



Prospects for Managed and Hosted Services

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Prospects for Managed and Hosted Services

Managed Services - Global Network Management Center

1. **Identified our Voice Services**
2. **Broke Services into Cost drivers and work-products**
3. **Identified over 200 work-products**
 - CDR (Call Detail Recording)
 - Trunk and traffic analysis
 - T1, and other digital services and products support
 - Analyze PBX hardware configurations
 - Analyze trunk configurations to assure proper call routing
 - Analyze trunk traffic to assure proper grade of service
 - Architecture Planning and Consulting
 - System design
 - Hardware planning, configuration management, and systems provisioning
 - Vendor management
 - Project management
 - Voice network installations and changes
 - Fraud detection
 - Interface to site security on telephony investigations
 - Monitor traffic and usage patterns for security violations
 - Configuration Audits
 - E911 Implementation and support
 - Standards compliance
 - 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?
 - What are the industry standards? What are our best practices?
 - Where is the value add? What is the strategic direction?

Managed Services – GNMC Virtual Support

• Remote Managed Operations

- Alert/Problem Management
 - Integration with Cust
- Configuration Management
 - Call Routing
 - SW IMAC
 - Change Management
- Performance Management
 - Trending analysis
 - Quality Monitoring

• Centralized Services

- Mobile devices
- Traffic Analysis
- Engineering
- Circuit Provisions
- Invoices /Billing
- Transition Services
- Engagements
- Reporting
- Asset Management

• FCAPS

- Fault
- Configuration
- Accounting
- Performance
- Security



Managed Services - Components

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

Managed Services – FCAPS support

<u>Fault</u>	<u>Configuration</u>	<u>Accounting</u>	<u>Performance</u>	<u>Security</u>
<ul style="list-style-type: none"> • Device Failures • Circuit Failure • Trunk Failures / Errors • Device Availability • Power Supplies (UPS) • Signaling Error (GW to PSTN) • Packet Loss • Link Bit Error • Trouble Ticket Criteria / Severity 	<ul style="list-style-type: none"> • IP Addresses • VLANs • Network Devices • Device Buffers • Access • Gateways • Server DHCP • FAILOVER • Dialing Plan • Numbering Plan • Moves – Adds – Change (MAC) 	<ul style="list-style-type: none"> • Call Detail Records (CDR) • Company Calling Patterns • Bandwidth Usage • Billing Information (RADIUS servers, MIBS, probes, etc.) 	<ul style="list-style-type: none"> • Latency • Jitter • Network Congestion • Network Availability Trend • Resource Availability • Call Volumes • Capacity • Device Memory Utilization 	<ul style="list-style-type: none"> • Registration (RAS) .. PDD • Network Access • Device Access • RADIUS servers • Intrusion Detection • Denial of Service • Virus Identification and Quarantine
<ul style="list-style-type: none"> • <u>Tools</u> • xxx 	<ul style="list-style-type: none"> • <u>Tools</u> • xxx 	<ul style="list-style-type: none"> • <u>Tools</u> • xxx 	<ul style="list-style-type: none"> • <u>Tools</u> • xxx 	<ul style="list-style-type: none"> • <u>Tools</u> • xxx

Managed Services - Keys to success

- More intelligent / secure bandwidth, not just more bandwidth
- Self healing, recoverable processes, redundancy, failover
- Look ahead, automated least cost routing, intelligent routing
- No IMACs? End user tools, integration (HR, Acc, Dir, 911)
- SLAs, SLOs, SLRs -- Reporting vs Reality (ave,mean,hold)
- Peer to Peer, shrink wrap, home workers, Voice over Internet
- Wireless, mobility, an office in your pocket
- One size fits all