



Provisioning System

for Cisco Unified Communications

Non-expert administrators and help desks can now use a simplified tool to provision end-user with all required configurations for Cisco Unified Communications, leading to significant automation, standardization, cost savings and reduced provisioning times.

The Console of the UPLINX Provisioning System simplifies the rapid setup of Cisco end-users using any combination of devices and extensions, device profiles for Cisco Extension Mobility, Jabber, CSF, RDP and voicemail. *Correctly, first time, every time.*

The **web-based Smart Console for help desks** shows all configurations belonging to an end-user in a single user device view, avoiding to navigate between many screens - it displays everything at a glance.

The Smart Console enables anyone to add, update or delete end-user configurations for Cisco Unified Communications.

With the Smart Console, non-experts administrators can easily provision end-users and all its devices by selecting a few key parameters such as the action, end-user, telephony site or location, class of telephony user and phone parameters such as a model, MAC address and extension.

Submit New Jobs

Server: Demo Test Site
 Action: Add: User,1x Phone & VM
 Site: Sydney

User ADD User for Phone w AD upd
 Phone ADD Phone w 1 Line
 UDP
 VM ADD Basic Voicemail
 RDP ADD RDP 1 Destination
 Phone 2 ADD Jabber
 Phone 3

Job Details
 Reference: add bpitt with Phone 8851, RDP and Jabber
 Description: Add: User,1x Phone & VM (ADD User,ADD Phone,ADD Voice Mail,ADI)

How to Use
 Add a CUCM end-user with a phone [Cisco 7945 or 8841] with the following steps:

User	Phone	Voice Mail	RDP	Second Phone
Phone				
- Phone Name	TCTBPITT			
- Description	Phone of Brad Pitt			
- Phone Model	iPhone			
- CSS	CSS_Sydney			
- Device Pool	DP_Sydney			
- Primary Phone	SEP123412340001			
- Owner User ID	bpitt			
- Mobility User ID	bpitt			
Mobility Identity				
- Name	MI_SEP123412340001			
- Mobile Destination	+13243242321			
Line #1# (Button 1)				
- Extension	4009			
- Partition	P_Sydney_1			
- Line text on phone	Brad Pitt - 4009			
- Line alert text	Brad Pitt			
- Display	Brad Pitt			
- Associate user	<input type="checkbox"/>			
Remote Destination #1#				
- Name	RD_SEP123412340001			

The UPLINX Console is the unified workspace for all commissioning actions. Above screenshot shows how to add a CUCM end-user with phone, Jabber (iPhone), RDP and voicemail. After adding a reference, the job is submitted and the Cisco servers are immediately (or scheduled) configured. A processing window details and logs each step. See the next page how to update this user.



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Rapid and simplified Provisioning for Anyone

On Cisco's CUCM and Unity Connection native administration web interfaces, tasks associated with creating a new end-user such as adding phones, allocating and assigning extensions, various profiles and voicemail can take up to 15 minutes for a skilled resource. Several configuration items with a multitude of advanced settings need to be setup on each UC server. The config items then need to be linked to each other in the correct order or the setup will fail - requiring training or detailed documentation that is generally not available or outdated.

The user's devices or profiles contain user specific settings (such as names) and site specific settings (such as CSS and Device Pool, extension ranges, etc). *The UPLINX web-based Console intuitively guides the administrator and automatically populates required settings based on location and fetches user info based on your own pre-configured and approved rules.* The Console operator can overwrite (if allowed in the template) each setting for special setups.

Using the single Smart Console based on 4th generation web technology (no page refreshes) will significantly simplify and enable anyone to perform daily provisioning tasks hereby reducing the time and ensure MACDs work first time - every time!

The screenshot displays the 'Submit New Jobs' interface. On the left, there are dropdown menus for 'Server' (Demo Test Site), 'Action' (Update User & associated), and 'Site' (Sydney). Below these are checkboxes for 'User', 'Phone', 'UDP', 'VM', 'RDP', 'Phone 2', and 'Phone 3', each with an 'UPDATE' button and a dropdown menu. A 'Submit Job' button is at the bottom left. On the right, a 'Phone' configuration panel shows details for 'SEP123412340001', including description, model, device pool, CSS, and owner. Below this is a 'Line #1# (Button 1)' configuration panel. A modal window titled 'Find Extensions in Sydney' is open, showing a search interface for extension ranges and a list of available extensions.

Above screenshot updates the CUCM end-user and its devices (that was created on page 1). The single user-device view shows immediately what belongs to an end-user and any setting can easily be updated.

Extension Allocation



Extensions can be allocated ad hoc during the provisioning process on the UPLINX Smart Console by using the *Extension Picker* (shown above).

The *Extension Picker* shows the free and used extensions for pre-configured extension ranges per site. Gone are outdated spreadsheets—now it is easy to allocate extensions or create shared lines. The chosen extension is then automatically expanded to a DID (E.164) number and written back to Active Directory.

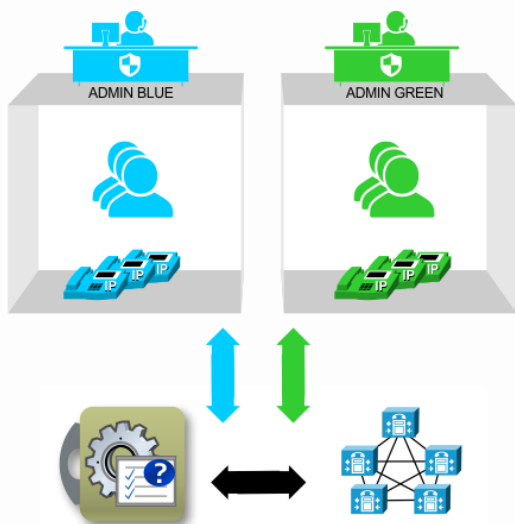


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Multi-/Departmental Admins

Site administrators, customers or helpdesk can now be given limited access to manage specific users and phones based on Active Directory or CUCM rules.



Every action on the system is logged and reports can be generated on performed actions.

Email Notifications

After processing a commissioning request, the Console can pre-populate an email based on your templates to quickly notify the end-user with relevant information such as log-in details and how to use the phone.



Leverage Existing Contact Information

User contact information can be imported from Active Directory to pre-populate the Smart Console based on versatile formulas.



Data can be read or written to external SQL databases to integrate into asset management or HR systems.

Automated data imports (and exports) avoid time consuming data entry and minimising errors introduced through repetitive manual data entry.

Scalability and High Availability



Multiple Provisioning Systems can be distributed across different regions to support international CUCM clusters. Standard Windows Server virtualisation can be used to provide HA.

Automatic Detection of User Changes

User change tracking detects added, updated, and deleted CUCM end-users and automatically creates a recommended action list that appears in the UPLINK Console.

The recommended actions can then be verified by the Console user by viewing the detected changes, approved, and then quickly processed by right clicking on an entry and choosing "Push to Commissioning".

Emails containing user-changes notify admins of user changes, **resolving the common issue of missed name changes or deleted end-users.**

Status	Action	Change found
closed	Add	New CUCM user added: emusk (Elon Musk)
open	Delete	CUCM end-user 'etesla' re-activated (was in

Details ...

Push to Commissioning

Delete

Unlock

Workflow

The UPLINK end-user change tracker detects added, updated and deleted users and generates a proposed action list that is emailed to admins.



These changes can then be quickly processed in the UPLINK Console by leveraging all gathered information, such as required action and end-user information to pre-populate fields, avoiding time consuming data entry in various locations during provisioning.

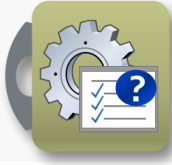
The in-built email templating system allow to pre-populate emails to end-users including login details, confirmations and user guides.

Commissioning requests from other sources can also be integrated into the UPLINK Console to achieve a single unified workspace.

Designed for large Environments



A Provisioning System server is capable of supporting numerous CUCM clusters and tens of thousands of end-users and devices; at the same time having a low server footprint due to optimized software.



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Commissioning Request Portal

The Commissioning Request portal page can be easily integrated into an Enterprises Intranet to allow end users to submit configuration change requests such as PIN reset requests.

These received requests can trigger an email (optional) to the administrator of that site to process the request. The submitted information will be presented in the UPLINX Console for a unified workspace (see section Workflow) to efficiently process requested changes.

Provisioning System - Commissioning Request

Please enter your telephony change or commissioning request and we will get back to you shortly:

Telephony Request

Please select a site: UC7 (ADsync) *

I would like to UPDATE one User and / or Extension Mobility Profile *

Existing Computer User ID

Jsmith *

Extension

2185 *

Name of Phone User

First Name : John *

Last Name : Smith *

Phone Information : *

I have a phone with MAC : * what is this?

I don't have a phone

Please add more details about your request here : *

Please change my extension to 2186

Your Contact Details

Name

John Manager * Enter the name

Phone Number or Mobile

034534534335 * Enter a number where we can reach you.

Address

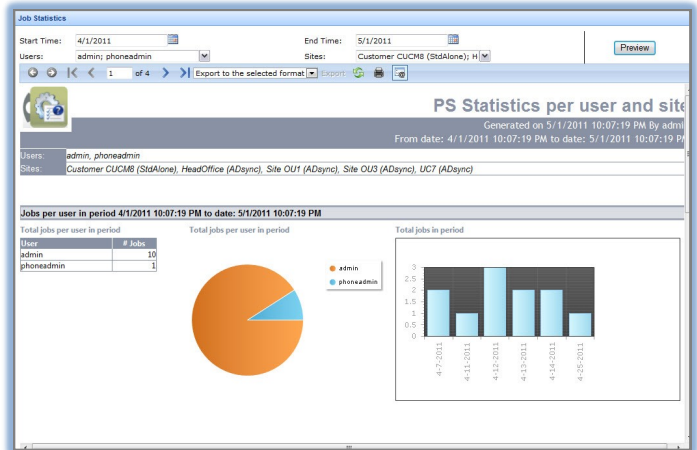
Reporting and Tracking

The UPLINX Provisioning System provides built-in strong logging and reporting on all activities.

Detailed job logs, MACDs provisioning statistics for billing, and activity reports per Console user or time period are available in various formats.

Scheduled reports can be emailed out.

Logging and reporting of Console user activity ensures monitoring of behaviour and provide forensic evidence in case of an incident.



Compliance

The templating system used by the UPLINX Console will pre-populate and validate settings as required per location and end-user information, achieving always the same format and ensuring compliance with specified standards.



Templates limit which actions or fields can be edited. Logging of Console user activity ensures monitoring of behaviour and provide forensic evidence in case of an incident.

- ◆ Active Directory can be used as the "source-of-truth".
- ◆ Pre-filled data based on rules ensure correct settings according to policies.

Are you looking for a fully Automated System?



This document details the Smart Console which is a Console to simplify ad hoc provisioning. If you look for a fully automated, rule based system which integrates into Active Directory, please see our Auto Provisioning System at <https://www.uplinx.com/autoprovisioning/>

Auto Provisioning provides for automated service provisioning for each Cisco end-user based on the user's settings in Microsoft Active Directory. Optional approval of each



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Benefits

Benefits gained by deploying the UPLINX Provisioning System for Cisco Unified Communications include:

- ◆ Delegate the support of MACD telephony requests from Cisco experts to a generalist helpdesk.
- ◆ Making it easier for support staff to process MACDs
- ◆ Enable site administrators or customers to perform provisioning by only allowing access to their 'own' configuration objects
- ◆ Daily operations can also be *delegated to centralised help desks or basic skilled staff* freeing up highly skilled staff by using *a single customisable web based Console* which provides policy based provisioning
- ◆ *Eliminate configuration mistakes.*
- ◆ *Reduction in MACD processing times*
- ◆ Leverage *re-use of information* from other systems such as *Active Directory and CUCM* reducing data entry times through pre-population whilst also minimising data entry errors.
- ◆ Automatic change tracking of added/changed/deleted users in Microsoft *Active Directory*.
- ◆ Email alerting for new jobs.
- ◆ *Full reporting* on provisioning activities. Allows for *SLA tracking*.
- ◆ Ensures compliance as change staff can only edit fields that are configured to be visible and editable.
- ◆ Provides *workflow* for a help desk with:
 - ❖ Notification by email of changes in Active Directory and submitted requests
 - ❖ Records changes and requests
 - ❖ Pre-fill email to notify requester

Licensing

The UPLINX Provisioning System is licensed based on the number of end-users configured on CUCM and the number of CUCM clusters that need to be supported. Maintenance and support subscription ensures compatibility with new Cisco releases.

Supported Configurations

The UPLINX Provisioning System supports the following Cisco Unified Communications components for version 11.0 and later:

- ◆ Cisco Unified Communications Manager (CUCM)
- ◆ Instant Message & Presence (IMP)
- ◆ Cisco Unity Connection (CUC)

It supports the following Microsoft server products for any end-user setups:

- ◆ Active Directory 2016 and later
- ◆ Exchange 2016 and later (mailbox and unified messaging for voicemail)
- ◆ Lync and Skype for Business
- ◆ Any SQL server based products

with the following end user configurations:

- ◆ Cisco CUCM end-users
- ◆ Any combination of devices and extensions, device profiles for Cisco Extension Mobility, Jabber, CSF, RDP
- ◆ Voicemail
- ◆ Mobility (Remote Destination Profiles)
- ◆ Presence with IMP
- ◆ Read and write any Active Directory attribute
- ◆ Custom SQL databases

System Requirements

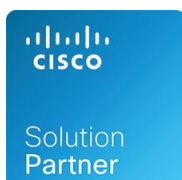
The UPLINX Provisioning System will run on:

- ◆ Windows Server 2016 and later
- ◆ SQL Server (Express)
- ◆ Virtualised environments

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