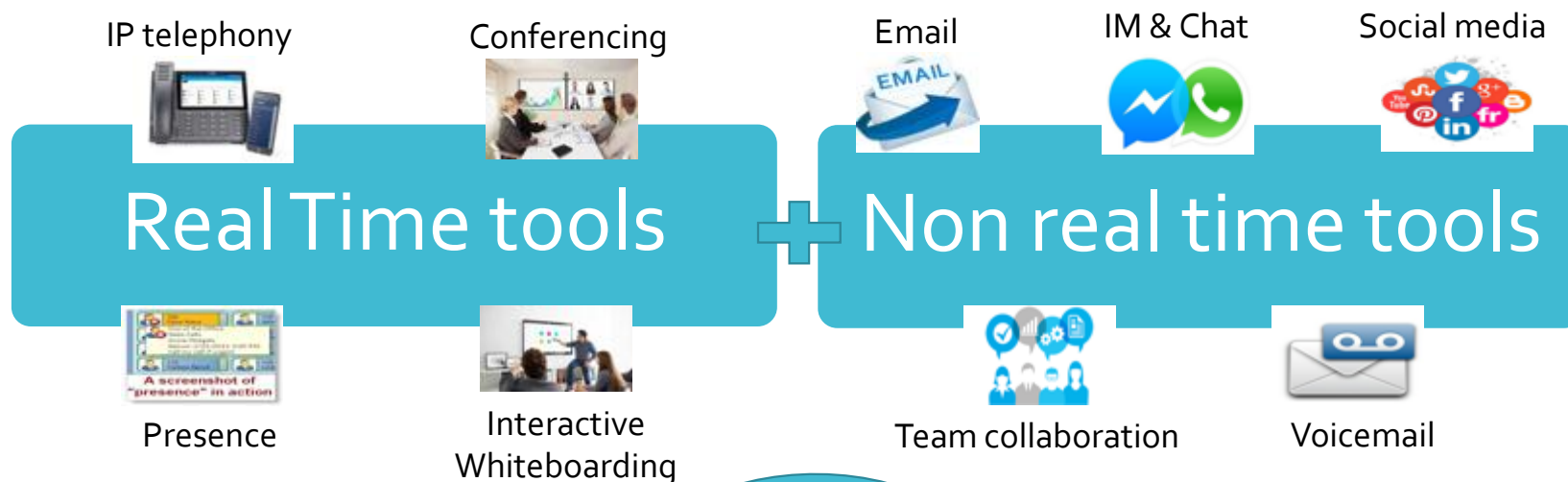# Unified Communications

Benefits & Deployment models

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Solutions Engineering
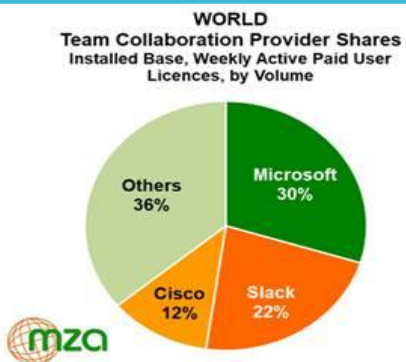Tata Communications India

What is Unified communications ?

Unified communications (UC) is a framework for integrating various non –real time and **real time communication** tools, with the goal of enhancing business communication, collaboration and productivity.


Unified Communications

IP telephony

Conferencing

Email

IM & Chat

Social media

Real Time tools + Non real time tools

Presence

Interactive Whiteboarding

Team collaboration

Voicemail

Hurray !!! We have UC

WORLD
Team Collaboration Provider Shares
Installed Base, Weekly Active Paid User Licences, by Volume

Others 36%
Microsoft 30%
Cisco 12%
Slack 22%

Primary Team Collaboration Provider

ALE Rainbow 2.6%
Atlassian (Hipchat or Stride) 6.6%
FB Workplace 1.3%
Slack 14.5%
Symphony 5.3%
Broadsoft Team-One 2.6%
Mitel MiCollab 1.3%
Cisco Spark 21.1%
Microsoft Teams 32.9%
Google Hangouts Chat 10.5%
Mattermost 1.3%

Why embrace Unified Communications

It offers the potential to dramatically improve the way individuals groups and businesses interact with each other.
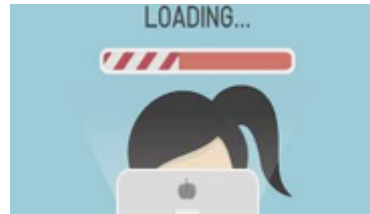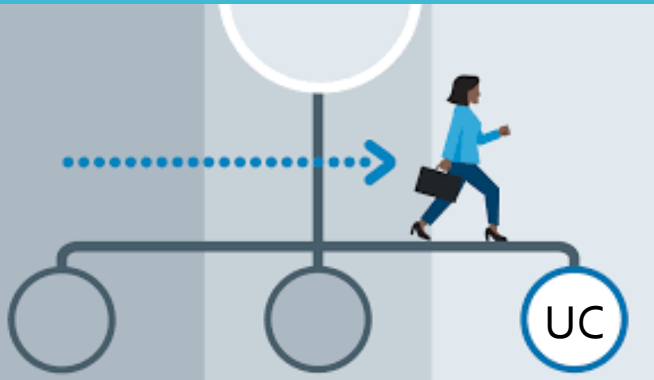
Response times are significantly reduced, and the coordination of dispersed teams is facilitated

Real-time information delivery speeds up sales cycles and inform decision-making

Remote work strategies made possible , empowering work from home , improve ESAT , reduce operational costs

UC

UC helps reducing costs and drives ROI

- Hard Savings
  - Lower Monthly Bills
  - Lower IT Infrastructure Costs
  - Tool Consolidation
  - Less Business Travel

- Soft Savings
  - Financial Benefits of OpEx
  - Better Communication and Collaboration
  - Mobility

$$ROI = f\left(\begin{array}{c} \text{business benefits} \end{array}, \begin{array}{c} \text{time to value} \end{array}, TCO\right)$$

- Higher **business benefits** drive a higher ROI
- A faster **time to value** drives a higher ROI
- A lower **TCO** drives a higher ROI
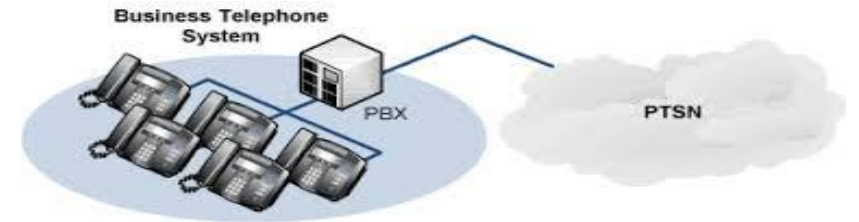
UC strategy drivers

- **EOL/EOS Legacy voice equipment.**

- **Increase in mobility**

- **Availability of Cloud deployments**

- **Shift to non real time communication**

- **Use of open communication protocols such as SIP**

UC deployment strategies

"A UC solution is destined to fail if it doesn't overcome a business challenge"

Basics : Before purchasing and implementing the solution – Understand the business problem which has to be solved and how UC can help.

Ex- Team collaboration platforms, has changed the way in which people interact and exchange information securely in real time based in any time zones of the world

DO NOT buy and implement technology for technology's sake.

Success of UC
1. Real business value realized
2. A clear goal of what the enterprise is trying to achieve

Remember : UC is always transformational

UC Deployment

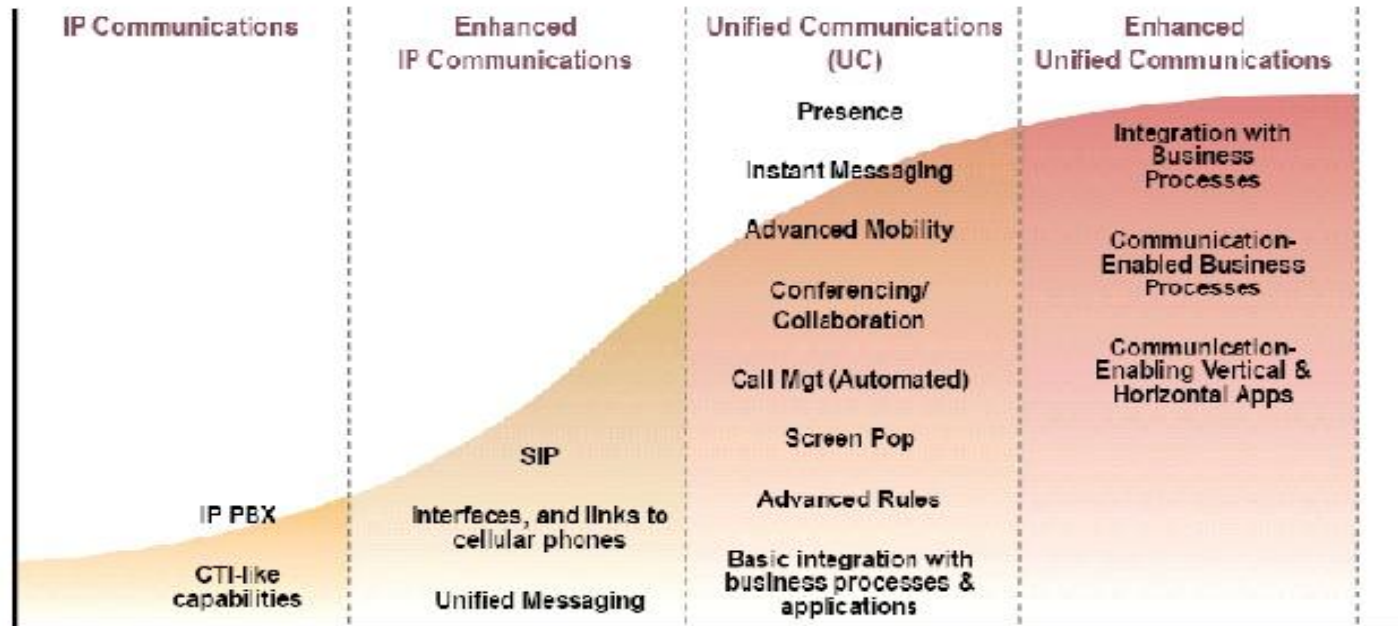"There is no single or right way to implement UC."

Telephony Model

There are various paths toward a UC solution; they depend upon the company's infrastructure, philosophy and goals

With the Telephony Model, companies start with their existing switch infrastructure or PBX, generally an IP PBX. As companies move along the continuum to enhanced IP, they add functionality, such as SIP, UM and integration with mobile devices

UC Continuum
Telephony Model

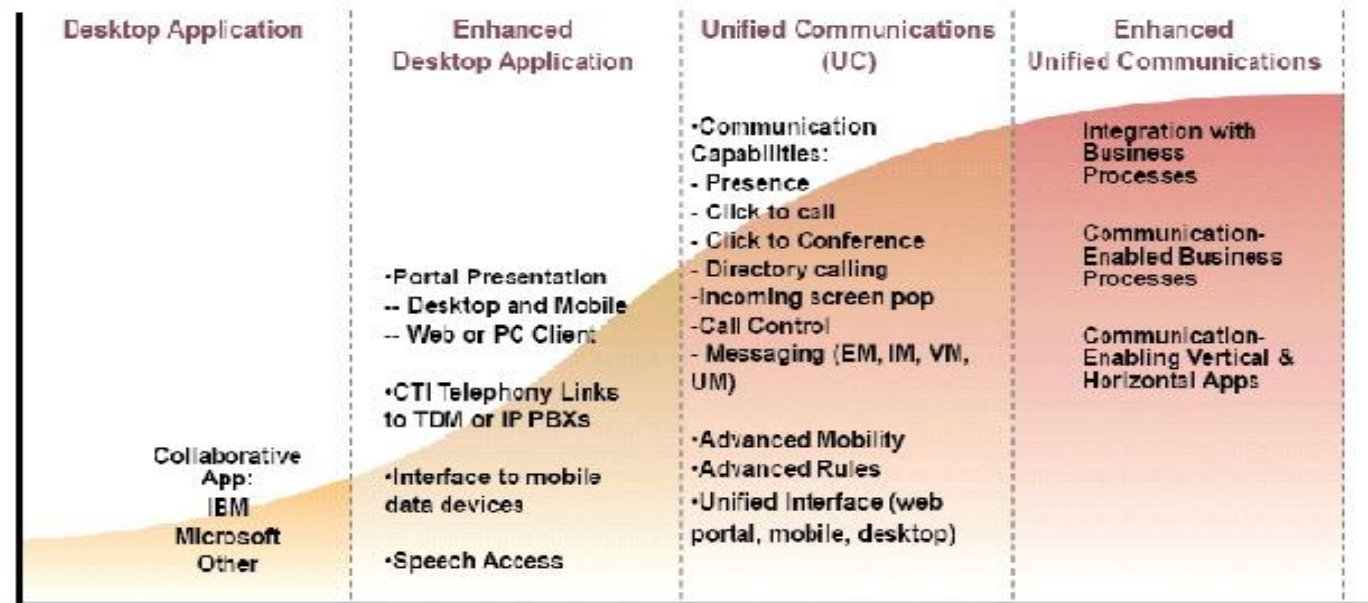| IP Communications	Enhanced IP Communications	Unified Communications (UC)	Enhanced Unified Communications
		Presence	Integration with Business Processes
		Instant Messaging	
		Advanced Mobility	Communication-Enabled Business Processes
		Conferencing/Collaboration	
		Call Mgt (Automated)	Communication-Enabling Vertical & Horizontal Apps
	SIP	Screen Pop	
	Interfaces, and links to cellular phones	Advanced Rules	
IP PBX		Basic integration with business processes & applications	
CTI-like capabilities	Unified Messaging		

UC Deployment

Desktop Application Model

With the Desktop Application model, companies start deploying IM/Presence services and then move upwards to provide collaboration applications

UC Continuum
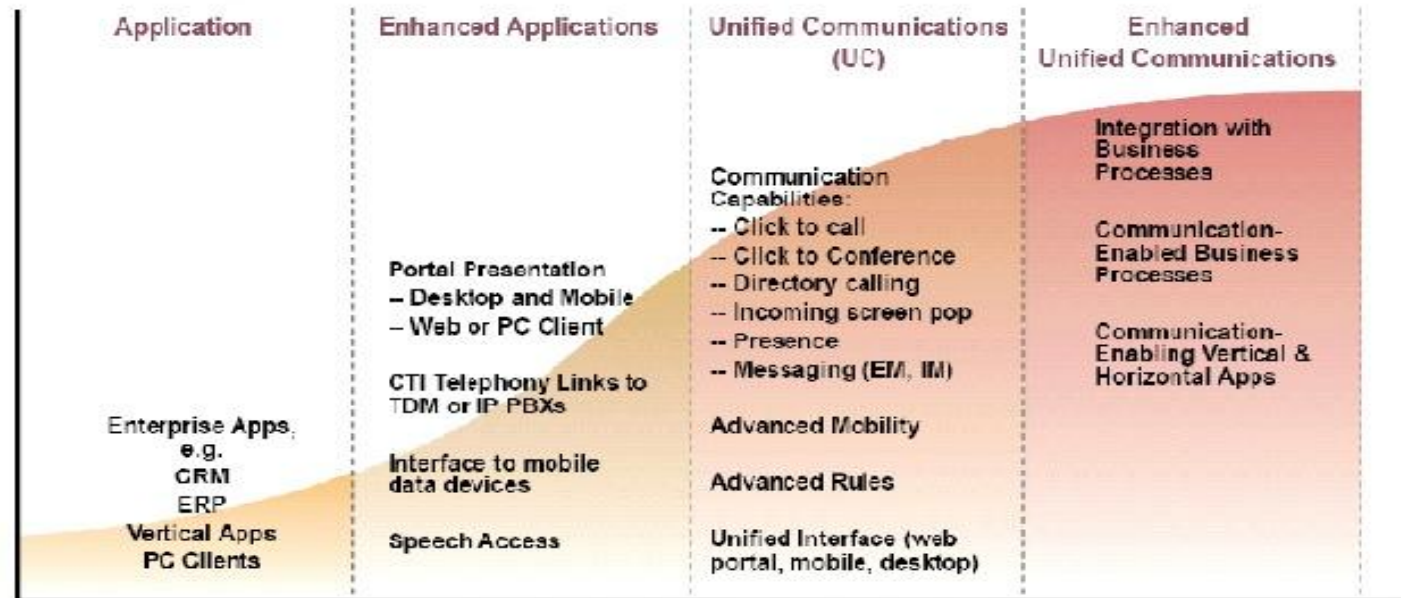## Desktop Application Model

Desktop Application	Enhanced Desktop Application	Unified Communications (UC)	Enhanced Unified Communications
	•Portal Presentation -- Desktop and Mobile -- Web or PC Client •CTI Telephony Links to TDM or IP PBXs	•Communication Capabilities: - Presence - Click to call - Click to Conference - Directory calling -Incoming screen pop -Call Control - Messaging (EM, IM, VM, UM)	Integration with Business Processes Communication-Enabled Business Processes Communication-Enabling Vertical & Horizontal Apps
Collaborative App: IBM Microsoft Other	•Interface to mobile data devices •Speech Access	•Advanced Mobility •Advanced Rules •Unified Interface (web portal, mobile, desktop)	

UC Deployment
Enterprise Business Application Model

With the Enterprise Application model, companies deploy CRM, ERP applications services and then integrate UC apps with them to provide unified experience to the users

UC Continuum
Enterprise Application Model

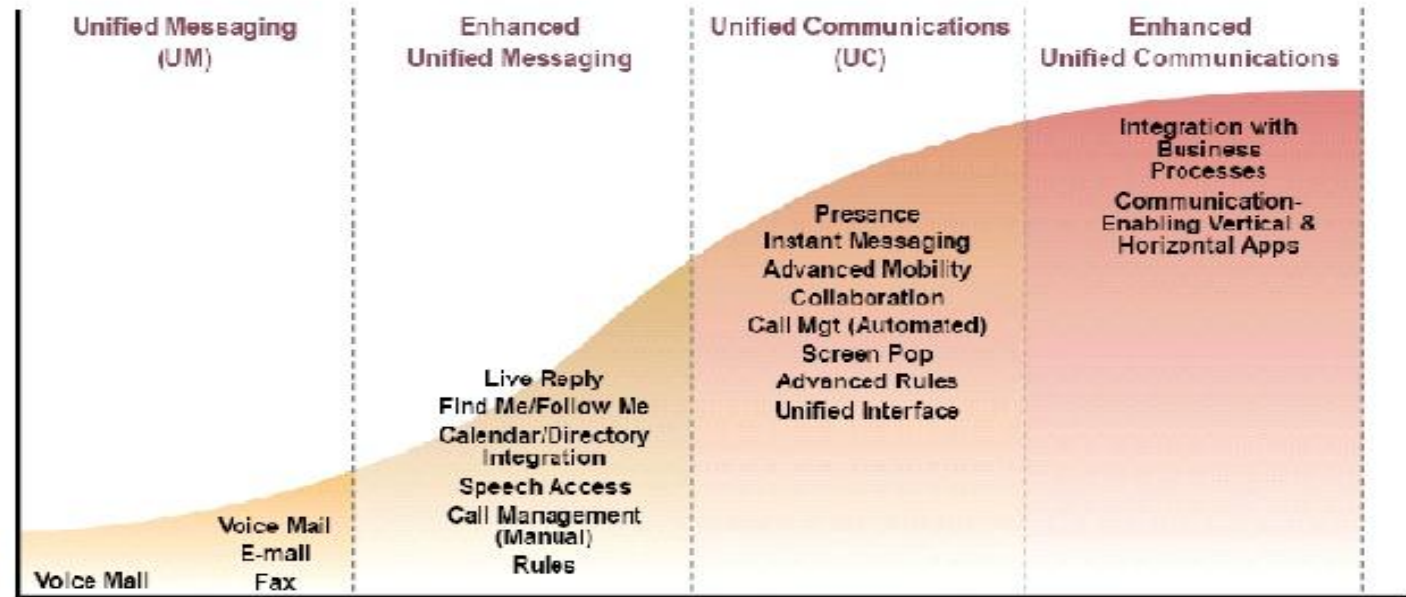| Application	Enhanced Applications	Unified Communications (UC)	Enhanced Unified Communications
Enterprise Apps, e.g. CRM ERP Vertical Apps PC Clients	Portal Presentation – Desktop and Mobile – Web or PC Client CTI Telephony Links to TDM or IP PBXs Interface to mobile data devices Speech Access	Communication Capabilities: -- Click to call -- Click to Conference -- Directory calling -- Incoming screen pop -- Presence -- Messaging (EM, IM) Advanced Mobility Advanced Rules Unified Interface (web portal, mobile, desktop)	Integration with Business Processes Communication-Enabled Business Processes Communication-Enabling Vertical & Horizontal Apps

UC Deployment

Messaging Model

Messaging model starts with voice mail, going advanced by integrating e-mail & FAX and finally with other business applications services.

UC Continuum Messaging Model

Unified Messaging (UM)	Enhanced Unified Messaging	Unified Communications (UC)	Enhanced Unified Communications
			Integration with Business Processes Communication-Enabling Vertical & Horizontal Apps
		Presence Instant Messaging Advanced Mobility Collaboration Call Mgt (Automated) Screen Pop Advanced Rules Unified Interface	
	Live Reply Find Me/Follow Me Calendar/Directory Integration Speech Access Call Management (Manual) Rules		
Voice Mail E-mail Fax			
Voice Mail			

Choosing the right UC Solution

"After adopting a switch to UC, choosing the right platform is a crucial decision for organizations that want to be agile and flexible."

- *Nature and quality of network architecture*
  - *Support existing network & enterprise applications*
  - *Single platform without needing major network change*

- *Security*
  - *Quality of security*
  - *Encryption & regulatory compliance*

- *Scalable and flexible deployment options*
  - *Deployment on Cloud*
  - *Subscription and opex models*
  - *Staggered deployment approach*

- *Vendor choice*
  - *Industry leadership, technical expertise*
  - *Service assurance, SLAs*
  - *Reporting, Training and Adoption , Agility*
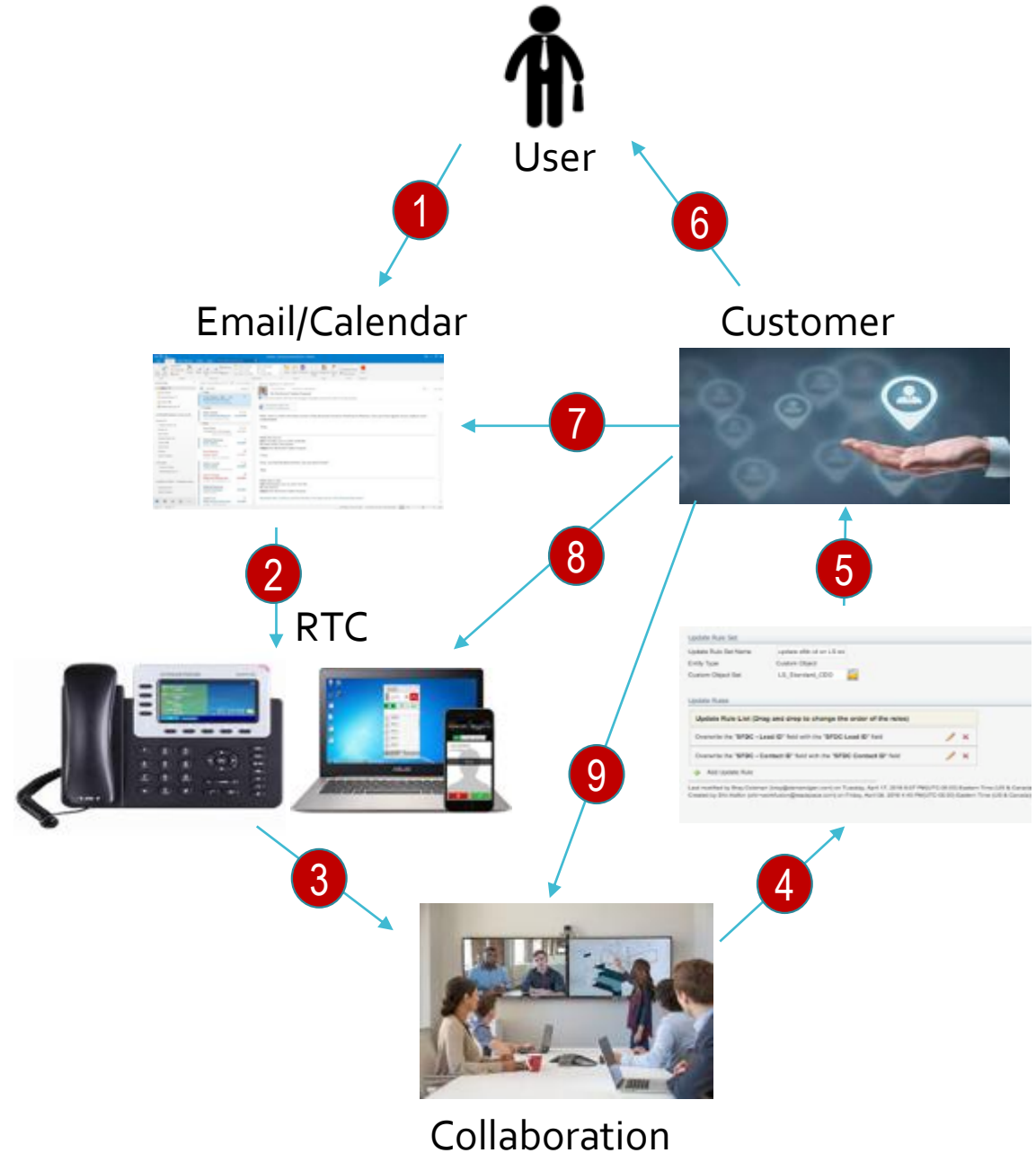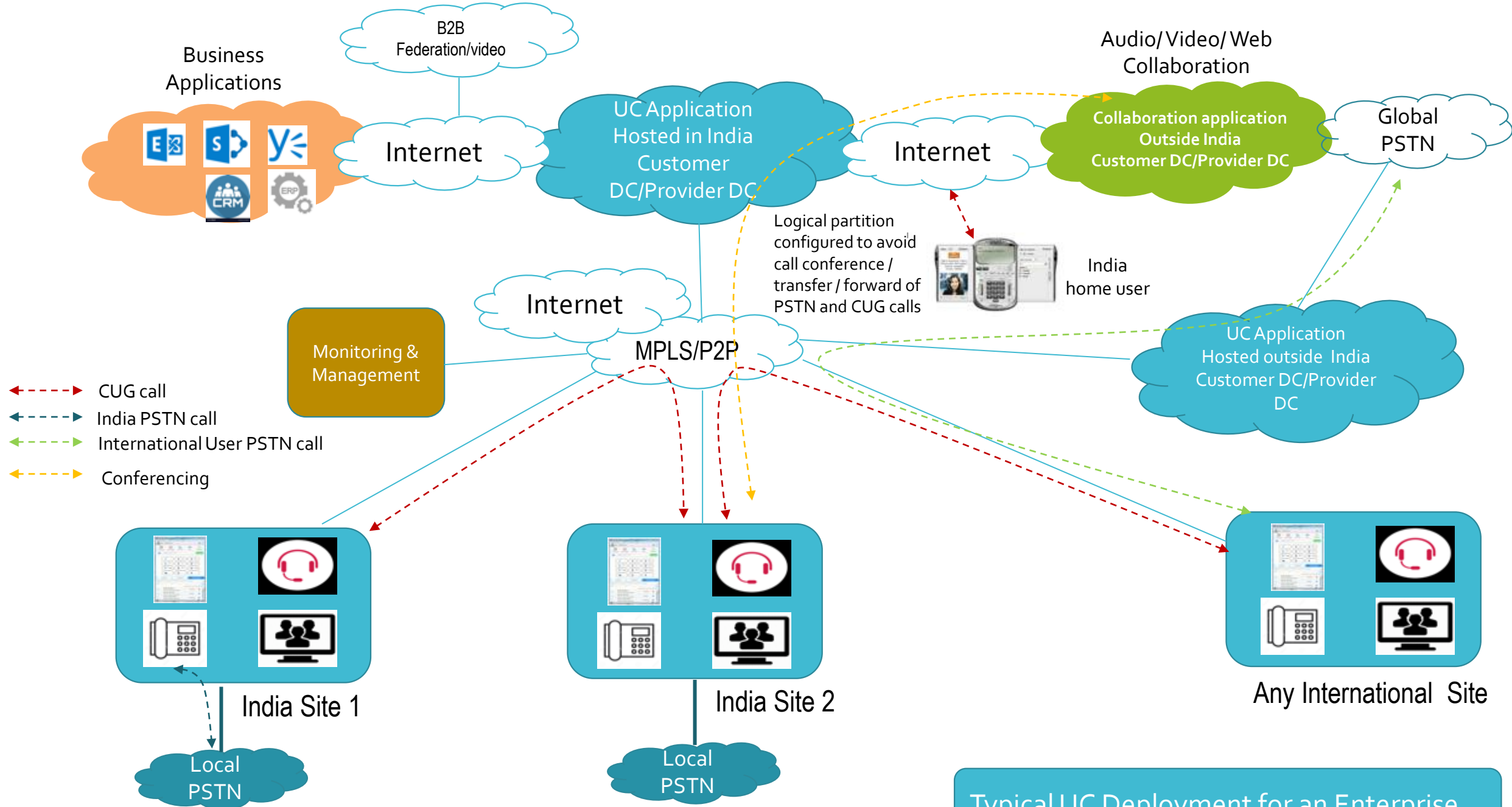
Typical UC Deployment for an Enterprise

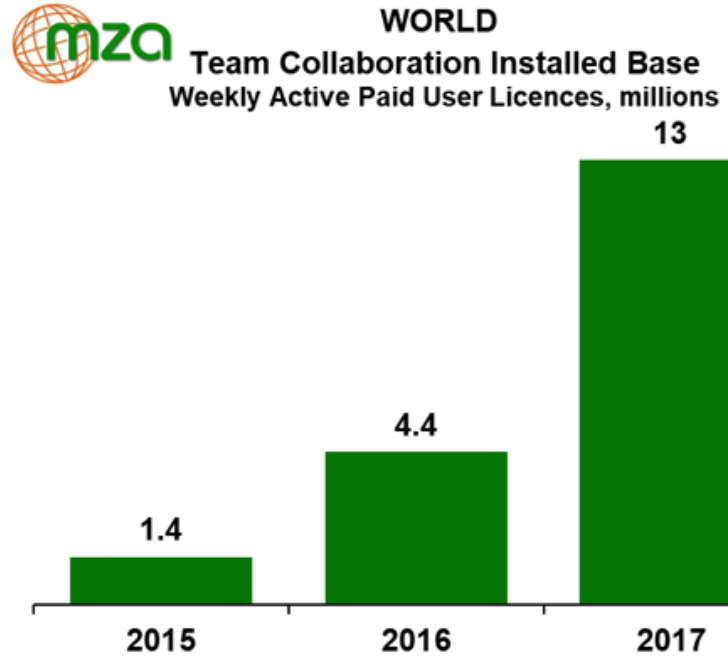# India vs International deployment

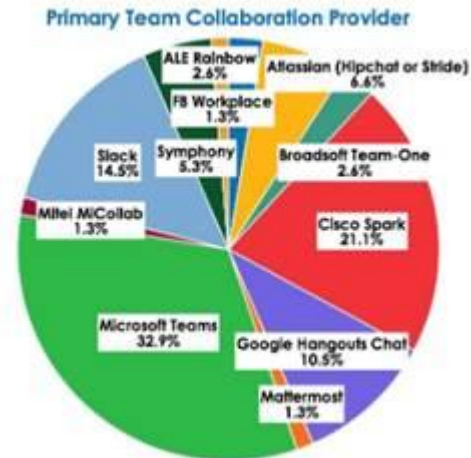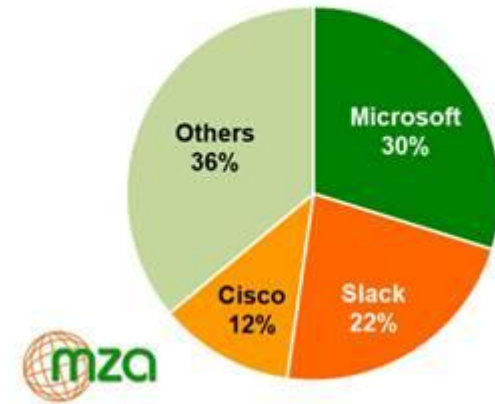| India	International – Relaxed
Call control in India	Call control anywhere (exceptions like GDPR exist)
Local PSTN breakout – site/SDCA wise	Central PSTN aggregation
Logical partitioning	Allowed CUG and PSTN mix
B2B federation allowed over Internet	B2B federation allowed
CUG within India and International	CUG with India and any International

*Middle East is more restricted as compared to India.

Trending UC workload

Nemertes

Q &A