

VoIP OSS

Lessons Learned, so far ...

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History

- H.323
 - Enterprise focus or class 4 type trunking implementations mostly
 - Managed usually using independent proprietary EMS tools (CLI!)
- MGCP
 - Start of Service Provider focus
 - Need for integration with existing back office OSS
 - Leveraging TDM voice definitions (LSSGR)
 - Scale starts to be an issue
- SIP
 - Blurring of the line between Enterprise and SP
 - Emergence of a new breed of IP-centric SP
 - Fast evolving, landscape will change in 3-5 years
 - Need for integration with existing back office OSS remains, however ...
 - Modernization of back office OSS
 - Multi-provider issues, roaming, interoperability
 - Scale is becoming a real problem

Challenges for OSS

- **Lack of Maturity of basic functionality**
 - Need to define “what” is to be managed before we can manage it
- **Legacy TDM voice vs. IP for operations**
 - Bellcore/Telcordia GRs as main guides
- **Lack of clear service deployment models**
 - Service Providers are just learning
 - OSS models are evolving, less emphasis on TMN, more on cross functional tools

Proposed Areas of work towards standards

- True converged IP/PSTN specification on accounting
 - GR-1100 equivalent for VoIP
- Voice Quality Metrics deployment methodology
 - Which metrics to collect and where, how to report, how to analyze, how to take corrective actions
- Standardized provisioning interfaces, End user devices, and Subscriber service
 - Standard transport protocols, security considerations, performance standards, data encoding/encapsulation recommendations, and handshaking protocols
- Operational characteristics of the various voice and multimedia features
 - Include billing implications, metrics collection, and provisioning concerns (like feature interactions to screen output) on a per feature basis - similar to what the various LSSGR specs did for the PSTN.
- Address Scale
 - Methods to push more Operations intelligence into the network
 - Lighter weight Operations/Management protocols
- Security