

ICE Voice 1.2

Integrated ICE Voice Solution - Installation and User Guide

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Preface

About this guide

This document is intended to help users of the USC-Integrated ICE voice solution to install, use Unigy Soft Client and manage voice communications effectively.

This guide describes how to install the Unigy Soft Client software, its features and how to manage calls when using the ICE Voice application.

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Document Conventions

This topic describes the typographic conventions used in this manual:

- To indicate a user interface item to select or click:

Click **Help**. The *Help* dialog box opens.

Style Note: This is a **san-serif bold** font.

- To indicate a sequence of UI clicks:

Click **File** ► **New** ► **Command**.

Style Note: This is a **san-serif bold** font.

- To indicate window, screen, or panel names:

The *Help* dialog box opens.

Style Note: This is an *italicized* font.

- To indicate text to be typed or entered for **user input** or command names:

Type **install** at the prompt and press **Enter**.

Style Note: This is a **Fixed-Width Bold** font.

Type `ls -al` at the prompt and press **Enter**.

Style Note: This is a **Fixed-Width Bold** font.

- To indicate variables to be typed or entered:

Type *yourPassword* and press **Enter**.

Style Note: This is a **Fixed-Width Bold Italic** font.

- To indicate screen text such as prompts:

At the `Enter your password` prompt, type your password.

Style Note: This is a **Fixed-Width** font.

- To indicate file and directory names:

The `error.log` file is stored in `/var/log`.

Style Note: This is a **Fixed-Width** font.

- For references to other documents:

Refer to the *Security Administrator Guide*.

Style Note: This is an *italicized* font.

Space Designator

When the user needs to type a space in a command, a single space is used in the command text.

Key Combinations

Many instructions include key combinations where it is necessary to press two keys simultaneously. For example, when **CTRL+C** is specified, it means press and hold down the **Control** key and press **C** at the same time.

Note styles

Note

This is a Note and is used to alert you to important information.

Tip

This is a Tip and is used to provide helpful suggestions or hints.

Caution

This is a Caution and is used to alert you to any procedures in which extreme caution must be used.

Warning

This is a Warning and is used to alert you to dangerous situations or procedures that must be completed in a specific manner to prevent a dangerous or damaging situation.

1 Introducing ICE Voice

This document is intended to familiarize ICE Voice users with the required Unigy Soft Client installation and functionality.

The ICE Chat application is an advanced messaging system used to collaborate with other market participants. For details, refer to .

IPC has integrated a solution called ICE Voice into the ICE Chat desktop application.

This solution allows ICE Chat users to communicate by voice. The user runs the ICE Voice features within the ICE Chat application.

ICE must rely on the Unigy Soft Client desktop application and some of its features to enable voice communication between ICE Chat participants.

The aim of this document is to familiarize ICE Voice users with the necessary Unigy Soft Client installation and functionality.

For more details on Unigy Soft Client installation, refer to .

2 Basic Unigy Soft Client installation

This section presents the steps involved in installing the Unigy Soft Client on the end-user's computer.

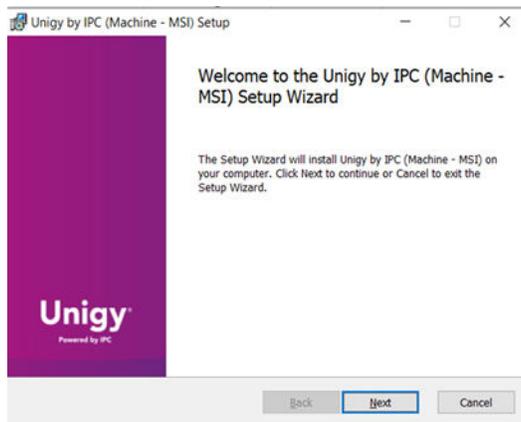
Prerequisites:

- You must have previously loaded the zipped ICE Voice Installer folder on the end-user's computer, which will be used to run the MSI file to install Unigy Soft Client.
- You must have the administrator privileges to log on to each client computer and run the Unigy Soft Client installation.
- The end user's computer must be Microsoft Windows 7, 8.1, 10 or 11 (32-bit or 64-bit).

1. Unzip the ICE Voice Installer zipped folder.

2. In the unzipped folder, double-click on the ICE Voice installer file (Windows batch file). The MSI installer file is executed and the installation wizard opens with the following window.

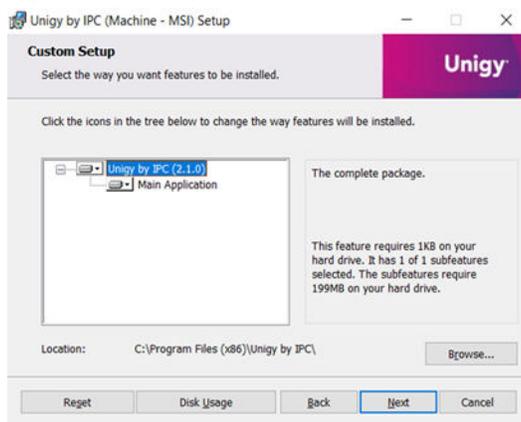
Figure 1: MSI installation wizard



3. Click **Next**.

The default location of the container file is displayed (C:\Program Files (x86)\Unigy by IPC).

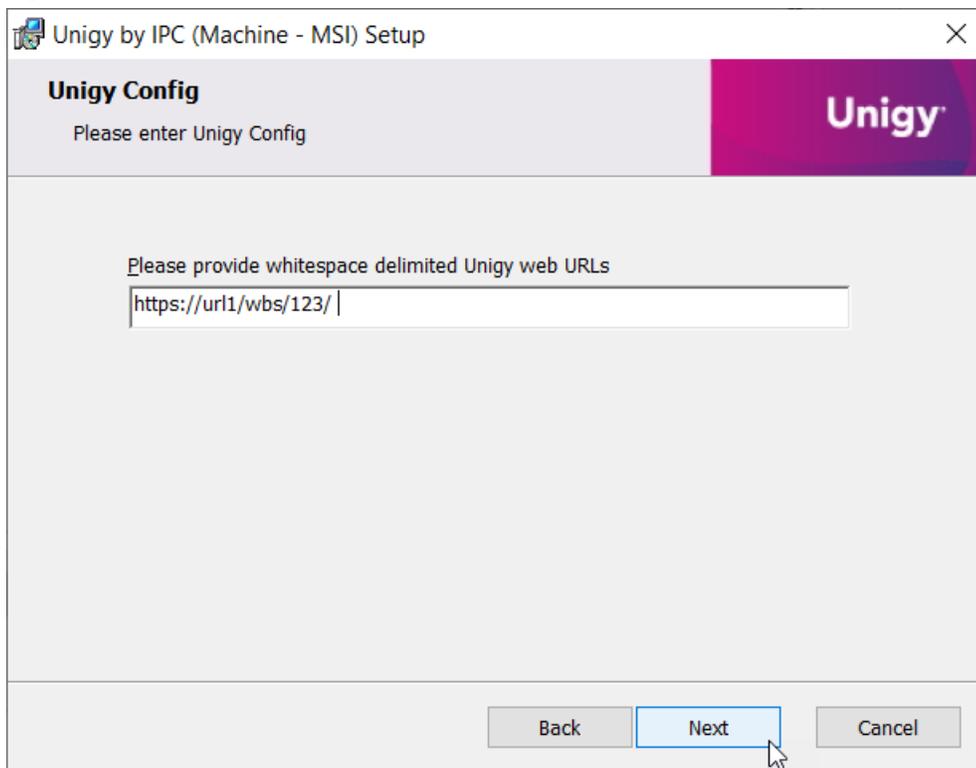
Figure 2: Default path of the container file



4. Click **Next**.

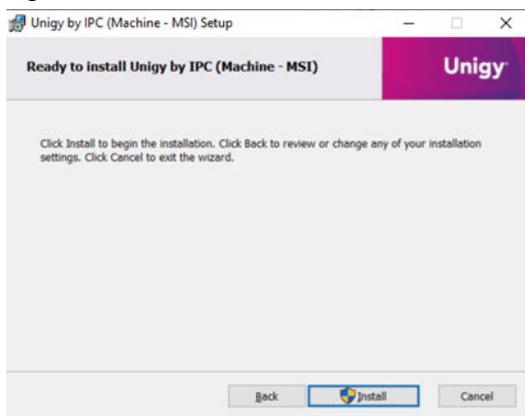
The URL of the web server is automatically filled in, so you don't need to change it.

Figure 3: Web server URL



5. Click **Next**.

Figure 4: Install button



6. Click **Install**.

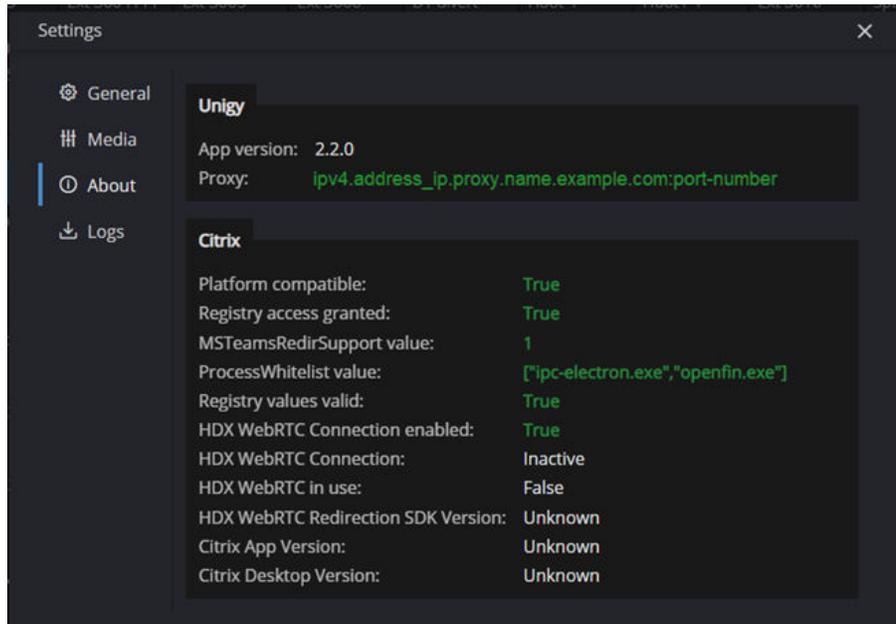
The container file is installed on the end user computer.

7. Check your Unigy Soft Client proxy settings if you have any.

Note

The Electron container uses the proxy settings that are configured for Google Chrome on the user's computer. The Electron proxy settings can be checked on the **About** page of the **Settings** menu in the Unigy Soft Client application (see Unigy section), as shown in the screenshot below (this is an example of a standard proxy settings format).

Figure 5: Proxy settings



8. Repeat this process for each computer that you want to use the Unigy Soft Client application.

3 Advanced MSI file setup

This process is only necessary if you want to package the container installation before deploying IPC Agility. It is intended for IPC certified technicians or customer administrators only. It is not intended for end users.

Note

If IPC Agility has already been installed prior to the desktop application deployment, you do not need to configure the container as it is automatically configured to point to the web server from which it is downloaded whenever Unigy Soft Client applications are deployed or upgraded.

Configure the MSI container file in the following scenarios:

- You have to package the container installation before deploying IPC Agility (Unigy Soft Client software URL needs to be configured manually).
- The customer first used their own web server to deploy the container to the users' computers and now needs to change the web server URL to point to a different server (for example, the IPC Agility platform web server that would replace the existing one).

The MSI installation file can be run in silent installation mode or by running it through the MSI user interface. When you use the MSI user interface, you can select the location where the container file will be installed and configure the Unigy Soft Client software URL. The 2 methods are shown below.

Note

If you leave the URL empty, the application will not work and you will get an error when running it.

Note

As a best practice, IPC recommends using the FQDN instead of an IP address, which facilitates redirection efforts in case one of the IPC Agility fails.

3.1 MSI silent installation mode

The silent installation mode uses a command line (executed by an administrator only) on each client computer that can be customized with few parameters.

Prerequisites:

You must have the administrator privileges to run commands from a Microsoft Windows command prompt on client computers.

1. Log in to the end user's computer with administrator privileges.
2. From the Windows command prompt, type the following command if no optional parameters are needed.

```
ipc-electron-VERSION-TYPE.msi /qn
```

, where `ipc-electron-VERSION-TYPE.msi` is the MSI installer file.

Note

The following optional parameters can be added to the command line if needed:

- APPLICATIONROOTDIRECTORY (string): Used to define the destination of installation file (by default, the installation file is located on C:\Program Files (x86)\Unigy by IPC folder).
 - IPCCLIENTURL (string): URL of web app used in the container (default value is provided during build process in system environment variable: *IPC_CLIENT_URL*).
 - IPCCLIENTSTRICT (boolean): Enable or disable strict mode for HTTPS certificate validation (default value is provided during build process in system environment variable: *IPC_CLIENT_STRICT*).
-

Note

The contents of the Windows ICE Voice Installer batch file determine which URL is automatically entered during installation. You can check this by editing the file. However, it should not be necessary to modify this URL.

4 Unigy Soft Client start-up procedure

This section describes the Unigy Soft Client startup and configuration procedure you need to follow when using ICE Voice for the first time. The Unigy Soft Client settings should remain the same to ensure optimum use of ICE Voice audio streams.

ICE Voice, part of the ICE Chat application, relies on Unigy Soft Client to support voice audio streams. The following procedure helps you manage the recommended Unigy Soft Client settings when using ICE Voice.

This procedure covers the following objectives:

- Disable Call notifications and alerts in Unigy Soft Client.

Note

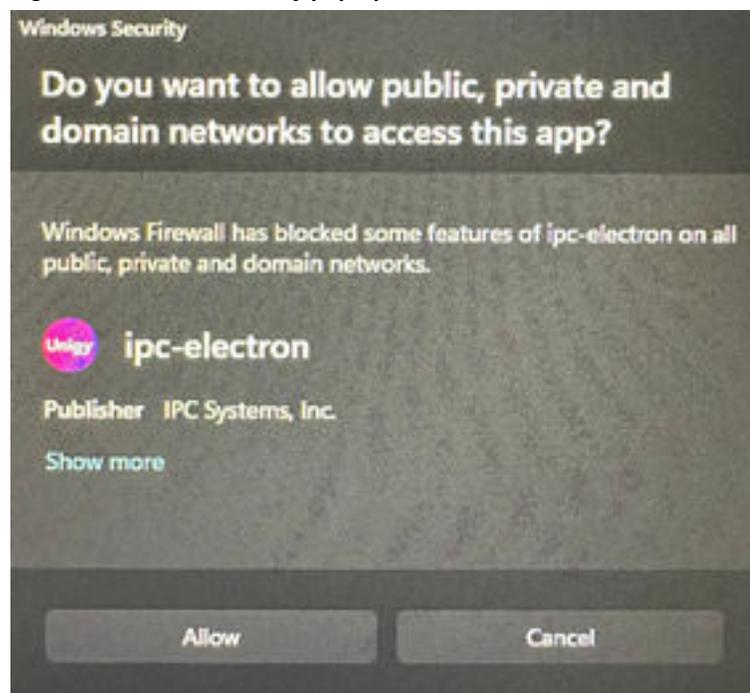
Call notifications and alerts are managed through ICE Chat only.

- Configure left handset and speaker.
-

Important

When you first run Unigy Soft Client, click **Allow** if prompted by the *Windows Security* pop-up:

Figure 6: Windows Security pop-up



Note

Unigy Soft Client must be running for ICE Voice to activate voice services. An ICE Chat message will alert the user if Unigy Soft Client is not running. Once Unigy Soft Client has been started and correctly configured, it should be minimized, as all necessary actions will be carried out using ICE Voice.

1. Click the Unigy Soft Client icon on your screen.

The login screen is displayed.

Figure 7: Log in (with Logs icons)



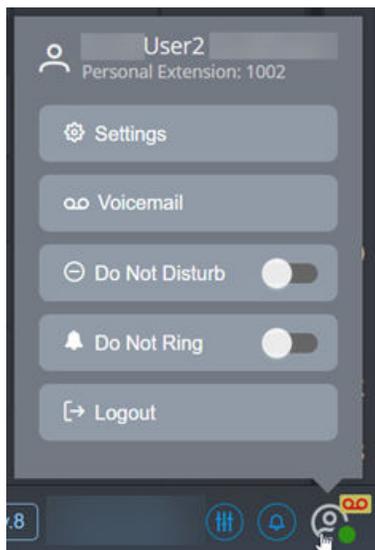
2. Type your username and password. Optionally, check **Remember me** to allow Unigy Soft Client to remember your username. Click **Sign in**.

Note

If the E911 disclaimer feature is configured and enabled for you, a popup containing the E911 disclaimer message is displayed. You must accept the message before you can continue to log in.

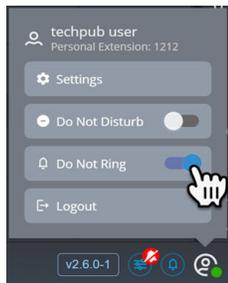
3. Click on the **User Badge** icon in the Unigy Soft Client application footer.

Figure 8: User badge menu



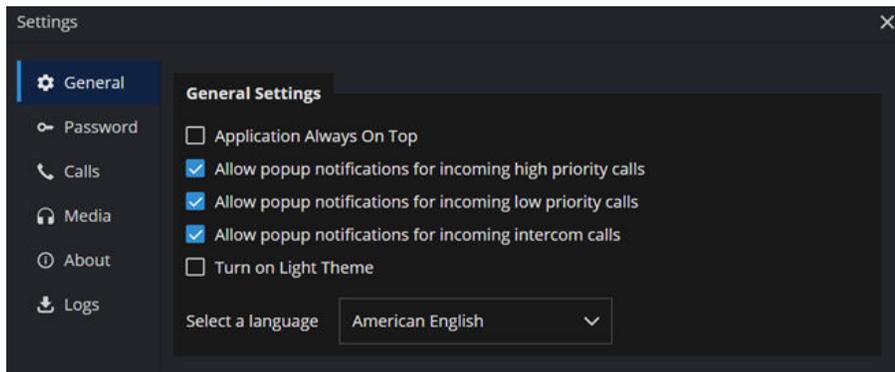
4. Activate **Do Not Ring**.

The button slides to the right and a crossed-out bell icon (white on a red background) appears in the footer (overlaid on the media device settings icon).

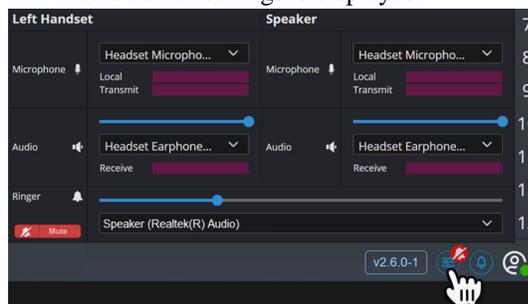


5. Then click on **Settings**.
The **General Settings** menu is displayed.

Figure 9: General Settings



6. Be sure to uncheck the following options:
 - a) **Allow popup notifications for incoming high priority calls** .
 - b) **Allow popup notifications for incoming low priority calls** .
 - c) **Allow popup notifications for incoming intercom calls** .
7. Optionally, define your language using the **Select a language** setting. This option allows you to choose between **American English** and **French (France)** language.
8. Close the **Settings** menu.
9. Configure left handset and speaker:
 - a) Click on the media device settings icon in the Unigy Soft Client application footer.
The media device settings is displayed.



- b) Select the appropriate device for the left handset's microphone and audio.

- c) Select the appropriate device for the speaker's microphone and audio.
10. Click on the media device settings icon to close the menu and minimize the Unigy Soft Client application.

5 Unigy Soft Client functionality

5.1 Log in

Perform the following steps to log in to the Unigy Soft Client.

1. Click the Unigy Soft Client icon on your screen.

The login screen is displayed.

Figure 10: Log in (with Logs icons)



Note

If single sign-on is configured with the customer, the client's Identity Provider (IDP) login page is displayed, which may be different from the login page shown above.

2. Type your username (e-mail address) and password. Optionally, check **Remember me** to allow Unigy Soft Client to remember your username. Click **Sign in**.

Note

If the E911 disclaimer feature is configured and enabled for you, a popup containing the E911 disclaimer message is displayed. You must accept the message before you can continue to log in.

5.1.1 Logs

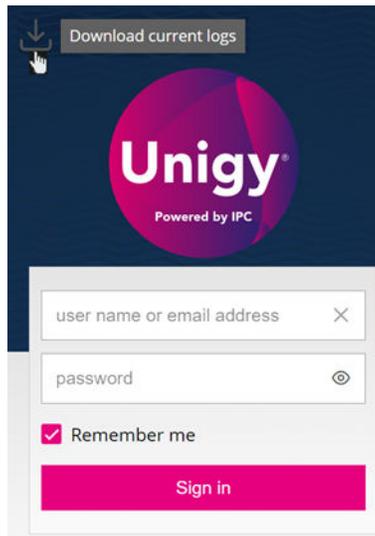
The logs icon is displayed in the top left part of the login screen.

Clicking the logs icon allows you to download log files (dump files).

Logs are stored into the file system (C:/Users/<USERNAME>/AppData/Roaming/ipc-electron/persistentLogs/<Date>).

The logs icon is reserved for use by IPC staff for troubleshooting purposes. Only use the icon under the direction of IPC staff.

Figure 11: Download logs from the login page



You can also access the logs from the Settings menu. See .

5.2 Footer

The footer is located at the bottom of the Unigy Soft Client

The footer consists of icons that allow quick access to various operations or functions.

Figure 12: Unigy Soft Client footer



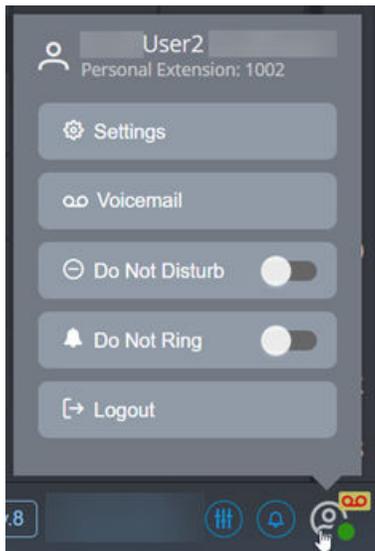
1	Left handset overlay (contextual call display or CCD)
2	Right handset overlay (the right handset is optional and configurable in UMS)
3	Unigy Soft Client version
4	Media device settings or controls
5	Notification
6	User badge – shows user presence; allows access to the user menu pop-up (including settings)

5.3 User badge menu

A menu appears when you click on the **User badge** icon and allows you to access the following functions:

- **Settings:** : This menu allows you to set user preferences and view information about the Unigy Soft Client. For details, refer to .
- **Do Not Ring:** When the **Do Not Ring** slider is activated (positioned on the right), incoming calls are displayed but no longer ring.
- **Logout:** The **Logout** option allows you to log out of Unigy Soft Client.

Figure 13: User badge menu



5.3.1 Settings menu

This topic describes the options of the **Settings** menu.

The **Settings** menu in the Unigy Soft Client allows you to set user preferences and view information about the Unigy Soft Client. The **Settings** menu is accessible by clicking on the **User badge** icon

() in the footer, then on **Settings**, which displays the **General Settings** page.

The **Settings** menu consists of the following tabs, which are described later in this chapter:

- General (General Settings)
- Password (Password Management)
- Calls (Calls Settings)
- Media (Media Device Prioritization)
- About (Unigy/Citrix)
- Logs

5.3.2 General settings

The General tab allows you to set the following global options and call notifications:

- **Allow popup notifications for incoming high priority calls** : This option must be unchecked with ICE Voice.
- **Allow popup notifications for incoming low priority calls** : This option must be unchecked with ICE Voice.
- **Allow popup notifications for incoming intercom calls** : This option must be unchecked with ICE Voice.
- **Select a language** : This option allows you to choose between **American English** and **French (France)** language.

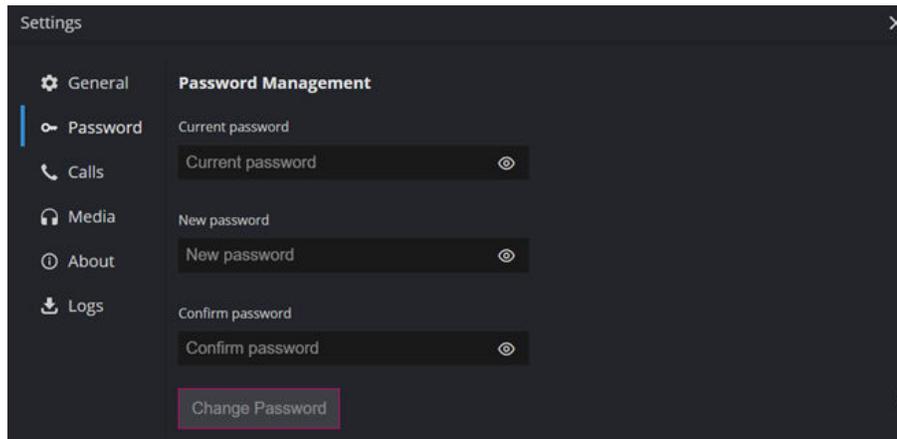
Note

The language choice on Unigy Soft Client cannot be changed on the UMS and is stored locally on the user's computer. Also, for users having a IQ/MAX TOUCH turret as well as a Unigy Soft Client, changing the language on IQ/MAX TOUCH will not change the language on Unigy Soft Client, and reciprocally.

5.3.3 Password management

The **Password** tab displays the **Password Management** page and allows you to manage your password change.

Figure 14: Password Management



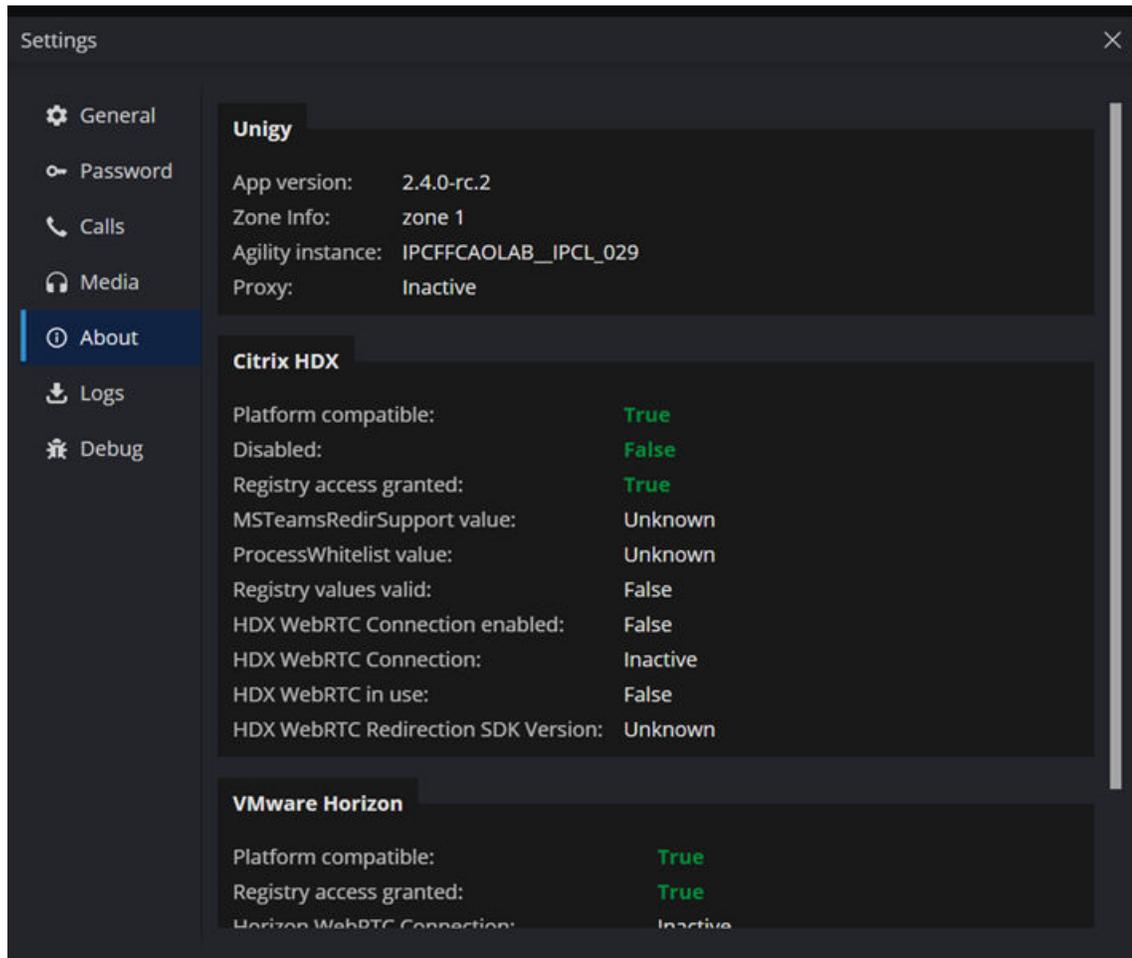
Note

If your organization manages federated or delegated authentication solutions, password change is not supported.

5.3.4 About tab

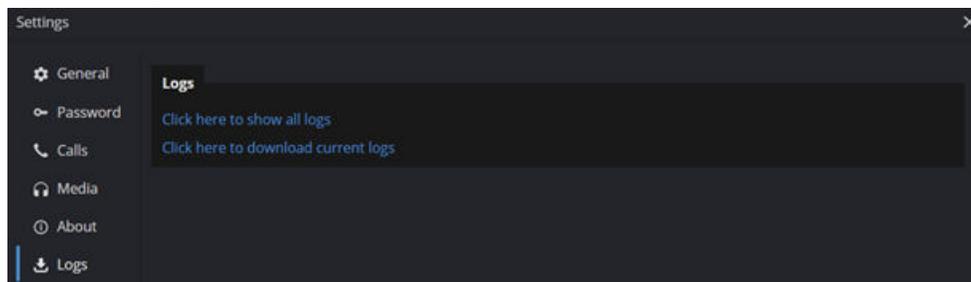
The **About** tab displays information for the following items:

- **Unigy**: This section defines the following details:
 - **App version**: This is the version of the Unigy Soft Client software installed on the user's computer.
 - **Zone Info**: This is the name of the Unigy zone in which the user has logged in.
 - **Agility instance**: This is the identifier of the Agility instance to which the client's websocket is connected.
 - **Proxy**: This is the proxy server name (or IP address).
- **Citrix HDX**: This section displays the Citrix HDX parameters.
- **VMware Horizon**: This section displays the VMware Horizon parameters.

Figure 15: About tab

5.3.5 Logs tab

The **Logs** tab is used for troubleshooting by IPC staff.

Figure 16: Logs tab

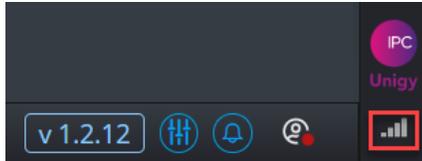
5.4 Voice quality indicator

The voice quality indicator provides a visual representation of a call's voice quality.

The number of bars in the voice quality indicator gives insight into the strength or degradation of a call's quality. The greater the number of bars, the better the perceived voice quality.

The voice quality indicator is displayed in the bottom right of the screen when there is at least one active call. It is absent when no call is active.

Figure 17: Voice quality indicator

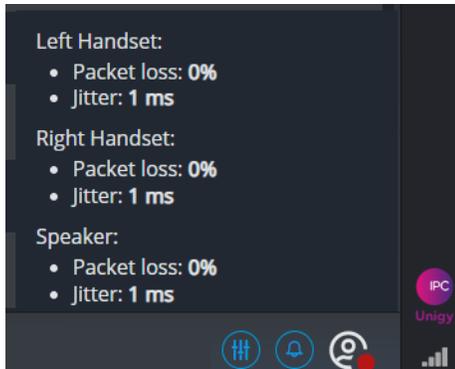


Hover over the voice quality indicator to see voice quality statistics for a call, including packet loss, jitter, and round trip delay.

When the user has one audio path, the hover text shows voice quality statistics for that audio path, which contains mixed handset and speaker audio. Therefore, the voice quality statistics could imply possible audio degradation on a handset call, a speaker call, or both.

When more than one audio path is configured for the user, the hover text displays multiple sets of voice quality statistics, and the voice quality indicator represents the estimated voice quality associated with the lower quality audio path.

Figure 18: Voice quality indicator with hover text for three audio paths



5.5 Log off

To log out of the Unigy Soft Client, click the **User Badge** icon in the footer and click **Logout**.

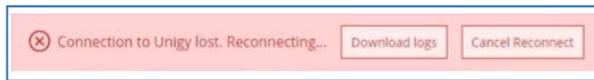
5.6 Reconnect and re-login

This topic describes the Unigy Soft Client connection failure and the process to re-log in and reconnect.

The Unigy Soft Client has two audio connections that can fail: to the cloud edge, and to the Media Manager (MM).

5.6.1 Unigy Soft Client and cloud edge connection failure

When the connection between the Unigy Soft Client and the cloud edge fails, an error message displays, and Unigy Soft Client immediately attempts to reconnect to the existing session. The current configuration is set to make 20 attempts at 2 second intervals. Optionally, you may click **Cancel Reconnect** to cancel reconnect, and you may be prompted to the *Force login* screen to re-login. You may also click **Download logs** to send logs to IPC for troubleshooting.



If reconnect to the existing session is unsuccessful, Unigy Soft Client reverts to re-login mode and will attempt to sign in by creating a new Unigy session. You will see a *Signing in...* message, with attempts made to sign in every 5 seconds until re-login is successful. Optionally, you may click **Cancel Sign-in** to cancel sign-in and restart the connection. Or, you may click **Download logs** to send logs to IPC for troubleshooting.

Note

There is a brief period of time during which re-login is in progress and the **Cancel Sign-In** button is disabled to prevent Unigy Soft Client from entering into an unstable state.



5.6.2 Unigy Soft Client and MM connection failure

When the connection between the Unigy Soft Client and the MM fails, an *Audio connection lost. Reconnecting...* message displays. Unigy Soft Client attempts to reconnect every 15 seconds until reconnect is successful. Optionally, you may click **Cancel Reconnect**, and you may be prompted to the *Force login* screen to re-login. Or, you may click **Download logs** to send to IPC for troubleshooting.

Note

If the Unigy Soft Client is configured for more than one audio connection, only the failed connection attempts to reconnect, which continues until reconnect is successful.



6 USC features list, requirements, ports and protocols

6.1 Unigy Soft Client features list

Unigy Soft Client is a soft client product that can be used with an existing Unigy turret or Pulse device to remotely access lines and contacts, or it can be used as a standalone solution to access lines and contacts.

Unigy Soft Client runs on Windows PCs, laptops, and Surface Pro Tablets running on approved operating systems.

Unigy Soft Client standard profile supports the following key features:

- A maximum of two handsets (three audio paths maximum)
- Support for USB handsets with LED.

Note

The LED is on when the handset microphone is active and off otherwise.

- User selectable light and dark mode (theme)
- Voice recording support
- Business Continuity Plan (BCP) support
- Citrix and VMware audio optimization support

Note

Unlike IQ/MAX TOUCH, Unigy Soft Client uses the delayed offer when negotiating SIP media.

Note

An administrator assigns you an appropriate user account before you can use the app. Permission to access various features and services is based on your user account profile.

6.2 USC-ICE Voice system requirements

This topic describes the system requirements for the Unigy Soft Client.

Hardware requirements

The following hardware is required to support the Unigy Soft Client software on a Windows-based desktop or laptop computer:

- Sound card (as supported by the operating system). This is not required for a VM computer.
- A maximum of two handsets are supported by Unigy Soft Client (audio paths configuration is needed in UMS).
- Microphone and speaker.

Note

Be sure the Unigy Soft Client has permission to use the microphone on your computer, otherwise you will not be able to log in. You can find the settings by searching for microphone privacy settings in the Windows search box and enabling microphone access.

Note

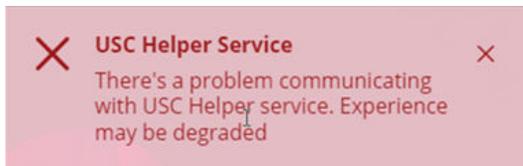
When two handsets are supported for Unigy Soft Client (three audio paths are configured in UMS), the laptop must have at least two independent microphones to handle the two handsets or a "Missing audio input device" error is displayed at the user login. For the speaker, it can have its own microphone or share one with a handset. When the speaker shares a microphone with a handset, the user speaks either to the speaker or to the handset (the shared microphone cannot be used at the same time for both the handset and the speakers). The microphone is only activated on a speaker (and muted for the handset) if the user turns on "Push To Talk" or "Push To Latch" mode. Otherwise, the microphone is activated for the handset (and muted for the speaker).

- Network card (as supported by the operating system).
- Hard disk with at least 200 MB of free space for stored files plus 2 GB of space while running the Unigy Soft Client.
- At least 3 GB of available memory, while running the Unigy Soft Client on Windows PCs, laptops, and Surface Pro 4 or higher tablets.

Software requirements**Note**

Prior to the installation of Unigy Soft Client, the `ipc_usc_helper.exe` service must be whitelisted from any application management software provided by the customer. This service runs on the user's local machine and is used for example for the LED handset functionality. If it is not whitelisted by the customer's application management software, the following message will be displayed:

Figure 19: USC helper service message



The following software is required to support the Unigy Soft Client:

- Microsoft Windows 7, 8.1, 10 or 11 (32-bit or 64-bit).
- Access required to Windows registry (`reg.exe`) to determine whether Citrix or VMware audio optimizations are available.

6.3 USC ports and protocols

Table 1: TCP or UDP traffic on Unigy Soft Client for Windows Over Internet (Front Room)

Application/ Protocol	TCP/UDP Source Port(s)	Source Device(s)	TCP/UDP Destination Port(s)	Destination Device(s)	Purpose
DNS	UDP ephemeral	Unigy Soft Client for Windows	UDP 53	DNS server	DNS queries, resolution
HTTPS	TCP/TLS ephemeral	Unigy Soft Client for Windows	TCP/TLS 443 or customer-defined	https://appusc-amer.cx.ipc.com/ https://appusc-amer2.cx.ipc.com/ https://appusc-ny5.cx.ipc.com/ https://appusc-ch1.cx.ipc.com/	Soft client application code load.
Secure WebSocket	TCP/TLS ephemeral	Unigy Soft Client for Windows	TCP/TLS 11443	https://appusc-amer.cx.ipc.com/ https://appusc-amer2.cx.ipc.com/ https://appusc-ny5.cx.ipc.com/ https://appusc-ch1.cx.ipc.com/	Status messages, signaling.
SRTP, SRTCP, DTLS, STUN	UDP ephemeral	Unigy Soft Client for Windows	UDP 6000-65534 or customer-defined for customer-provided SBC	104.254.177.86 104.254.178.86	Audio and associated control traffic.
SRTP, SRTCP, DTLS, STUN	UDP 6000-65534 or customer-defined for customer-provided SBC	104.254.177.86 104.254.178.86	UDP ephemeral	Unigy Soft Client for Windows	Audio and associated control traffic.

UDP Range Explanation

The Unigy Soft Client requires a destination port range large enough to support multiple users simultaneously.

Each user can have up to three separate audio talkpaths, enabling the use of three individual audio devices (e.g. left handset, right handset and microphone with speaker).

Each talkpath requires a destination UDP port, so that the user's audio reaches its intended destination through the IPC Internet ramp network.

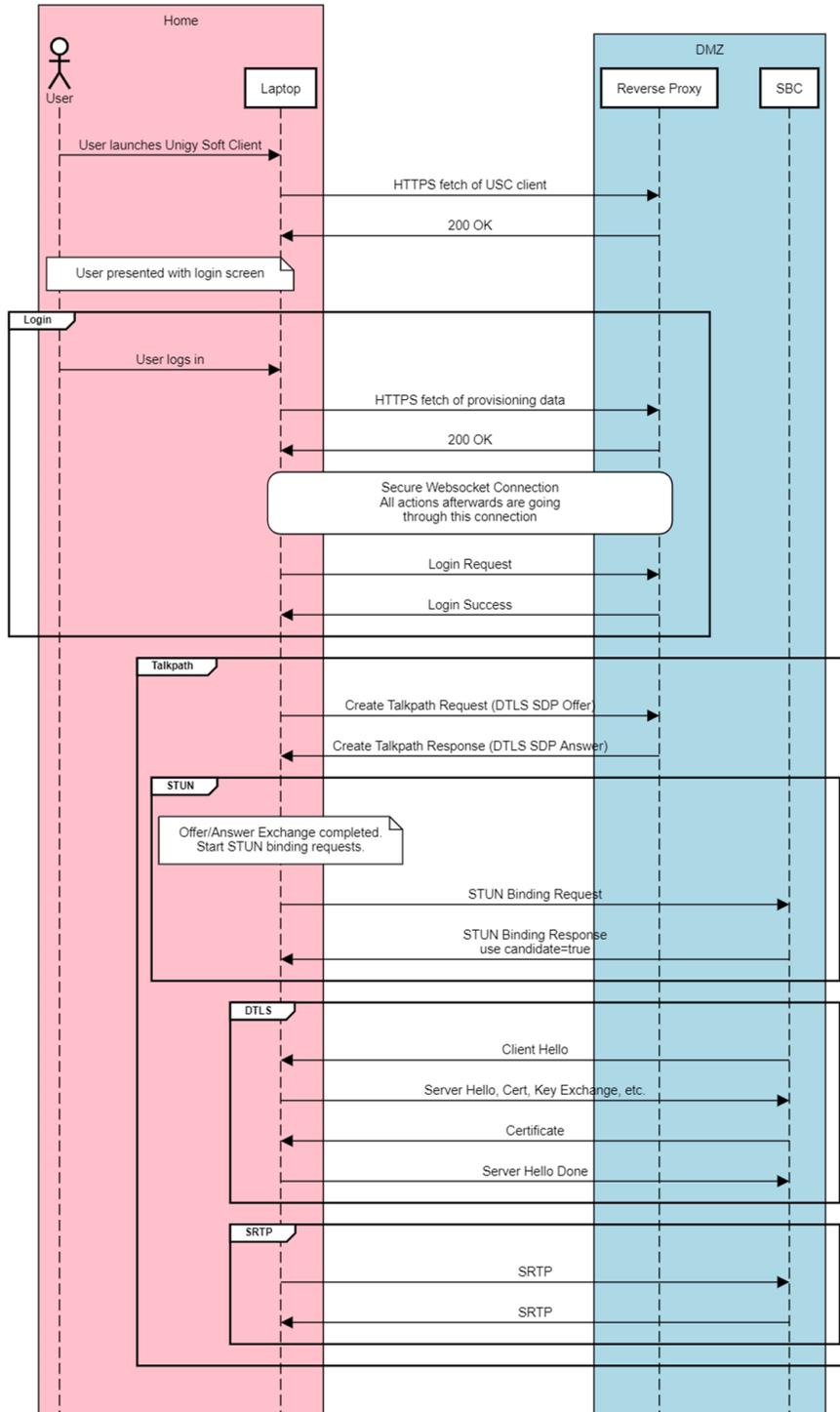
Talkpaths are initiated from the Unigy Soft Client and find their destination through the IPC's Internet ramp network using the STUN protocol.

STUN also enables the IPC endpoint to learn the external address used by the Unigy Soft Client and consequently to pass through the client's firewall so that return traffic can reach the Unigy Soft Client on the external port and UDP address (assigned by the client's firewall).

The DTLS protocol is then used to establish the security of RTP traffic by providing key management and secure data transfer.

Customers don't need to open specific ports on their firewall for incoming traffic from the Internet.

Figure 20: Unigy Soft Client logon sequence



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**Part Number: na, Release: 00
IPC Systems, Inc.
777 Commerce Drive
Fairfield, CT 06825-5500 USA**