



Unified Communications

Network Infrastructure & Services
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What is unified communications?

“It’s an evolving communications technology architecture which automates and unifies all forms of human and device communication in context, and with a common experience.”



What is unified communications?

Difficult to define...

Voice Calling	Communications Enabled Business Processes	<i>"All the rage"</i>	Mobility
<i>"Complicated."</i>		Instant Messaging	VoIP
Speech Enabled Applications		<i>"Situation dependent"</i>	
<i>"Latest technology trend."</i>	E-mail		Video Calling
	<i>"Communications integrated to optimize business processes."</i>		Web Conferencing
Fixed-Mobile Convergence		One Number Reachability	
<i>"Communications without boundaries."</i>			Document Sharing
	File Sharing	<i>"Cool buzzword"</i>	
Audio Conferencing	<i>"Technical jargon."</i>	Video Conferencing	Audio Conferencing
<i>"All things to all people, all the time."</i>		<i>"Integration of real-time communications with non real-time communications."</i>	
IVR	Call Center	Social Network Integration	Unified Messaging



What is unified communications?

What does it mean to Virginia Tech?

What does it mean to your department?

What does it mean to you?



UC @ Virginia Tech

Variety of components under the UC umbrella



- Calling (voice, video)
- Messaging (voice, video, email, instant messaging)
- Conferencing (voice, web, video)
- Mobility
- Collaboration
- Communications Enabled Business Processes (CEBP)



UC @ Virginia Tech



Calling (voice)
Messaging (voice, email, IM)
Conferencing (voice)



Calling (voice)
Messaging (voice, email, IM)
Conferencing (voice, web)
Mobility



Calling (voice, video)
Messaging (voice, email, IM)
Conferencing (voice, video)
Mobility
Collaboration
CEBP



Desk Phones

“Having dedicated (i.e., hard-wired) phone service is crucial...”

“I'd much rather have a computer application that allowed me to use a speaker phone than have a physical phone on my desktop.”



Smart Phones

“Give everyone smart phones and eliminate the out-dated desk phone system.”

“I don't want a university smart phone...”



Desktop Video Conferencing

“I don’t think desktop video conferencing is as important as other features...”

“...video conferencing with document sharing would be invaluable (to me).”



Management

“As I see (it), we will be burdened with all communication responsibilities...”

“The flexibility to manage my own needs is important...”



Central Themes

- Display, speakerphone, and CallerID service should be standard (for those who want a desktop phone).
- Voice, video, messaging, mobility and collaboration are all important...but not to everyone.
- Features are great...if they're accessible.
- Requirements change...flexibility is key.
- It costs too much!

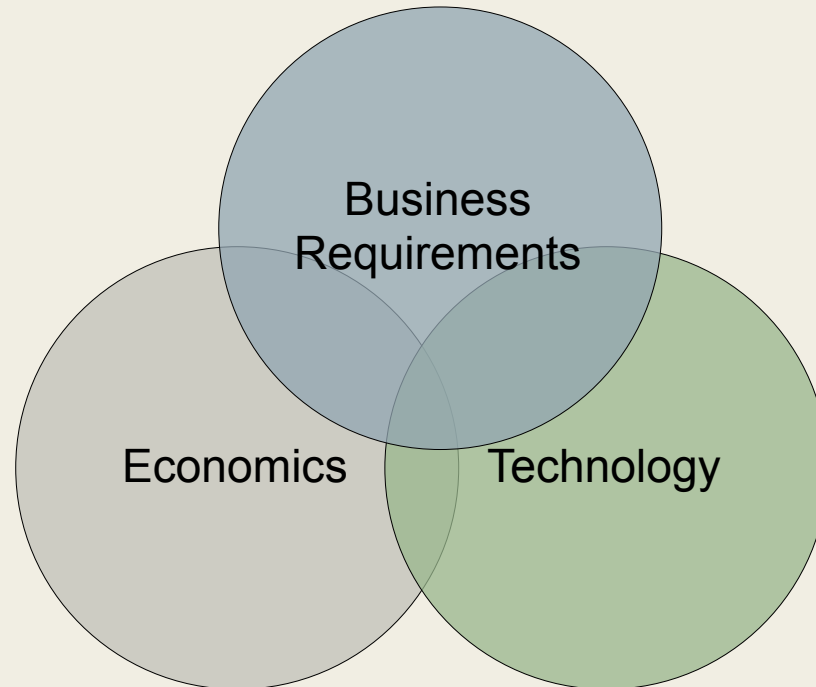


Challenges

- Understanding requirements
- Satisfying infrastructure dependencies
- Managing limited resources
- Facilitating collaboration
- Anticipating and adapting to change



Balancing act



<http://cfp.mit.edu/resources/slides/jan06/Cassidy-Dahle.pdf>

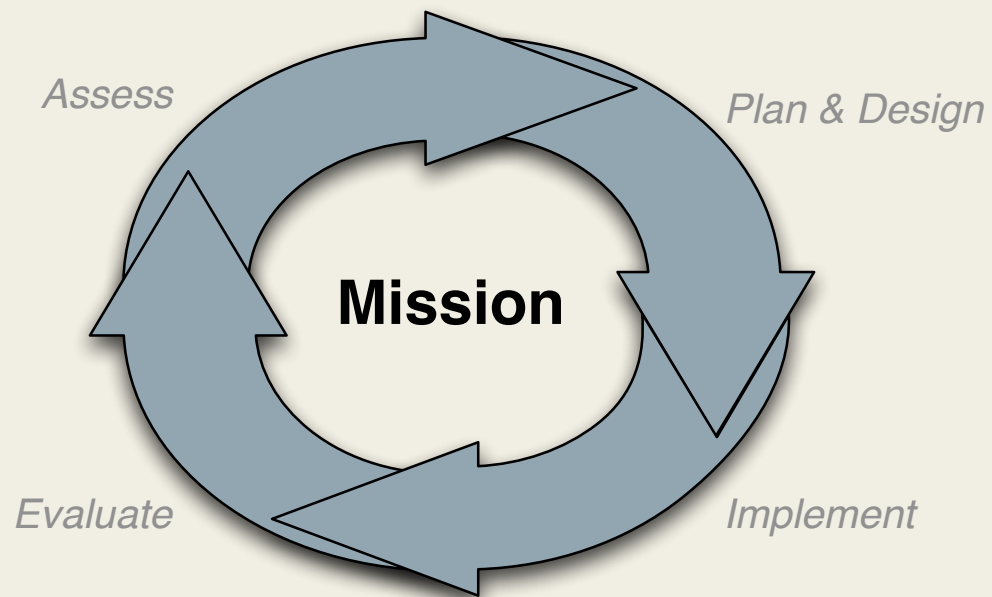


Infrastructure Dependencies

- Voice and Data Network Infrastructure Convergence
- Cabling (Indoor/Outdoor)
- Physical spaces
- Power (UPS/Generator)
- HVAC
- Cellular coverage and capacities



Collaboration



Unified Communications



What is unified communications?

What does it mean to you, what can it mean to you?