

A Management Perspective

A Successful path to Unified Communication as a Services (UCaaS)

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Topics – Task to be completed...in Parallel

- 1) Prologue
- 2) Problem Statement
- 3) Benefits
- 4) Risks
- 5) Architectural Options
- 6) Project Overview
- 7) Project Management
- 8) Developing the Project Team
- 9) Vendors Partnership
- 10) Legal & Contract Negotiation
- 11) Develop your funding methodology
- 12) Develop your IDR, PDR, FDR
- 13) Total Cost of Ownership (TCO)
- 14) Phase 2 tasks

If there is an interest, CISOA may sponsor a VoIP/UCaaS deep dive session for districts that are interested

“A goal without a plan is just a wish”
- Larry Elder
- Antoine de Saint

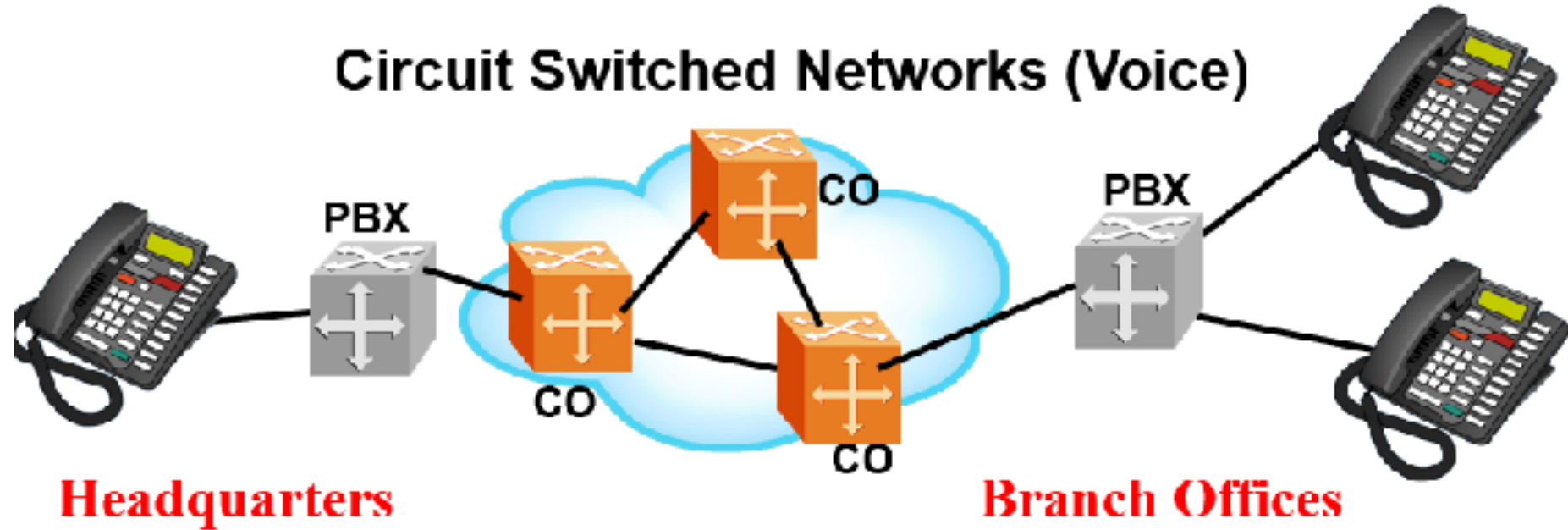
Exupéry

VoIP (Voice over Internet Protocol)

VoIP allows you to make telephone calls using the same computer network and cabling infrastructure you are using for your PC, servers, Storage, etc. to access the Internet.

Enterprise VoIP: Yesterday's networks

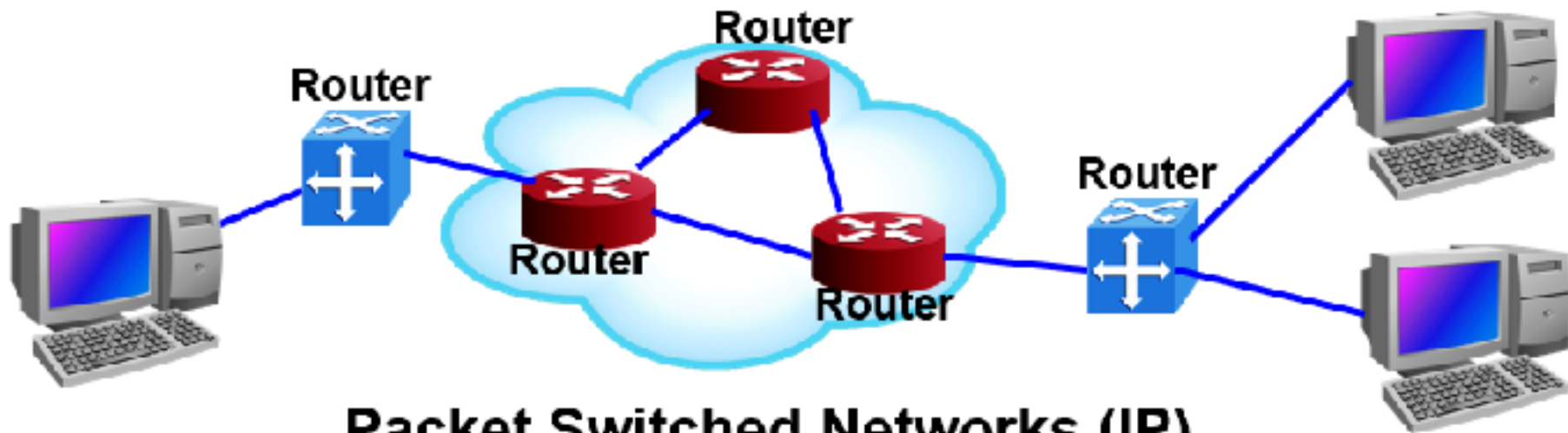
Circuit Switched Networks (Voice)



Headquarters

Branch Offices

Packet Switched Networks (IP)



Problem Statement

- New Building construction require expensive relocation of the central copper cable distribution (IDF/MDF) due to future plans for that building.
- The current proprietary Avaya private branch exchange (PBX) is 28 years old.
- Aging Copper Cable Infrastructure to support a legacy PBX Telephone system, requiring maintenance due to corrosion in splice cases.
- New building would require expensive copper infrastructure.
- The Avaya PBX system is End-of-Life and End-of-Support.
- The Avaya Voicemail System is End-of-Life and End-of-Support.

Problem Statement (cont.)

- The Avaya E911 System is End-of-Life and End-of-Support.
- Current PRI trunks offer limited bandwidth, no site-to-site incoming call redundancy and are expensive.
- Current system provides no Disaster Recovery or Business Continuity.
- Current Call Center capabilities are not adequately serving the support of students.
- No mobility
- No Business tools integrations

Benefits

- Consolidation of two physically separate infrastructures for data and voice. Convergence of Voice and Data Networks
- Provide a platform that would enable IT to implement additional applications and features that would benefit Students with interactive mobile apps and Faculty and Staff with collaboration tools
- VoIP phones will save on the installation of new building copper cables; this will eliminate intra-building copper cables
- Unified Communication-21st century architecture that provides mobility with smart phone mobile apps. Mobile and desktop integration.

Benefits (cont.)

- Use our smart phones to receive and place office calls.
- Lower infrastructure costs.
- The addition of VoIP phones will simplify the process of relocating or installing new phones. Utilizing pre-existing data network with less specialized skills required.
- 99.999% Uptime and delivery SLA ensuring students can always reach the campus.

Risks/Challenges

- 30 years of Billing Telephone Number (BTN)/Direct inward dialing numbers (DIDs) are tangled and are not separated out per location and will cause some challenges during the BTN/DID porting to the cloud
- You have to think differently about the technology and not bring all of the “old dinosaurs” along to the new system
- College deployment schedule.
- Several hundreds Interactive Voice Response (IVR).
- 24 year old PBX may have undocumented programming.
- How will moving to a new system impact my end users?

Architectural Options

1. Status Quo - Do nothing
2. Replacement for on-prem PBX VoIP Infrastructure is \$1.5m - \$2.4m CapEx.
3. Telephony to the cloud

Option 1 & 2 requires:

- New Telephone Handset or Softphones or Smartphone Apps
- PoE Network Switches & UPS
- Professional Services

Risk for keeping Avaya PBX Operational for a Year

- Aging copper building infrastructure
- Proprietary Private Branch Exchange (PBX) is 28 years old and is EOL/EOS
- Enhanced 911 (E-911) system now presents a liability exposure, as the legacy server is unreliable and unsupported
- Telephony SME Engineer retiring in December 2018
- 1,000 of Interactive Voice Response (IVR)

Project Overview-Phased Approach

Phase 1 Scope (May - August)

- Replace 2,000+ physical Avaya handsets with VoIP Polycom handsets
- Only OCC requires the installation of Power over Ethernet (PoE) Switches & UPS

Phase 2 Scope

- Cabling issues
- Call Center/Contact Center
- Elevator Phones
- Emergency Phones (AudioCodes Media Gateways)
- Analog Fax (RingCentral)
- Decommission Avaya Infrastructure
- Decommission Telco & PRI (8xPRI's, 6xCO's)

Project Management

- Agile Scrum (Daily Scrum meetings to elevate and mitigate issues and to maintain the momentum of the project)
- Cross-Functional implementation Team stood up
- Detailed Project Plan/Schedule
- Training (IT Staff)
- Formal communication plan created

		Mon	Tue	Wed	Thu	Fri	Sat	Sun
JULY		9	10	11	12	13	14	15
		James Prep for Porting						
		OCC PoE Switch upgrade						
		CCC Label Network Switches						
		16	17	18	19	20	21	22
		James Executing Cloud Porting						
		OCC PoE Switch upgrade						
		CCC PoE Switch upgrade						
		23	24	25	26	27	28	29
		OCC PoE Switch upgrade						
		CCC PoE Switch upgrade						
		GWC VoIP Phones						
		30	31					
		OCC PoE Switch						
	CCC VoIP Phone							
AUGUST				1	2	3	4	5
				OCC PoE Switch				
				CCC VoIP Phone				
		6	7	8	9	10	11	12
		OCC VoIP Phone						
		CCC Staff & Faculty RingCentral Training						
		13	14	15	16	17	18	19
		OCC VoIP Phone						
		GWC Staff & Faculty RingCentral Training						
		20	21	22	23	24	25	26
	OCC Sailing Center VoIP Phone							
	OCC Staff & Faculty RingCentral Training							
	DISTRICT VoIP Phone							
	27							

You need a Project Team

Project Team

- Before deciding who should be on the team, You need to fully understand the high-level strategy vision for the project that will be launched.
- Determine who you would like to have on the team. Identify each team member goals and strengths. Then see if you can align their goals with the roles & responsibilities that is required for the job.
- Take the high-level strategic goal and have the team decompose the vision into a shared value and a shared goal(s). Therefore, if ever there is a question of what to do in a given situation, employees at any level can make the right decision based on answering the questions.

Project Team

- Set shared goals & shared expectations.
- The milestones are what will keep the momentum on the project.
- Empowering team members. You need trust to be established within the team.
- Strive to instill a culture of taking risk.
- Communicating on a continual basis.

You need to Socialize the Project Initiative

Socialize

- Building and nurture alliances, coalitions and partnerships to gain buy-in and funding.
- The purpose of socializing the project to such a vast constituencies is about sharing ideas, gathering feedback, critiques, managing expectations, finding common ground, and increased acceptance and commitment for the project upon implementation.
- Taking the time to socializing the project will helped you find out who is supportive of the project and who you will need to spend additional time with to make them comfortable and convert them to into champions.

Socialize (cont.)

- Manage expectation throughout the project.
- Secure buy-in and commitment from stakeholders.
- Manage risk vertically and horizontally.

Items to Socialize (cont.)

- Strategic Design
- Definition of Done/ Benefits
- Business Case
- Cost, Budget, Funding, TCO

Socialize throughout College (iteration)

- Vice Chancellor of Finance and Administrative Services
- Vice Chancellor of Educational Services
- Vice Chancellor of Human Resources
- Executive Director, Fiscal Affairs
- Senior Director, Facilities
- Director, Purchasing
- President's Cabinet at OCC, GWC, and CCC
- District Consultation Council (DCC) Technology Subcommittee
- Joint VP of Administrative Services & Budget
- Joint VP of Instruction/Student Services
- Chancellor's Cabinet
- Academic Senate at OCC, GWC, and CCC
- CCC, GWC & OCC Technology Committee

Vendor Partnership

Vendor Management

- Strive to build a balanced and respectful strategic partnership with your vendors.
- Strive to surround yourself with trusted partners who put their “skin in the game” so that our successes are their successes.
- Allowing you to proactively steer and shape your vendors strategy to provide a path-way to a competitive advantage.
- Absorb more risk in pursuit of technology innovation.

Vendors we consider

- 8X8
- Avaya
- Broadvoice
- Cisco
- Microsoft
- RingCentral
- ShoreTel
- Vonage

Weighted Matrix Scoring

Criteria
RFP Technical Approach
RFP Quality and Completeness
RFP Implementation Plan
RFP Vendor Qualification
Capital Expenditure (CapEx)
Reduction in Operating Expenditure (OpEx)
Scalability
Training
Leverages existing infrastructure including existing handsets
Reduction in Physical Hardware
Reduction in Analog Hardware
Voice-mail to email integration
True Unified Communication capabilities

Legal & Contract Negotiation

- This takes a considerable amount of time
- Standard Professional Service Agreement
- Non-Standard Professional Service Agreement
 - Probably requires your Attorney
- Service Level Agreement (SLA)

Total Cost of Ownership (TCO)

Funding Methodology

Expense Categories

- Capital Expenditure (CapEx)
- Operational Expenditure (OpEx)

Examples of Funding Source

- **Unrestricted** General Fund: IT Operating Budget
- **Restricted** Fund: State Funding Equipment (SFE) block grant
- **Restricted** Fund: Scheduled Maintenance Program (SMP) block grant
- **Restricted**: Measure M - General Obligation Bond
- Categorical Fund: Student Equity & Achievement (SEA) (new SSSP)
- Federal/State Grants

Questions