

Unified Communications and Collaboration

**Project Plan
Agency Update
June 30, 2010**

Kansas UCC

Overview

UCC Project Leadership

UCC Effort

- Strategic Leadership
- Marketing / Bz Development
- UCC Solution & Migration
- OCS/AD Solution
- Implementation
- Operations

Team Lead

- Morey S. / Jay C.
- Pat Orr
- Bill Kelly
- John Jones
- Randall White
- Dave Timpany

New UCC Talking Points

- Agency Partnership
- Technical Solution
- Education/Awareness
- Resources
- Training
- Next Meeting?
- Joint Communication
- Preliminary Design
- Marketing Outreach
- RFP 13088 evaluated
- Training Plan
- Every 2/3 months?

UCC Project Description

- **Opportunity**

- Next Gen Voice-Video-Data Network & Applications

- **Scope**

- ~35,000 employees
- ~110 agencies
- ~105 counties

- **Objectives**

- Establish Enterprise UCC Standards and Products for Kansas by working closely with agencies to determine business and technology needs

UCC Implementation Strategy

- Design
 - Enterprise architecture (Gartner Study)
 - Consistent with Kansas SIM/Action Plans
- Deploy
 - Resource Management
 - Lab Testing and Trials
 - Model Office
 - Controlled Roll-out by UCC Component/Agency/Building?
- Operate
 - Early Comprehensive Awareness, Education, Training
 - Methods of Procedures (MoP)

Assumptions & Conditions

- Enterprise Model more cost-effective for Kansas
- Cisco platform best-value for Kansas
- MPLS core network available when needed
- **Lab Trials** before/during/after deployment (POC)
- **Pilot Trials** for Lessons Learned
- **Limited Deployment** prep for field release
- **Full Scale Deployment** (FSD) enterprise-wide

Kansas UCC

Project Status

UCC Timetable

- *UCC Planning*
- *UCC Design*
- *UCC RFP 13088 Professional Services*
- UCC Model Office
- Unity Voicemail Replacement
- VoIP Unified Comm. Manager (CM)
- AVPN MPLS core network
- *Complete*
- *Complete*
- *Complete*
- Aug, 2010
- Oct, 2010
- Dec, 2010
- Jan, 2011

UCC Model Office – on track

- Develop function/specs
- Determine DISC rooms
- Upgrade facilities
- Order furniture
- Complete
- Complete

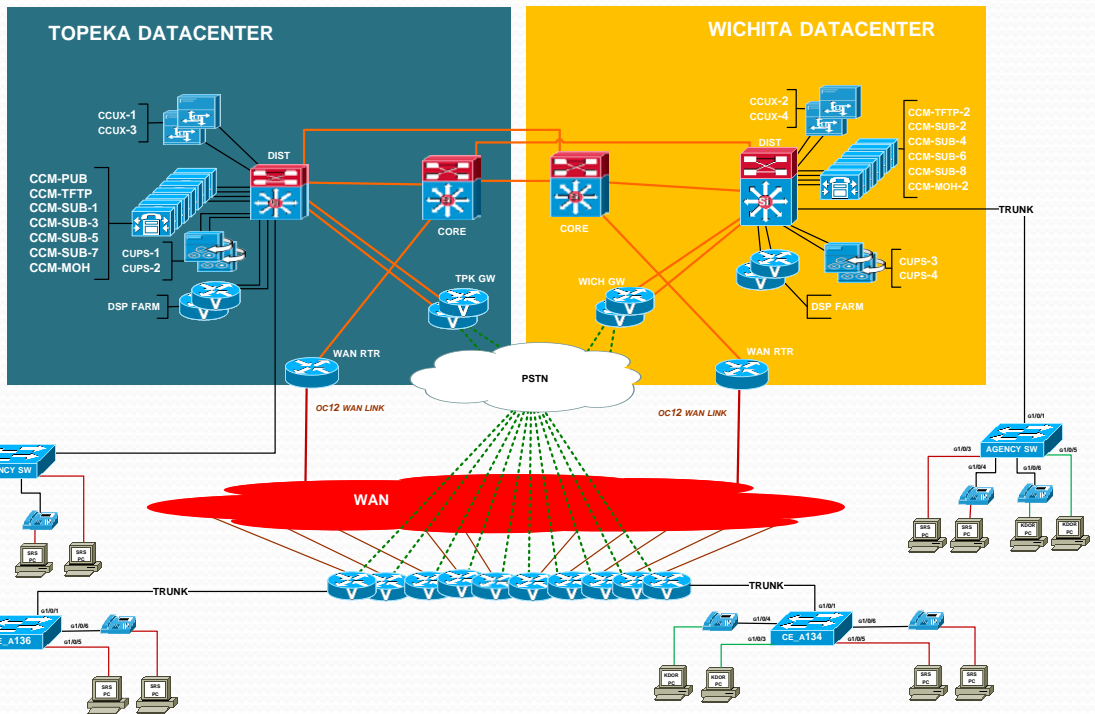
Voicemail Status – on track

- *Design*
- Lab Trials in DISC
 - *Buy hardware/software/licenses*
 - *Install equipment*
 - *Configure Equipment*
 - *POC Integrate /Test first 15*
 - *Training (first 20 students)*
- *Pilot Test in DISC*
- *Production Deployment*
- *Decommission Octel*
- *Complete*
- *In progress*
 - *Complete*
 - *Complete*
 - *Next week*
 - *July 10*
 - *July 16*
- *Sep 2010*
- *Oct 2010*
- *Jan 2011*

VoIP Status – slightly behind

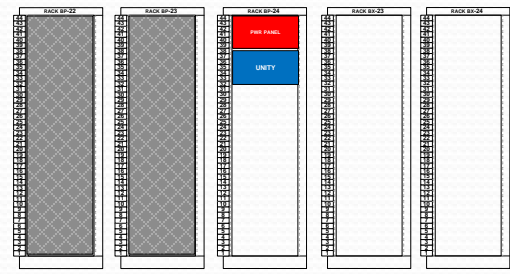
- Design (**RFP resources**)
 - Lab Trials in DISC
 - Buy hardware/software/licenses
 - Install equipment
 - Configure Equipment
 - Integrate / Test
 - Pilot Test in SRS-OSH
 - Production Deployment
- In progress
 - Oct 2010
 - Aug
 - Sep
 - Oct
 - Oct
 - Oct 2010
 - Jan 2011

SINGLE CLUSTER, MULTISITE WITH CENTRALIZED CALL PROCESSING



- Multisite model with centralized call processing has the following design characteristics
 - Single Unified CM cluster
 - Maximum of 30,000 configured and registered SCCP or SIP or SCCP video endpoints
 - Maximum of 2,000 locations or branch sites
 - Maximum of 2,100 H.323 devices (gateways, MCU, trunks, and clients) or 1,100 MGCP gateways
 - PSTN connectivity for all off-net calls
 - DSP resources for conferencing, transcoding, and media termination point (MTP) are distributed locally to each site to reduce WAN bandwidth consumption on calls requiring DSPs.
 - The system allows for the automated selection of high-bandwidth audio (for example, G.711, G.722 or Cisco Wideband Audio) between devices within the site, while selecting low-bandwidth audio (for example, G.723 or G.729) between devices in different sites.
 - The system allows for the automated selection of high-bandwidth video (for example, 384 kbps or greater) between devices in the same site, and low-bandwidth video (for example, 128 kbps) between devices at different sites. The Cisco Unified Video Advantage Wideband Codec, operating at 7 Mbps, is recommended only for calls between devices at the same site.
 - Unified CM locations (static or RSVP-enabled) provide call admission control.
 - For voice and video calls, automated alternate routing (AAR) provides the automated rerouting of calls through the PSTN when call admission control denies a call due to lack of bandwidth. AAR relies on a gateway being available to route the call from the calling phone toward the PSTN, and another gateway to accept the call from the PSTN at the remote site, to be connected to the called phone.
 - SRST for video. SCCP video endpoints located at remote sites become audio-only devices if the WAN connection fails.

- Best Practices for the Centralized Call Processing Model**
- Cisco recommends the following guidelines and best practices when implementing multisite centralized call processing deployments:
- Configure locations (static or RSVP-enabled) in Unified CM to provide call admission control into and out of remote branches. See the chapter on Call Admission Control, page 11-1, for details on how to apply this mechanism to the various WAN topologies.
 - The number of IP phones and line appearances supported in Survivable Remote Site Telephony (SRST) mode at each remote site depends on the branch router platform, the amount of memory installed, and the Cisco IOS release. SRST on a Cisco IOS gateway supports up to 1,500 phones, while Unified CME running in SRST mode supports 350 phones. (For the latest SRST or Unified CME platform and code specifications, refer to the SRST and Unified CME documentation available at <http://www.cisco.com>.) Generally speaking, however, the choice of whether to adopt a centralized call processing or distributed call processing approach for a given site depends on a number of factors such as:
 - IP WAN bandwidth or delay limitations
 - Criticality of the voice network
 - Feature set needs
 - Scalability
 - Ease of management
 - Cost
 - At the remote sites, use the following features to ensure call processing survivability in the event of a WAN failure:
 - For SCCP phones, use SRST on a Cisco IOS gateway or Unified CME running in SRST mode.
 - For SIP phones, use SIP SRST.
 - For MGCP phones, use MGCP Gateway Failback.
 - SRST or Unified CME in SRST mode, SIP SRST, and MGCP Gateway Failback can reside with each other on the same Cisco IOS gateway.



Risk Assessment

Risk Element

- Architectural approach
- Migrate 35,000 employees
- Resources limitations
- OCS-AD Integration
- MPLS network availability
- UCC future proofing

Mitigation

- Enterprise solution
- Strategic deployment
- RFP 13088 award soon
- LDAP proxy solution
- Discovered workaround
- Ongoing Lab Testing/Trials

How can you help

- Partnership (continue communication)
- Deployment strategy (by agency, by building...)
- Your LAN interface defined (site survey)
- Next meetings?