



The Converged (VoIP/IPT) IT Employee

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The Converged IT Employee

Understand the Converged IPT Model

TDM PBX

- TDM PBX – Basement / Dungeon / Closet
 - Proprietary Hardware /OS Design
 - Installed by Manufacturer
 - Manufacturer owns Security
 - Manufacturer monitors/fault mgmnt
 - Voice team/Vendor does Change Mgmt
 - Voice team/Vendor does Problem Mgmt
 - Voice team monitors traffic/performance
- Voice Infrastructure – (T-1s, Tielines,FX)
- LAN – Twisted pair / (IDF-MDF risers)
- Network Devices (IDF-cross connects)
- Phones – port /jack assigned – physical cable connection
- *Voice owns Apps. -- Voice, VM, UM, ACD*
 - *Problem/Change Mgmt*
 - *IMAC – D, Features, Dial Plan*
 - *Voice is still Voice – Requirements don't change*

IP PBX

- IP PBX – Raised floor / Data Center
 - Open Systems Server Design & /OS
 - Installed by Server team
 - Security / Server team owns IDs
 - Monitored by Network, Server, or Remote Svc
 - Server team does Change Mgmt
 - Server team does Problem Mgmt
 - Network/ Voice team does Performance
- Data Infrastructure (WAN)
- LAN – Cat5 / Fiber (Data Network)
- Network devices -- (switches /routers)
- IP phones – IP address desktop, mobile, softphone, wireless, logical, V-LAN
- *Voice owns Apps. – Voice, VM, UM, ACD*
 - *Problem / Change Mgmt*
 - *IMAC – D, Features, Dial Plan*
 - *Voice is still Voice – Requirements don't change*

Understand the (What) before the (Who)

1. **Identified all Voice Services**
2. **Broke Each Service into Cost drivers and work-products**
3. **Identified over 200 work-products just for IP PBX**
 - CDR (Call Detail Recording)
 - Trunk and traffic analysis
 - T1, and other digital services and products support
 - Analyze trunk configurations to assure proper call routing
 - Manage, install and test /OS patches
 - Security log management / Log on ID ownership
 - Break-fix maintenance
 - Hardware planning, configuration management, and systems provisioning
 - Vendor management
 - Voice network installations and changes
 - Fraud detection
 - IMAC-D
 - E911 Implementation and support
 - Sarbanes Oxley requirements
4. **Support Model Selection Criteria**
 - Must the service be performed on site? Can it be mobile? Can it be remote?
 - Who can do it cheaper? Who has the tools? Who has the skills? Who does it today?
 - What are the industry standards? What are our best practices?
 - Where is the value add? What is the strategic direction? Do we have gaps or overlaps?
5. **Created The Service Responsibility Matrix, obtain buy-in, build processes**
 - Server Ops
 - Security
 - LAN Device Team / Gateway Team
 - WAN Infrastructure Team / Possible Vendor/Supplier Management
 - Deskside / End User Services
 - Voice Team

Understand Layers / Which Team owns What?

Data and VoIP Management																													
FCAPS – Fault, Configuration, Accounting, Performance, Security																													
Common Tools																													
Monitoring/ Security/ Prob & Chg/ IMAC/ Profiles/ Billing/ Reporting/ Assets/ Vendor/ Ordering/ Skills																													
GNMC / SDC On-Site/Vendor				ServerOps / Security Service Delivery/ On-Site Data Center/ Vendor				GNMC/ Security Service Delivery SDC/ On-Site				EUS/ On-Site/ Vendor		GNMC/ On-Site Vendor/ Customer															
Network Infrastructure				IP Server Hardware, /OS				IP Network Devices				IP End Points		Applications															
LAN IP Management	WAN IP Management	Wireless Management	PSTN Management	ATM/ TDM Management	Brand X IP-PBX	Brand X TDM-PBX	Database Server	Voice Mail Server	Unified Messaging	Web Portal	QoS/Fault Management	SIP Servers	CDR Collection / Other	Blade Model IP PBX	Voice Gateways	Routers	Switches	CSU / DSU	Multiplexers	Firewalls	IP Phones	Soft Phones	Wireless Phones	Video/ PDA/ Other	PBX	ACD / Call Center	IVR / CTI	Voice Mail	CDR/Web Portal/ Video

Understand The Converged SRM (example only)

200 + work products for IP-PBX	CSC	GNMC Level 2	GNMC Level 3	Server	Network	EUS
Perform 3rd level network problem determination and resolution		Assist	Perform		Perform	
Perform 3rd level vendor management		Perform	Perform		Perform	
Provide network statistical reporting		Assist	Assist		Perform	
Perform site acceptance testing		Assist	Assist		Assist	
Network/VoIP E2E/Focal Point		Perform			Assist	
Confirm problem resolution with end user	Assist	Perform			Assist	
Provide physical network management		Assist			Assist	Perform
VOIP Server Hardware Management						
Develop installation plan				Assist		Assist
Procure equipment through vendor				Perform	Perform	
Schedule installation and cutover activities		Assist	Assist	Assist	Assist	Assist
Resolve/Manage hardware-related problems *		Assist	Assist	Perform	Perform	Perform
Interface with vendors for scheduling		Assist	Assist			
Monitor equipment leases				Perform		
Perform regular maintenance		Assist	Assist	Perform		
Dispose or return displaced hardware				Perform		
Inventory management				Perform		
Asset ownership				Perform		
Software Management OS						
Develop installation plan						Assist

Understand the Impact on the Converged IT Employee

- **If it can be remote, it can also be performed off-shore (Global NOC)**
- **Deskside (EUS) learns to manage the phones, soft-phones, mobility**
- **Server team builds PBX images. PBX patches. PBX Change Mgmt**
- **Security owns firewalls, RSAs, logs; Assist by Server and Voice teams**
- **Network owns switches, routers (Voice owns app. layer on Voice gateways)**
- **WAN / Network team owns/ procures MPLS/ EVPN, Assist by Voice level 3**
- **Remote Managed Svc monitors QoS / traffic with UP/DN data monitoring**
- **PC hardware, software, network, and /OS support converged ~10 years ago**
- **Same threshold today, EUS/LAN/WAN/Voice/Video for (feet on the street)**
- **Voice owns Application management using TDM skills -- Voice is still Voice**