

MigrationFX Administration Guide



VERSION: 1.1.0.115

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Overview

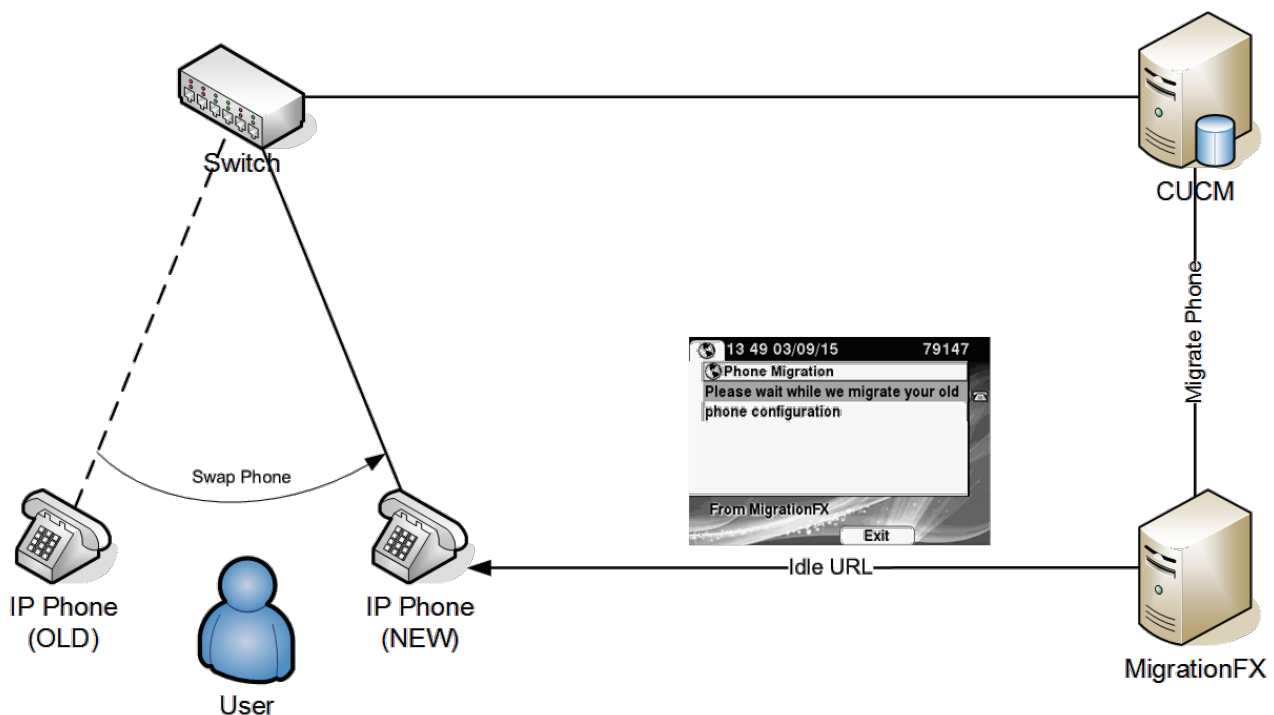
MigrationFX makes the migration of Cisco IP Phones as simple as swapping the physical IP Phone by eliminating the need to manually re-configure within Cisco Unified Communications Manager.

MigrationFX is built using AutomationFX hence most of this document makes reference to AutomationFX as technically that is the application that is being installed. MigrationFX is the functionality enabled within the AutomationFX platform for migrating Cisco IP Phones.

AutomationFX (hence MigrationFX) leverages existing technology from PhoneView, PhoneView is the premier Cisco Endpoint Management product from UnifiedFX and has been used by over 10,000 Cisco UC Engineers worldwide.

MigrationFX is in effect an XML Phone Service that is deployed to new IP Phones in order to allow the end user to migrate their old phone configuration to the new Cisco Endpoint eliminating hours of manual configuration typically required as part of the process. Instead an end user can 'upgrade' or 'swap' their Cisco IP Phone as easy as plugging in the new device and navigating one or more XML Pages on the new phone. MigrationFX takes care of all the reconfiguration automatically and seamlessly ensuring that the new device configuration mirrors the old configuration as close as technically possible.

The following diagram is a high level overview of how MigrationFX works:



Requirements

Application

- Windows 7 (or Above) / Windows Server 2008 (or Above)
- Microsoft .Net Framework 4.5
- Dual Core CPU 2+ GHz / 2Gb Ram (or above)
- 250 Mb free Hard Drive space
- Free TCP Port (8181 by default)

Note: If installing on Windows 7 or Windows Server 2008 then Windows Management Framework 3.0 is also required: <https://www.microsoft.com/en-us/download/details.aspx?id=34595>

Unified Communications Manager

- CUCM Version 8.0 (or above)
- Appropriate CUCM License capacity for new phones
- Phone Web Server Enabled

Note: On some occasions a CUCM update or device pack may be required to support new phone models

Network Connectivity

The following tables details the TCP Port connectivity requirements of AutomationFX (and therefore MigrationFX)

TCP Ports between AutomationFX and CUCM

From	To	Port	Purpose
AutomationFX	CUCM	80/TCP	HTTP API Interface
AutomationFX	CUCM	8080/TCP	HTTP API Interface
AutomationFX	CUCM	443/TCP	HTTP API Interface
AutomationFX	CUCM	8443/TCP	HTTP API Interface
AutomationFX	CUCM	6970/TCP	HTTP API Interface

TCP Ports between AutomationFX and IP Phones

From	To	Port	Purpose
AutomationFX	IP Phone	80/TCP	HTTP API Interface
AutomationFX	IP Phone	443/TCP	HTTP API Interface
IP Phone	AutomationFX	8181/TCP (Editable)	HTTP API Interface

Accounts & Permissions

Admin User Account

AutomationFX requires a CUCM 'Application User' account in order to access the relevant CUCM API's and perform the required functionality. This 'Admin User' account requires the following permissions:

- Standard Tab Sync User
- Standard CCM Server Monitoring
- Standard CCMADMIN Administration

Note: An 'Admin User' account will be required for each CUCM cluster

AutomationFX Web Interface Login

The web interface for AutomationFX requires authentication once the first CUCM cluster has been added. AutomationFX uses the existing Application and End User accounts on CUCM to provide authenticated access to the AutomationFX web interface, hence the requirement for at least one CUCM cluster to be added before CUCM authentication is possible.

The CUCM Application or End User account requires one of the following permissions:

- Standard CCM Admin
- Standard Phone Administration

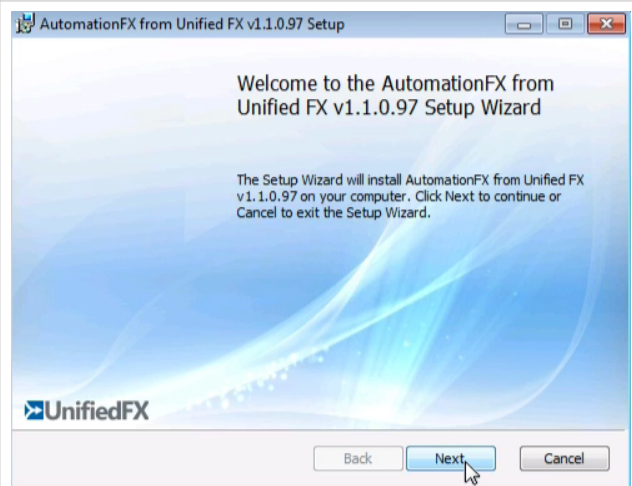
Note: Before the first CUCM cluster has been added the AutomationFX admin interface can be accessed in 'guest mode' automatically if accessed from the local machine (i.e. <http://127.0.0.1:8181>). However if it is necessary to access the AutomationFX web interface remotely before the first CUCM cluster has been added the following hard-coded guest account can be used:

- Username: guest
- Password: ufx12345

Important: The guest login is disabled when one or more CUCM clusters have been configured, from that point onward only a valid CUCM login can be used to login.

Installation

Open the MSI Installer file and click 'Next' on the welcome page



Review and accept the End-User License Agreement then click 'Next'



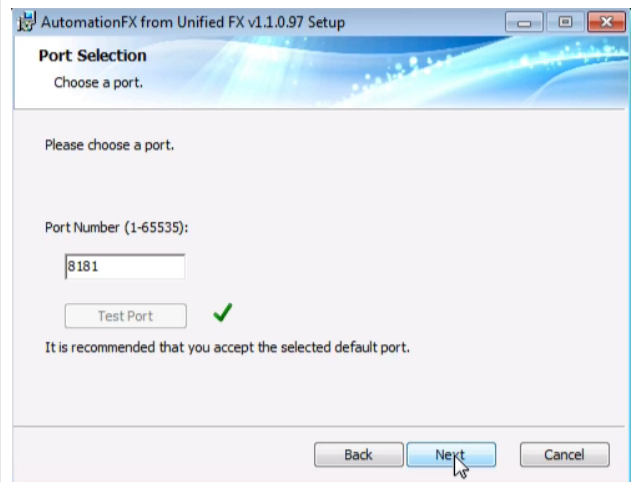
Choose a local TCP Port to host the 'AutomationFX Web Application Platform'.

- Click 'Test Port' to check that the chosen port is available on the local machine.
- Click 'Next' to continue

Note: The default port is 8181, this can be changed to port 80 as long as there are no other applications hosted on port 80 on the local machine.

Note: This is saved to the following registry entry:

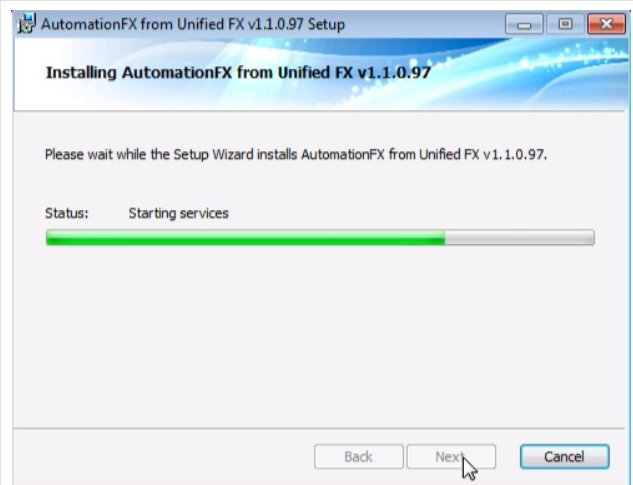
- HKLM\Software\UnifiedFX\AutomationFX\PortNumber (32 bit systems)
- HKLM\Software\Wow6432Node\UnifiedFX\AutomationFX\PortNumber (64 bit systems)



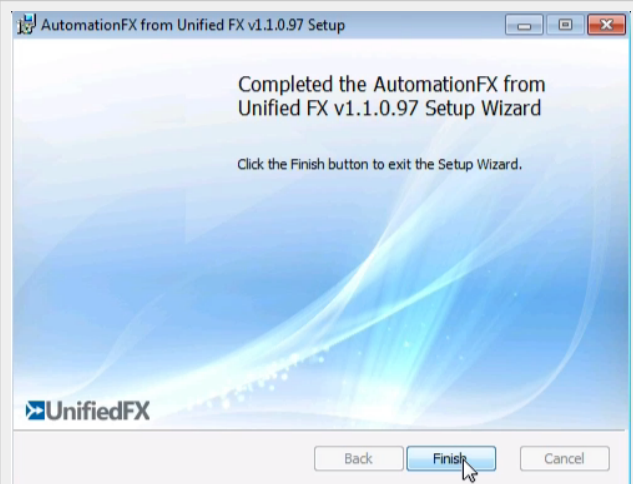
All the required information has been captured, click 'Install' to start the installation.



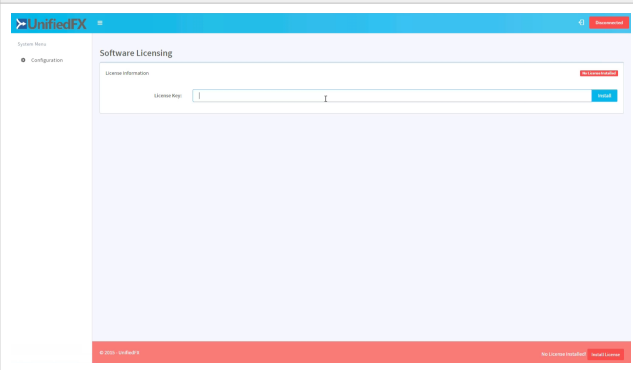
All necessary files are copied to the local machine and the 'AutomationFX' Windows Service is installed and started.



Once the installation is complete click 'Finish' to close the MSI Installer



After the MSI Installation is complete the application web interface is opened automatically (<http://127.0.0.1:8181>). The first step for a new installation is to install the license key. Enter the License Key and click 'Install', once installed you will see the license parameters on this page.



The first task once the system is licensed is to add one or more CUCM clusters.

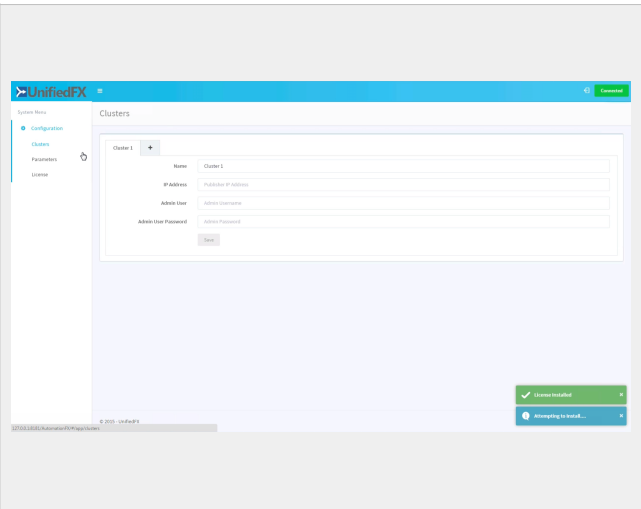
Click 'Configuration' then 'Clusters' and enter the following:

- Friendly Name
- Publisher IP Address
- Username
- Password

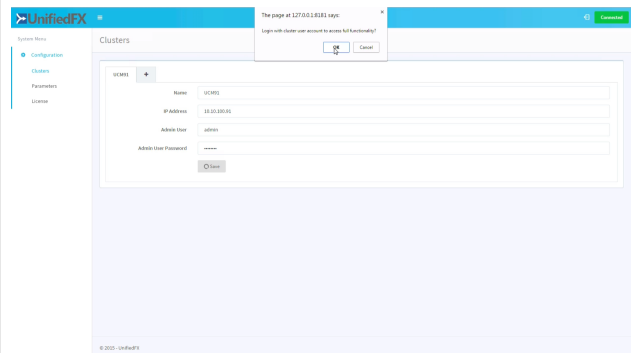
Then Click 'Save'

Note: The Admin User used to access CUCM API's requires the following permissions:

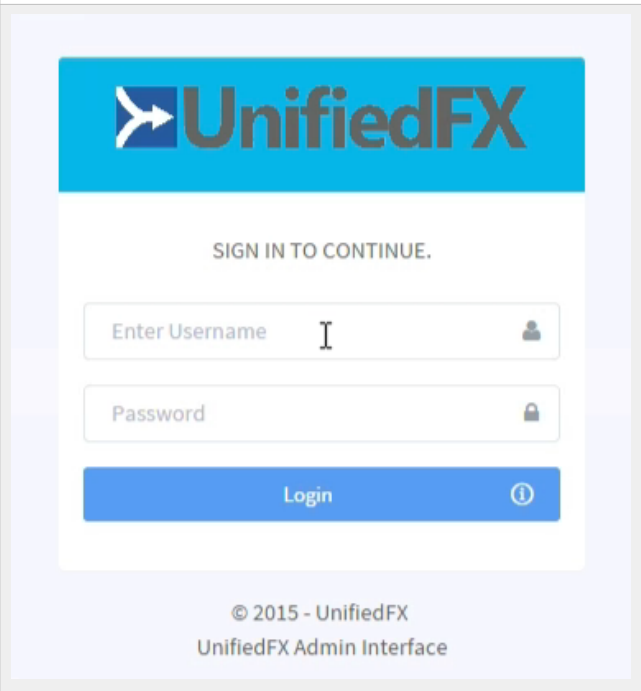
- Standard Tab Sync User
- Standard CCM Server Monitoring
- Standard CCMADMIN Administration



After adding the first cluster you are prompted to login with a CUCM user account from the newly added cluster. This is required in order to gain access all menu items within the web admin interface.



Once the first cluster is added it is necessary to login to the AutomationFX web interface using a CUCM user account. The CUCM account can be an Application User or an End User and requires one of the following permissions:
Standard CCM Admin Users
Standard CCM Phone Administration



Phone Service Deployment

The XML Phone Service that users interact with needs to be deployed and available to the newly connected IP Phones. Also, the new IP Phone needs to register to CUCM temporarily with a basic non-user specific configuration in order to present the XML Phone Service to the end user and initiate the migration from the old phone configuration.

MigrationFX works with Auto-Registered devices or pre-imported via BAT with a basic non-user specific configuration.

There are two ways to deploy the XML Phone Service to newly connected IP Phones:

- Idle URL
- Enterprise Phone Service

Note: Using the Idle URL with Auto-Registered phones is only possible with CUCM Version 10.0 (or above) by leveraging the Universal Phone Template feature.

The XML Phone Service URL to configure:

<http://SERVER:PORT/AutomationFX/trigger/Migration>

SERVER: The IP Address of the machine AutomationFX was installed on

PORT: The TCP Port chosen to host AutomationFX (8181 by default)

Zero Touch Migration

This is the simplest method of migration as the old and new phone are identified automatically once the user swaps the phones using the same cable. In order for this to happen MigrationFX regularly gathers topology information from the web server of all IP Phones in each configured cluster.

The topology information enables the tracking of phone movements, in particular when the new phone is plugged in. When the Migration Phone Service opens on the new phone the service determines all previous phones plugged into the same port. The Migration Phone Service then presents the user with the last phone plugged into the same cable and asks them to confirm the migration from that phone to the newly connected device.

If for any reason the Migration Phone Service is unable to determine the last phone connected on the same port, it will automatically 'fall-back' to Self Service Migration and prompt the user to authenticate in order to identify the user and their old phone.

Note: The topology data is gathered from the phones web server, therefore if the phone web server is disabled it will not be possible to use the Zero Touch Migration approach.

Self Service Migration

This method requires the end user to login to the Migration Phone Service to authenticate who they are and identify their existing phone associated to their user account. The Migration Phone Service queries all associated devices with the authenticated user account. Therefore there needs to be at least one phone associated in order to determine the old phone configuration to migrate. If there is only one phone associated to the user account the Migration Phone Service presents that device information to the user and asks them to confirm the migration from that device. If there are multiple devices associated the user is presented with a list of the devices (up to a limit of 5) and asked to choose the device to migrate.

Note: The Migration Phone Service checks for device owner (set on the device page) and associated devices (set on the users page) to determine associated phones to the user account.