UC RIVERSIDE
Information Technology Solutions

Cisco IP Telephony

SERVICE DELIVERY PLAN

NETWORK ENGINEERING AND OPERATIONS

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V.1	10/29/2020	Original	Karen Cunningham
V.2	11/3/2020	Minor edits	Sam Padilla/Sheri Morgan
V.3	11/24	Edits revised Procurement Process	Karen Cunningham

Purpose

The purpose of this Service Delivery plan is to establish a blueprint for the delivery of Cisco IP Telephony services for UC Riverside (UCR). This document describes the services offered to the customers and establishes the criteria and level of service ITS Network Engineering and Operations will strive to achieve. This plan includes the service description, pricing, provisioning process, roles and responsibilities, and Service Level Agreements and will be reviewed and updated annually or more frequently as needed.

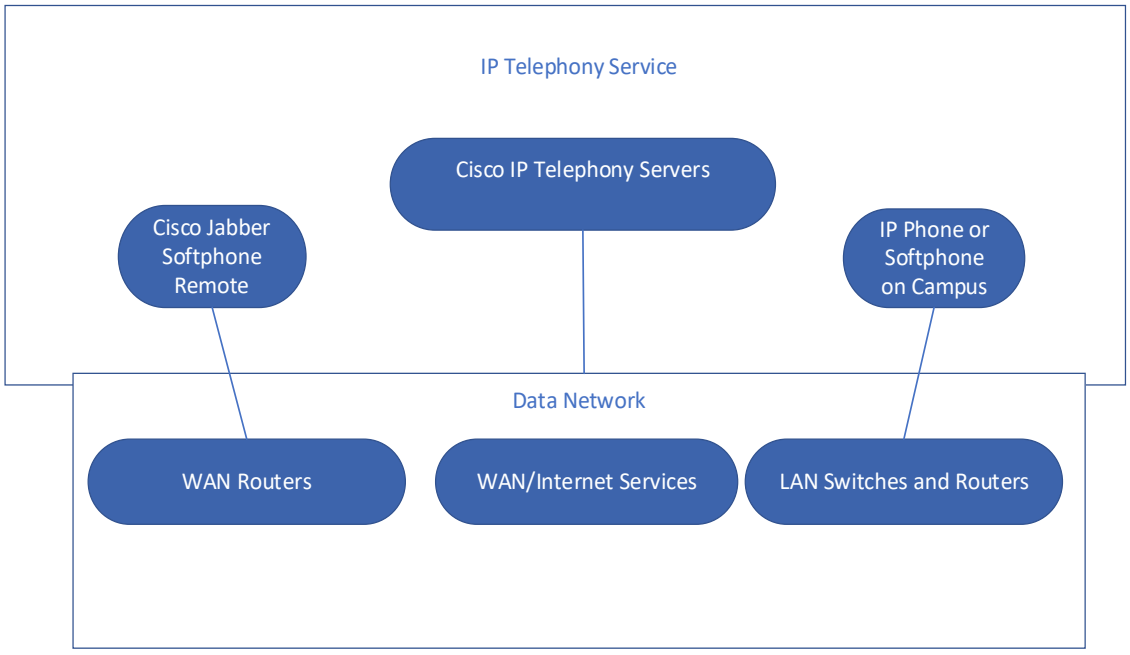
Cisco IP Telephony Service Description

Cisco IP Telephony is Voice over Internet Protocol (VoIP) telephone service that runs over the data network and is the new standard for telephony services at UCR. The suite of VoIP services available is referred to as Cisco Unified Communications. This service includes IP telephones, IP telephony servers, Cisco Jabber Softphones and Unified Contact Center Express (UCCX). These services are available both on-campus and off-campus in support of remote employees utilizing their home Internet.

Some of the benefits of the Cisco IP Telephony are listed below:

- Reduction of the Total Cost of Ownership (TCO). Utilizing the existing data network eliminates the need for a separate voice cabling infrastructure. Adds, moves and changes are less labor intensive.
- Centralized management and call processing (one phone system for locations on-campus and off-campus)
- Lower cabling costs required with new construction. Cisco IP phones offer an integrated switch that connects the user's PC/laptop/Mac and the IP phone to a shared LAN connection, without performance degradation.
- Personal and campus directories are accessible via the IP phone and softphone client
- The Cisco 7800 and 8800 series IP phones and the Cisco Jabber Softphones support TLS 1.2 making them PCI compliant.
- The Cisco IP Telephony architecture has been designed to be highly reliable with redundant network and server components.

Below is a high-level topology of the architecture supporting this service.



Cisco IT Telephony Services

Cisco IP Telephone Services include the Cisco IP Telephones, Cisco Jabber Softphone and Cisco Unified Contact Center Express. Below is a full description of these services.

Cisco IP Phones Standards

There are 6 models of Cisco IP phones that are supported by ITS Network Engineering and Operations, the options are listed in the table below:

Model	Display and Speakerphone	Phone Lines Supported	Network Speed	Recommended Use
CP6901 	None	1	100Mb	Public area and mechanical rooms
CP3905 	Monochrome LCD Speakerphone	1	100Mb	Common areas/labs/non-standard office environment
CP7841 	Grayscale LCD Speakerphone	4	1Gb	Standard Office worker
CP8841 	Color LCD Speakerphone	1-5 standard 6-10 optional	1Gb	Administrative Assistants; Call Center Agents; Supervisors and above; Executive offices
CP8851 	Color LCD Speakerphone	1-5 standard 6-10 optional 11-18 w/KEM*	1Gb	Administrative Assistants
8800kem 	Color LCD	18	N/A	Administrative Assistance Key Expansion Module for CP8851

Cisco Jabber Softphone

Cisco Jabber Softphone is VoIP software client that runs on a MS Windows or MacOS, desktop or laptop this could be either Windows or MacOS running on a laptop or a desktop system. Cisco Jabber Softphone allows end users to place and receive calls through their workstation using their campus telephone number. This solution is particularly useful for remote workers who require access to the campus phone system.

Below is a summary of the features and requirements:

Features	Requirements	Number of Lines	Recommended Use
Direct Inward Dialing Outbound calling 5-digit extension dialing Hold Conference Transfer Call Forward Directory Contact List Campus Directory	Jabber Client Software A workstation running Windows or Mac Operating System A compatible headset (refer to the campus headset standard document for a list of devices)	Supports up to 8 lines Supports shared department lines	All Faculty & Staff On-campus & off-campus (remote workers) Executive offices Call Center agents

Unified Contact Center Express

For departments who receive high incoming calls volumes, Cisco Unified Contact Center Express (UCCX) is a secure and highly available application supporting agent-based services and Automatic Call Distribution (ACD). This feature has the capability to route incoming calls to multiple agents located anywhere on campus or working remote. Calls can be routed to both the physical IP phones or the Cisco Jabber Softphones.

Finesse desktop allows department managers to have real time views of incoming calls including call durations, queue times and agent status. Supervisory functions such as monitoring and the ability to add or remove agents to the queue help improve performance of the contact center. Historical Reporting offers managers the information critical in determining staffing needs and call flow effectiveness.

The primary features of UCCX are listed below:

Features	Description
Finesse Desktop	Provides a real time view of incoming calls to help the agents and supervisors improve performance of the call center
Remote Agents	Using the Jabber softphone client, agents can participate in the call center and receive inbounds calls when working remote or on campus. The contact center software will route the calls to agents when they're in an available status to receive calls.
Supervisor Features	• The ability to monitor critical performance metrics allows managers to coach, train, and encourage agent behavior so that agents can consistently perform their job functions and process calls efficiently. • Supervisors can silently monitor inbound and outbound calls to listen for coaching opportunities. • Supervisors can interrupt an agent's call using Barge In to interact with both the caller and the agent to help resolve a concern. • Supervisors can remove an agent from a call using the Intercept feature, so the supervisor and caller can complete the call on their own while the agent handles another customer request. • Supervisors can change an agent's state from their desktops in a situation where agents may forget to make themselves available to take calls after a break, or neglect to log out when they are away from their workstations for an extended period. • Supervisors can log out missing agents or make unintentionally idle agents ready to take calls.
Call Routing Features	These capabilities offer call-routing behaviors based on conditional events, such as time of day, day of week, or holiday routing, as well as the ability to specify service levels, and reprioritize contacts in a queue based on your business rules.
Reporting Features	Existing out-of-the-box reports allow you to view historical and Live Data reports, or view custom reports based on the information you want to track.

Pricing/Ongoing Cost

The table below outlines the hardware and software cost for the Cisco IP phone, Cisco Jabber Softphone and Cisco UCCX. Each phone requires an Enhance Plus license supporting up to two devices. The two devices can be a Cisco IP phone and a Cisco Jabber softphone.

Description	Cost
Phones	
CP6901	$41
CP3905	$121
CP7841	$136
CP8841	$192
CP8851	$230
8800KEM	$210
Each phone requires a user license	
Enhanced Plus user license (includes Cisco Jabber Softphone and Emergency Responder)	$118
Cisco SWSS maintenance per user annually	**$40**
UCCX per concurrent session	**$740**
Cisco SWSS Maintenance per licenses annually	$235
Provide software maintenance support and software upgrades	
ITS Network Engineering & Operations Labor https://its.ucr.edu/rates	
Monday through Friday, 7:00 AM – 5:00PM	$75.88 per hour
RUSH work order, to be completed less than 7 days from receipt of request.	$113.83 per hour
PD&C Fee (applies if contractor is required)	$500

Phone Models:

Cisco IP Telephone only	
8841 Phone	$192
Enhance Plus License	$118
Total One Time	**$310**
SWSS Annual Recurring	$40
Total Year 1	**$350***
***Cisco Jabber Softphone Only**	
Enhanced Plus License	$118
SWSS Annual Recurring	$40
Total Year 1	**$158***
Cisco Jabber Softphone + Cisco 8841 IP Telephone	
Phone	$192
Enhance Plus License	$118
Total One Time	**$310**
SWSS Annual Recurring	$40
Total Year 1	**$350***

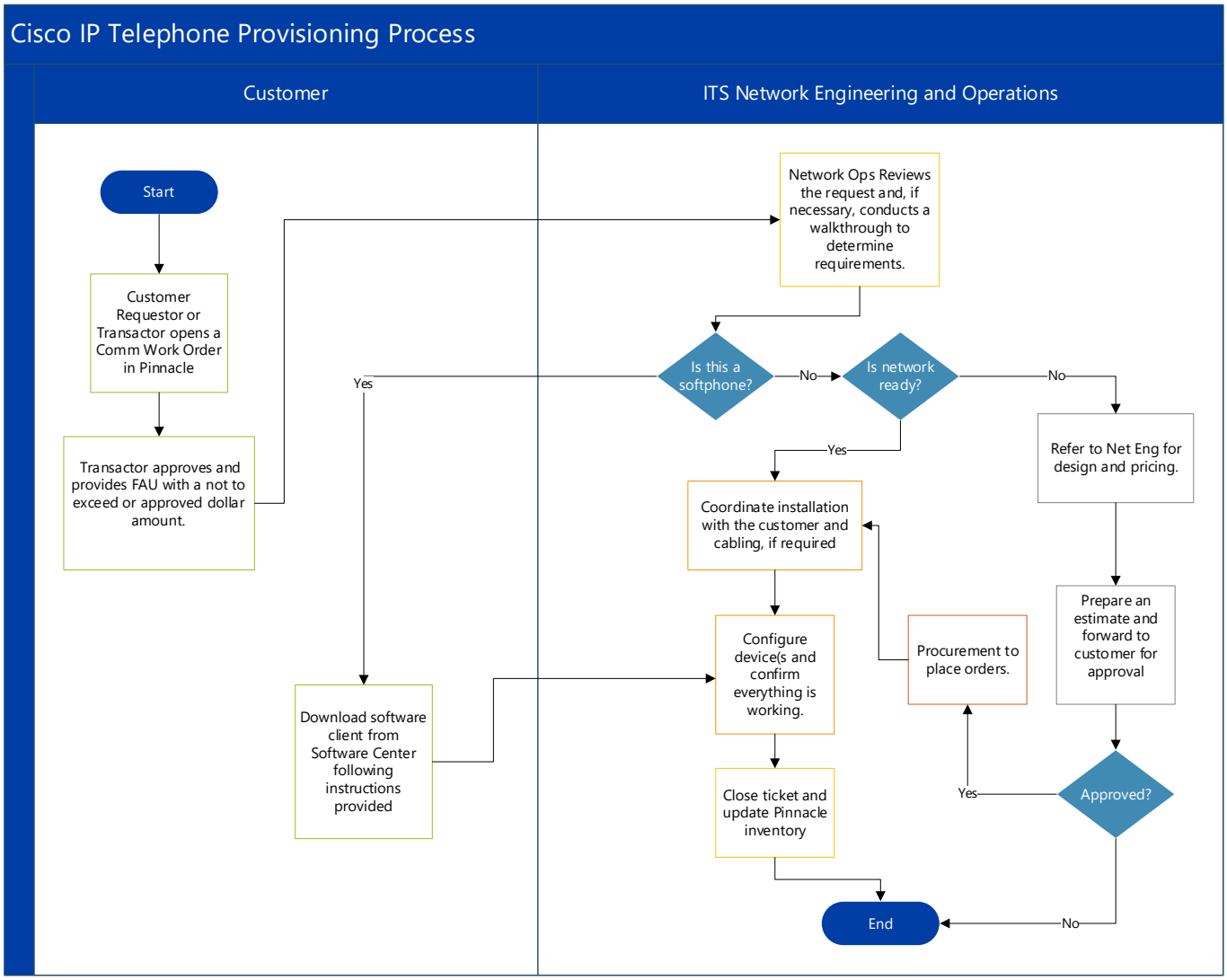
***Notes:**

1. The above examples assume that the network is ready with power over ethernet and there is no cabling required. If cabling is required, ITS labor, contractor and PD&C may be added to the billing.
2. The prices and rates listed in this document are for planning purposes and can fluctuate depending on UCOP contract negotiations and vendor offerings. ITS will review and update this document annually or more frequently as needed.
3. The Cisco Jabber Softphone requires a headset. See Headset Standards using the link below:

https://ucrsupport.service-now.com/ucr_portal?id=kb_article&sys_id=732ed24a1b321c9463c62fc02a4bcb17

Service Provisioning Process

The table is a high-level diagram of the process for provisioning new Cisco IP Telephony services.



Roles and Responsibilities

Role	Responsibilities
Customer	• Approved administrator opens a Voice Add Communications Request in Pinnacle, identifying the service(s) requesting. • Provide approval of the estimate and FAU for billing purposes. • Complete required forms requested for provisioning new service. • For Cisco Jabber Softphone, acquiring required desktop or laptop computer and headset.
Network Engineering and Operations	• Maintains the Communications infrastructure to provide maximum availability of service, including proactive maintenance, back-ups, system upgrades, capacity planning and monitoring of the environment. • Performs site walkthrough with the customer to determine the scope of work. • Gathers requirements to determine if the network is sufficient to provide VoIP services, including the network switches and cabling is in place. • Provides estimates including all materials, labor and permit cost. Obtains approval to proceed from the customer. • Works with Procurement to procure any hardware of software required to fulfill requests. • Determines cabling requirements and completes the cabling or coordinates with outside cabling contractor. • If outside contractor is required, works with PD&C to retain services. • Work with the PMO to establish a project, if needed. • Configuration of software and hardware. • Generate billing for the one time and recurring annual charges. • Update Pinnacle inventory of services for later reference and annual billing for software maintenance.
Procurement	• Works with the vendor for purchasing new hardware and software licensing. • Updates the inventory database with the location and part numbers.
BearHelp	• Distribution of Cisco Jabber Softphone client software. • Maintains current supportable version of the software client in Software Center for managed desktops. • Provide PC/laptop support, if necessary.
Project Management Office	• Project Management team is responsible for managing Telephony and Network projects. • Work with the Network Engineering and Operations team to develop estimated effort and pricing to implement solution. • Submits demand to the appropriate committee for approval to proceed with the project. • Manages project tasks, action items, risk and issues to keep project on track. • Provides weekly status reports and updates until project completion.

Service Level Agreement

The table below outlines the response time expectations to maintain services and response times for provisioning new service and responding to service interruptions.

Service	Description	SLA
Service Availability	Overall service uptime for the VoIP infrastructure.	99.9%
Service Provisioning (network ready)	This is the response time for provisioning new service request if cabling is not required and the network is ready to support VoIP	10 business days 90% of the time
Service Provisioning (if cabling can be completed by Network Technicians and no additional hardware is required)	This is the response time for provisioning new service request if cabling is required and can be completed internally by Network Technicians.	15 business days 90% of the time
Service Provisioning (Network not ready or cabling contractor is required)	If network requires redesign or cabling contractor is required for phone installation, the completion	Referred to PMO to open a new project. SLA's do not apply

	can vary depending on the size and scope of the request.	
Response Time to Repair – Low impact	Defines time Network Operations team will respond to an Incident ticket for single user or a group of users that are not system related. The actual time to repair may vary based on the impact of the incident.	24 hours during regular business hours 90%
Response Time to Repair - High impact	Refers to response time (acknowledgement of the outage and begin to work on resolution) for any system outage that impacts the ability to receive phone calls or place outgoing calls.	15 minutes during business hours 90% of the time 30 minutes after normal business hours 90% of the time