



Telecom Security for Olympic Events

Prepared for:

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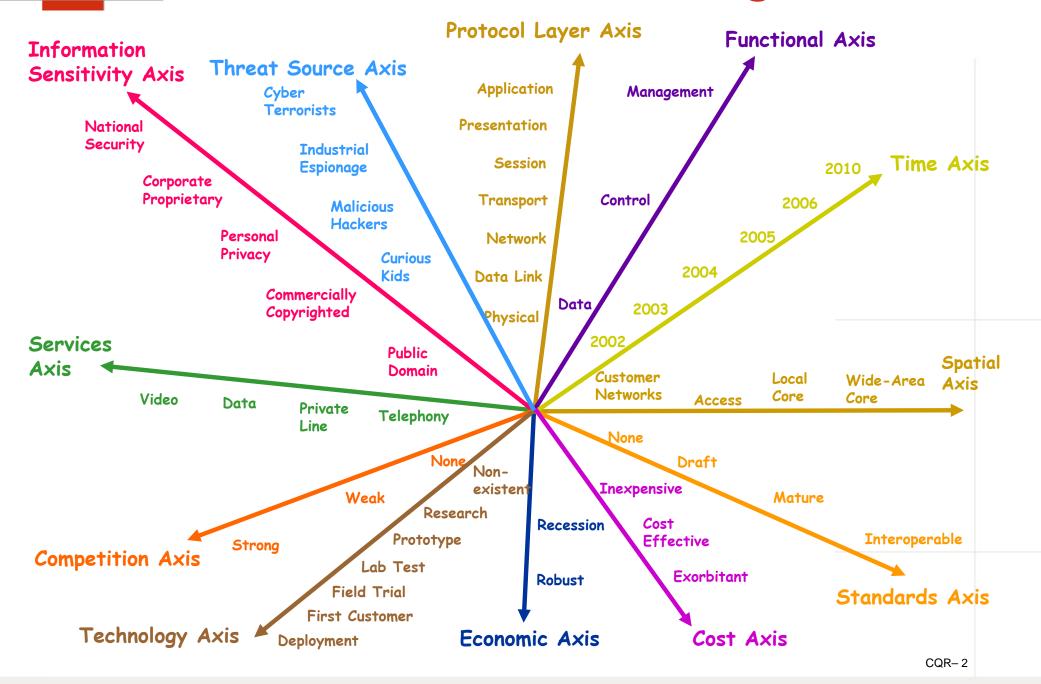
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ELEMENTIVE

Multi-Dimensional Challenge

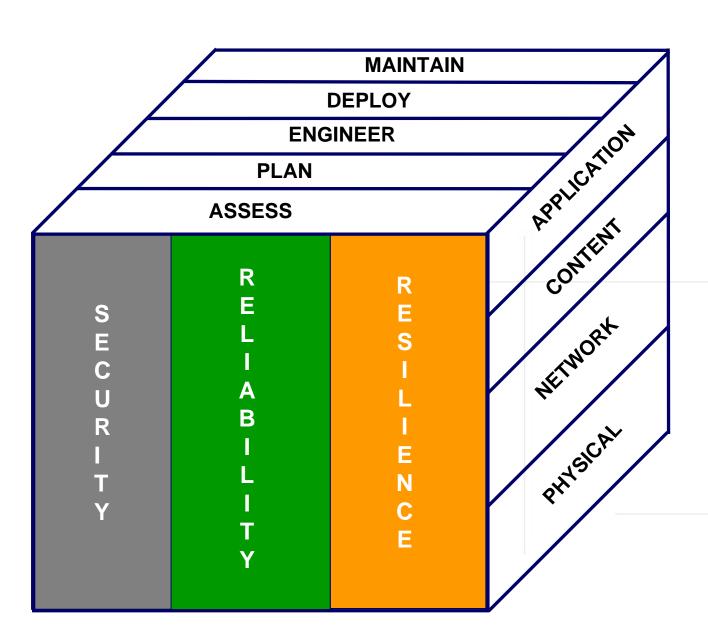








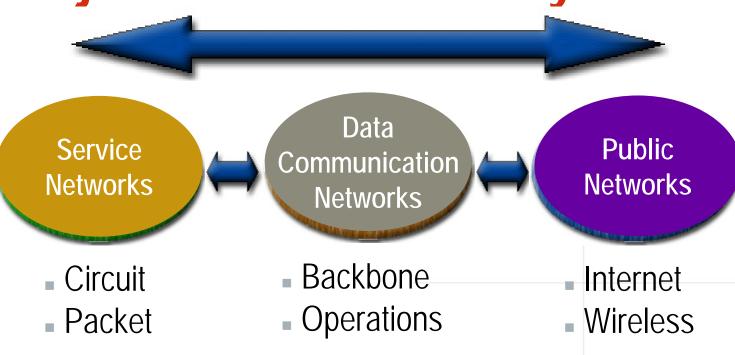
Another Look at Dimensions







Major Technical Security Challenges



- Web Applications
- Node Security
- Operations Flow-thru
- New Services
- Software Integrity

- Routing & Addressing
- Legacy Systems
- Denial of Service
- Security Management
- Mobile Devices





End-to-end approach to security

Applications



Applications

Platforms

Signal/Mgt.
Interactions

Core Network Analyze Infrastructure - "Assets"

Signaling

Switching

Analyze the Attack "Strategies"

Access

- O/S Intrusion
- Link Intrusion
- Privilege Abuse
- Wireless

Disruption

- **Element Crash**
- Bogus Signaling Controls
- SDH Mgt. Corruption
- **Web Services**





Athens Olympic - Lessons Learned *Telecom Perspective*

- Perform baseline security assessment to identify/address gaps before events
- Manage vulnerability remediation
- Integrate Network & IT network security functions
- Establish new management interfaces to support information sharing and enhance incident detection/response
- Create security awareness program across a broad range of users
- Increase and train security staff to handle 7x24 support
- Address interconnection with legacy and new networks
- Manage vendor support throughout period
- Address security for Major Web Portals
- Implement strict configuration management for security elements and telecom/IT infrastructure





Converged Communications.... Multiple Applications Accessed over Multiple Devices via Communications Portal







click to dial



- audio exchange
- call management



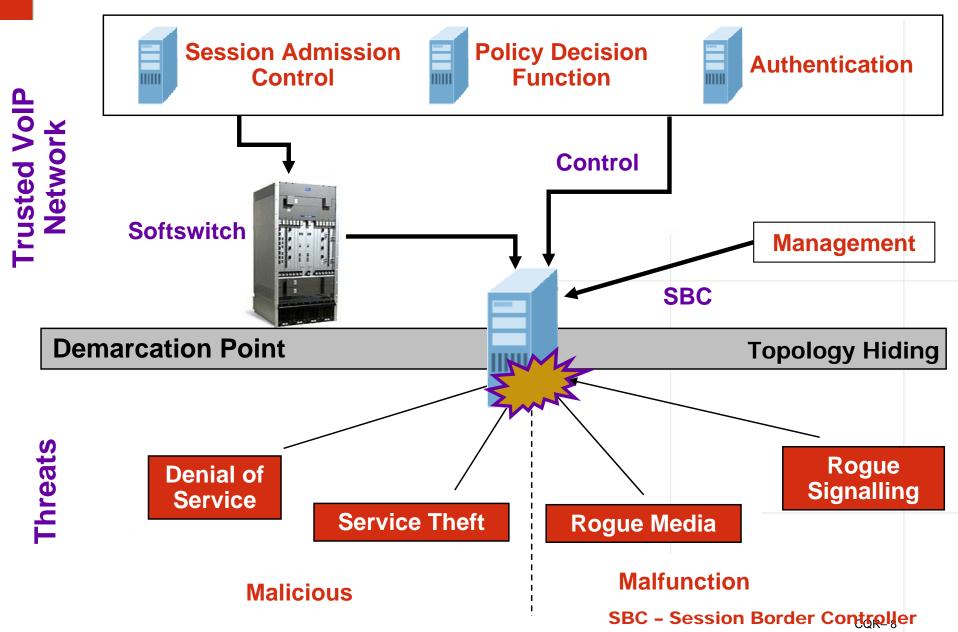
- call notification
- call disposition
- call logs with click to dial

- directories with click to dial
- call notification
- call disposition
- call logs with click to dial
- service management



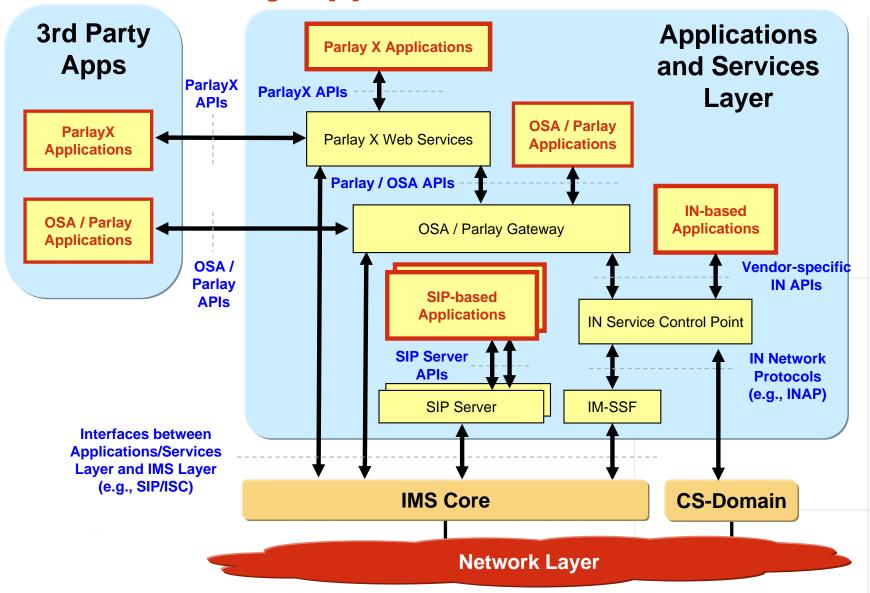


Evolving Security Boundaries





IMS: A Security Perspective Telcordia. Third Party Application Providers







Security Roadmap for Network/Service Infrastructures

Benchmark Security

- Address risk
- Platforms, applications & protocols
- Process flows
- Security architecture
- Security management

Procurement Process

Controls

- Vulnerability
 Assessment
- Processes
- Security design
- Operations testing & turn-up

New Services Rollout

- Controls process
- Vulnerability assessment
- Procedures
- Training
- Service testing & turn-up

Threat & Vulnerability

- Monitoring
- Patch management
- Periodic
 Vulnerability
 assessments
- Training

Current Network Infrastructure

New Services

Evolving Network Infrastructure

Technology Insertion





New Security Directions

- Balancing Defense-in-Depth across networks, platforms, interfaces and applications
- Recognizing security as part of QoS policy management
- Integrating security operations capabilities
 - Technical and organizational aspects
- Utilizing identity management
- Providing end-to-end Information Security
- Developing common "look & feel" interfaces