounts" section of the *Clarity WFM Administration Manual*.

General Administration Permissions

Allow User Administration: Allows users to add, edit, and delete other system users. This is an administrator-level permission.

Allow Password Changes: Allows users to modify their own password in Uptivity WFO. Otherwise, a system administrator will have to modify the password for the user. Users cannot use the "Forgot Password" functionality in Uptivity WFO unless they have this permission.

System Permissions

i System Permissions should typically be limited to administrator roles.

Allow System Configuration: Allows users to modify configuration settings.

Allow Recording Record and File Deletes: Allows users to delete records from Uptivity WFO. Recording deletion can result in irretrievable data loss. This permission should be granted to very few users.

Allow Archive Administration: Allows users to create and edit Archives.

Allow Group Administration: Allows users to create and edit Uptivity Groups. While administering these groups, users with this permission can see all users to facilitate adding new group members.

Allow Scheduling: Allows users to set system-wide schedules. Recordings based on system schedules are not governed by the disk quota of the user who created the schedule.

Allow API Authentication: This permission is not used.

Coaching Permissions (for use with Uptivity WFO Quality Management)

i Coaching permissions for performing, editing and deleting evaluations are affected by the Player permission "Allow Viewing All Call Records and QA Evaluations". Users with this permission could potentially view QA reports for all groups and agents, evaluate any agent, edit any evaluation, and delete any evaluation.

Allow Viewing of QA Evaluations: Allows users to view and access evaluations for any group(s) to which they have permission, including their own evaluations. Selecting this option automatically selects the other Coaching permissions. If those permissions are not appropriate for a role, clear them individually.

Allow QA Form Administration: Allows users to build and edit a QA form for any group.

Allow Content Library Management: Allows users to upload and manage files in the Content Library.

Allow Viewing of Evaluator's Name: Allows agents to see the name of the evaluator on completed evaluations and in references to those evaluations within the Web Portal. This permission is included in the Discovery Default Agent role.

Allow Deletion of Completed QA Evaluations: Allows users to delete completed QA evaluations for groups to which they have permission, including their own evaluations. This allows for a disputed score to be deleted, and then reissued when appropriate. This permission does not apply to in-progress evaluations.

Allow Manage Achievements: Allows users to add a new achievement type for any agent or group. Also allows users to view and edit added achievement types, view a list of achievements awarded to agents, and upload custom icons displayed when achievements are awarded. Achievements can be awarded to specific groups or agents

based on either QA evaluation scores or as an *ad hoc* achievement. To award ad hoc achievements, users must have the **Allow Award Ad Hoc Achievements** permission.

Allow Editing of Completed QA Evaluations: Allows users to edit the score or responses of a completed QA evaluation for groups to which they have permission, including their own evaluations. This permission does not apply to in-progress evaluations. To edit completed evaluations, users must also have the **Allow Performing QA Evaluations** permission.

Allow Performing QA Evaluations: Allows users to perform an evaluation upon an agent in any group to which they have permission. Users with this permission may also serve as arbitrators for dispute resolution involving agents they have access to evaluate. Also allows users to edit or delete an in-progress evaluation for an agent in any group to which they have permission.

Allow Award Ad Hoc Achievements: Allows users to award an existing ad hoc achievement type to any agent or group to which they have permission. To add or edit achievement types, users must also have the **Allow Manage Achievements** permission.

Reporting Permissions

Allow Viewing Call Reports: Allows users to run reports based on call detail data.

Allow Viewing QA Reports: Allows users to run reports based on QA data (requires Uptivity WFO Quality Management).

Allow Viewing Analytics Reports: Allows users to run analytics reports (requires Uptivity Speech Analytics).

Allow Viewing Audit Reports: Allows users to run audit reports to monitor actions taken by other users in the system. This is an administrator-level permission.

Allow Viewing System Reports: Allows users to perform system-level reporting. This is an administrator-level permission.

Allow Discover Ad Hoc Reporting: Allows users to view the Ad Hoc Reporting menu, create ad hoc reports using the Report Builder page, and view/edit any ad hoc report that has been saved. This permission does not provide access to any report data and does not change the ability to save report search criteria as public or private. These reporting category permissions control the data fields users see in the ad hoc report builder: **Allow Viewing Call Reports, Allow Viewing QA Reports, Allow Viewing Survey Reports, Allow Viewing Audit Reports**. For example, to create/edit an ad hoc report on QA evaluations, a user needs both the **Allow Viewing QA Reports** and **Allow Discover Ad Hoc Reporting** permissions.

Allow Report Subscriptions: Allows users to set a specific report to run at a scheduled time, and provide the results to multiple users via email.

Allow Viewing Survey Reports: Allows users to run survey reports (requires Uptivity Survey)

Player Permissions

Allow Viewing of User's Own Records: Allows users to view calls recorded from their associated user account.

Allow Viewing All Call Records & QA Evaluations: Allows users to view all call recordings and QA evaluations regardless of group or gate settings. This permission should be granted to very few users. For related information, see [Coaching Permissions \(for use with Uptivity WFO Quality Management\)](#).

Allow Player Blackout: Allows users to apply a manual blackout to a recording. Manual blackouts can result in irretrievable data loss. This permission should be granted to very few users.

Allow Live Monitoring of Calls: Allows users to listen to audio of contacts in "real-time."

Allow Downloading of Export: Allows users to export recordings from Uptivity WFO to their workstation using the Web Portal.

Allow Emailing of Export: Allows users to export and send recordings to an email address using the Web Portal.

Allow Bookmarking: Allows users to attach public or private bookmark comments to call records.

Allow Viewing of Video: Allows users to view video screen recordings associated with call records. Also allows live monitoring of video (where available) and video for timed schedules (that is, screens recorded without associated calls). Requires Uptivity Screen Recording.

Survey Permissions (for organizations using Uptivity Survey)

Allow Viewing Surveys: Allows users to view completed Survey results.

Allow Survey Administration: Allows users to manage Survey server configuration.

Allow Editing Surveys: Allows users to create, delete, and manage Survey forms.

Allow Deleting Surveys: This permission is not used.

Analytics Permissions (for organizations using Uptivity Speech Analytics)

Allow Analytics View: Allows users to view Analytics data.

Allow Analytics Administration: Allows users to manage Analytics configuration.

On-Demand Permissions (for organizations using Uptivity WFO On-Demand)

i If you change permissions while a user is logged into On-Demand, the changes will not take effect until the next time the user logs into the On-Demand client.

Allow Recording by Device ID: Allows users to record using the physical device extension.

Allow Call Updates: Allows users to update the call recording with additional information which is stored in Uptivity WFO's user-configurable database fields. You control which fields the users can update using the On-Demand module. For more information, see the *Uptivity WFO On-Demand User Guide*.

Prevent Setting Changes: Prevents users from changing the IP address and port used to connect to the On-Demand server, as well as which of the On-Demand servers is the primary server.

Allow Web On Demand: This setting is not used.

Allow Recording by Device Alias: Allows users to record using a device alias (an agent-associated identifier in your ACD/PBX that can be mapped to a physical device). Supports environments where agents use different physical devices but keep the same extension.

Allow Recording Stop: Allows users to stop call recordings that they initiate or that are already in progress. This allows users to stop the recording even if your system is set to always record. For related information, see [Configuring Scheduling](#).

Prompt for Device at Login: Prompts users to input their physical Device ID/extension/voice port each time they log in. This setting cannot be used if the **Prevent Device ID Changes** permission is selected.

Notify On Demand Recordings Only: Allows notifications to be displayed only for recordings initiated through the On-Demand client. Users with this permission can stop or blackout **only** those recordings they started with the On-Demand Client; the options will be disabled at all other times.

Allow Desktop Recording: Allows users to start and stop screen recording if the Uptivity Screen Recording client is installed on their workstation.

Prevent Device ID Changes: Prevents users from setting or changing their device ID/extension/voice port from the On-Demand client. When this option is selected, you must manually maintain the association of device IDs to workstations. For related information, see [Configure Workstation Mapping](#). This setting cannot be used if the **Prompt for Device ID** permission is selected.

Allow Blackout Start and Stop: Allows users to start/stop blackouts of audio recordings using the On-Demand client.

Dashboard Permissions

Allow Widget Administration: Allows users to configure widgets or perform restricted tasks in widgets. This permission is not for granting users access to data. For example, users must have this permission to post items to the News widget, but not to see the News widget on their dashboard.

i The following three permissions apply only to organizations using Clarity WFM.

Allow View Forecast Actual Data: Allows users to view, in the Discover Web Portal, forecasted call volume data and actual call volume data created and maintained through Clarity.

Allow View Service Level Data: Allows users to view, in the Discover Web Portal, Service Level data created and managed through Clarity.

Allow View Snapshot Data: Allows users to view, in the Discover Web Portal, call data and agent status information created and maintained through Clarity.

Uptivity WFO Toolbar Permissions

Uptivity WFO does not use the Discover Toolbar module.

inViewPermissions (for organizations using inView Performance Management)

Enable inView: Allows the user and their associated records and performance metrics to be managed through inView.

Clarity WFM Permissions (requires Clarity WFM)

For a full discussion of Clarity permissions, as well as sample role/permission configurations, see the "Permissions, Roles & Accounts" section of the *Clarity WFM Administration Manual*.

All of the Clarity-specific permissions are listed here in alphabetical order. Some permission names are slightly different in standalone Clarity; where applicable, the permission name in the Discover Web Portal is shown in parentheses.

Add Leave Request All

Add Leave Request Team

Allow Change Password (Allow Password Changes)

Allow User Admin (Allow User Administration)

Call Off

Configuration Section

Edit News Widget

Employee Create

Employee Profile All View

Employee Profile Team View

Employee Schedule All Edit

Employee Schedule All View

Employee Schedule Self Edit

Employee Schedule Self View

Leave Request Approval Team

PTO Page Self Edit

PTO Page All View

PTO Page Team View

Real Time Widgets

Report Subscription (Allow Report Subscriptions)

Reports Clarity Ad Hoc (Allow Clarity Ad Hoc Reporting)

Reports Historical

Reports Processes

Reports Real Time

Reports Section

Roster All

Roster Team

Schedule Bidding

Schedule Create

Schedule Load

Schedule Publish

Schedule Section

Swap Request Approval All

Swap Request Approval Team

User Edit Field Permissions

Uptivity WFO provides fifteen (15) fields that you can customize to contain data relevant to your organization. These fields can be populated automatically via custom API integrations or manually by your agents using the On-Demand module. They can also be used in conjunction with classification rules if your organization uses Uptivity Speech Analytics. You can assign individual permissions to edit each of these fields. For related information, see [Terminology Overview](#).

Configuring Users

User Overview

Users are individuals who have access to Uptivity WFO and who can perform tasks. Users may include agents, supervisors, system administrators, and others. Users must have a user account in order to log in to Uptivity WFO. The tasks a user can perform are defined by their assigned role(s). For related information, see [Roles & Permissions Overview](#).

Username ^	Full Name	Email Address	Phones	Last Modified
ABrooker	Brooker, Anders	abrooker@corax.com	5228	2/25/2014 12:57 PM
ACondon	Condon, Anthony	acondon@corax.com	7505	2/25/2014 12:58 PM
BChavis	Chavis, Boris	bchavis@corax.com	5705	2/25/2014 12:59 PM
BEvan	Evan, Bratko	ebratko@corax.com	7543	2/25/2014 12:59 PM
bhessler	Hessler, Brian	bhessler@corax.com		2/25/2014 12:59 PM
Cbibic	Bibic, Cherie	cbibic@corax.com	5555	2/25/2014 1:00 PM
CFrancis	Francis, Connie	cfrancis@corax.com	7514	2/25/2014 1:00 PM

The Users list allows you to see all users in your Uptivity WFO system.

To access the Users list:

- Click the **Administration** tab and expand **Permissions** in the left navigation menu, then click **Users**.

To locate specific users:

- Type all or part of a user's name in the Search field, select the desired user from the list of possible matches, and click **Go**.

To filter the list by agent status:

- Select Users, Agents (users who have the Agent option selected on their accounts), or All (both) from the drop-down **View Status** list.

Add a User

i If you have a hybrid Uptivity WFO/Clarity WFM system, creating user accounts in Clarity will also create them in Uptivity WFO. This is the preferred method. If you create the user account in Uptivity WFO, you must perform the Mass Update Incomplete Users procedure before the user will be available in Clarity WFM. See the *Clarity WFM Administration Manual* for more information.

To add a user:

1. Click the **Administration** tab and expand **Permissions** in the left navigation menu.
2. Click **Users** and then click **Add User** at the top of the User List.
3. Type information in all mandatory fields. For more information, see [User Overview](#).
4. Complete additional fields as desired. For more information, see [User Overview](#).
5. Select a time display format.
6. Type the extension(s) or login(s) associated with the agent in the lower field under **Phones** and click the green **Add** icon.
7. Move one or more roles from **Unattached Roles** to **Attached Roles** to assign them; move roles from **Attached Roles** to **Unattached Roles** to remove the assignment.
8. Click **Save**.

Edit a User

For more information on user account fields, see [User Accounts Reference](#).

To edit a user:

1. Click the **Administration** tab and expand **Permissions** in the left navigation menu.
2. Click **Users** and then double-click the desired user record.
3. Make the necessary changes and then click **Save**.

Lock a User Account

By default, users can log into Uptivity WFO and view the **Home** tab and, if your organization uses Uptivity WFO QM, the **Coaching** tab's **Content Library**. In the library, they can only see documents that have been assigned to them.

Locking a user account prevents the user from logging in to Uptivity WFO. All other functionality is unaffected, including recording and the account information used for reporting. If the account is needed again, it can be unlocked and will function normally.

Users whose accounts have been locked receive a locked account message if they attempt to log in.

Accounts should be locked if a user leaves your organization, transfers to another job role and no longer needs access to Uptivity WFO, or is prohibited from accessing the system for other reasons. If an account is locked, the extensions/logins can be removed from the account and assigned to another user.

To lock a user account:

1. Click the **Administration** tab and expand **Permissions** in the left navigation menu.
2. Click **Users** and then double-click the desired user record.
3. Select the **Account Locked** checkbox and then click **Save**.

Deactivate a User

Deactivating a user/agent is slightly more involved than simply locking the account, but not as permanent as deleting a user altogether. Locking an account would suit someone who has changed positions or is on extended leave. Deactivating would be appropriate in a scenario where a user has left the company or their extension has been reassigned, but the user still needs to appear in reports and the user list.

To deactivate a user:

1. Click the **Administration** tab and expand **Permissions** in the left navigation menu.
2. Click **Users** and then double-click desired user record.
3. Select the **Account Locked** checkbox.
4. Remove the assigned phone extension(s) under **Phones** and then click **Save**.

 Extensions cannot be reassigned if still attached to a user.

Delete a User

You can delete a user account if the user should no longer be accessible via the Web Portal. The account information and call data (if applicable) will still be in the Uptivity WFO database. If the user was an agent, you must clear the Agent checkbox as part of this procedure to ensure they no longer appear in the Agent list for filtering Call List searches and no longer appear in agent-related reports.

To delete a user:

1. Click the **Administration** tab and expand **Permissions** in the left navigation menu.
2. Click **Users**.

3. Double-click the account on the Users list.
4. Clear the **Agent** checkbox if applicable.
5. Click **Delete** in the top-right corner and then click **OK**.

Import Users

If you have a database or Excel spreadsheet of agents, you may be able to generate a CSV (comma-separated values) data file that you can then import into Uptivity WFO, saving time by minimizing data entry tasks.

The CSV file must be in the following format: username, password, locked, first_name, last_name, email, active_agent, system_username, system_domain, employee_id, site_id, phone1;phone2;phone3, roleId(role name);roleId(role name);roleId(role name) [optional], ActiveDirectoryDomain (for AD/Hybrid authentication), ActiveDirectoryUsername (for AD/Hybrid authentication)

The locked value is **Y** or empty. Roles are optional. If **Allow Lookup by Agent/Workstation** is enabled in the Web Portal Settings, importing the agent's Location is not supported. You may need to configure this separately for each agent after the import is completed. For more information on Location settings, see [Workstations Settings Overview](#).

Uptivity WFO verifies the data is in the correct format and the file does not contain any existing agent names or phone IDs. Uptivity WFO also checks for existing AD usernames on the same domain if you are using Hybrid or AD authentication. If duplicates are detected, you must correct the file and then try the import again.

To import users from an existing CSV file:

1. Click the **Administration** tab and expand **Permissions** in the left navigation menu.
2. Click **Users** and then click **Import Users**.
3. Click **Select**.
4. Browse to locate and open the file.
5. If the CSV file has a header row with column labels, select the checkbox for **Import file has a header**.
6. Click **Upload File** and then click **Import**.

Export Users

Uptivity WFO allows you to export a file of the user configuration data stored in its database. You may use this list as a backup or to import user information into other applications.

To export a CSV file of user information:

1. Click the **Administration** tab and expand **Permissions** in the left navigation menu.
2. Click **Users** and then click **Export Users**.
3. Download the file to your local system.

Set Up an Agent to Be Recorded

No single setting controls agent recording in Uptivity WFO. In general, the following tasks must be performed for an agent's audio to be recorded although the specifics of these tasks may vary somewhat depending on your organization and telephony integration. This list does not include tasks associated with screen recording and live monitoring.

- Create a user account for the agent in Uptivity WFO and select the Agent option if you want the user to be included in agent-related reporting. For details, see [Add a User](#).
- Set the agent's Location if you are using lookup by agent/workstation. For details, see [Workstations Settings Overview](#).
- In the Phones section of the user account, specify telephone extension(s) for assigned-seating environments or agent number(s)/login(s) for free-seating environments. Uptivity WFO will record audio without this step, but will not associate the audio with the agent.
- Add the user account to one or more Uptivity Group(s) if the user will be evaluated and monitored. Group membership is not required for the agent to be recorded. For details, see [Add/Remove Agents in an Uptivity Group](#).
- Create a new schedule if you use schedules for specific users. Alternatively, you can use an existing schedule to record multiple agents (that is, those in a group or a range of ANIs). Review the business rules for the schedule and add the new user's extension, ANI, agent number, or other information as applicable. For details, see [Configuring Scheduling](#).
- Some telephony systems require that the user's phone be configured to forward call audio or perform in other ways. Review the customer's guide to your integration for requirements and configure the phone as needed.
- Some telephony systems require that the user's extension or device ID be added to an Uptivity WFO voice board's channel settings. Review the customer's guide to your integration for requirements and configure the voice board channel settings as needed.

- Some telephony systems require that the user's extension or device ID be added to an Uptivity WFO Core's CTI module. Review the customer's guide to your integration for requirements and configure the CTI Module settings as needed.
- Occasionally, the Uptivity WFO script will not be able to register user phones in environments using passive VoIP recording. In these cases, administrators may have to add the user's extension to Uptivity WFO's IP Phones list. For details, see [IP Phones Overview](#).

User Accounts Reference

i User account data can be added to or extracted from Uptivity WFO via the Uptivity API. For details, see the [Uptivity WFO API Manual](#).

Uptivity WFO allows you to store a variety of information about each user, but only five user account fields are mandatory:

- **Username.** Usernames must be unique. If you try to save a new user account with a Username that already exists, you will receive an error. Uptivity WFO has no restrictions on characters and spacing in the Username.
- **Password.** There are no default restrictions for passwords.
- **First Name**
- **Last Name**
- **Email Address.** Email addresses must be unique; they are used to automatically email completed evaluation forms to employees.

Other available fields include:

- **Grant Superuser Access.** In most instances you should leave this checkbox unselected. Superuser access should be granted only in very rare circumstances and is not required to administer the application.
- **Account Locked.** Select this checkbox if you want to control when the user account becomes usable. For details, see [Lock a User Account](#).
- **Agent.** Select this checkbox if the user should be tracked as an agent in reporting and should be available for filtering searches in the Call List. If you type an extension for a user, Uptivity WFO selects this checkbox for you. Clearing this option allows the user to log into Uptivity WFO, but the system will not include them in agent-related reporting and they will not appear in the Agent list for Call List searches. Existing calls can still be evaluated for users whose agent status has been deactivated. For reporting purposes, an agent is Active if the Agent checkbox is selected. An agent is Inactive if the Agent checkbox was selected at one point but the checkbox has been cleared.

i Several additional tasks must be performed in order for an agent's audio to be recorded. For details, see [Set Up an Agent to Be Recorded](#).

- **System Username.** This is the Windows username that the agent uses to log in to the network. This field is **mandatory** if your organization uses Uptivity Screen recording. Uptivity WFO uses it to locate an agent's desktop via the Screen Recording client. Each agent must have a unique username, even if the agents are on different Windows domains, and must log in to their desktop with that username.
- **System Domain**

- **Active Directory Username.** This field is required if your organization uses the Active Directory login method. This field will be auto-populated when you select "Auto Create User on Login" or when you import users, provided all information is supplied in the import file.
- **Active Directory Domain.** This field is required if your organization uses the Active Directory login method. This works independently of the System Domain field, which is primarily required for screen recording. This field will be auto-populated when you select "Auto Create User on Login" or when you import users, provided all information is supplied in the import file.
- **Employee ID.** This is typically used as a unique numbering system to identify employees, often mirroring some form of internal employee identification system.
- **CRM Username.** This field is typically used only when Uptivity WFO is integrated with a CRM application via a custom API.
- **Location:** This field only appears if "Allow Lookup by Agent/Workstation" was enabled. It allows manual designation of a specific site/location for an agent for proper local routing of Screen Recording and Live Monitoring traffic. This setting is not set by default, but you cannot edit or save an agent without choosing a specific Location. For details, see [Workstations Settings Overview](#).
- **Quota:** This field is not used.
- **Shift Times to User's Timezone.** By default, Uptivity WFO displays time by the time zone of the recording server. Selecting this checkbox allows time to be displayed using each user's time zone. For example: An agent works in the Eastern US zone and the agent's manager works in the Pacific US zone. The Shift Time option is set on the agent's and manager's accounts. The agent records a call at 8 AM Eastern time, and it appears in Uptivity WFO to him as 8 AM. However, the call record appears to his manager as if the agent took the call at 5 AM. For this reason, it's important that your users know whether this setting is being used.
- **Time Display Format:** This field specifies whether to display time based on 24-hour (military) or 12-hour time.
- **Phones:** The login(s) or extension(s) associated with the user. For fixed-seating environments, type the physical telephone extension(s). For free-seating environments, type the agent number(s)/login(s). Consider the following when you type information in the Phones field:
 - When you type an extension, the Agent checkbox is automatically selected. If you clear the Agent checkbox, Uptivity WFO will prompt you to remove all associated extensions when you attempt to save your changes.
 - You cannot assign an extension to more than one Agent. For example, extension 1234 cannot be assigned to Sally Smith and Jenny Jones, even if they sit at the same extension on different shifts.

- You can assign multiple extensions to the same Agent. For example, Sally Smith may take incoming calls on extension 1234 and make outbound calls on extension 4321.
- You can assign the same Agent to different Groups based on the contents of the Phones field. For more information, see [Add/Remove Agents in an Uptivity Group](#).
- You cannot reassign an extension that is still attached to a user, even if that user has been deactivated. For more information, see [Deactivate a User](#).
- When you remove an extension from an Agent's account, you must also manually remove that Agent from any Groups where membership was based on that extension. For more information, see [Add/Remove Agents in an Uptivity Group](#).
- When you lock, deactivate, or delete a User account, you must first remove the associated extensions from that account if you want to make them available for assignment to other users.

Configuring Uptivity Groups

Uptivity Groups Overview

Uptivity Groups are collections of users that you define in a way that makes sense for your organization. For example, Uptivity Groups could be based on:

- Skills on your ACD/PBX,
- Departments (sales, service, billing, and so forth),
- Teams in your contact center (John's Team, Legends Team)
- Clients (for an outsourcer), or
- Geographic locations.

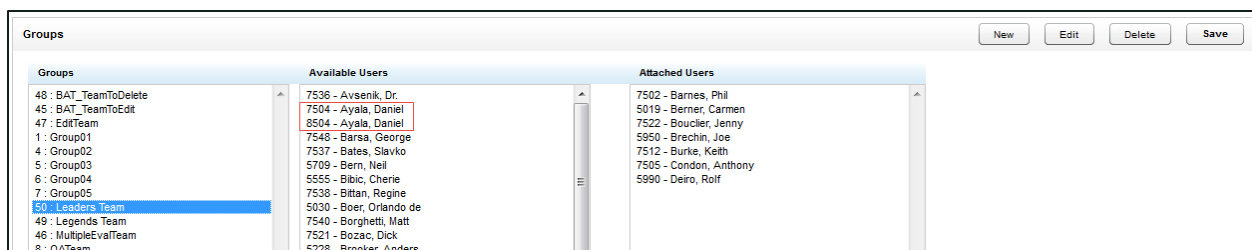
Supervisors and managers of these groups are then given an Uptivity WFO user account with specific permissions to access records, evaluations, and reports for agents in the groups they manage. Several quality assurance reports are based on Uptivity Group assignments. Users do not have to be placed in an Uptivity Group. On the other hand, one user can belong to multiple Uptivity Groups.

Users can only be added to groups if they have the Agent box selected and at least one phone extension is registered on their user profile. This is because Uptivity WFO manages group membership based on the agent's phone ID. You can see this in the Uptivity Group list shown in this section.

This approach gives you greater flexibility when it comes to associating calls with Uptivity Groups. For example, if an agent has several extensions and you want all calls for that agent associated with the same group, you will need to add all of the agent's extensions to that group. On the other hand, if the agent has three extensions, and takes a different type of call on each, you can associate each extension with a different group.

i Throughout this manual, you will see "Uptivity Groups" used to differentiate between these groups and ACD/PBX Skill groups.

The **Groups** page displays a list of current Uptivity Groups, available users, and users attached to a group. Click any group to see attached users.



Create an Uptivity Group

To create an Uptivity Group:

1. Click the **Administration** tab and expand **Permissions** in the left navigation menu.
2. Click **Groups**.
3. On the Group page, click **New**.
4. Type a unique name for the new group and then click **Save**.

If an Uptivity Group already exists with the name you have chosen, the following error will be generated: "That group name already exists! Change the group name and try again."

Delete an Uptivity Group

Deleting Uptivity Groups is not recommended. It will affect historical reporting because the deleted group will not be available as a filter. Also, deleted groups cannot be recovered. Deleting groups does not delete the users in those groups.

To delete a group:

1. Click the **Administration** tab and expand **Permissions** in the left navigation menu.
2. Click **Groups** and then click the group name.
3. Click **Delete** and then click **OK**.

Add/Remove Agents in an Uptivity Group

To add agents to or remove agents from an Uptivity Group:

1. Click the **Administration** tab and expand **Permissions** in the left navigation menu.
2. Click **Groups** and then click the desired group.
3. Move users from **Available Users** to **Attached Users** to assign them to the group; move users from **Attached Users** to **Available Users** to remove the group assignment.
4. Click **Save**.

Configuring Scheduling

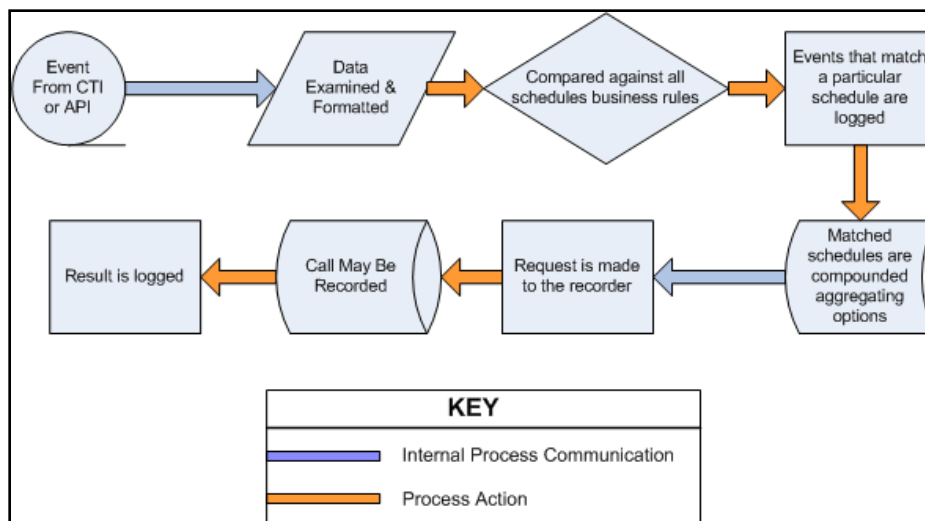
i Typically, you should create Archive Actions before schedules. Basic Archive Actions are usually configured by your Uptivity WFO installation team. For details, see [Archive Actions Overview](#).

Scheduling Overview

Administrators create schedules based on business rules to control which calls are recorded. The Scheduler is flexible enough to allow for 1% to 100% recording and other types of recording such as time-based blocks or a set number of calls that match a particular schedule.



















Schedules can be set up across any combination of call variables. All requests, including CTI messages and API requests related to call or agent information, are routed to the Scheduler for processing.

If your implementation uses multiple recording Cores, you can, if desired, relate schedules to a specific Core. If no schedules are related to a Core, the Core uses all schedules. If one or more schedules are related to a Core, the Core uses only the related schedules. For more information on this strategy, ask the Uptivity Discover Support team.



Every event received by the Scheduler is compared against the business rules of all active schedules. An event may match any number of schedules or none at all. When an event matches one or more schedules, an entry is logged for each individual match.

Schedule options are aggregated, meaning that as an event matches schedules, the least restrictive values are assigned to the event. These values include minimum and maximum recording lengths, priorities, retention & archiving, and so forth.


	ID	Name	Description	Complete	Created	Owner
  	1	RecordAll	Record 100% of calls	N/A	7/23/2014	Administrator, Administrator
  	2	OnDemand	Record supervisory calls	N/A	2/27/2014	Administrator, Administrator
  	3	NoScreenCap	No Screen Cap	100%	4/30/2012	Administrator, Administrator
  	4	Sales	Sales and marketing dept calls	100%	2/27/2014	Administrator, Administrator
  	6	ScreenCapWrap	Post-Call Processing Review	100%	2/27/2014	Administrator, Administrator
  	7	LegendsSchedule	Team schedule	N/A	2/27/2014	George, Gina

The Schedule List provides the following information about each schedule:

- **ID:** The unique internal identifier Uptivity WFO uses for the schedule.
- **Name**
- **Description**
- **Complete:** If a schedule is set to expire, this value compares start date, end date, and today's date to get a percentage of completion. If a schedule is set to record a number of calls, the percentage of recordings completed is displayed. Schedules that do not expire are marked N/A.
- **Created:** The date the schedule was created.
- **Owner**

Several routine tasks can be performed from the Schedule List page.


To edit a schedule:

- Click the Edit  icon. Changes made to a schedule do not affect calls that have already been recorded.

To copy the rules from a schedule into a new schedule:

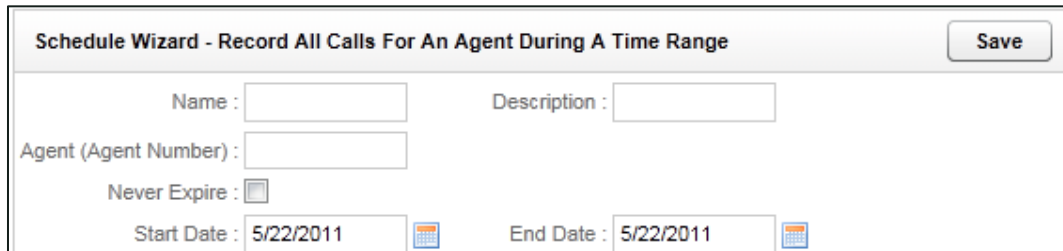
- Click the Copy  icon.

To delete a schedule:

- Click the Delete  icon. Previously recorded calls are not affected when you delete a schedule.

Create a Time-Based Agent Schedule

A time-based schedule records all calls for an agent within a specified date range. Schedules created using this procedure use default values for Retention Days and other settings. For details, see [Custom Schedule Fields Reference](#).



The screenshot shows a web form titled "Schedule Wizard - Record All Calls For An Agent During A Time Range" with a "Save" button in the top right corner. The form contains the following fields and controls:

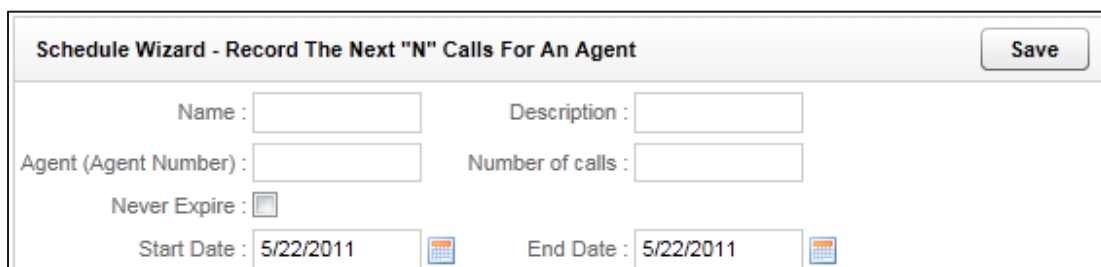
- Name :** [Text input field]
- Description :** [Text input field]
- Agent (Agent Number) :** [Text input field]
- Never Expire :**
- Start Date :** [Date selector showing 5/22/2011]
- End Date :** [Date selector showing 5/22/2011]

To create a time-based agent schedule:

1. Click the **Administration** tab and expand **Scheduling** in the left navigation menu.
2. Click **Create Schedule**.
3. Click **Record All Calls For An Agent During A Time Range**.
4. Type a **Name** for the schedule and a **Description** if desired.
5. Type the **Phone ID** to be recorded in the **Agent Number** field.
6. Select the **Never Expire** checkbox if the schedule should remain in effect indefinitely, or use the date selectors to type **Start Date** and **End Date**.
7. Click **Save**.

Create a Schedule Based on Number of Calls per Agent

A call-based schedule records a specified number of calls for an agent, optionally within a given date range. Schedules created using this procedure use default values for Retention Days and other settings. For details, see [Custom Schedule Fields Reference](#).



The screenshot shows a web form titled "Schedule Wizard - Record The Next 'N' Calls For An Agent" with a "Save" button in the top right corner. The form contains the following fields and controls:

- Name :** [Text input field]
- Description :** [Text input field]
- Agent (Agent Number) :** [Text input field]
- Number of calls :** [Text input field]
- Never Expire :**
- Start Date :** [Date selector showing 5/22/2011]
- End Date :** [Date selector showing 5/22/2011]

To create an agent schedule based on a specific number of calls:

1. Click the **Administration** tab and expand **Scheduling** in the left navigation menu.
2. Click **Create Schedule**.

3. Click **Record the Next *n* Calls for an Agent**.
4. Type a **Name** for the schedule and a **Description** if desired.
5. Type the **Phone ID** to be recorded in the **Agent Number** field.
6. Type the **Number of calls** to be recorded.
7. Select the **Never Expire** checkbox if the schedule should remain in effect indefinitely, or use the date selectors to type **Start Date** and **End Date**.
8. Click **Save**.

Create a Custom Schedule

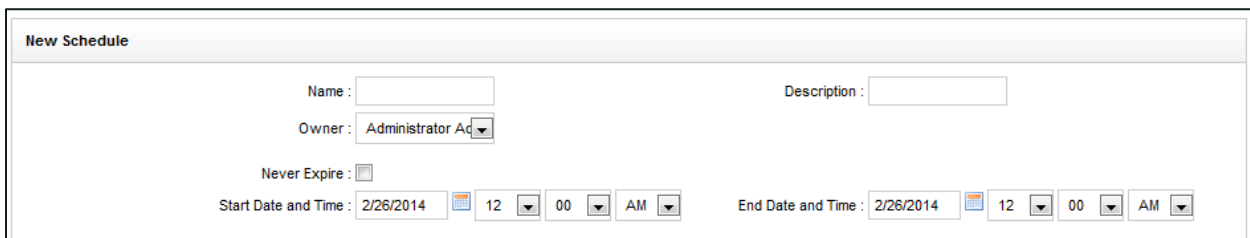
Custom schedules provide greater flexibility to meet your organization's needs. All custom schedule types can incorporate random probability if desired. In other words, when a call is delivered and the schedule is at or above its target percentage, the system generates a random number for the call, between 0 and 100. If the random number is equal to or less than the **Random Probability** value, the call is recorded. Otherwise, the call is skipped.

1. Click the **Administration** tab and expand **Scheduling** in the left navigation menu.
2. Click **Create Schedule** and then click **Create a Custom Schedule (Advanced)**.
3. Type information in the desired fields (see [Custom Schedule Fields Reference](#)).
4. Type any desired schedule requirements and then click **Save Schedule**. For related information, see [Schedule Requirements: Simple Business Rules](#), [Schedule Expression: Advanced Business Rules](#), or both.

Custom Schedule Fields Reference

Custom Schedule Criteria Fields

The following fields can be used to create custom schedules. Many of these fields are also used in time-based and call-based schedules as well.

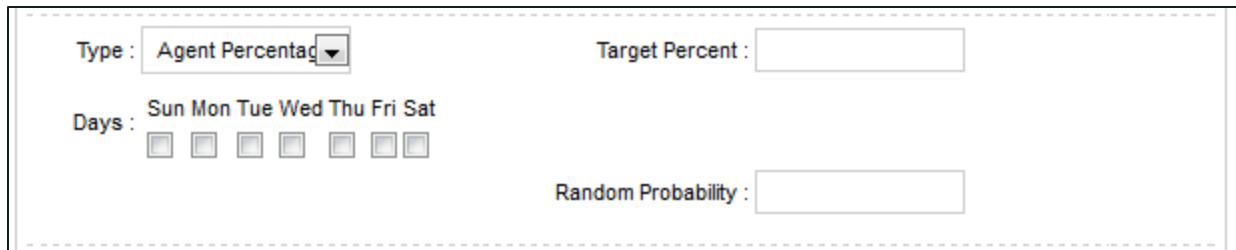


The screenshot shows a 'New Schedule' form with the following fields and values:

- Name:** [Empty text box]
- Description:** [Empty text box]
- Owner:** Administrator Aq (dropdown menu)
- Never Expire:**
- Start Date and Time:** 2/26/2014, 12, 00, AM
- End Date and Time:** 2/26/2014, 12, 00, AM

- **Name:** This field is required. Names do not have to be unique, as each schedule is given an internal ID number by Uptivity WFO.
- **Description:** This field is optional. It allows you to provide additional information about the schedule in the Schedule List.

- **Owner:** This field is required. From the drop-down list, select the person who should be contacted regarding changes to the schedule. Select Administrator if no specific owner exists.
- **Never Expire:** This setting is optional. Select this checkbox if the schedule should remain in effect until the specified number of calls is reached.
- **Start/End Date/Time:** This setting is optional. Use the date and time selectors if the schedule should only be effective within a range of dates.



The screenshot shows a configuration form with the following fields:

- Type:** A dropdown menu currently set to "Agent Percentag".
- Target Percent:** An empty text input field.
- Days:** A row of seven checkboxes labeled "Sun", "Mon", "Tue", "Wed", "Thu", "Fri", and "Sat".
- Random Probability:** An empty text input field.

- **Type:** This setting is required. Other fields in this section will change depending on the type of schedule you choose. Select from the following options:
 - **Set Number:** This schedule type records a set number of calls matching the business rules you apply. For example, if you need to record the next five calls for a specific phone extension, you would use this schedule type. These fields display for this schedule type:
 - **Minutes Between:** If set, the schedule will prevent another recording from starting if the previous call was recorded within the value set here.
 - **Target Calls:** The total number of calls to be recorded by this schedule.
 - **Calls Between:** If set, the schedule will prevent another recording from starting if the previous call was recorded within the value set here.
 - **Random Probability**
 - **Percentage:** This schedule type gives you the flexibility to create randomized schedules as well as schedules for complete call logging. Type the percentage of calls you would like to record. Use a percentage below 100% for randomized recording for quality assurance. Set a schedule to 100% for complete call logging. These fields display for this schedule type:
 - **Target Percent:** The percentage of calls to be recorded out of the total number delivered.
 - **Random Probability**

- **API Initiated:** This schedule type only runs if the call delivered was triggered by a third-party application via the Uptivity WFO API. This is useful for defining different rules for these calls vs. internally-generated calls via CTI or passive methods. These fields display for this schedule type:
 - **Target Percent:** The percentage of calls to be recorded out of the total number delivered to an agent.
 - **Random Probability**
- **On-Demand.** This schedule type only runs if a delivered call was triggered via the Uptivity WFO On-Demand Client. These fields display for this schedule type:
 - **Target Percent:** This value is ignored. The call start/stop from the On-Demand client determines recording.
 - **Random Probability**
- **Agent Percentage:** This schedule type allows you to type a percentage of calls (1-100) you would like to record for every agent. This percentage will apply to each agent, so if you set the percentage to 50%, then 50% of each agent's calls will be recorded. These fields display for this schedule type:
 - **Days:** Select the checkboxes for days of the week this schedule will be in effect.
 - **Target Percent:** The percentage of calls to be recorded out of the total number delivered to an agent.
 - **Random Probability**

Direction : both	Priority : 50
Min Record Length (Sec) : 10	Max Record Silence(Sec) : 600
Max Record Length (Sec) : 6000	Retention Days : 365
Screen capture wrap length (Sec) : 0	Archive Action : Purge
Stop screen capture wrap on call start : No	
Audio Capture : Yes	Screen Capture : No
Speech Analytics : Yes	
Disk Location : C:\Recordings	Comparison : AND
Blackout Remote Audio : <input type="checkbox"/>	

- **Direction:** This setting is optional. If the data is available, you can tell Uptivity WFO to record only inbound calls, only outbound calls, or both.
- **Priority:** This setting is optional. You can give schedules a priority rating from 1 (lowest) to 100 (highest). If a call is delivered that matches multiple schedules, the schedule with the highest priority is used. If all matching schedules have equal priority, then the schedule with the oldest creation date is used.

- **Min Record Length (sec):** This setting is optional. It specifies the minimum length, in seconds, for records matching that schedule. You can use this setting to avoid recording hang-ups.
- **Max Record Length (sec):** This setting is optional. It specifies the maximum length, in seconds, for records matching that schedule. Longer calls require more disk space, so some organizations prefer to cap the recording length to prevent long calls from depleting system resources.
- **Max Record Silence (sec):** This setting is optional. It specifies the maximum length, in seconds, for silence in the call before recording is automatically stopped.
- **Screen Capture Wrap Length:** This setting is optional and only applies if your organization uses Uptivity Screen Recording. It specifies the duration (in seconds) to keep recording an agent's screen after a call has ended.
- **Stop Screen Capture Wrap on Call Start:** This setting is optional and only applies if your organization uses Uptivity Screen Recording. You can choose whether screen recording for agents in wrap time should stop when a new call is detected, or should continue until the Screen Capture Wrap Length time has been reached. If set to Yes, a new call or chat will trigger the end of the current capture and initiate a new one, even if the wrap time limit has not yet been reached.
- **Retention Days:** This setting is optional. It specifies the number of days you would like calls matching that schedule to be saved before being purged (deleted) or archived.
- **Archive Action:** This setting is optional. You can select from a drop-down list of available Archive Actions. The default action is "Purge," which means that the system will purge records when they reach the specified number of retention days. For details, see [Archive Actions Overview](#).

i Retention Days and Archive Actions are applied when the call is recorded. Changing this value in a schedule only applies to calls made *after* applying the schedule change, not to calls that have already been recorded.

- **Audio Capture:** This setting is optional. If set to Yes, audio/voice will be captured for this record if available.
- **Screen Capture:** This setting is optional and only applies if your organization uses Uptivity Screen Recording. If set to Yes, screen activity will be captured for this record if available.
- **Speech Analytics:** This setting is optional and only applies if your organization uses Uptivity Speech Analytics. If set to Yes, the audio recording will be processed by Uptivity Speech Analytics.
- **Disk Location:** This setting specifies the location (UNC path or local disk) to which recorded audio/video files for this schedule will be written.

- **Blackout Remote Audio:** This setting is optional. Select the checkbox if remote audio should be subject to blackout.
- **Comparison:** Select **AND** or **OR** to define schedule requirements using simple business rules. Select **Expression** to engage advanced business logic using a free-form expression. For more information, see [Schedule Requirements: Simple Business Rules](#) or [Schedule Expression: Advanced Business Rules](#).

Schedule Requirements: Simple Business Rules

Schedule Requirements				
	Value Type	Comparison	Value	Case Sensitive
1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>

You can create simple schedules by matching up to five variables within a schedule, using the **Comparison** type selected previously. When you use the **AND** comparison, each rule set in the editor must match for a call to begin recording. When you use the **OR** comparison, only one of the rules must match the call in order to start a recording. If no schedule requirements are entered and the **Comparison** is **AND** or **OR**, the schedule can apply to all calls depending on other factors.

The Value Type variables include:

- **DeviceID:** The physical device on which the call was taken.
- **Agent ID:** The agent login or phone number.
- **Group:** The Uptivity Group.
- **ACD Gate:** May also be called VDN, Queue, Application, and so forth, depending on your PBX.
- **Number Called:** The number on which the call came in (that is, DNIS).
- **CallerID**
- **User Fields:** These are the fifteen (15) fields that contain data relevant to your organization. For further information see [Terminology Overview](#), the *Uptivity WFO API Manual*, or both.

The following comparison operators can be used with these variables (for non-numeric values, you can also perform a case sensitive match):

- Equal to or Not equal to
- Less than (<) or Greater than (>)
- Starts with or Ends with
- Contains or Does not contain

Schedule Expression: Advanced Business Rules

Selecting **Expression** for the **Comparison** setting lets you type a free-form expression (64,000 characters max) for more complicated decision-making. In this scenario, you must type an expression or **no** calls will record.

Variables in schedule expressions use the database field name, which can differ from the field label in the Web Portal. You can use any of these variables:

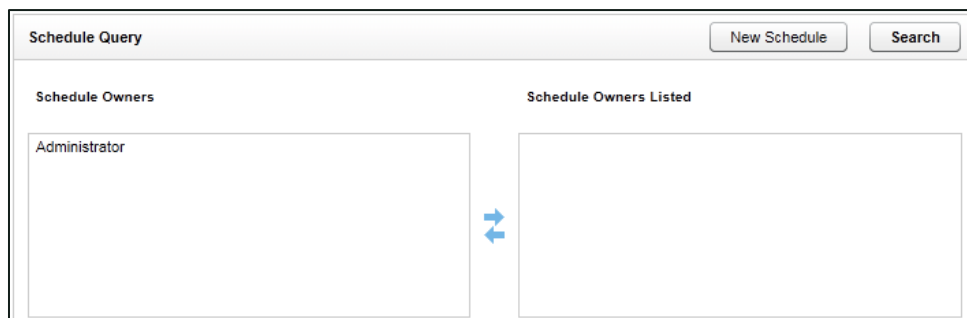
- **DeviceID:** The voice port/extension that receives or places the call.
- **Devicealias:** The ACD number for the agent who receives or places the call.
- **Group:** The Uptivity Group.
- **Gate:** For inbound-routed ACD calls, this is the ACD Queue or Skill to which the call was delivered.
- **ANI:** The calling party for the call (that is, CallerID).
- **DNIS:** The called party for the call.
- **User1 - User15:** These are the fifteen (15) fields that contain data relevant to your organization. For more information see [Terminology Overview](#), the *Uptivity WFO API Manual*, or both.
- **CallID:** The Call ID assigned by the PBX/ACD to identify the call.
- **Calldirection:** Inbound or Outbound.
- **Callinstancediscriminator:** An internal variable assigned to the call by the Uptivity WFO system for tracking purposes.
- **Initiatedby:** Identifies how the recording was started. Possible values are: cti, agent, supervisor, api, timed, apichat, agentchat.
- **Month:** Numeric value for the month (use leading zero for months 01- 09).
- **Day:** The numeric day of the month (use leading zero for days 01- 09).
- **Year:** The 4 digit year.
- **Time:** Time of day, formatted as 24-hour time, 00:00 to 23:59. When typing data in the Schedule Expression field, put single standard quotes (not "smart" or curly quotes) around the time values. For example, for time between 6 A.M. and 7 P.M., the expression would read: **time > '06:00' || time < '19:00'**.
- **Weekday:** Possible values are: mon, tue, wed, thu, fri, sat, sun.
- **Date:** Format as yyyy-mm-dd.
- **Pvalue:** A random number from 0 to 99 that can be used for cases where a certain percentage must be met.

These operators can be used against the variables:

==	Equal to
!=	Not equal to
>	Greater than
<	Less than
>=	Greater than or equal to
<=	Less than or equal to
=~	Match a Regular Expression (Perl Formatted)
!~=	Does not match a Regular Expression (Perl Formatted)
'	Both single and double quotes can be used to signify strings in expressions.
c'	Prefixing quotes with a c indicates case-insensitive matching. This applies to normal string comparisons, IN, !IN, =~ and !~= operators.
IN	Test if an identifier is in a bar separated list of values.
!IN	Test if an identifier is not in a bar separated list of values.
&&	Boolean AND operator.
	Boolean OR operator.
()	Parenthesis used for grouping and precedence.

i Boolean && operators are evaluated before || operators. Put parentheses around groups to override the default precedence.

Find a Schedule




To search for a schedule:

1. Click the **Administration** tab and expand **Scheduling** in the left navigation menu.
2. Click **Find Schedule**.

3. To narrow your search to schedules created by or assigned to specific users, move users from **Schedule Owners** to **Schedule Owners Listed**; move users from **Schedule Owners Listed** to **Schedule Owners** to exclude them from your search. To retrieve all schedules, do not select an owner.
4. Click **Search**.

Timed Schedules Overview





Timed schedules are used when there is no phone event to trigger recordings, such as with chat or email agents. Timed schedules let you record an agent's desktop for a specified time period, dividing the recordings up incrementally according to your organizational needs. For example, recording could be scheduled from 8 AM to 5 PM, and each record could last 15 minutes. The desktop will be recorded provided the workstation is powered on and the Screen Recording Client is running, whether the agent is actively using the workstation or not.

 This feature will not work properly if you use the Workstations List. Unique usernames are required.

The ability to use timed schedules is licensed separately from voice and screen recording. Consult your Uptivity WFO Account Manager for more information.

To access Timed Schedules:

- Click the **Administration** tab, expand **Scheduling** in the left navigation menu, and then click **Timed Schedule**. Click a schedule to see additional information about it.


Timed Schedules						New Schedule
	ID	Name	Start Time	End Time	Date Created	
		1	Timed Schedule 1	12:00 AM	12:00 AM	5/22/2011
		2	Timed Schedule 2	12:00 AM	12:00 AM	5/22/2011

The **Timed Schedules** list displays the following information for each schedule:


- **ID:** The unique internal identifier Uptivity WFO uses for the schedule.
- **Name**
- **Start/End Time:** The time of day the schedule will begin and end recordings.
- **Date Created**

Several routine tasks can be performed from the Timed Schedules list.

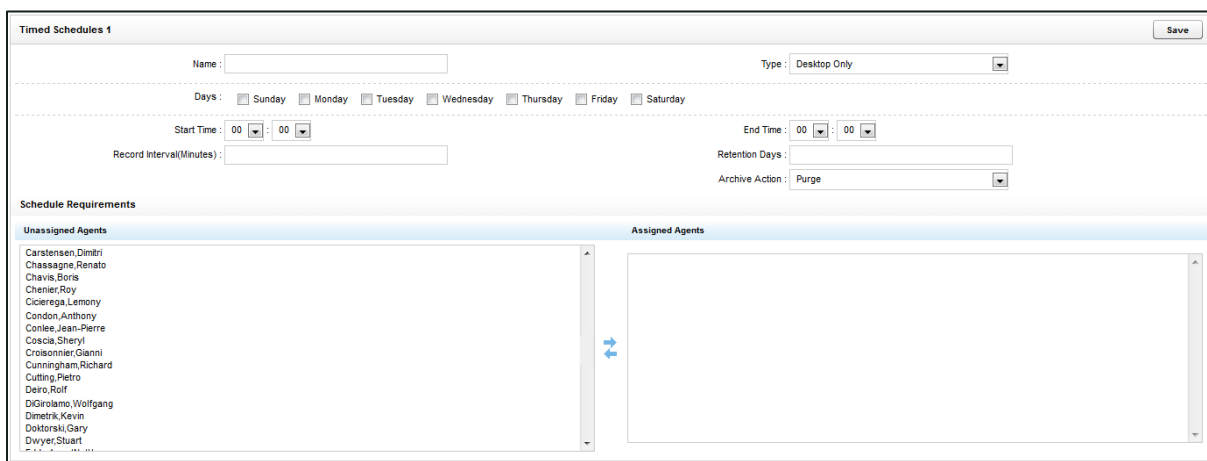
To edit a schedule:

- Click the Edit  icon. Changes made to a schedule do not affect calls that have already been recorded.

To delete a schedule:

- Click the Delete  icon. Previously recorded calls are not affected when you delete a schedule.

Create a Timed Schedule



To create a Timed Schedule:

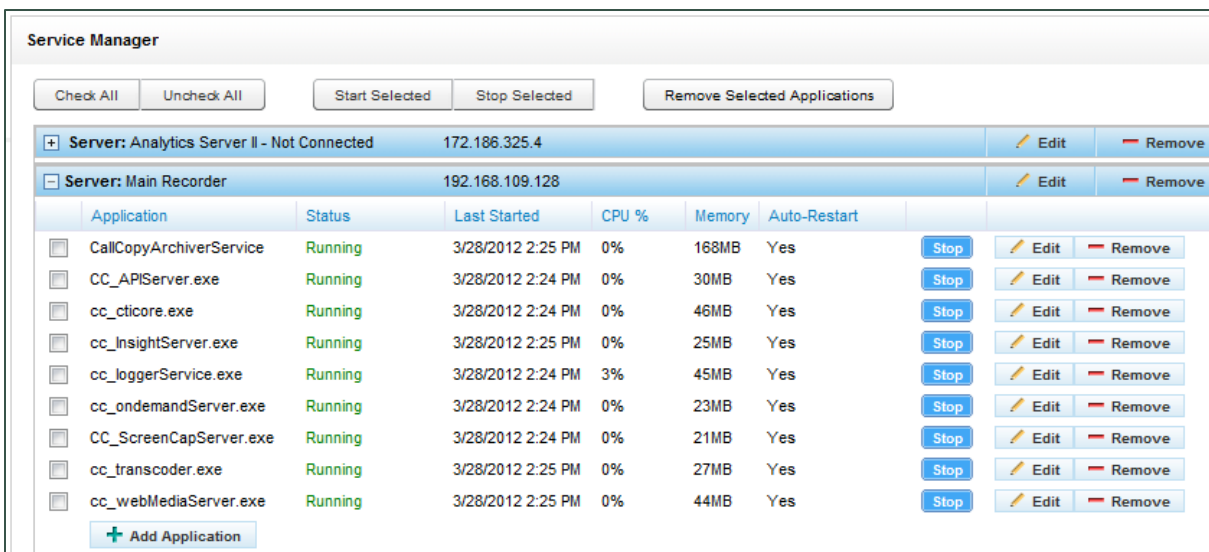
1. Click the **Administration** tab and expand **Scheduling** in the left navigation menu.
2. Click **Timed Schedules** and then click **New Schedule**.
3. Type a **Name** for the schedule.
4. Select **Desktop Only** from the **Type** drop-down list.
5. Select the checkboxes for the **Days** of the week the schedule will be in effect.
6. Type the length for each individual recording in **Record Interval (Minutes)**.
7. Type the number of days for which recordings should be saved in **Retention Days**.
8. Select the desired **Archive Action** from the drop-down list. For details, see [Archive Actions Overview](#).
9. Move agents from **Unassigned Agents** to **Assigned Agents** to assign them to the schedule or move agents from **Unassigned Agents** to **Assigned Agents** to remove the schedule assignment, and then click **Save**.

Using Uptivity WFO Tools

Service Manager Overview

The **Service Manager** is used to centrally manage all Uptivity WFO application services located on different machines. In order for the Service Manager to load and control application services, the Comet Daemon (see [CometDaemon Overview](#)) and Service Manager modules must be installed, configured, and running on each Uptivity WFO system server, also called a Server Node. Otherwise, the Service Manager will show that it is not connected to that Server Node, (for example, the Analytics Server II in the following image).

Service Manager is initially configured at the time your system is installed. Changes may be required later if services are added or moved to a different physical or virtual server. This level of change should only be completed by or under the supervision of Uptivity WFO Support. This section will help you understand the Service Manager display and learn how to start/stop services through the Service Manager.



The screenshot shows the Service Manager interface. At the top, there are buttons for 'Check All', 'Uncheck All', 'Start Selected', 'Stop Selected', and 'Remove Selected Applications'. Below these are two server nodes:

- Server: Analytics Server II - Not Connected** (IP: 172.188.325.4) with 'Edit' and 'Remove' buttons.
- Server: Main Recorder** (IP: 192.168.109.128) with 'Edit' and 'Remove' buttons.

The 'Main Recorder' server is expanded to show a table of services:

Application	Status	Last Started	CPU %	Memory	Auto-Restart	Stop	Edit	Remove
CallCopyArchiverService	Running	3/28/2012 2:25 PM	0%	168MB	Yes	Stop	Edit	Remove
CC_APIServer.exe	Running	3/28/2012 2:24 PM	0%	30MB	Yes	Stop	Edit	Remove
cc_cticore.exe	Running	3/28/2012 2:24 PM	0%	46MB	Yes	Stop	Edit	Remove
cc_InsightServer.exe	Running	3/28/2012 2:25 PM	0%	25MB	Yes	Stop	Edit	Remove
cc_loggerService.exe	Running	3/28/2012 2:24 PM	3%	45MB	Yes	Stop	Edit	Remove
cc_ondemandServer.exe	Running	3/28/2012 2:24 PM	0%	23MB	Yes	Stop	Edit	Remove
CC_ScreenCapServer.exe	Running	3/28/2012 2:24 PM	0%	21MB	Yes	Stop	Edit	Remove
cc_transcoder.exe	Running	3/28/2012 2:25 PM	0%	27MB	Yes	Stop	Edit	Remove
cc_webMediaServer.exe	Running	3/28/2012 2:25 PM	0%	44MB	Yes	Stop	Edit	Remove

At the bottom left of the table, there is a '+ Add Application' button.

The Service Manager displays the Server Node name and IP address. Expand a Server Node to see data for each service:

- **Application:** The name of the Uptivity WFO service. This value is case sensitive and is usually the name of the .exe file in Windows Explorer. Some legacy services may have a different name. You can verify the name by viewing the service's properties in Windows.
- **Status:** Indicates whether the service is **Running**, **Stopped**, or **Unknown**.
- **Last Started:** Indicates the time and date the service was last started.

- **CPU %:** Indicates the percentage of CPU being used by the service. This information is useful for determining why a service or server is running slowly.
- **Memory:** Specifies the service's current usage of server memory. Services like the Transcoder and Archiver use more memory as they process files.
- **Auto-Restart:** If set to 'Yes', Service Manager will attempt to restart the service if it stops on the host machine due to a non-critical error. The service cannot be stopped on the Windows machine if it is set to Auto-Restart. If the host server is rebooted, the service should restart because it was registered as a service during the installation process.

Start/Stop Uptivity WFO Services

To stop a running service:

- Click the **Stop** button next to the service you want to shut down. The service status will switch to **StopPending**. Once the service is stopped, the status will display as **Stopped** and the **Start** button will be activated.

To start a stopped service:

- Click the **Start** button on the right side of the service listing. The service status will switch to **StartPending**. Once the service is started, the status will display as **Running** and the **Stop** button will be activated.

To start or stop multiple services at once:

1. Select the checkboxes for all of the services you want to control from the Service Manager list.

Alternative: Use the **Check All** or **Uncheck All** buttons to quickly select or de-select all services.

2. Click the **Start Selected**, **Stop Selected**, or **Remove Selected Applications** buttons to perform the specified action on all of the selected services.

Archiver Console Overview

Archiver								
Archive Actions		Refresh List	Refresh Settings	Run File Purge	Delete Empty Directories			
ID	Name	Run Now	Storage Type	Location	Restriction	Archive Type	Next Archive	Next Archive Days
1	Two Year Retention	Run Now	Disk	C:\Archive	Archive Everthing	Normal	Purge	730
2	Standard Archive	Run Now	Disk	c:\Standard Archive	Archive Audio Only	Normal	Purge	365
3	Back Up to NAS	Run Now	SMB	\\nas-server\archive	Archive Everthing	Normal	Purge	365

Optical Drives					
Load Archived Files		Refresh Disk Status		Update Drive Letter	
Drive	Model	Erase Disk	Volume	Status	Media
D	VMware IDE CDR10	Erase Disk		Error Reading Disc	No media detected

Output
- File Archiving Completed.
10:38:54 AM - File Archiving Completed.

The Archiver Console provides manual control for many module functions. To access the console:

- Browse to the **Administration** tab, expand **Tools** in the left navigation menu, and click **Archiver Console**.

The following tasks can be accomplished with the Archiver Console:

- **Refresh List:** Forces a refresh of the list of active Archive Actions from the database. The list automatically refreshes every 5 minutes.
- **Refresh Settings:** Manually reloads the Archiver settings page options. For more information on configuring automatic refresh of these settings, see [Archiver Overview](#).
- **Run File Purge:** Forces immediate processing of the File Purge queue.
- **Delete Empty Directories:** Immediately runs a job to clear out any empty folders that are managed by the Archiver.
- **Run Now:** Forces any listed Archive Action to run immediately.
- **Load Archived Files:** Causes any queued calls to be burned immediately to disk. Once this operation occurs, the disk must be replaced with a new one, as only one archive job can be executed per disk.
- **Refresh Disk Status:** Refreshes the status of disks in all drives.
- **Update Drive Letter:** Scans the server for any added/removed DVD drives and updates the Drive List.

The results of any commands issued will be displayed in the Output window.

Configuring Recording

Recorder Settings control Uptivity WFO Call Recording, which in turn uses three key features to record audio: a CTI Core, a Transcoder (see [Transcoder Overview](#)), and one or more Voice Boards (see [Voice Boards Overview](#)). Depending on your system architecture, you may have more than one CTI Core and Transcoder.

This section contains knowledge and procedures relative to the Recorder Settings menu in the Discover Web Portal. For additional information specific to your Uptivity WFO system, see the Customer Guide for your recording integration.

CTI Core Overview

The CTI Core component integrates with your PBX/ACD and makes call recording decisions based on customer-defined Schedules. This component tells Uptivity WFO **when** to record. At least one CTI Core is required for most integrations.

Uptivity WFO supports multiple Cores, both on an individual Uptivity WFO server and within a multi-server Uptivity WFO system. Different Cores may be used for different integrations, to provide for failover recording as part of continuity and recovery planning, or for implementations with different geographic sites. The Core topology is created during the discovery process by the Uptivity WFO Sales Engineer.

The CTI Cores List displays all configured CTI Core modules in the system. A CTI Core is the module that provides the PBX/ACD integration, and makes call recording decisions based on business logic (see [Configuring Scheduling](#)). The CTI Core is also responsible for recording the raw audio files used for playback.

The configuration of a CTI Core is dependent on your ACD/PBX. Contact the Uptivity WFO Support team if you need a copy of the customer's guide to your integration.

CTI Cores can be viewed in the Web Portal, but should only be edited or removed by Uptivity WFO Installation or Support. If Core settings must be changed, and you are doing so with the Support team's direction, only open one Core at a time for editing. Do not open multiple Cores in separate browser tabs or, when saving one Core, another Core's settings may be overwritten.

Buddy Cores

Buddy Cores are used in a method of high availability and redundancy where only one Core is recording at a given time, as opposed to a system where a redundant recorder is always recording. Since only one Core is recording at a time, it can save space and resources. For instance, integrations using Avaya TSAPI/DMCC would require only one set of DMCC stations since the Buddy Cores will share the stations.

Buddy Cores should always run on different machines (including VM clusters) to avoid having a single point of failure. There are two ways to configure Buddy Cores: Primary/Secondary and Active/Inactive.

Primary/Secondary Buddy Cores

In Primary/Secondary topology, the secondary Core will not record unless instructed to by the primary.

When the Primary Core starts up, it waits a configurable amount of time for the Secondary Core to start. If a timeout occurs, the Primary Core starts recording. When connection is made to the Secondary Core, the Secondary Core informs the Primary of its recording state (Recording, NotRecording, or Deciding). If the Secondary Core's state is NotRecording or Deciding, the Primary Core starts recording. If the state is Recording, the Primary Core goes into warm standby. All modules configured for warm standby start, but no recording occurs. If the Secondary Core drops off while the Primary is in standby, the primary Core starts recording.

The Secondary Core's function is different. When it starts up, it immediately goes into warm standby mode. When a connection is established to the Primary Core and then fails, the secondary Core starts recording. If no connection is ever made to the Primary Core, the secondary Core will wait indefinitely in warm standby mode.







Active/Inactive Buddy Cores


In Active/Inactive topology, the secondary Core will record unless instructed *not* to by the primary.

Both Cores function the way the Primary Core does as described in Primary/Secondary. If both Cores start up at the same time and neither is recording (both are in the Deciding state), the Core that would be considered the Primary Core (that is, the Core not configured with a broadcast receiver) will take precedence and start recording, and the other Core goes into warm standby mode. If both Cores start up and cannot connect to one another, then they will both start recording.

Not all integrations are suitable for Buddy Cores. If you are interested in exploring this system architecture, contact Uptivity WFO Sales Engineering.

Custom Lookups Overview

Custom Lookup List			
Lookup Value	Match Value	Lookup Key	
1234	Customer X	Account	 
520123	Customer A	DNIS	 
7501	Special Customer	DNIS	 


Pages : 1 of 1 Go To Page : 1 of 1 

The **Custom Lookup** feature lets you add a value to a call record based on the record's ANI (Caller ID) or DNIS (dialed number). For example, if calls for one customer always go to a 1-800/DNIS, this feature can add the customer name to every call record for that DNIS, making it easier to search for and report on that customer.



Custom scripting is required but once the script is in place, you can edit entries as needed. Contact Uptivity WFO Support for scripting assistance. Editing or deleting the custom lookup does not affect existing call records.

Configure Custom Lookups


To add a custom lookup:

1. Click the **Administration** tab and expand **Recorder Settings** in the left navigation menu.
2. Click **Custom Lookup** and then click **Add New Lookup**.
3. In the **Lookup Value** field, type the ANI or DNIS value for calls in question. Only one ANI or DNIS can be entered. The system will interpret 123,456 or 123 456 as single search values.
4. In the **Match Value** field, type the replacement value to be added to the call record.
5. For the **Lookup Key**, select either DNIS or Account if your Lookup Value is based on ANI.
6. Click the Save  icon.

To edit a custom lookup:

1. Click the **Administration** tab and expand **Recorder Settings** in the left navigation menu.
2. Click **Custom Lookup** and then click the Edit  icon for the desired lookup.
3. Edit the desired values and then click the Save  icon.

To delete a custom lookup:

1. Click the **Administration** tab and expand **Recorder Settings** in the left navigation menu.
2. Click **Custom Lookup** and then click the Delete  icon for the desired lookup.

Import Multiple Custom Lookup Values





Multiple custom lookup values can be imported at once using a comma separated values (CSV) file. Each entry must be added to the file using this format: Lookup Value, Match Value, Lookup Key.

To import a file of custom lookup values:

1. Click the **Administration** tab and expand **Recorder Settings** in the left navigation menu.
2. Click **Custom Lookup** and then click **Import Lookup**.
3. Click **Browse**, locate the CSV file and select it.
4. Click **Upload File**.
5. Click **Import Now**.

During the import process, the system verifies that the entries are formatted correctly and displays an error message if they are not. You will need to correct the entries and repeat the import procedure.

IP Phones Overview

IP Phone List		Import	Add	Save
Extension	IP Address			
1234	10.100.8.20			
5555	10.100.8.22			



The **IP Phone List** allows you to register an extension with an IP Address manually. This list is only used in passive VoIP recording configurations where a phone cannot be automatically registered to the desired extension number. In most configurations, the use of this list is not necessary.

Configure IP Phone Settings


To add a phone to the IP Phones List:

1. Click the **Administration** tab and expand **Recorder Settings** in the left navigation menu.
2. Click **IP Phones** and then click **Add**.
3. Type the **Extension** and **IP Address**.
4. Click **Save**.

To edit an entry in the IP Phone List:

1. Click the **Administration** tab and expand **Recorder Settings** in the left navigation menu.
2. Click **IP Phones**.
3. Click the Edit  icon for the entry to be edited.
4. Change the extension, IP Address, or both, and then click the Save  icon.

To delete an entry from the IP Phone List:

5. Click the **Administration** tab and expand **Recorder Settings** in the left navigation menu.
6. Click **IP Phones** and then click the Delete  icon.

Import Multiple IP Phones

Multiple IP phones can be imported at once using a CSV (comma-separated values) file. Each entry must be added to the file using this format: Extension, IP Address.

To import a file of IP phone information:

1. Click the **Administration** tab and expand **Recorder Settings** in the left navigation menu.
2. Click **IP Phones** and then click **Import**.
3. Click **Browse**, locate the CSV file and select it.
4. Click **Upload File**.
5. Review the preview of your data as displayed following **Perform Import**.
6. Click **Import Now**.

On-Demand Overview

Uptivity WFO On-Demand is a client/server application that allows users to:

- Control (that is, initiate, stop, blackout) recording of their calls from a desktop application. For example, some agents may only need to record certain types of calls, or some agents may receive calls that should not be recorded, such as personal calls.
- Add information to the database call record, such as caller name or subject of the call.

Uptivity WFO On-Demand is included with every Uptivity WFO system but must be enabled and configured by your installation team before it can be used. The Uptivity WFO On-Demand client must also be installed on any workstations where it is to be used. For additional information, see the *Uptivity WFO On-Demand User Guide*.

If your system is set up for Uptivity WFO On-Demand, and you want to let users add information to call records, you can specify which fields that users can update.

Configure On-Demand Settings

To configure which custom data fields users can update using Uptivity WFO On-Demand:

1. Click the **Administration** tab and expand **Recorder Settings** in the left navigation menu.
2. Click **On-Demand**.
3. Select **Yes** from the drop-down menu for each field that users should be able to update.
4. Click **Save**.

Transcoder Overview

The Uptivity WFO **Transcoder** module converts raw audio files recorded by the system into compressed, .wav formatted audio files that are optimized for storage and playback retrieval. Transcoder module(s) configuration is initially done by the Uptivity WFO Installation team. However, Transcoder changes can have serious repercussions on recording and should only be performed by or under the supervision of Uptivity WFO Support.

Transcoder Settings Reference

This section provides you with a reference for Transcoder settings. Each Transcoder has these settings:

- **Identity:** Uptivity WFO-generated integer value used as an internal identifier. In distributed transcoding environments, this ID is used in the corresponding Transcoder module INI file.
- **Name:** Meaningful name to aid you in identifying and referencing the specific Transcoder instance.
- **Max Retries:** Number of times the module will attempt to process a file before it is considered unreadable. Value is stored in the Transcoder table of the Uptivity WFO database. Increasing this value will not cause the Transcoder to retry files that have already reached the maximum retries.
- **Minutes between Retries:** Number of minutes to wait to retry a failed transcoding operation.
- **Number of Threads:** Number of concurrent transcoding sessions. Raising this value may increase Transcoder module performance, but can cause performance issues with other modules if the system cannot process more concurrent threads in parallel. Default number of sessions is five (5).
- **Priority:** System CPU priority assigned to Transcoding processing threads. Increasing this value can increase performance, but may degrade any other components on the same server. Possible settings are provided in a drop-down list; the default is **Low**.
- **Temp Directory:** Local directory where temporary conversion files are stored. Final file is stored with the original CCA file.
- **Create CCP File:** Creates a custom graphical representation of the audio waveform from a recorded call and stores it as a CCP file along with the audio file. When enabled, results in faster playback times as the waveform will not need to be recomputed for each playback.
- **CCP Interval:** Time interval (in milliseconds) between waveform data points in the graphical display. Increasing intervals can improve performance, but will create a less precise waveform display. Possible settings are provided in a drop-down list.
- **Store Original File Size in Field:** Inserts original file size of a VoIP recording in a selected user-defined field. Useful for diagnosing and troubleshooting network issues. Possible settings are provided in a drop-down list.
- **Delay (minutes):** Delay between conversion attempts for audio files. Increasing this value may be needed for systems under heavy load, but causes a delay in making the recording available for. May also need increased to two to three minutes if Screen Recording and Desktop Analytics are used with call recording. Screen Recording and Desktop Analytics applications must complete and update their files in order for the

Transcoder to process both the audio and video. If the Transcoder starts processing the audio file before the video files are complete, video blackouts may not appear on the processed file.

- **Format:** Audio format for storing audio. The following format choices are provided in a drop-down list:
 - **CSA:** (~1KB/s) Compresses to smaller files than GSM610. Highest quality of all available formats. Requires CSA format license from Uptivity for use. Files cannot be played in standard media players.
 - **GSM610:** (~1.7KB/s) Compresses to smaller file than VOX, but can have lower playback quality. Can be played in standard media player.
 - **VOX6K:** (~2.9KB/s) High-quality audio format, but audio files are 1.8 times larger than GSM.
 - **VOX8K:** (~4KB/s) High-quality audio format but audio files are 2.5 times larger than GSM.
 - **CSASTEREO:** (~2KB/s) Stereo version of CSA format. Creates files comparable in size to GSM, but allows additional per-channel post-processing options (per channel volume level and VAD). Requires CSA format license from Uptivity for use. Files cannot be played in standard media players.
 - **uLaw:** (~8KB/s) High-quality audio format required for HTML5 playback. Audio files are approximately five times larger than GSM.
- **Keep Days:** Value in days to keep original (raw) audio files after transcoding. Allows files to be recovered if there are errors in the transcoding process, but requires additional disk space to store the original files. Typing a value of `'-1'` will prevent the original file from being automatically deleted.
- **Create Analytics:** When enabled, the system creates an additional very high-quality stereo PCM .wav audio file to be used for speech analytics processing. Requires optional Uptivity Speech Analytics module for processing.
- **Analytics Keep Days:** Value in days to keep stereo (analytics) audio files after they have been created. Allows files to be stored for processing by a speech analytics engine, but requires additional disk space to store the stereo files. Typing a value of `'-1'` will prevent the original file from being automatically deleted.
- **Normalize:** Enables audio normalization, equalizing volume levels between PBX/Customer side and extension/agent side of a recorded call. This setting should never be enabled when Ai-Logix cards are used for audio acquisition.
- **Sample Rate (ms):** Sample rate passed to the conversion module. Higher rates usually result in higher quality audio files, but cause audio files to use more disk space in storage. Possible settings are provided in a drop-down list.

- **Look for Code:** Record codes reserved for this specific Transcoder. If the CTI Core setting **Transcode by Board** is enabled, each Voice Board in the Core has its own identifier (voice board ID+1, ex. '31' for Voice Board 3).
- **Perform Duplicate Packet Checks:** When enabled, the Transcoder checks for duplicate packets in recordings. Duplicate packets cause the recording to appear to be skipping, and can indicate configuration issues in passive VOIP recording integrations.
- **Purge Record from Transcoder Table After Completion:** When disabled, system keeps a record in the Transcoder queue after it has been successfully processed. Useful for troubleshooting if reprocessing of files may be needed, but over time can cause the Transcoder table to grow significantly and impact the performance of the entire database. Unless you are troubleshooting, should always be enabled.
- **VAD Packet Count Trigger:** Number of RTP packets with audio needed to trigger Voice Activity after a period of silence. Lower setting may avoid choppy calls or calls where agent/customer audio overlaps. Setting to 0 turns this off. Possible settings are provided in a drop-down list.
- **Analytic Storage Path:** Hardcoded UNC or disk path that all Analytic .wav files are written to. Useful if files are being analyzed by a third party product.

i If this setting is used, Uptivity WFO leaves management of the created files to the third party product or destination storage system.

- **Minimum Hold Duration (milliseconds):** Amount of silence before Transcoder inserts a Hold event in a recording.
- **Check Video Valid:** When enabled, system checks to see if a screen recording has at least one valid video frame. If that one frame does not exist, the file is still transcoded, and a record for it is created. But when the user attempts to play the screen recording video, the Web Player displays this message: "Unable to play call: The call does not have audio or video."
- **Minimum Audio Duration (seconds):** For audio recording files shorter than the minimum duration, the Web player displays this message: "Unable to play call: The call does not have audio or video."
- **Enable Silence/Cross-talk Detection:** When disabled, remaining settings are disabled and Transcoder will not detect silence/cross-talk. Default setting is **Yes**.
- **Cross-talk Threshold:** Gain level from 0.00 baseline that must be met on both channels to trigger cross-talk detection. Default value is 0.01, with a valid range from 0.01 to 1.00.
- **Cross-talk Minimum Duration (milliseconds):** Minimum time that audio must stay above the threshold in order for cross-talk period to be displayed during call playback. Default value is 1000, with a valid range from 1000 to 65535.

- **Silence Threshold:** Gain level from 0.00 baseline that audio needs to stay below in order to trigger silence detection. Default value is 0.01, with a valid range from 0.01 to 1.00.
- **Silence Minimum Duration (milliseconds):** Minimum time that audio must stay below the threshold in order for silence period to be displayed during call playback. Default value is 3000, with a valid range from 1000 to 65535.
- **Fragmentation Prevention (milliseconds):** Prevents momentary noise in audio from fragmenting silence/cross-talk into multiple periods. If two periods are detected within the specified duration, they are combined into a single period. Default value is 2000, with a valid range from 1000 to 65535.
- **Transcoder Duty:** Specifies the types of files to be processed by this Transcoder. Possible values are Audio, Video, or Both. Default value is Both. This should not be changed for premise-based installations.





Voice Boards Overview

As an Uptivity WFO administrator, you should have a general understanding of Voice Boards and know how to configure individual channels, since you may need to modify these from time to time. However, you should never make any other Voice Board changes unless you are under direct supervision from Uptivity WFO Support. Done incorrectly, Voice Board modifications can have serious negative impact to your system. In addition, altering the hardware configuration of your system may void your warranty.

Voice Boards provide Uptivity WFO with configuration information specific to your PBX/ACD. For more detailed reference information on Voice Boards and their configuration, refer to the Customer Guide for your recording integration. If you cannot locate your integration guide, contact Uptivity WFO Support to obtain a copy.

Voice boards are licensed components of the Uptivity WFO software. The software allows for adding an unlimited number of Voice Boards to the system, but will deny usage of any unlicensed components.

Configure Voice Board Channels

Voice Boards List			
		<input type="button" value="Add Board"/>	<input type="button" value="Clear Boards"/>
<input type="button" value="Save Configuration"/>			
#	Name	Channels	
1	VOIPSNIFFER	25	 
2	CISCODMS	5	 

Channel configuration associates the licensed software channels on the Voice Board with the audio sources that will be recorded. To configure a Channel:

1. Click the **Administration** tab and expand **Recorder Settings** in the left navigation menu.
2. Click **Voice Boards**.
3. Click the **Edit** icon for the Voice Board you want to configure.
4. Under Channel Configuration, type the **Number of Channels** to be added (if applicable).
5. Configure the settings for the new channel or reconfigure settings for an existing channel, as needed.
6. Click the **Save** button.

When you are finished, you can click the **Back** button to return to the Voice Boards list, or navigate to another part of the Web Portal. Unless your system is licensed for the Voice Board Reloading feature, you will need to restart the Recorder service (cc_cticore.exe) after any changes to Voice Boards or Channels. For more information, see [Start/Stop Uptivity WFO Services](#).

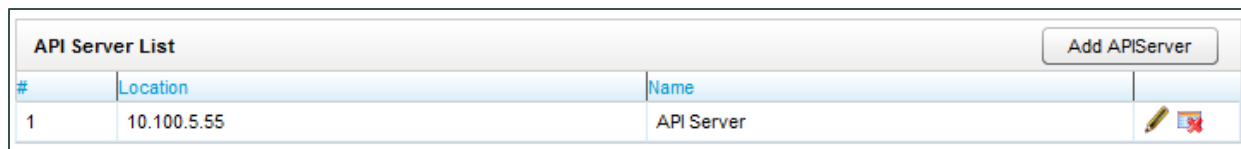
Channel configuration settings will also vary depending on your specific integration, as different integration types support different options. Refer to the Customer Guide to your specific PBX/ACD integration for detailed information on channel configuration fields and settings.

Configuring System Settings

This section contains knowledge and procedures relative to the **System Settings** menu in the Discover Web Portal. System Settings relate to the various services and modules that make up Uptivity WFO. They are typically configured during the installation process by the Uptivity WFO installation team.

This section is designed to give you a basic understanding of the settings and what they mean for your system. Unless explicitly told to do so, do not change any System Settings without consulting Uptivity WFO Support.

Uptivity WFO API Server Overview



The screenshot shows a web interface titled "API Server List". It features a table with three columns: "#", "Location", and "Name". The first row contains the values "1", "10.100.5.55", and "API Server". To the right of the table is a button labeled "Add APIServer". Below the table, there are icons for editing (a pencil) and deleting (a red X).

#	Location	Name
1	10.100.5.55	API Server

API Server handles connections from any application that uses the Uptivity API service. The API can be used for such tasks as call control, management functions, and event streaming. Uptivity WFO uses the API Server for Live Monitoring, Call Exporting, Uptivity WFO On-Demand, and so forth. For more information on Uptivity WFO API functions and parameters, see the *Uptivity WFO API Manual*.

The API Server List (shown here) displays the following:

- **#:** Internal identifier generated by Uptivity WFO for the specific API Server. This identifier is an integer value, and is used to configure distributed API environments.
- **Location:** Hostname/IP Address of the server running the API Server.
- **Name:** Meaningful name that can help you distinguish between API Servers in a distributed API environment.

Archive Actions Overview

Typically, local hard drives in an Uptivity WFO server only have enough space to store audio and video recordings for a short time. By establishing archives, additional drives can be configured so recordings can be stored indefinitely. Rules governing how long recordings remain in the system are configured during installation. If you need to change rules, or set up new rules, you can do so later by means of **Archive Actions**.

Recordings can be archived to attached disks or to Windows Network File Shares (SMB). Archived recordings are still available for playback, providing that the local disk is attached or the network file system is properly configured and available.

If a call is deleted from the server by an Archive Action, any QA Evaluations performed on that call remain in the database for historical purposes. However, if a call is manually deleted, QA Evaluations performed on the call are also deleted. If there are database entries for duplicate or missing files, the Archiver will continue trying to archive these files unsuccessfully (and logging errors) until the invalid database entries are removed.

Archive Actions and Schedules work together to control archiving:

- Archive Actions control archiving for types of calls. For example, Client A requires calls to be retained for one year, while Client B requires calls to be retained for two years. A one-year action and a two-year action can be created to archive the calls by client.
- Schedules control when and what calls are recorded as well as how many days a recording is retained. Archive Actions are attached to Schedules to control whether recordings are purged once they exceed their retention days. Archive Actions should be configured before you create the Schedule in which they are used. For related information, see [Configuring Scheduling](#).

If a recording belongs to more than one Schedule, the Archive Action for the Schedule with the highest priority takes precedence. If priorities are equal, the earliest-created Schedule takes precedence.

Retention Days and Archive Actions are applied when the call is recorded. Changing this value in a Schedule only applies to calls made **after** applying the Schedule change, not to calls that have already been recorded.

You will need to communicate archive settings to users so they understand how long recordings are retained by the system. Schedules should be audited on a monthly basis to ensure all necessary information is being archived.

Archive Action List				Add
Identity	Name	Location	Status	
1	Daily Archive	f:\Recordings\Disk	A	
2	SMBSave	\\10.100.10.51\fs	A	
3	DVDArchive	E	A	

The Archive Action List provides the following information about each Archive Action:

- **Identity:** Internal identifier generated by Uptivity WFO for the specific Archive Action.
- **Name:** Name assigned to the Archive Action.
- **Location:** File path used by disk-based Archive Actions or DVD drive letter for DVD-based Archive Actions.
- **Status:** **A** for Active or **I** for Inactive.

Configure Archive Actions

To create a new Archive Action:

1. Click the **Administration** tab and expand **System Settings** in the left navigation menu.
2. Click **Archive Actions** and then click **Add**.
3. Configure the needed settings and click **Save**.

After you create an Archive Action, you must attach it to a schedule. For details, see [Configuring Scheduling](#).

To edit an existing Archive Action:

1. Click the **Administration** tab and expand **System Settings** in the left navigation menu.
2. Click **Archive Actions** and then click the action you want to edit.
3. Configure the settings as needed and click **Save**.

Archive Action Settings Reference

Cancel Save

Name:

Storage Type:

Location:

Archive Restriction:

Archive Type:

Status:

Next Archive Action:

Days Until Next Archive:

Use Schedule:

Start Time: : AM

End Time: : AM

Number of schedules that are set to use this archive action: 4
 Number of recordings in archive queue with this archive action: 1686

Name	Description	Owner	Date Created
RecordAll	Record 100% of calls	1	2/27/2014 3:20:50 PM -05:00
OnDemand	Record supervisory calls	1	2/27/2014 3:21:40 PM -05:00
Sales	Sales and marketing dept calls	1	2/27/2014 3:22:44 PM -05:00
ScreenCapWrap	Post-Call Processing Review	1	2/27/2014 3:28:27 PM -05:00

Each Archive Action has a number of configurable settings. The settings displayed change depending on the Storage Type you select. The following settings apply to every Storage Type:

- **Name:** Name of the Archive Action. This name will appear in the list of available **Archive Actions** in **Scheduling** and in the drop-down list for **Next Archive Action**.
- **Archive Restriction:** Specifies whether archived recording files are saved with audio, video (screen recording), and analytics (speech or screen) data, or if only a single component will be archived with the recorded audio. Choose one from the drop-down list:
 - **Archive Everything:** Archives audio, video and analytics data.
 - **Archive Audio Only:** Archives only the audio.
 - **Archive Audio & Analytics Only:** Archives audio and analytics data.
 - **Archive Audio & Video Only:** Archives audio and video data.

- **Archive Type:** Determines how the files will be moved from the original location to the archive location. Choose one from the drop-down list:
 - **Normal:** Files are moved to the archive location and then deleted from the original location. Uptivity WFO database call records are updated with the new file location. If you want users to have access to the archived file from Uptivity WFO, the location must be accessible. If the recording was archived to DVD, Uptivity WFO notifies an administrator to load the disk and also notifies the user when the file is available.
 - **Copy:** Files are copied to the archive location, and files in the original location remain untouched. If files are later purged from the original location, they must be manually restored for Uptivity WFO to access them.
 - **Backup:** Files are copied to the archive location and the original files are left alone. Call records are copied to a backup table in the Uptivity WFO database and updated with the address of the backup location. When the original file and call record are purged, the backup call record is moved into the live database, making the file retrievable from the backup location.
- **Status:** Shows whether the action is available for use (Active) or unavailable (Inactive). Does not affect the operation of the action or how it is attached to any recording schedules. Only Active actions appear in the **Next Archive Action** list.
- **Next Archive Action:** Select the next desired action to be taken against the archived data from the drop-down list. If multiple Archive Actions are created, another action can be selected. This allows chaining actions together to move data between multiple archive locations. **Purge** can also be selected to delete data when the next Archive Action is performed. If no changes are to be taken on the files after the Archive Action completes, select **<None>**.
- **Days until Next Archive:** Number of days between successful execution of the current Archive Action against the record, and the execution of the **Next Archive Action**. This is a required field.

The **Disk** Storage Type lets you specify a local drive path for archiving. Uptivity WFO must have read/write access to this drive. The following settings apply to the Disk Storage Type:

- **Location:** Type a direct file path or a custom file mask for the archive destination (see [Location File Mask Reference](#)).
- **Use Schedule:** When enabled, the Archive Action only runs during the specified time of day.
- **Start Time/End Time:** In conjunction with **Use Schedule**, the time of day restriction for the action.

The **SMB** Storage Type lets you specify CIFS/SMB network file storage share for archiving. If Uptivity WFO is unable to write to the file share, the Uptivity WFO Notification System generates an alert. The following settings apply to the SMB Storage Type:

- **User ID:** If the storage location requires credentials, type the username here.
- **Password:** If the storage location requires credentials, type the password here.
- **Location:** Type a direct file path or a custom file mask for the archive destination (see [Location File Mask Reference](#)).

The **DVD** Storage Type lets you use removable media for archiving. DVD+R, DVD-R, DVD+RW, and DVD-RW single-layer are supported. Archive Actions using the DVD storage type only execute once per day. DVD media must be manually removed and new media inserted on a daily basis. The following settings apply to the DVD Storage Type:

- **DVD Drive:** Archiver auto-detects any compatible DVD drives on the system and uses the first one that has a blank disk in it.
- **Archive Time:** Time of day the Archiver will start creating the DVD archive. Uptivity recommends you set this to the lowest period of system usage, as creating archives requires high system resources.

The **XAM** Storage Type lets you use the fixed-content access method associated with the Centera content-addressable storage platform for archiving. The following settings apply to the XAM Storage Type:

- **Retention Period (days):** Number of days the Centera server will retain archived files. This setting is used instead of the **Next Archive Action** setting.

- **PEA File:** Required only if security authentication is needed to access the Centera storage server. This is the full path name of the Pool Entry Authorization file for accessing the server.
- **Server IP Address:** Centera server IP address, or multiple addresses, comma-separated.

At the bottom of the **Edit Archive** window, an informational section shows the schedules which are configured to use this **Archive Action** as well as some statistics about the action's usage.

Location File Mask Reference

For the Disk and SMB storage types, you can create a file mask to customize the UNC path for the archive location, the types of files archived to that location, or both. File names can be customized using file masks (see Disk and SMB storage types only). This table shows the variables that can be used in file masks.

Variable	Value	Variable	Value
%Y	Four-Digit Year	%A	Agent Number (ID)
%y	Two-Digit Year	%R	Record ID
%M	Two-Digit Month	%C	Counter
%m	Month Name (three-letter abbr. – Jan, Feb, May, Dec)	%F	Filename without path
%D	Two-Digit Day	%P	path minus root (see additional explanation that follows)
%d	Day Of Week (Name)	%P<-1>	path minus root remove 1 bottom directory
%H	Hour	%P<1>	path minus root remove 1 top directory
%N	Minute	%U<1> through %U<15>	user fields
%S	Second		

For example, for the path "C:\recordings\test\device10\10-100-100.wav" these are the variables that would be used and what they represent:

%P<-1>	test\device10
%P<1>	recordings\test
%P	recordings\test\device10
%F	10-100-100

If no mask is specified, Archiver defaults to "%P\F"; if only "C:\recordings\" or "C:\recordings" is entered, Archiver defaults to "C:\recordings\%P\F".

If %P is not used in the file mask, the Archiver will determine one on its own using the following process:

- Archiver checks the Core where the file was recorded and obtains the default file mask if possible.
- Archiver tries to match the filename to the default file mask. If it matches, Archiver removes the rest of the path that does not match.
- If the filename does not match, Archiver removes the drive letter only.
- The path is put at the end of the archive location, forming the new path.

The file is then archived using the generated mask.

Archiver Overview

The **Archiver** module is used to control disk and network usage by Archive Actions, preventing the actions from overwhelming local system resources or network bandwidth. The Archiver settings page controls the overall performance of the software.

General Archiver Settings Reference

Archiver settings are divided into several sub-categories: General, System Purge Action, Removable Media, and MSSQL Database Backup. These settings are typically configured by the Uptivity WFO Installation team and rarely need to be changed.

General settings are:

- **Archiver Server Host:** IP address or hostname of the server running the Archiver service.
- **Archiver Server Port:** TCP Port on which the Archiver service is configured to listen. The default is 5639.
- **Purge Limit:** Throttles the number of records purged from the local Uptivity WFO system per Purge job. A setting of 0 (zero) means unlimited: the system will purge all records ready to be purged in the database.
- **Purge Interval:** Time interval in minutes between one Purge job and the next.
- **Archive Limit:** Number of records sent to the archive per Archive job. A value of zero (0) causes no recordings to be archived, so the value should typically be set to greater than zero.
- **Archive Interval:** Time interval in seconds between one Archive job and the next. The system default is 60 seconds, which is typically sufficient.
- **Enable Settings Reload:** When set to **Yes**, settings on this page automatically reload on the **Settings Reload Interval**. When set to **No**, the service must be restarted for the settings to take effect.
- **Settings Reload Interval:** Time in seconds that the module will reload its settings from the database. Any changes made to the settings on this page will not take effect until this interval has completed. Works in conjunction with **Enable Settings Reload**.
- **Hash Filename:** When set to **Yes**, files are renamed at archiving as the SHA-1 hash of the original storage path for the record. This is to prevent possible duplicate filenames in the archive location. Not normally needed unless original recording files have the potential of being named the same.
- **Enable Empty Directory Purge:** When set to **Yes**, Archiver periodically scans all directories in any recording locations and removes any folders that have no files inside.

System Purge Action

Use Schedule :

Start Time : End Time :

: AM
 : AM

System Purge Action settings can be used to restrict the time period during which Uptivity WFO purges recordings. System Purge settings are:

- **Use Schedule:** When set to **Yes**, Purge jobs will only run between the specified **Start Time** and **End Time**. Helps prevent system overload or excessive I/O operations in connected environments during peak hours.
- **Start Time/End Time:** Purge jobs will only run between these hours if **Use Schedule** is enabled.

Removable Media

Removable Media - Playback Temp File Location :

Removable Media - Temp File Retention(days) :

Send Users Email Alert :

Removable Media settings are used when recordings are archived to DVD, and are:

- **Playback Temp File Location:** Records restored from DVD are copied to this location for playback.
- **Temp File Retention:** Number of days a restored recording will be available for playback before it must be restored from DVD again.
- **Send Users Email Alert:** When set to **Yes**, Archiver sends an email notification to the user who requested a record be restored when that record is available for playback.

MSSQL Database Backup

Enable MSSQL Database Backup :

No

Database Name :

Backup Filename :

Database Backup Time :

08 : 00 AM







MSSQL Database Backup settings allow you to back up the Uptivity WFO database. This is useful for sites with SQL Express that cannot use scheduled backups. MSSQL Database Backup settings are:

- **Enable MSSQL DB Backup:** When set to **Yes**, Archiver initiates a daily backup of ONE of the Uptivity WFO databases.
- **Database Name:** Name of the database to be backed up.
- **Backup Filename:** Location of the backup file to use, determined during Uptivity WFO installation.
- **Database Backup Time:** Time of day that the backup job will run. Uptivity highly recommends this time be set to the lowest usage period of the day.

Custom Extensions Overview

If Professional Services development was included for your installation, this section may be used. Otherwise, it can be disregarded. Contact Uptivity Support if you have any questions regarding settings listed on this page.


Disk Space Notifications Overview

Disk Space Notifications Settings Add		
Drive	Notification Threshold (MB)	
c:	12000	 
d:	50000	 
		 




Disk Space Notifications can be used to monitor free space on any local or mapped network drives the Archiver tool can access. Archiver manages disk usage for original recordings, archives, and SQL databases. If a specified drive drops below the Notification Threshold, Archiver can send a notification message to any email addresses in the **Notifications** list that have the **Disk Alert** notice type selected.

Configure Disk Space Notifications

To add a drive entry to the list:

1. Click the **Administration** tab and expand **System Settings** in the left navigation menu.
2. Click **Disk Space Notifications** and then click **Add**.
3. In the **Drive** column, type the drive letter followed by a colon.
4. In the **Notification Threshold** field, type the minimum free space (in megabytes) to remain available.
5. Click the Save  icon.

To edit or delete an existing entry:

1. Click the **Administration** tab and expand **System Settings** in the left navigation menu.
2. Click **Disk Space Notifications**.
3. Click the Edit  icon for the desired entry, edit the fields in that row as needed and then click the Save  icon OR click the Delete  icon and then click **OK**.

Info Broker Overview

The Information (Info) Broker service manages Live Monitoring and web playback requests and traffic in Uptivity WFO. There is one instance of Info Broker for each Location in your system. Info Broker is started, and typically configured, during the installation process.

Info Broker Settings Reference

Info Broker settings rarely need to be changed. Settings for this service are:

- **Host:** IP address of the server running the Info Broker service.
- **Port:** Communications port on the server running the Info Broker service. Default is 50817.
- **HTTP Timeout Seconds:** Timeout for individual communication requests between Info Broker and the Screen Recording Server, Core, and Live Monitor. If Info Broker does not receive communication from Core within the specified time, it assumes it is not running and all calls on devices it was recording have ended. The default value is 5 seconds.

- **Live Monitor Client Timeout Seconds:** Time that can pass without Info Broker hearing from a connected Live Monitor client before a timeout occurs. The default value is 30 seconds.
- **Media Timeout Seconds:** Timeout for the connection to Cores and Screen Recording Clients. The default value is 30 seconds.
- **Excessive Debugging:** When checked, adds detailed logging for Info Broker which can be useful for troubleshooting.

Locations Overview

Locations are part of your Uptivity WFO system topology and are typically developed by Uptivity WFO Sales Engineering. Locations allow for easy grouping of Cores, Screen Recording Servers, and Web Media Servers for customers with multiple sites that are geographically or logically separate. Changes to Locations settings should only be made by or under the supervision of Uptivity WFO Support.

Logging Overview

Logging settings specify the level of events that Uptivity WFO sends to the Logger service. Logging levels correspond to the subscription types described in [Notifications Overview](#). These settings are configured during initial installation and should only be changed by or under the supervision of Uptivity WFO Support.

Uptivity WFO Mail Overview

Uptivity WFO Mail allows multiple Uptivity WFO features to communicate with users via email. To take advantage of this, an email account must be created in your email system for Uptivity WFO to use. This account is generally created prior to installation, and Uptivity WFO Mail settings are configured at that time.

Uptivity WFO Mail Settings Reference

Uptivity WFO Mail settings should typically only be changed by or under the supervision of Uptivity WFO Support. The settings are divided into three sub-categories: Server Settings, Secure Settings, and Forgot Password Mail Settings.

Server Settings are:

- **Mail Server Host:** The hostname or IP address of the SMTP mail server Uptivity WFO will use to export recordings via email.
- **Mail Server Port:** The SMTP port that will be used.

- **From Address:** This can be any email address, real or fake, and does not have to be an address tied to the account's username and password.
- **Display Name:** This name appears on the emails sent from the account, and does not have to match the email account username.

Secure Settings are:

- **Username:** The username for authentication to the SMTP server.
- **Password:** The Password for authentication to the SMTP server.
- **Confirm Password**

Forgot Password Mail Settings are:

- **SMTP Host Email Server:** The hostname or IP address of the SMTP mail server Uptivity WFO will use to respond.
- **"Send From" Email Account:** The email account Uptivity WFO will use to respond.
- **"Send From" Username:** The username for this email account.
- **"Send From" Password:** The password for this email account.

Notifications Overview

Notifications allow you to adjust how long Uptivity WFO retains information in its log files, and also let you configure audible or email maintenance alerts. Be sure to consider disk size when deciding how long to retain log files.

Email notifications can be sent from Uptivity WFO any time a log message is generated. You can set up subscriptions for multiple email addresses so that different alerts can be sent to specific users.

Uptivity WFO offers different types and levels of alert subscriptions to help you effectively manage your system. While these subscriptions are configured during installation, you may need to make adjustments later as your personnel or needs change.

Configure Notifications

To configure log file retention and Uptivity WFO alerts:

1. Click the **Administration** tab and expand **System Settings** in the left navigation menu.
2. Click **Notifications**.
3. Enable **Audible Alerts** if desired and then check each condition that should trigger an audible alert.

4. Type the number of days you want Uptivity WFO to retain log files.
5. Configure **E-mail Notifications Settings** as desired.
6. For each email subscription, click **Add E-mail** and type the email address, then select the checkbox for each alert that should be sent to that email address.
7. Configure **SNMP Notifications Settings** as desired.
8. For each SNMP subscription, click **Add SNMP** and type the SNMP address, then select the checkbox for each alert that should be sent to that SNMP address.
9. Click **Save**.

Send a Test Alert

This feature sends a message to all users who are set up to receive any notifications. It enables users to confirm that they are receiving the correct notifications. To send a test alert:

1. Click **Save** to record any changes.
2. Select a **Subscription Type** from the drop-down list.
3. Type text explaining that the message is a test and what type of notification is being tested.
4. Click **Test**.
5. Confirm with each user who should have received the test message.

Alert Subscriptions Reference

You can set up alerts based on the following event levels:

- **Critical:** A service or system has stopped functioning completely due to an error. You should have at least one email subscription notified of any critical alerts.
- **Emergency:** A service or system has stopped functioning completely due to a configuration or resource issue. You should have at least one email subscription notified of any emergency alerts.
- **License:** The system is reaching a license limitation or someone is attempting to use an unlicensed feature. You should have at least one email subscription notified of any license alerts. These license events are logged and generate notifications:
 - License Expired
 - License Corrupted
 - License Invalid (no license for an accessed feature)
 - Avaya licenses exceeded (Avaya integrations only; may result in loss of recording)

- **Error:** A system error has occurred that caused a single operation or transaction to fail. You should have at least one email subscription notified of any error alerts.
- **Security:** A security event, such as multiple password failures, has occurred. You should have at least one email subscription notified of any security alerts.
- **Warning:** An event occurred that could be related to further errors. This event type is mainly used in troubleshooting and should only be enabled as needed.
- **Info:** General system information. This event type should only be enabled as needed.
- **Notice:** An informational notice regarding system events. This event type should only be enabled as needed.
- **Testing:** Enhanced debugging and development information enabled for troubleshooting. This event type should only be enabled as needed.
- **Debug:** Highest volume/detail output for all modules. This event type should only be enabled as needed.
- **Archive:** All events and messages related to archiving. For example, if a user requests a recording that has been archived to DVD, users subscribed to this alert would receive an email telling them which disk to insert into the server. Archiver error alerts are not included in this subscription, but are in the **Error** and **Critical** alert types. This is an email-only subscription.
- **Disk:** Alerts subscribers when the amount of free space on a disk has dropped below the specified level. See [Disk Space Notifications Overview](#).

E-Mail Notifications Settings Reference

E-Mail Notifications Settings

Enable FloodWall : Yes

FloodWall - Number of Allowed Messages :

FloodWall - Number of Minutes :

Disk Space Notification Interval (*minutes*) :

The following settings govern email notifications:

- **Enable Floodwall:** Some conditions can generate an enormous number of alerts within a short period of time. When set to **Yes**, the floodwall throttles email alerts to prevent overloading your mail server.
- **Floodwall - Number of Allowed Messages:** Works with **Enable Floodwall** to specify the number of email messages the server sends per interval. Any further messages of the same type will be blocked until the interval expires.

- **Floodwall - Number of Minutes:** Works with **Enable Floodwall** to define the number of minutes per interval.
- **Disk Space Notification Interval:** Specifies the interval in minutes between sending low disk space email alerts.

SNMP Notifications Settings Overview

SNMP Notifications Settings

Enable SNMP Notifications :

SNMP Community :

SNMP Enterprise :

SNMP Gen Trap :

SNMP Version :

Uptivity WFO can send SNMP traps when a log message is generated. SNMP trapping requires use of a Management Information Base (MIB) file that can be loaded in a third-party SNMP management application to define trap types. This file can be obtained from Uptivity Support.

The following settings govern how Uptivity WFO uses SNMP:

- **Enable SNMP:** When set to **Yes**, allows Uptivity WFO to send SNMP traps.
- **SNMP Community:** This is an optional value, although some SNMP management applications require this value to allow Uptivity WFO access.
- **SNMP Enterprise:** Identifier for Uptivity WFO-generated SNMP events. Uptivity WFO is IANA-registered as 26393.
- **SNMP Gen Trap:** This optional setting is a generic type value that can be used to distinguish between multiple Uptivity WFO systems.
- **SNMP Version:** Uptivity WFO can generate both SNMPv1 and SNMPv2 traps. Set to the type supported by your SNMP management application.

Screen Capture Settings Overview

See [Screen Recording Server Settings Reference](#).

Server Nodes Overview

Server Nodes are the machines (physical or virtual) that run Uptivity WFO software modules. A separate Server Node is created for each of these machines. Server Nodes are configured by Uptivity at the time of installation. For related information, see [Service Manager Overview](#).

Changes may be required later if services are added to your system or moved to different servers. These changes require configuration in multiple locations within Uptivity WFO and should only be performed by or under the supervision of Uptivity Support.

Web Media Server Overview

Web Media Server (WMS) is an Uptivity WFO service that manages both playback of recordings and streaming for Live Monitoring. The WMS service is set up during installation. If additional configuration is needed, it should be performed by or under the supervision of Uptivity Support. There can be only one Web Media Server per website (Web Portal) for playback, but Uptivity WFO supports multiple Web Media Servers for Live Monitoring if this functionality is widely used in your environment.

Web Media Server Settings Reference

Web Media Server settings should typically only be changed by or under the supervision of Uptivity WFO Support. Each Web Media Server has the following settings:

- **Host:** IP address of the Web Media Server.
- **Silverlight Port:** Port used to play recordings and stream live audio.
- **Media Port:** Port used for messaging traffic with Core and Screen Recording. Server. The default value is 5630.
- **HTTP Port:** Port used for messaging traffic with Info Broker. The default value is 2015.
- **Allow Live Monitor:** When the checkbox is selected, the Web Media Server will be used for Live Monitoring.
- **Excessive Debugging:** When the checkbox is selected, detailed logging will be collected for Info Broker (useful for troubleshooting).
- **API Host:** IP address of the API Server. Used only for exporting recordings via email.
- **API Port:** Port used to communicate with the API Server.
- **API Reconnect Milliseconds:** Frequency with which the WMS attempts to connect to the API server via TCP.
- **API Connect Timeout Milliseconds:** Connection timeout for API server connection attempts. When timeout expires, Uptivity WFO "sleeps" until the next reconnection attempt.
- **API Response Timeout Milliseconds:** Timeout for API server responses before Uptivity WFO considers the request to have timed out.
- **SSL Certificate Name:** SSL certificate file name (no path required) if SSL is required for data in transit.

- **SSL Certificate Pass:** SSL certificate password if SSL is required for data in transit.
- **Location:** Location with which this Web Media Server is associated.
- **Mapped Drives:** Sets an internal drive map so if the filename says f:\recordings, but for WMS the path is Z:\recordings, the f: becomes Z: on the WMS side. Unless otherwise specified, default settings are used.

Web Server Overview

Several Uptivity WFO services, such as call playback, utilize **Web Server** services. These settings are configured during the initial installation. If configuration changes are needed later, these should be performed by or under the supervision of Uptivity Support.

As explained on the page itself, these settings do not configure IIS. If the manual override is not used, the settings may be changed by other processes.

Workstations Settings Overview

The Uptivity WFO CTI Core uses the Workstations List to determine the Screen Recording Server with which it should communicate. The list is not used in all installations. For more information, see [Workstation Mapping Overview](#).

Configuring Web Portal Settings

This section contains knowledge and procedures relative to the **Web Portal Settings** menu in the Discover Web Portal. Web Portal Settings are typically configured during the installation process by the Uptivity WFO Deployment team. This topic is designed to give you a basic understanding of the settings and what they mean for your system. Unless explicitly told to do so, do not change any Web Portal Settings without consulting Uptivity WFO Support.

CometDaemon Overview

When a Server Node is created, a corresponding **CometDaemon** is created in the Web Portal. CometDaemon runs in the background and manages connections to and between WFO software modules on its corresponding Server Node and other services (such as Service Manager). For related information, see [Server Nodes Overview](#).

CometDaemon Settings Reference

CometDaemon settings are configured by Uptivity at the time of installation. If changes are needed later, these should be performed by or under the supervision of Uptivity Support. This section provides an overview of CometDaemon settings for reference. Each CometDaemon has the following settings:

- **HTTP Port:** Specifies the port on which HTTP communication takes place between the CometDaemon and the Service Manager.
- **HTTP Address:** If the server on which the Web Portal is installed is assigned multiple IP addresses, this field can be used to restrict access to only one of those addresses. Using 0.0.0.0 uses all of the addresses.
- **HTTP Session Time Out Minutes:** If the CometDaemon does not receive a message from the Service Manager within the time specified here, it ends the session.
- **Allowed Subnets Client:** This setting is no longer used.
- **Allowed Subnets System:** This setting is no longer used.
- **Allowed Subnets Session:** Specifies valid IP address of the Web Portal used to access the Server Node for this CometDaemon; controls IP addresses from which sessions can be initiated. The client can start the session in one subnet range. Once the session is started, it will continue the session using the client subnet. This subnet can use CIDR notation and be comma-separated.
- **Site IP:** Displays the IP address of the Server Node on which the Service Manager resides.

- **Status Timer Interval:** Time in milliseconds for "heartbeat" polling with the CometDaemon.
- **Configuration Timer Interval:** Time in milliseconds for reloading the module's settings.
- **Search Directory:** Specifies the location of the Uptivity WFO Install directory. CometDaemon knows what services are available based on directory contents.

Security Overview

To enhance system security, Uptivity WFO lets you control **Security** settings related to forgotten passwords, PCI security, and other facets of the Web Portal. For more detailed information regarding Uptivity WFO security features, see [Appendix: System Security in Uptivity WFO](#).

Most of these settings are configured during installation. If configuration changes are needed later, these should be performed by or under the supervision of Uptivity Support. Settings are explained in the following sections for your reference.

Configure AD Group Role Synch

To simplify administration, users may be placed in one or more Active Directory (AD) groups that have access to Uptivity WFO. You can then relate Uptivity WFO Roles to AD group names, and user roles, permissions, and associated Uptivity Groups are synchronized at each login based on the user's AD group membership. This feature is called AD Group Role Synch.

AD groups may change after installation, so you may need to edit or configure these settings from time to time. For more information, see [Security Settings Reference](#).

To add an AD group for synchronization:

1. Click **Configuration** and expand **System Settings** in the left navigation menu.
2. Click **General**.
3. Under Active Directory Settings, click **Add Group**.
4. Under **Groups**, type the name of the AD group exactly as it appears in Active Directory.
5. Click **Add/Edit Roles**.
6. In the **Unassigned** column, click the Role(s) that should be assigned to users in this AD group.
7. Click **>** to move the selected Roles to the **Assigned** column.
8. Click **Apply** and then click **Save**.

To edit the Roles associated with an AD group:

1. Click **Configuration** and expand **System Settings** in the left navigation menu.
2. Click **General**.
3. Under Active Directory Settings, click **Add/Edit Roles** for the applicable group.
4. Click the Role(s) you want to edit.
5. Click **>** to move selected Roles from the **Unassigned** to the **Assigned** column, or click **<** to move Roles from the **Assigned** to the **Unassigned** column.
6. Click **Apply** and then click **Save**.

To remove an AD group from synchronization:

1. Click **Configuration** and expand **System Settings** in the left navigation menu.
2. Click **General**.
3. Under Active Directory Settings, click **Delete Group** for the group you want to remove.
4. Click **Save**.

Security Settings Reference


Security settings should typically only be changed by or under the supervision of Uptivity WFO Support. The settings are divided into six sub-categories: Site Settings, Forgot Password Settings, Active Directory Settings, Login Settings, PCI Settings, and HTTP/HTTPS Settings.

These settings are configured by Uptivity at the time of installation. If configuration changes are needed later, these should be performed by or under the supervision of Uptivity Support. This section provides an overview of the settings configured on the Security screen for reference.

Site Settings allow you to specify the IP address or hostname where users access Uptivity WFO and, if applicable, Clarity WFM. These settings must be configured for users to be able to switch back and forth between Uptivity WFO and Clarity WFM from within the applications.

IP address entries must begin with "http://" or "https://" as appropriate, and include a port number if applicable (for example, http:1.1.1.1:85). Otherwise, the URL validator will not receive a response from the supplied IP/port. You will see one of the following icons next to the field after you type the IP or hostname.

-  indicates a valid IP or hostname.

- **X** indicates an invalid IP or hostname. You will not be able to save changes to the page if the one of the URL fields contains an invalid value.
-  indicates the system is currently attempting to resolve the IP or hostname

Forgot Password Settings are required if you allow users to reset their own passwords (see [General Administration Permissions](#)). These settings are:

- **Password Max Length:** Maximum number of characters a password can contain (there is no minimum requirement unless you enforce password strength; see PCI Settings later in this section).
- **Password special characters length:** Number of special characters the password can contain (there is no minimum requirement unless you enforce password strength; see PCI Settings later in this section).
- **Mail Subject:** Subject line of the email users receive when they click the "Forgot Your Password?" link.
- **Mail Body:** Body of the email users receive when they click the "Forgot Your Password?" link.

Active Directory (AD) settings are required if your organization allows AD authentication. Uptivity WFO can be set up to let users authenticate via an Uptivity WFO user account and password (database mode) or via their Windows network/AD credentials (AD mode). They can also be given a choice of database or AD authentication at the time of login (hybrid mode). The login mode is typically configured by Uptivity at installation.

In multiple domain environments, Uptivity WFO maintains a separate user account for each user on each domain (this also works with the "Auto Create User on Login" feature). For example, if Joe Smith works at two different locations, each with its own domain, user jsmith would be created twice in Uptivity WFO, with one account assigned to each unique domain. Reporting and other features treat the accounts as unique individual users.

Active Directory settings apply to organizations using either AD or hybrid mode for authentication, and are:

- **Auto Create User on Login:** When the checkbox is selected, allows creation of a user account in the Uptivity WFO database the first time a user logs into the system using Windows credentials. The user account is populated with the AD account's login name, first name, last name, and email address.
- **If Using AD Group Role Synch, Delete User's Roles That Do Not Match an AD Group on Login:** When your system uses AD Group Role Synch, and this checkbox is selected, any Roles assigned to an individual user that are not also assigned to that user's AD group are removed from the user's account at login (see [Configure AD Group Role Synch](#)).
- **Domain:** Name of your AD domain. Multiple domains can be configured. This field is required if you are using AD Group Role Synch (see [Configure AD Group Role Synch](#)).

- **LDAP String:** Active Directory LDAP string (the "LDAP://" portion must be capitalized). Consider the following when configuring LDAP, particularly if logging in with AD credentials is not working properly:
 - **Case Sensitivity:** If a user logs into Windows with "Username" but their AD account is "username", the login attempt may not pass through LDAP.
 - **Idle States.** If a computer enters an idle state (for example, sleep, standby, or hibernation) that turns off the network interface card based on power management settings, users may experience intermittent login issues when using AD authentication. To avoid this, configure power management settings to keep the system and network card awake during work hours.
 - **Password Special Characters.** Certain special characters may not work properly with LDAP, resulting in a failed login attempt. These characters are known to cause problems: #, @, *, ", &, and %. These characters have been used successfully in a variety of environments: (,), ^, \$, and !.
- **Secure Sockets:** When the checkbox is selected, enables/requires the use of SSL.
- **Signing:** When the checkbox is selected, enables LDAP security; enabling it here and in Windows Server encrypts the connection between them.

Login Settings govern other factors associated with the login mode your system uses and are:

- **Access Type:** Specifies your system login mode (Hybrid, Database, or Active Directory).
- **User Token Expire Time:** User tokens monitor activity for a user ID within the site. The system refreshes the timestamp and expiration of the token every time a user clicks on something. Once the token expires, the user's next action will log them out and bring them back to the login screen. The default expiration time is five minutes.
- **Login Token Expire Time:** Login tokens are passed to the database when a user clicks the login button. Once the session is established, the token is expunged from the database. If something interrupts the transaction or the process encounters an error, the token may be left behind, and this timeout triggers it to be automatically deleted. The threshold should be set to only a few seconds.
- **Integration Token Expire Time:** Integration tokens are similar to login tokens, but are created when a user transitions from Uptivity WFO to Clarity WFM, or vice versa. As soon as this transaction is complete, the token is removed from the database. If something interrupts the transaction or the process encounters an error, the token may be left behind, and this timeout triggers it to be automatically deleted. The timeout threshold should be set to only a few seconds.

PCI Settings are optional settings that control password policy for Uptivity WFO user accounts, based on the PCI Security Standards Council's Data Security Standard v2.0 (viewable at their website). Passwords are automatically "salted" by Uptivity WFO, and password changes are tracked through both the Audit Log and the System Activity Summary Report.

Changing these PCI password security settings in the Web Portal does not automatically force users to change their passwords. The settings do not affect users until their passwords are changed, either by the user or an administrator. If you want to enforce PCI settings, you must force users to change their passwords or change the passwords for them.

These settings apply **only** to Uptivity WFO database user accounts and do not impact Windows accounts used with hybrid or AD authentication. PCI settings are:

- **Password Strength Enforcement:** When the checkbox is selected, forces all new passwords to be a minimum of eight characters in length and contain at least one of each of the following:
 - lowercase letters
 - UPPERCASE letters
 - Numbers
 - Special characters
- **Prompt user to change password before expiration:** When the checkbox is selected, controls how long a password can remain active. This applies to all Uptivity WFO accounts, including accounts with superuser access. You can set the following:
 - **Number of days before password expires** (cannot be zero)
 - **Number of days of warning before password expires** (if set to zero, all passwords expire immediately)
- **Prevent Re-use of Passwords:** When the checkbox is selected, password changes are checked against a password history to prevent re-use. Uptivity WFO does not trace passwords unless this feature is enabled, so the re-use look-back will not consider or compare passwords used before enablement. You must set one or both of the following:
 - **Number of previous passwords to check** (for example, password cannot be the same as the last 5 used)
 - **Number of days between password change** (for example, password cannot be the same as one used in the last 60 days).

i Administrative users can manually change a user's password to anything that meets the complexity requirements in force, including previously used passwords. This setting affects only users changing their own passwords.

- **Limit Failed Login Attempts:** When the checkbox is selected, user accounts are locked after the **Maximum number of failed login attempts to allow** has been reached. Locked accounts must be unlocked by an administrative user before the user may attempt another login. This setting does not apply to the Superuser account unless the **Lock out Superuser after limit reached?** Checkbox is selected.

HTTP/HTTPS Settings: When the **Force the site to use HTTPS** checkbox is selected, Uptivity WFO secures Web browser cookies (ASP.NET_SessionID) by setting the **secure** flag. This prevents cookies from being sent across non-https connections and is a PCI-compliant feature.

Terminology Overview

The Discover Web Portal can be customized with terminology used in your operating environment. For example, if you don't use the term agents, but instead refer to "reps" or "CSRs", Uptivity WFO can be configured to show your terminology in its user interface.

Terminology Settings are typically discussed during the discovery phase and configured at the time your system is installed. You can change them later if necessary.

If you make changes to Terminology Settings, it may take some time for the changes to appear in the ad hoc reporting pages. Terminology changes affect only Uptivity WFO and do not carry through to the Clarity Web Portal.

Configure Terminology

To configure Uptivity WFO to use customized terminology:

1. Click the **Administration** tab and expand **Web Portal Settings** in the left navigation menu.
2. Click **Terminology**.
3. Edit settings as needed and then click **Save**.

Terminology Settings Reference

- **Switch Type:** Drop-down list of common ACD/PBX hardware manufacturers (eOn, Alcatel, Aspect, Avaya, and Custom). Select from this list and Uptivity WFO will auto-populate the terminology names with terms common to that ACD/PBX. You can overwrite these defaults as needed.

- **Agent:** Employees who staff your contact center (for example, Agent, CSR, TSR, Associate, and so forth).
- **Group:** Group setting in your ACD/PBX (for example, Hunt Group, Skill Group, or Labor Group). This does not refer to the Uptivity Group.
- **ACD Gate:** Call gate or queue setting in your ACD/PBX (for example: Application, Split, Gate, and so forth).
- **Called Number (DNIS):** For inbound calls, this would be the number the caller dialed to reach you. For outbound calls, it would be the number your agent dialed.
- **CallerID (ANI):** For inbound calls only, this is the number of the calling party as provided from the telecommunications carrier.
- **Device/Port ID:** "Hardware" identifier in your ACD/PBX (for example, Position ID, Phone Port, DN, or Extension).
- **Agent Number (Device Alias):** Agent-associated identifier in your ACD/PBX (for example, extension, agentID, and so forth).
- **Group Name:** Uptivity Group. For details, see [Configuring Uptivity Groups](#).
- **User 1- User 15:** Custom data fields. If your system includes custom API integrations, it is common for data received from third party IVR, CRM, or ACD platforms to be inserted into these fields. If you use Uptivity WFO On-Demand, or permit agents to edit call records, agents can type information in these fields directly. You can rename them to be more descriptive regarding the data contained within the field.

When determining which user-defined data fields are right for your custom information, consider the following field length limitations:

- User 1 – User 3: Up to 20 alphanumeric characters
- User 4 – User 8: Up to 255 alphanumeric characters
- User 9 – User 15: Upt to 50 alphanumeric characters

Web Portal Settings Reference

Web Portal allows you to configure settings for the Discover Web Portal and Web Player. The majority of these are set by Uptivity during installation. If configuration changes are needed later, these should be performed by or under the supervision of Uptivity Support. Web Portal settings are:

- **Content Management Upload Directory:** Disk or UNC path on the Uptivity WFO server where files uploaded to the Content Library are stored.
- **Fusion Script Settings Upload Directory:** If the Uptivity Fusion Desktop Analytics component was purchased, the scripts used to manage Desktop Analytics clients are loaded into this directory.

- **Location Settings: Allow Lookup by Agent/Workstation:** This checkbox is selected ONLY if your environment is segmented in a way that inhibits standard agent lookup by Location. An example might be if all your telephony hardware and call routing is done from one Location but agents, Screen Recording servers, and Web Media servers are set up at other Locations and agents cannot be grouped logically into the primary Location for audio recording. In that scenario, enabling this setting would ensure that agents at the Locations apart from the telephony system will have Screen Recording and Live Monitoring traffic kept local to their site. Enabling this setting requires the Location setting to be configured for each agent in the system. Screen recording will not take place for agents who do not have a specific, valid Location. For more information on assigning agents to specific Locations, see [Add a User](#).
- **Enable Real Time Blackout Setting:** This checkbox should be selected if you want Uptivity WFO to use real-time blackouts instead of standard blackouts. For related information, see [Blackout Sensitive Data](#).
- **Call Segment Settings: Allow Call Segments:** Applies only to specific telephony environments where Call Segments can be generated and related for viewing in the Call List. When the checkbox is selected, the Find Call Segments option appears in the Call List pop-up menu if the call has related segments. Refer to the *Uptivity WFO User Manual* for details on Call Segments.
- **Call List Quick Filters:** Selecting the checkbox next to an item causes it to appear as a filtering option on the Interactions List tab for all users.
- **Number of Items to Display:** Sets the number of rows to display per page, except on Printable Reports and the Call List.
- **Display data value when building ad hoc reports:** When set to **Yes**, data for a field appears or disappears on the Report Builder preview each time the user moves a field to/from the Structure area. The database is queried upon each of these changes.

Home Tab Widgets Overview

You can administer which widgets are available to users for dashboard configuration on their Home tab. This includes adding new widgets, editing existing widgets, and deleting widgets from those available. For specific information on individual widgets, refer to the *Uptivity WFO User Manual*.

Adding or deleting a widget cycles the application pool in IIS, and requires a page refresh and new login to see changes. **This will force a logout for all connected users and should be performed outside of regular business hours.**

Home Tab Widgets		Upload		
Title	File Name	Description	Date	Actions
News	NewsWidget	The News Widget allows for Administrative based Users to push quick, one line information to groups of agents and other users.	Feb 28 2014 6:52PM	Edt Delete
Forecast vs. Actual	ForecastVsActual	The Forecasted vs. Actual Widget allows for Users to compare actual call volume against that of forecasted call volume.	Feb 28 2014 6:52PM	Edt Delete
KPI Performance	KPIPerformance	The News Widget allows for Administrative based Users to push quick, one line information to groups of agents and other users.	Feb 28 2014 6:52PM	Edt Delete
Live Snapshot	LiveSnapshot	The Live Snapshot widget allow for Users to view call data, staffing information and service levels.	Feb 28 2014 6:52PM	Edt Delete
Service Level Snapshot	ServiceLevelSnapshot	The Service Level Snapshot Widget allows for Users to view Service Level percent for various Labor Units and CallCopy Groups.	Feb 28 2014 6:52PM	Edt Delete
Assignment Inbox	AssignmentInbox	The Assignment Inbox widget allows Users to view items in their Assignment Inbox.	Feb 28 2014 6:52PM	Edt Delete
QA Benchmark	QaBenchmark	The QA Benchmark widget enables users to compare QA score averages for agents, CallCopy groups, and forms.	Feb 28 2014 6:52PM	Edt Delete
Achievement	Achievement	The Achievements widget enables users to view the available achievements	Feb 28 2014 6:52PM	Edt Delete

The **Home Tab Widgets** list shows the widgets that are currently available in your system. The widgets shown in this image are default widgets in every Uptivity WFO installation.

The Date column shows when the widget was uploaded or last updated. You can upload new versions of existing widgets if they become available. If the file names are identical, Uptivity WFO will prompt for confirmation to overwrite the existing widget. Uploading a new version resets the widget's date to the current day.

Upload Widgets

To upload a new Widget:

1. Launch the Discover Web Portal on the server that hosts it and log in with an appropriately-permissioned account.
2. Click the **Administration** tab and expand **Web Portal Settings** in the left navigation menu.
3. Click **Web Portal**.
4. In the Home Tab Widgets section, click **Widget Upload** and then click **Upload**.
5. Navigate to the directory on the Uptivity WFO server where widgets are stored (typically \Program Files (x86)\CallCopy\WebPortal\bin).
6. Select the desired widget .dll file and click **Open**. If you are uploading a new version of an existing widget, click **Overwrite File**.

Manage Widgets

You can modify a widget's Title and Description. Changes take effect immediately, do not require clicking Save, and will not affect login status of connected users.

To edit a widget:

1. Click the **Administration** tab in the Discover Web Portal and expand **Web Portal Settings** in the left navigation menu.
2. Click **Web Portal**.
3. In the Home Tab Widgets section, click **Edit** for the desired widget.
4. Type a new **Title** (25 character max), a new **Description** (200 character max), or both.
5. Click **Save**.

Deleting a widget removes the widget from the system **and** removes the corresponding DLL from the server. Removing a widget from the system also removes it from any user dashboards where it was displayed. Widget .dll files should be backed up to protect against accidental deletion. To delete a widget:

1. Click the **Administration** tab in the Discover Web Portal and expand **Web Portal Settings** in the left navigation menu.
2. Click **Web Portal**.
3. In the Home Tab Widgets section, click **Delete** for the desired widget.

The maximum number of widgets that will be listed per page is determined by the **Number of Items to Display** setting, found preceding the Home Tab Widgets section of Web Portal Settings. If more widgets than that are uploaded, pagination will be used to view the rest.

Manage Dashboards

Once widgets are configured on the Administration tab, you can create custom dashboards for your organization and users can access them from their Home tab. Users can also create their own dashboards using the widgets you make available. For more information on managing dashboards, see the *Uptivity WFO User Manual*.

Appendix: System Security in Uptivity WFO

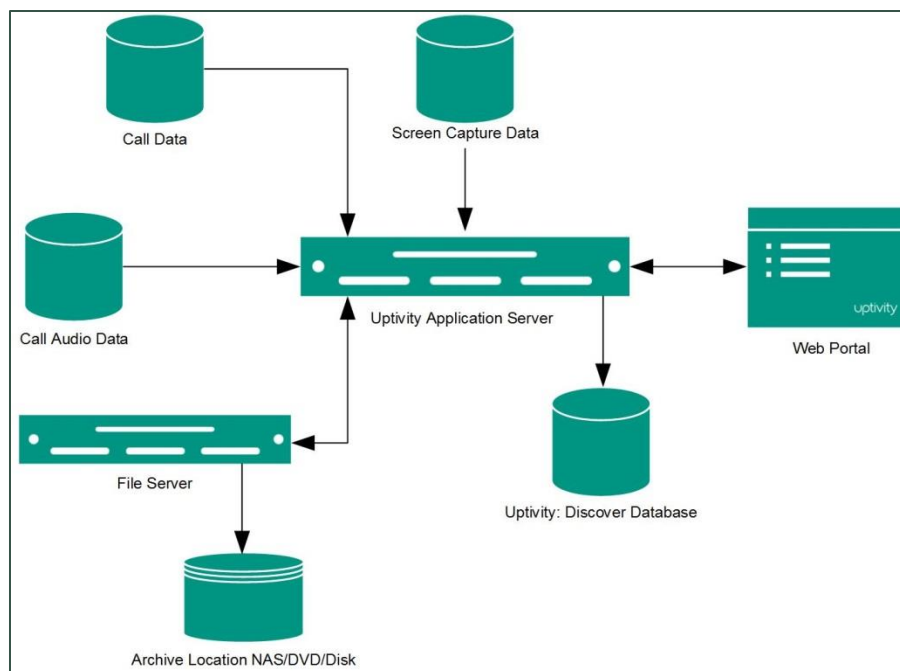
This section offers a high-level overview of security-related concerns related to Uptivity WFO, so that network, system, and Uptivity WFO administrators understand how different features work together. Additional details may be available in sections specific to an Uptivity WFO feature.

Security Design Overview

As a general rule, Uptivity WFO receives call audio from the PBX or agent telephone. Call data comes from the PBX. Screen recording data is received from the agent's PC over the LAN/WAN.

The Uptivity WFO applications capture the audio and screen data and write it to files on the File Server. Files can optionally be encrypted. Files can initially be stored on the local server and later written to another server based on schedules and available bandwidth. The temporary local files are deleted. Records for each recording are created in the Uptivity WFO Database for file and quality management. Recordings can be archived in a variety of ways if needed. Records and archives can be configured with retention periods and automated purging.

The audio and video files can be listened to and viewed from the file server via the Web Portal's Web Player by users with appropriate permissions.



Interactions between Uptivity WFO components (for example, servers, Web Portal), file servers, and archive devices can use SSL if that feature is enabled. If users are recorded from remote locations or access recordings from remote locations, a VPN must be established for PCI certification.

Blackout Sensitive Data

inContact recommends blanking audio and screen recording when sensitive data is being referenced or collected by any Uptivity WFO system, and provides the means to do so. This recommendation is in keeping with common rules associated with PCI, PHI (HIPAA), and similar regulatory bodies.

Uptivity WFO uses a compliance methodology referred to as a "blackout" and supports two types:

- **Real-time blackouts:** recording of audio and video stops when a blackout is triggered by a blackout start event and resumes when a blackout stop event is received. Sensitive information is never recorded. Not all recording integrations support real-time blackouts; ask your Uptivity WFO representative for more information.
- **Standard blackouts:** audio and video is suppressed at the time of recording and reviewers cannot see/hear the information. When the recording is processed by the Transcoder module, the blacked-out content is deleted and replaced with blank audio and video. Thus, sensitive information is present in the recording for a limited period of time. This method is not recommended when PCI compliance is a concern.

Blackouts can be either agent-associated or call-associated. By default, blackouts in Uptivity WFO are associated with the agent. For example, say that an agent answers a call, puts the call on hold, calls a supervisor, ends the supervisor call, and returns to the original call. If a blackout starts in the initial call segment and a stop event is not received until after the agent returns to the original caller, the conversation with the supervisor will be blacked out. However, if the supervisor is also recorded, that interaction will *not* be blacked out, even if it contains sensitive information.

For most organizations, agent-associated blackouts are the best solution. When a blackout is associated with the call, the blackout ends when the call ends. This can create a security issue if the agent still has sensitive information on their screen as they begin taking a new call.

Uptivity WFO can be configured to use call-associated blackouts. Ask your Uptivity WFO installation team or sales engineer if you would like additional information on this option.

Both call-associated and agent-associated blackouts can be implemented as standard or as real-time.

The following considerations apply to both real-time and standard blackouts:

- Blackouts appear as silence in audio recordings, and as a black screen in screen recordings. The audio and video blackouts are synchronized.
- Once triggered, a blackout continues until a blackout stop event is received. As a safeguard against missed stop events, a timeout can be configured to set a maximum blackout length. The default for this setting is 10 minutes. For more information on configuring this timeout, contact Uptivity WFO Support.
- Blackouts can be started or stopped during screen capture wrap time associated with a call. For more information on wrap time, see [Custom Schedule Fields Reference](#).
- Automated blackouts using Fusion or API calls can be used with On-Demand recordings.
- Blackout periods can be seen in the Waveform Display of the Web Player. There may be a very slight (less than one second) difference between the start/stop points in the display and the actual start/stop of the blackout in the recording. For more information on information available in the Waveform Display, see the *Uptivity WFO User Manual*.
- Screen-only recording based on timed schedules rather than call events cannot apply blackouts. Without call start/stop events from the device, Uptivity WFO cannot associate blackout events. However, if timed and non-timed events happen concurrently, blackouts can still be applied to the non-timed events.

You can decide whether to use real-time blackouts or standard blackouts based on the needs of your organization. Real-time blackouts are not enabled by default. For configuration information, see [Web Portal Settings Reference](#). Once the type of blackout is configured, a blackout can be triggered in any of these three ways:

- Manually using the "Start Blackout" and "Stop Blackout" options from the On-Demand client menu. This allows an agent to apply blackouts during a call. For more information, see the *Uptivity WFO On-Demand User Guide*.
- Manually using the Web Player to identify and apply a blackout to a previously-recorded interaction where sensitive data is inadvertently recorded. This functionality is permission-controlled. For more information, see the *Uptivity WFO User Manual*.
- Automatically using Uptivity Fusion Desktop Analytics, a similar third-party application, or a custom API integration. In this scenario, a scripted call is sent to the API server based on your desired trigger event(s). The API server in turn issues blackout start/stop commands to the recording Core.

Purging Sensitive Data

If your business process requires recording and then deleting sensitive data after a period of time, Uptivity WFO supports doing this either manually or automatically.

Uptivity WFO Support can manually move files and their corresponding database records to the Uptivity WFO Purge Queue. You can then delete the files by running a file purge as described in [Archiver Console Overview](#).

Automatic purging of data is controlled by schedules and Archive Actions in Uptivity WFO. Uptivity WFO cannot purge data from devices or disks that are not currently connected to the network (such as archived files on DVD media).

Authentication and Passwords

Users can authenticate via an Uptivity WFO user account and password or their Windows network/Active Directory credentials. If authentication is done via Active Directory, password length and other security measures are configured in AD. See [Security Overview](#) for additional information.

Windows PC, Server, Database, and Application Accounts

Appropriate security measures must be used on any PCs, servers, applications, or databases included in recording and storage of recording files and data. This is especially true in contact centers that are concerned with PCI compliance. Consider:

- One or more Windows file servers may be used for storing recording files with cardholder data.
- Servers, network attached storage devices, removable media, or other devices may be used in archiving recording files with cardholder data.
- Uptivity Screen Recording servers may be used, resulting in video files that are stored in a different location from the associated audio files.

The accounts and passwords used to manage these files should also comply with overall security measures. inContact recommends the following:

- As a precaution, any account used to manage the Windows server and IIS server hosting Uptivity WFO should be secured in order to prevent anyone from tampering with Uptivity WFO's operations.
- Uptivity WFO uses an SQL database to store recording "records" (that is, metadata about recording files), audit tables, and configurations. For SQL servers, NT Authority\System for SQL Server Database Engine, NT Authority\Network Service for SQL Server Reporting Services, and NT Authority\Local Service for the SQL Server

Browser should be used. Talk to your Uptivity WFO installation or support teams for more information.

- When separate Uptivity Screen Recording servers are used, Uptivity WFO must be provided with a UNC path for the location and a user account and password with Write permission for the location. This account should also be secured.

Logging and Auditing

For details, see [Logging Overview](#). Additional logging information appears in administration manuals for Clarity WFM, Uptivity Speech Analytics, and so forth. Auditing information is discussed in the *Uptivity WFO Reporting Manual*.

Login Mode Configuration

Uptivity WFO supports three login modes:

- **Database Mode:** Utilizes Uptivity WFO's internal user database that has been populated from entered user accounts and passwords. This mode is used by default.
- **Active Directory Mode:** Uses Kerberos authentication to validate that an Active Directory user is logged in and a member of the proper AD group to access the Uptivity WFO system.
- **Hybrid Mode:** Allows users to log in using their Uptivity WFO user accounts or their Windows AD account. On the Uptivity WFO login page, user must select either Database or Active Directory mode.

The login mode is set during Uptivity WFO installation. If hybrid or AD mode is used, additional settings must be configured. For additional information, see [Security Settings Reference](#).

When users log in using AD authentication, a message is sent from Uptivity WFO to AD. This event is logged, as is the result, which can be:

- Uptivity WFO receives a response from AD. Authentication succeeds and the user is logged in.
- Uptivity WFO receives a response from AD. If authentication fails, a specific message identifying the cause is logged.
- Uptivity WFO fails to receive a response. In this case, a "Directory Entry Failed" error is logged, as AD could not be reached. There is no timeout associated with this; it either succeeds or fails. On the Uptivity WFO login screen, the following message is displayed: "Login failed. No response was received from Active Directory or Active Directory could not be contacted."

SSL and TLS (Transport Security)

Interactions between Uptivity WFO suite components (for example, servers, Web Portal), file servers, and archive devices can use SSL (Secure Socket Layer) and TLS (Transport Layer Security) for data in transit. **Customers must obtain their own SSL certificate(s).**

For transport security to be effective, all communication starting and ending points should be secured. Endpoint configuration details are explained in the next few sections. Bear in mind that SSL/TLS are all-or-nothing solutions. If you enable SSL/TLS on the Screen Recording or Web Media Server but not on the client modules that rely on them, the modules will not be able to communicate.

If users are recorded or access recordings from remote locations, they must go through a VPN for this level of security.

If transport-level security was not included with your system at installation, and you would like to add this feature to your system, contact Uptivity WFO Support.

Transport-level security is typically used in conjunction with optional Uptivity WFO Encryption. For more information, see [Appendix: File Encryption in Uptivity WFO](#).

The following table summarizes the impact of encryption and TLS on an Uptivity WFO system.

Encryption	TLS	What is Encrypted
ON	ON	All supported file formats on disk. All Web Player and Live Monitoring communications.
ON	OFF	All supported file formats encrypted on disk. No Web Player or Live Monitoring communications.
OFF	ON	No supported file formats on disk. All Web Player and Live Monitoring communications.
OFF	OFF	No supported file formats on disk. No Web Player or Live Monitoring communications.

Transport Security and PCI Compliance

From the standpoint of PCI compliance, Uptivity WFO On-Demand, API Server, and Fusion Desktop Analytics are considered secure regardless of encryption usage. When sensitive information is communicated, Uptivity Fusion Desktop Analytics triggers the API Server to stop recording, ensuring that no such data is recorded or flowing through the application or network. Payment data is not at risk because it is not communicated over networks via Uptivity WFO, but rather through the your payment application. On-Demand is not

affected either way by encryption being on or off; it triggers call recording, and as long as that component is encrypted, then the activity is secured.

Coalfire Systems, a Payment Application Qualified Security Assessor (PA-QSA) company, has determined that Uptivity WFO is not "payment aware" at any time. Analysis of network transmissions and examination of the hard drive of the system running Uptivity WFO using industry-standard forensic tools/techniques confirmed that no cardholder data was accessible. Blackout techniques within the software render cardholder data inaccessible through call/screen recordings.

In short, when properly implemented following best practices, Uptivity WFO will not negatively impact your organization's PCI-DSS compliance status.

HTTP/HTTPS Settings

Uptivity WFO can be configured to support HTTPS. For configuration details, see [Security Overview](#). This setting affects only Uptivity WFO. Other Uptivity WFO components that communicate with the Uptivity WFO server must be configured separately to use SSL.

Appendix: Uptivity WFO Best Practices

This section provides high-level guidelines and suggestions for network, system, and Uptivity WFO administrators, based on the experience of the Uptivity WFO installation and support teams as well as the hundreds of customers successfully using Uptivity WFO.

Disk Space Management

If Uptivity WFO servers do not have adequate disk space, call recording and other functions will stop. This section explains common disk space management issues and how you can address them.

Plan for Growth

During the sales and installation processes, Uptivity WFO sales engineers use your data to recommend the amount of disk space needed. Estimating future growth and changes is difficult. These common changes alter the need for disk space:

- Adding voice channels
- Adding screen recording
- Changing desktop resolution
- Increasing call volumes

If your organization is or will be experiencing any of these or similar changes, contact Uptivity Support so that the needed disk space can be recalculated.

Remove Patches and Installers

Files used during installation and maintenance may not need to remain on the server. Examples include Uptivity software patches, downloaders, and installers. Uptivity Install and Support engineers attempt to remove all unnecessary Uptivity files. Be sure to remove any unnecessary software when you do maintenance work, such as changes to the server operating system.

Uptivity WFO Disk Space Management Features

Disk space management is affected by settings on several Uptivity WFO features. The default settings are adequate for most environments, but changes or specific situations may require setting adjustments. If disk space is a recurring issue, talk to Uptivity Support for a review of the following settings:

- **Disk Space Notifications:** see [Disk Space Notifications Overview](#).
- **Logging:** Make sure the system is not logging excessively and that files are not being saved longer than necessary. See [Logging Overview](#) for details.
- **Archiver and Archive Actions:** Confirm files are being purged after they are no longer needed.
- **Scheduling:** Confirm schedules do not have excessive retention days and are tied to Archive Actions or purging.
- **Transcoder**

Delete Files from Content Management Upload Directory

Files uploaded to the Content Library through the Discover Web Portal are stored on the Uptivity WFO server (for details, see [Web Portal Settings Reference](#)). When a file is deleted from the Content Library on the Web Portal, only the entry in the Web Portal is deleted. The actual file remains stored on the server with the filename updated to the timestamp of the deletion.

If disk space becomes an issue, you may want to manually delete these files from the server after they have been deleted through the Web Portal. Contact Uptivity Support for assistance if needed.

Delete Temporary Files after Issues

During service issues, log files grow significantly. After an issue is resolved, clear disk space by manually deleting or editing files that are no longer needed. If an application was configured for excessive or debug logging, reset it to the normal logging level.

Automatically Delete Temporary Files

Windows and IIS generate many temporary files that are retained indefinitely. These log files are mainly for troubleshooting and reviewing security. If neither of those issues is of immediate interest to you, the files can be deleted periodically. Contact Uptivity WFO Support for assistance.

Shut Down and Restart

This information applies to planned shutdowns/restarts and unplanned Windows server outages.

Microsoft server updates (patches, hot fixes, and so forth), which usually cause system restarts, typically do not affect Uptivity WFO. However, there is no guarantee that this statement is always true.

Points to consider include:

- Uptivity WFO applications and modules are typically installed as Windows services that auto-start when the server starts. Archiver does not auto-start; it can be started from the Service Manager. Uptivity Survey is not registered as a service, and the way it starts depends on how it was configured.
- If calls are being recorded when the system is shut down, those calls are lost. A file of the recorded audio is retained, but no call record is created, and the audio file is not transcoded.
- The system does not restart calls that were in the recording process at the time of the shutdown.
- If the Transcoder is processing a call when the system is shut down, the Transcoder will reprocess that call after the restart unless the maximum number of attempts has already been reached.
- If a call is being analyzed, the speech analytics engine will reprocess that call. Uptivity Speech Analytics is installed on a different server from other Uptivity applications and modules, so the only effect of work on the Uptivity WFO server should be an interruption in calls available for processing.
- If users are performing evaluations or creating evaluation or survey forms, all unsaved changes are lost.
- Scheduled processes (for example, archiving, report generation) can be affected by shutdowns. Administrators need to be aware of when these processes occur and may want to schedule shutdowns accordingly or reschedule the processes.
- The sequence in which Uptivity WFO applications and modules are started/stopped does not matter.

Shut Down Uptivity WFO Services

To shut down Uptivity WFO applications and services prior to a scheduled server shutdown or restart:

1. Follow the procedures for stopping services as described in [Start/Stop Uptivity WFO Services](#).
2. If any Uptivity WFO applications were not run as services or are not managed from **Service Manager**, log onto the desired server through Windows and use Task Manager to stop them.
3. Shut down the server, or perform desired tasks (such as Windows updates) that will require a server restart.

When the server is restarted, the Uptivity WFO applications and modules should restart and function normally. After any server restart:

1. Open a command prompt and start any desired services that are not managed from **Service Manager**.
2. Follow the procedures for starting services as described in [Start/Stop Uptivity WFO Services](#).
3. Confirm that call recording and all other functions are operating normally.

Anti-Virus Protection

inContact recommends anti-virus exclusions be configured in any system where anti-virus scanning is installed. These guidelines will assist with ensuring the reliability and performance of the Uptivity WFO system, while still providing for a secure environment. A lack of exclusions can cause system performance issues and possibly contribute to service outages.

The guidelines in this section apply to both memory-resident and on-demand scanning.

Exclusion Guidelines

This table lists recommended exclusions for each service or application. Any paths or ports shown in this document are the installation defaults only. Actual paths or ports may vary depending on configuration options set during installation.

Service/Application	Process	File, Extension, or TCP/IP Port	Default Folder
Logger Service	cc_loggerservice.exe	*.log	C:\Program Files\CallCopy\Logs\
CTI Core	cc_cticore.exe	*.cca, *.wav, *.vox, *.vox8, *.xml	C:\default_rec
Transcoder	cc_Transcoder.exe	*.cca, *.vid, *.wav, *.vox, *.vox8, *.csa, *.ccp	C:\temp\Transcoder-temp
Speech Analytics	cc_analytics.exe	*.wav, *.idx	
Screen Recording	cc_screencapservice.exe	*.vid	C:\temp\

Common File Types

Common file types associated with Uptivity WFO include:

File Type	Description
.cav	Uptivity WFO proprietary combined audio/video format generated only when a file is exported. Requires a special player, which is included with every Uptivity WFO installation and which can be copied to a shared location for general access.
.cca	Uptivity WFO raw audio pre-transcode, typically deleted after transcoding and compressed into .wav.
.ccp	Waveform that accompanies playback in the web player. Does NOT contain bookmarks; those are inserted at time of playback via stored database records. Blackouts are represented in the waveform as flat segments with no audio present.
.csa	Uptivity WFO stereo audio, typically deleted after transcoding and compressed into G729 .wav format.
.idx	Phonetic index of the recorded call created and used by the speech analytics engine. This is an Aurix proprietary format.

.log	Log files where system activities and errors are recorded. Useful in troubleshooting system issues.
.vid	Screen recording data for playback.
.vox	Compressed audio format for playback. Higher quality than .wav, but also larger file size. Mostly a legacy format now.
.vox8	Compressed audio format for playback. Higher quality than .wav, but also larger file size. Mostly a legacy format now.
.wav	Compressed audio format for playback.
.xml	Used to store call metadata or API responses to clients.

Additional Anti-Virus Considerations

The exclusion guidelines listed here are product-specific for the applications shown. For other applications it is often necessary to determine exclusions on a case-by-case basis.

Files should typically be excluded based on the following criteria:

- **Locked Files:** Includes any files permanently locked open by a legitimate server process. Examples: databases such as DHCP and SQL Server, the Windows Pagefile, and so forth.
- **Large Files:** Any files manipulated often by a legitimate server process and typically large in size. Example files and processes: copying CD/DVD images (.iso), offline maintenance of Virtual Machine Files (.vhd), offline maintenance on Exchange Server databases.
- **Temporary Files:** Any temporary files written to disk by a legitimate server process.

Appendix: File Encryption in Uptivity WFO

This appendix provides an overview of encryption, an optional feature in Uptivity WFO. If encryption was not included with your system at installation, and you would like to add this feature to your system, contact Uptivity WFO Support.

Uptivity WFO can support file level encryption for almost all audio and video data files (the exceptions are noted here). Files are encrypted as they are written to disk using AES-256-bit encryption. This provides full end-to-end protection, as files are never left on disk in an unencrypted format.

Encryption is based on a unique key generated for each individual system, typically by the Uptivity WFO installation team. If encryption is enabled on an existing system, enabling it only encrypts new files as they pass through the transcoder. Existing recording files can be encrypted using a tool available to Uptivity WFO Support personnel. Contact Support for more information.

Encryption exceptions include:

- ShoreTel TAPI/WAV recording generates unencrypted .wav files. Since Uptivity WFO relies on a third-party library to generate these files, the application cannot encrypt them while they are writing. However, the Uptivity WFO Transcoder module will convert the files to an encrypted format if/when they are transcoded.
- XML files that contain call metadata are not encrypted. However, these files are not required. To turn off .xml file generation, contact Uptivity WFO Support.

If the database becomes unavailable while a Core service is running, encryption will continue operating. However, Core services that utilize encryption cannot be started or restarted without a connection to the database. For security reasons, encryption keys cannot be stored locally to allow for this.

Encryption Best Practices

- **Never** delete keys from the database.
- If a key is lost, any files encrypted with that key will be completely inaccessible.
- Whenever you generate a new key, export it using the `cc_crypt.exe` utility. Keep the exported file in a secure location that is backed up regularly. This will help guard against possible loss of data.

- To disable encryption, consult Uptivity WFO Support to deactivate all active encryption keys via `cc_crypt.exe` commands or database manipulation. All audio and video files generated thereafter will not be encrypted. However, audio and video files generated while encryption was enabled can no longer be played unless the appropriate encryption key is reactivated. Attempting to play such a recording results in an error.
- Do not deactivate keys when there are active files using those keys. Wait until any files with that key have been removed due to archiving.

Thales Encryption vs. Standard Key Management

Uptivity WFO can integrate with Thales Encryption Key Management, a system that provides similar functionality to Uptivity WFO Encryption key management. For a more detailed explanation on the hardware, software, and configuration of the Thales platform's functionality, see the *Uptivity WFO Thales Encryption Technical Brief*.

When determining whether to use Thales or the built-in functionality of Uptivity WFO, consider the structure of the encryption system:

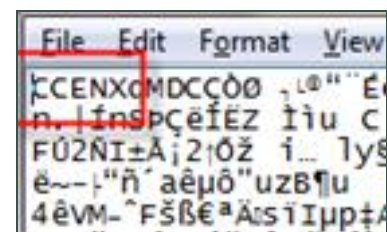
- In Uptivity WFO, the Primary Key is stored in either a DLL or ASCII text file. In Thales, the Primary Key is in a data store attached to a Thales box. This key is used to decrypt...
- The Database Key(s), stored in the Uptivity WFO database, which are used to decrypt...
- The File Key, stored in the header of the encrypted file.

If the Primary Key becomes corrupt or lost, it can be easily replaced or changed if in the Thales or ASCII text file format. If the key is stored as a DLL, the file will have to be decompiled, updated, recompiled, and replaced in the system. Both Thales and the Uptivity WFO ASCII text file option offer a similar level of flexibility. The main difference is the extra hardware, cost, and configuration required when integrating Thales into the Uptivity WFO environment.

Verify File Encryption

To determine whether a particular recording file is encrypted, open the file in Notepad. If the file is encrypted, the letters "CCENX" will appear right at the beginning.

If the file is not encrypted, those characters will be missing.



Appendix: Uptivity Screen Recording Administration

This section contains knowledge and procedures related to the optional Uptivity Screen Recording component. If screen recording was not included with your system at installation, and you would like to add this feature to your system, contact Uptivity WFO Support.

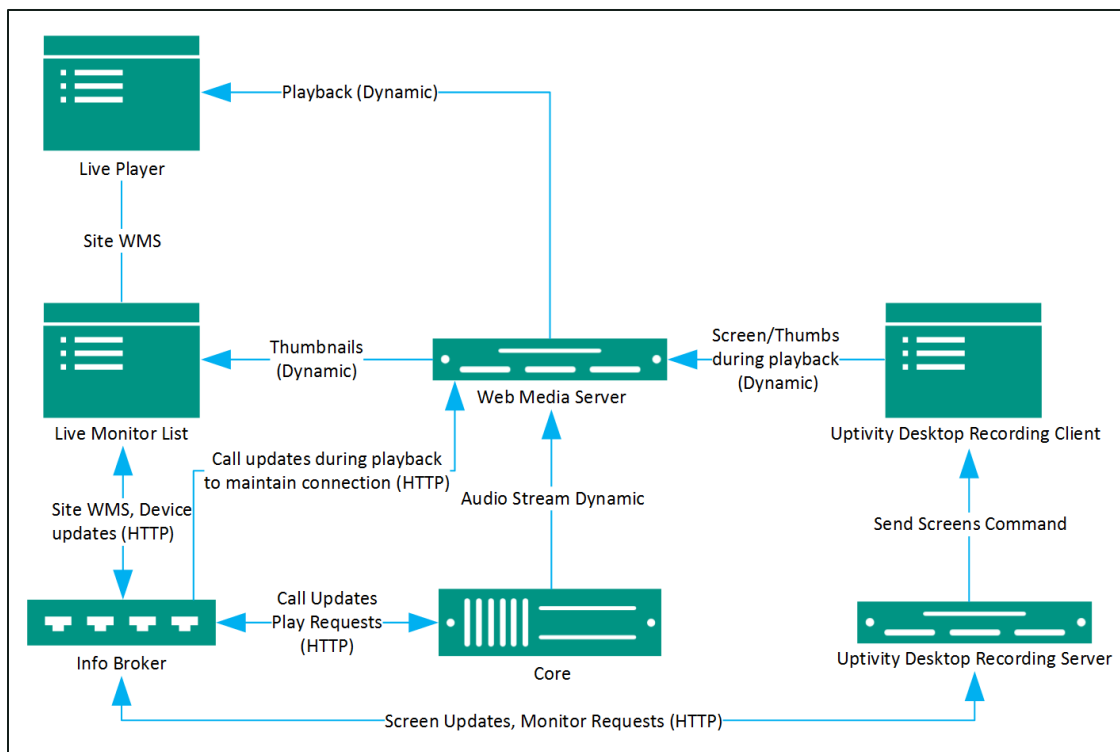
Screen Recording Overview

Uptivity Screen Recording is a client/server system application that:

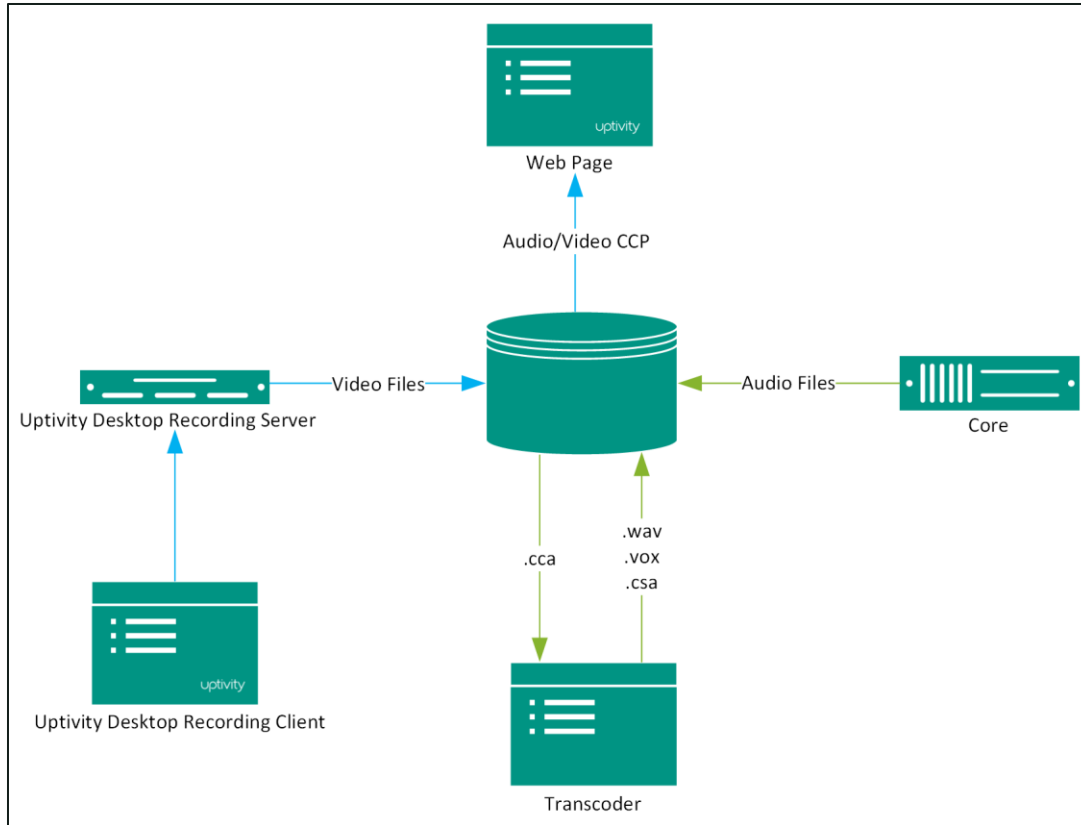
- Captures video and application-window data from Windows workstations and collects video data into VID files that can be played back along with recorded audio for a call.
- Enables live monitoring of user desktops.

These diagrams illustrate the system components involved in the functions stated here. The table that follows provides additional details.

Live Monitoring of User Desktops



Screen Recording of User Workstations



Component	Function
Screen Recording Client	Installed on the agent’s computer. Sends desktop images and other information to Web Media Server and Screen Recording Server.
Web Media Server (WMS)	The client must connect to the WMS. WMS works with other components to deliver images and agent status information. Used for live monitoring and other features.
API Server	Provides initial state of the client to the WMS.
Information Broker	Manages traffic and requests between components. Allows for load balancing of screen recording and live monitor processes.
Uptivity WFO Database	Provides WMS with the list of agents used to determine who can and should be monitored.
Uptivity WFO Core	Delivers call audio, which the WMS matches with the desktop images.
Web Portal Live Monitor List	Displays list of agents that can be monitored. Plays audio and desktop images.

Screen Recording Server (SRS)	Captures video from the client and writes it to the file system. Manages connection to the client.
File System/Disk	Storage location for video files and audio files.
Transcoder	Converts that raw audio files (.cca) to WAV file formats.
Interactions List/ Call List	Discover Web Portal page used by supervisors and agents to review recorded call audio and video.

Considerations

During the sales process, an Uptivity WFO sales engineer works with your organization to determine the best way to implement the software. The number of users/agents is a key issue. Growth in the number of agents affects performance and may necessitate changes to the implementation design.

Determining the number of users that can connect to the WMS(s) and SRS(s) is complicated due to the different combinations of Uptivity WFO services that can be run from a single server. In a standalone configuration, where the WMS or SRS is the only Uptivity WFO service installed (except for the Loader and Logger services which are standard on every server), there can be a *maximum* of 750 simultaneous connections and 300 active concurrent screen recording or playback sessions.

Security and PCI Compliance

Interactions between Uptivity WFO suite components (for example, servers, Web Portal), file servers, and archive devices can use SSL and TLS for data in transit, and the data can be encrypted to disk when written. For more information, see [Appendix: System Security in Uptivity WFO](#) and [Appendix: File Encryption in Uptivity WFO](#).

Screen Recording Server Settings Reference

Screen Recording Server(s) are typically configured as part of the installation process. This section will help you understand the settings that govern its operation. Do not change these settings without contacting Uptivity Support.

- **Host:** IP address of the Screen Recording Server.
- **Port:** Communication port used by the Screen Recording Server.
- **HTTP Port:** Port used for messaging traffic with Info Broker. The default value is 2014.
- **Write to Temp:** Enabled when the Screen Recording Server is not local to the recording location.
- **Default Temp Location:** Location for temporary video files written by the server.
- **Raise Error on Start Fail:** When enabled, an error level notification is generated every time the server cannot initiate a recording with a client.
- **SSL Certificate Name:** Type the certificate filename.
- **SSL Certificate Pass:** Type a password if the certificate is not in the IIS store and Uptivity WFO needs to load it.
- **Screen Capture Path:** Type the path where screen captures will be stored.
- **Location:** Location with which this Screen Recording Server is associated.

Workstation Mapping Overview

In most cases, you do not need to take special steps to ensure Uptivity WFO records the correct workstation for each user. By default, Uptivity WFO looks at the system username (in other words, the Windows login) in a user's profile, compares it to logged-in usernames reported by Screen Recording clients, and matches the workstation to the user accordingly.

In situations where this lookup fails or cannot be used (for example, Windows usernames are not unique for each agent or the software fails to report the correct username), Uptivity WFO supports an alternate method of statically mapping a phone extension (Device ID) to a Windows workstation name. However, if usernames are not unique, the following features will not work correctly:

- Live Monitoring
- Screen Recording Reporting
- Timed Schedules
- Screen Recording Desktop Analytics

- System Status – Screen Recording Agent Report
- "Current application" reporting based on user, seen in Clarity WFM's real-time display and the System Status page

Configure Workstation Mapping

To enable static workstation mapping:

1. Click the **Administration** tab and expand **System Settings** in the left navigation menu.
2. Click **Workstations Settings** and then click **Add**.
3. In the **Device ID** field, type the phone extension associated to the workstation.
4. In the **Station** field, type the Windows workstation name or its IP (if static).
5. Click **Save**.

To delete a single entry from the list:

- Select the station and click the  icon.

To delete all entries from the list


- Click the **Delete All** button at the top right.

Import Workstations (Optional)

You can add multiple workstations simultaneously by importing them. This function appends a list of workstations to the end of the current Workstations list.

To import a workstation list, you must create a Comma Separated Value (.csv) file in the following format:

```
Workstation, Port
```

 The on-screen instructions state that the format should be "Workstation, Port, LocationID". LocationID is needed only if "Allow Lookup by Agent / Workstation" is enabled. If this setting is not enabled, do not include LocationID in your file.

An example of this file would be:

```
Wkstation01,1234
Wkstation02,2222
Wkstation03,2345
Wkstation04,4321
```

To obtain Location IDs:

- Click the **Administration** tab and expand **System Settings** in the left navigation menu, then click **Locations Settings**.

To import a CSV file containing workstation data:

1. Click the **Administration** tab and expand **System Settings** in the left navigation menu.
2. Click **Workstations Settings** and then click **Import Workstations**.
3. Click **Browse**, then locate and select your CSV file.
4. Click **Upload File** and then click **Import Now**.

Configure User Accounts for Screen Recording

Users running Screen Recording must have their Windows network ID in the System Username field of their Uptivity WFO user accounts. Each user must have a unique username, even if the users are on different Windows domains.

For explanation of these fields, see [User Accounts Reference](#).

Screen Recording Client Overview

The Screen Recording Client must be installed on every workstation to be recorded.

If you are upgrading from a previous version of Uptivity WFO, Screen Recording Server v5.5 will not be backward-compatible with installed screen recording clients older than v5.4. In addition, Screen Recording Clients v5.4.x.1339 or higher are labeled "Uptivity Screen Capture" in Add/Remove Programs, and are installed to Uptivity instead of CallCopy directories.

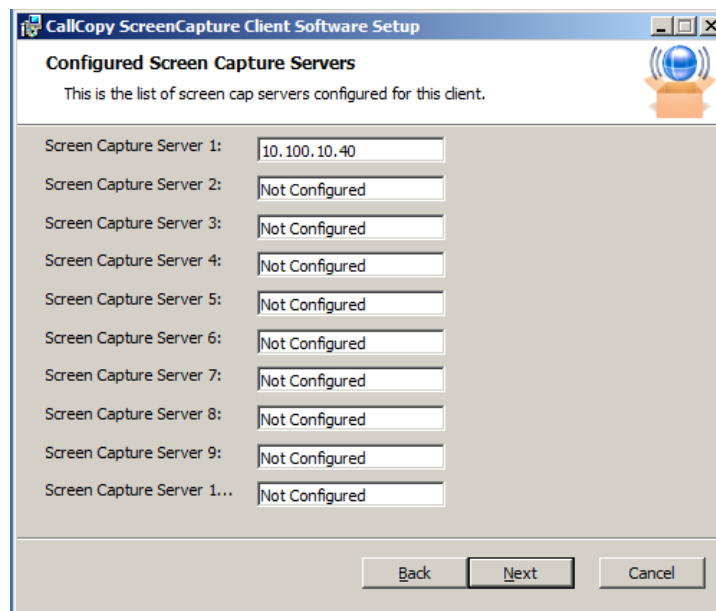
For these reasons, uninstall any earlier version of the Screen Recording Client before installing a new version. You can do this through the Windows Add/Remove Programs functionality in the Control Panel. The software will be labeled "CallCopy ScreenCapture Client Software".

Install the Screen Recording Client

The Uptivity Screen Recording Client installer can be obtained from any Uptivity WFO server by browsing to the C:\Program Files (x86)\CallCopy\Installers\ folder. The application installer is named "Screen Capture Client Installer.msi".

To install the screen recording client on a user workstation:

1. Copy the installer to the workstation and double-click the installation MSI file.
2. Click **Next**.
3. Select the checkbox to accept the License Agreement and click **Next**.
4. On the Custom Setup page, set the directory where the client software will be installed by clicking the **Browse** button and selecting a folder. To verify the workstation has enough disk space to install the software, click the **Disk Usage** button.
5. Click **Next**.
6. Type the IP addresses of all Screen Recording servers for the Location where the client will reside and then click **Next**. If more than 10 servers exist in a Location, more can be added via the Screen Recording Client's INI file.



7. Click **Install**.
8. Click **Next** when the **Status** bar indicates installation is complete and then click **Finish**.

The client will not run until either the user's workstation is restarted or the client is manually started.

To manually start the client:

- Navigate to the directory in which it was installed and double-click the file **CC_ScreenCapClient.exe**.

Silent Options for Client Installation

The client installer also has options to install silently, with no user intervention required or allowed. The installer uses standard Windows Installer options available by running the "**msiexec.exe**" application.

Install Options

```
</package | /i> <Product.msi>
```

Installs or configures a product

```
/a <Product.msi>
```

Administrative install - Installs a product on the network

```
/j<u|m> <Product.msi> [/t <Transform List>] [/g <Language ID>]
```

Advertises a product - m to all users, u to current user

```
</uninstall | /x> <Product.msi | ProductCode>
```

Uninstalls the product

Display Options

```
/quiet
```

Quiet mode, no user interaction

```
/passive
```

Unattended mode - progress bar only

```
/q[n|b|r|f]
```

Sets user interface level

n - No UI

b - Basic UI

r - Reduced UI

f - Full UI (default)

```
/help
```

```

Help information

Restart Options

/norestart

Do not restart after the installation is complete

/promptrestart

Prompts the user for restart if necessary

/forcerestart

Always restart the computer after installation

```

Using these parameters, you can install the software automatically and require the computer to be restarted after. An example command for that configuration would be:

```
Msiexec.exe /i "C:\CallCopy ScreenCap Client Installer.msi" /passive /forcerestart
```

This command must be run from the command prompt to process properly. If the silent install is used with default settings, the configuration settings will not be set to connect to any server. The configuration files must be modified afterwards, or the MSI package will need to be extracted and the configuration file replaced. Ask your Uptivity WFO installation team for assistance.

Configure the Screen Recording Client INI File

The client settings are read from a configuration file that is stored in the client installation directory. The file is named **CC_ScreenCapClient.ini**. The INI filename should always match the name of the executable it configures. This file contains the settings configured during installation, and advanced settings used for adjusting screen capture performance in different environments.

In most cases, you will not need to make any changes to the INI file. However, there may be times when you are asked to do so under the supervision of Uptivity Support.

For reference, Screen Recording Client INI settings and their default values (if applicable) are shown on the left in this table, with additional explanation of the settings detailed on the right.

[app-settings]	
delay=0	Specifies the delay in seconds before the client begins recording.
log_level=info	Specifies the application logging level. The "debug" level gathers more client information but may cause performance issues.
use_logging=1	Specifies whether to use client application logging. Set to 1 to enable, 0 to disable.
priority=belownormal	Specifies the priority for the client process. Possible settings, from highest to lowest are: realtime, high, abovenormal, normal, belownormal, low. Increasing priority may result in better screen recording performance, but will utilize more system resources.
create_form=0	When enabled, a console window is displayed when the client runs. This should only be enabled during active debugging or troubleshooting. 1 = Enabled, 0 = Disabled.
[server-settings]	
Number_screencap_servers=1	Specifies the number of Screen Capture Servers to which the client will connect.
Screencap_host1=127.0.0.1	IP address of first Screen Recording server. If more than one is present, add a setting for host2=, host3=, and so forth. Multiple hosts may be needed for redundancy or load balancing.
screencap_port1=5633	TCP Port used to connect to first Screen Recording Server. If more than one is present, add a setting for tcp-port2=, tcp-port3=, and so forth.
[capture-settings]	
Custom_capture=0	Optional setting that allows capturing a fixed resolution portion of the screen, the values for which are specified in the following settings. Useful in certain environments where issues persist with capturing specific resolutions. For example, if the settings are configured as left = 0, right = 1024, bottom = 768, top = 0, the top left 1024x768 pixels of the screen would be captured. For this setting, 1 = Enabled, 0 = Disabled.
custom_capture_left=0	Specifies the left border setting in pixels if using custom capture.

custom_capture_right=0	Specifies the right border setting in pixels if using custom capture.
custom_capture_bottom=0	Specifies the lower border setting in pixels if using custom capture.
custom_capture_top=0	Specifies the upper border setting in pixels if using custom capture.
capture_frequency=1000	Specifies the time in milliseconds between screen captures. Increasing this value results in smaller screen capture files. Do not set below 1000.
livemon_capture_frequency=5000	Specifies the time in milliseconds between Live Monitor screen captures. Decreasing frequency improves performance but provides screen updates less often.
width_slices=1	Settings used to determine how portions of screen data are collected. If width is set to 1 and height is set to 10, data is captured as 10 vertical slices and 1 width slice. Generally these settings do not need to be changed.
height_slices=10	
use_mirror=0	When enabled, this setting forces the client to use a mirror driver as opposed to the standard bitblt driver for capturing screens. Only enabled if drivers for bitblt are not used or available in your environment. 1 = Enabled, 0 = Disabled.

Screen Recording Troubleshooting

This section outlines a variety of considerations and procedures that can be helpful in troubleshooting screen recording issues.

Laptops, New Monitors, Projectors, Changing Resolution

Changes such as plugging in additional monitors/projectors, changing the screen resolution, and docking/undocking a laptop affect the Screen Recording Client's performance. When a user's computer starts, the client is initialized, and the screen recording area including the number of display devices is detected. Changes to the capture area are not detected automatically.

Problems can be minimized by following these recommendations:

- If a new display device (monitor, projector, and so forth) is plugged into a computer, the computer must be restarted.

- If a laptop uses a docking station and monitor, it must be docked before it is started in order for the client to detect the monitor.
- If a laptop is undocked without powering down and then docked later, it must be restarted.

Multiple Monitors and USB Adapters

Uptivity Screen Recording supports capturing from computers using video cards and monitors in these configurations:

- Monitors using portrait and landscape layouts.
- Multiple monitors placed side-by-side horizontally.
- Multiple monitors stacked vertically.
- Multiple monitors arranged both horizontally and vertically (for example, two vertical rows of three monitors).
- Multiple monitors connected to multiple video cards.

There is no limit to the number of monitors that can be recorded. For monitors connected via a USB adapter, the Screen Recording Client does not support vertically stacked monitors.

Desktop Background Images

inContact strongly recommends user desktop backgrounds be one solid color. Background patterns, logos, themes, and pictures dramatically increase video file size. Larger files consume disk space and make call playback slower and choppy.

System Events and Screen Recording

Screen recording behavior can be affected by system events like starting screen savers, locking desktops, and logging on or off the system. This section explains how screen recording reacts to these scenarios. Behavior is the same for Windows 7 and Windows XP except where specifically noted.

General Operation

The Screen Recording Server always keeps track of the time of its last communication with each client. If a client stops sending data, the Screen Recording Server repeats the last frame it received until the client starts sending new data again.

If the Screen Recording Server has not received any communication from a client for two minutes, it stops the video recording and unlocks the video file. It also marks the Screen Capture field for that recording as "Closed Due To Inactivity," meaning that the video is

assumed to be erroneous and the Web Player will not attempt to play the video, though the video itself is intact. Live Monitoring is not affected by this timeout.

Logging Off, Restarting, and Shutting Down

When a user shuts down, restarts, or logs off their computer, the client stops sending data. When this happens, the Screen Recording Server inserts the last frame it received into the video until the two-minute timeout is reached.

If the call ends before this timeout is reached, the video for the recording is marked as valid. If the timeout is reached before the call ends, the screen capture is stopped and the video file is closed and marked "Closed Due To Inactivity." The timeout causes the Screen Recording Client to lose its state, meaning that even if the call is still active, screen capture will not resume until the machine is restarted or the user logs in again.

Switching Users

While the second user account is active, screen capture data is not sent. If the user switches back to the first account, data transmission resumes. If the timeout occurs because no data is sent for two minutes, the video file is closed and marked "Closed Due To Inactivity".

Screen Saver – Without Login Required

When a screen saver is displayed, the video of the screen saver itself will be displayed in the video file. Screen recording continues working normally, sending the screen shots as they appear to the user.

Screen Saver – With Login Required

In Windows 7, when a locking screen saver is displayed, the user desktop will continue to be displayed in the video, regardless of the fact that the user cannot see their desktop. This event has no noticeable effect on screen capture, but is still subject to standard timeout parameters.

In Windows XP, while the machine is locked by a screen saver, data is not sent. If the machine is unlocked, data transmission resumes. If the timeout occurs because no data is sent for two minutes, the video file is closed and marked "Closed Due To Inactivity".

Sleep Mode

While the machine is asleep, data is not sent. If the machine is woken up, data transmission resumes. If the timeout occurs because the Screen Recording Server receives no data for two minutes (including Sleep time), the video file is closed and marked "Closed Due To Inactivity".

Hibernation

While the machine is hibernating, data is not sent. If the machine is woken up, data transmission resumes. If the timeout occurs because the Screen Recording Server receives no data for two minutes (including Hibernation time), the video file is closed and marked "Closed Due To Inactivity".

Screen Lock

In Windows 7, when the machine is locked, the user desktop continues to be displayed in the video, regardless of the fact that the user cannot see their desktop. Essentially, locking the screen has no effect on screen recording, but is still subject to standard timeout parameters.

In Windows XP, while the machine is locked, data is not sent. If the machine is unlocked, data transmission resumes. If the timeout occurs because no data is sent for 2 minutes, the video file is closed and marked "Closed Due To Inactivity".

Troubleshooting Procedures

If a workstation that has the Screen Recording Client software installed is not being recorded, there are specific troubleshooting steps that can be performed before contacting Uptivity Support.

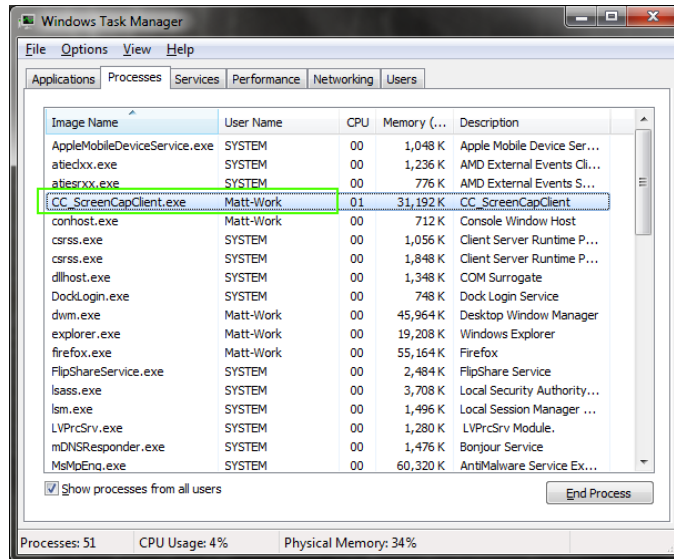
Confirm the User Account Configuration

The user's account must be correctly configured to support screen recording. For details, see [Configure User Accounts for Screen Recording](#).

Verify the Client is Running

To verify the Screen Recording Client is running on the agent's workstation:

1. Open **Windows Task Manager** on the workstation.
2. On the **Processes** tab, verify the **CC_ScreenCapClient.exe** process is listed.
3. Verify the process is running under the **User Name** that is currently logged into the computer. Two clients can run under the same user name; this situation commonly occurs in terminal services.



Check the System Status Report

If the Screen Recording Server is running, the Screen Recording Client status can be viewed from the **System Status** report on the Web Portal. The Agent Status section of the report lists all Screen Recording Clients that are successfully connected to the system.

You must have the **Allow Viewing System Reports** permission to be able to view the report.

To access the System Status report:

1. Click the **Reporting** tab in the Discover Web Portal and expand **System Reports** in the left navigation menu.
2. Click **System Status**.
3. Scroll to the **Agent Status** section at the bottom of the report.

Agent Status						
Status	Last State Change	Computer	Username	IP Address	Port	Version
AVAILABLE	Sep 8 2010 5:01PM	BKNACK-LAPTOP	bknack	10.100.5.12	0	4.3.1.0
AVAILABLE	Sep 8 2010 2:32PM	KKRESS-NEWLAPTO	kkress	10.100.5.232	0	4.3.1.0
AVAILABLE	Sep 8 2010 5:30PM	NSOWERS-LAPTOP	nsowers	10.100.5.20	0	4.3.1.0
AVAILABLE	Sep 7 2010 9:42AM	SEDDY43	Administrator	10.100.5.59	0	4.3.1.0
AVAILABLE	Sep 8 2010 11:42PM	TURBOBEAST	Matt-Work	192.168.1.70	0	4.3.1.0
AVAILABLE	Sep 8 2010 11:42PM	TWILLIAMS-LAPTO	twilliams	10.100.5.41	0	4.3.1.0

4. Verify the desired workstation name is listed in the **Computer** column.
5. Verify the correct user is listed in the **Username** column.
6. Verify the value in the **Status** column is **AVAILABLE**.

If this information is not present for an agent's computer, the client is not communicating to the Screen Recording Server and you will need to investigate and resolve the network/communication issue.

Obtain Screen Recording Client Logs

If the client is available according to the steps listed in the previous sections, it may be necessary to contact Uptivity WFO Support for further assistance. Before contacting Support, you should collect the Screen Recording Client log files for use in troubleshooting.

To obtain these logs from the agent workstation:

- Navigate to %APPDATA%\CallCopy\CC_ScreenCaptureClient\.

The client log files are listed inside, with one log file listed for each date the Screen Recording Client was running. The log files follow a 'yyyymmdd.log' format (for example, 20100901.log). Copy these log files so you can forward them to inContact Support for analysis.

Document Revision History

Revision	Change Description	Effective Date
0	Initial version for this release	2015-09-01