Next Generation Signaling Network

IP Solution – v1.0
Agenda

• Introduction
• The challenging journey
• Key drivers
• Next Generation Signaling
• Business case
• IP Transfer point
• Example of ITP Deployments
• LogicaCMG value proposition
• Feedback & Discussion
The challenging journey
3 key challenges

• Increase Revenue
• Reduce operational expense
• New Service creation and continuity of existing services
Part of the solution – strategic choice

• Op-Ex Reduction is achieved by
  – Network Convergence
    • Elimination of duplicate costs
    • Simplification (One Network) – All IP
    • Reduce manual and high cost processes – automate
C7 Infrastructure – today’s situation

• Growth in SS7 traffic largely due to additional services (not just voice)
• Large operational expense
• Limited of offering services horizontally
• Non-homogenous core network – no support for IP
• Significant increase over time with new services not utilizing the current assets
• Many products coming to End of life period for vendors or telecom equipment manufacturers
Key Drivers

Next generation signaling network
Key Drivers

- Cost effective – 50% to 90% lower cost of ownership
- Short return on investment period (6 to 12 months RoI)
- Consolidation of networks
- Investment protection (transporting SS7 over TDM, ATM, IP)
- Growth (SS7 Traffic and functionality for new services)
- Enhanced need for security (over Internet)
Next Generation Signaling
What is next generation signalling

• Next generation signalling means the use of IP based technology and transport instead of traditional TDM technology

• This allows the operator to save dramatically on signalling network TCO

• It prepares the operator for the migration towards new IP based services

• LogicaCMG deploys next generation signalling based on Cisco’s leading ITP product
Solution Example for a Mobile Network

Next generation signalling tremendously simplifies the network configuration. Together with less complex components, this leads to more flexibility and lower TCO.
Business Case
# ITP Competitive Comparison

<table>
<thead>
<tr>
<th>Legacy Vendor</th>
<th>Cisco's ITP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>List Price per low-speed link</strong></td>
<td>$7,500 - $10,000</td>
</tr>
<tr>
<td><strong>List Price for 720 TDM-Link STP</strong></td>
<td>$5.4M</td>
</tr>
<tr>
<td>Footprint: 3-6 racks</td>
<td>Footprint: 34&quot; H in 19&quot; rack</td>
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<tr>
<td><strong>Yearly Maintenance Percentage</strong></td>
<td>20%</td>
</tr>
<tr>
<td><strong>Charge for routes</strong></td>
<td>Purchased in increments of 2000</td>
</tr>
<tr>
<td><strong>Charge for GTT</strong></td>
<td>Separate feature card required and GTT entries sold in blocks</td>
</tr>
<tr>
<td><strong>Charge for Gateway Screening</strong></td>
<td>Separate feature card required</td>
</tr>
</tbody>
</table>
| **SS7oIP Ethernet Card Info** | Price: $80k  
IP B/D Links: 2  
MSU/s: 2,000  
Link Utilization: 1.2Mbps  
Protocol: Proprietary | Price: $25k  
IP B/D Links: 1000  
MSU/s: 20,000  
Link Utilization: 8 Mbps  
Protocol: Standard IETF Sigtran |
| **IP routing and wide-area media capabilities** | Requires external IP router. Currently Ethernet < 2Mbps. | Carrier-class IP routing in ITP. Complete wide-area media supported. Industry leading SS7oIP QoS |
| **Aggressively supporting Sigtran peer-to-peer SS7oIP** | No, protecting monopoly business model. | Deploying SS7oIP standards today. |
Savings from ITP (STP replacement)

ASSUMPTIONS (Based on conservative estimates)

• Total savings on OP-EX (replacing 16 STP’s) = 22 M Euros over 4 years
• ROI less than 1 year

(* incl. CAPEX of 7M for ITP)
IP Transfer Point
What is an “ITP”?  

- IP router  
- Next-generation STP  
- SIGTRAN signaling gateway  
- Wireless LAN SIM authentication gateway  
- SS7 Probe  
- Multi layer router  
  - Advanced SMS router  
- Distributed Short Message Router (DMSR)
Any to Any switching
ITP Architecture
- Facilities Impact Comparison

Legacy STP

Cisco

ITP
In Summary: Benefits of IP Transfer Point

- Lower costs
  - Reduce Capital Expenses and Operational Expenses
- High Performance
  - Scalable Link density, MSU/sec
- Carrier grade platform
  - High availability, Redundancy, Stability
- Investment protection
  - Platform capable of best-of-breed in all-IP network
- Standards compliant
  - SS7 variants, IETF Sigtran, HSL
- Facilitate Data Services Revenue
Example of deployments
Telstra Wire line
Nationwide Core SS7 Transport
International Roaming Service
Connections to Operators Worldwide

- Tampa hub w/ 15 remote ITP pairs
- Inter-carrier routing
- Connection to core network
- Point code normalization
- Roaming, 800 service, LIDB, calling name, NP
Cisco ITP Deployments
130+ Customers Worldwide

LogicaCMG delivers & supports Cisco ITP to 85+ customers worldwide
LogicaCMG Value Proposition
LogicaCMG value proposition

• Global Telecom solution partner for Cisco ITP
  – Assuring in time on budget service delivery
  – Wealth of knowledge, experience and differentiated approach

Global Delivery Model

Managed services

Global Telecom Solutions

Wireless Networks - products

Global Telecoms Competence

Managed services

• M&S@SLA
• Predictability

Global Telecom Solutions

• SS7 offload
• Next Gen Signaling
• 12+ ITP based solutions

Wireless Networks - products

85+ joint ITP customers WW

Global Telecoms Competence

3200+ Telecom professionals
Why Choose LogicaCMG for SIGTRAN?
Knowledge and experience

• 200+ ITP installations in commercial environments
• 130+ trained ITP engineers
• Joint software development for ITP
• LogicaCMG is the preferred Global ITP SI partner
• Unique knowledge of (combination) SS7, SIGTRAN and IP
• Certified Training Centre (only 2 world wide)
• Knowledge of and experience with multi vendor equipments
• Knowledge of processes and people in
  – Managed Testing
  – Staging
• Global Delivery and 24x7 Support Organisation
Why Choose Us?

• Top Quality Solution
  – Carrier grade equipment
  – Certified / according to standard (SS7 variants, IETF Sigtran, HSL)
  – Proven technology with over 200 installations in commercial environments

• References
  – ITP implementations for over 85 mobile operators around the world, including Vodafone, TIM, Hutch and Orange

• About LogicaCMG
  – Over 40 years experience in ICT
  – Over 20,000 staff in 35 countries
  – Global Delivery and 24x7 Support Organisation
Joining forces…

• Cisco, the worldwide leader in IP technology
• Joint software development for ITP
• LogicaCMG Global training centre for SS7, SIGTRAN and Cisco ITP
• LogicaCMG preferred global SI partner for Cisco ITP
• 130+ SS7/SIGTRAN trained engineers
Feedback
&
Discussion