Operational issues for IP based voice services

i3 Forum Technical Workshop

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Agenda

- Summary from past year
  - Makeup and focus of team
  - Interconnect form
  - Test plan

- Survey
  - Usage and key learning's from Survey

- Tracking of migrations

- Operational issues
  - Key issues found and reported
  - What worked well, what did not, etc

- Plans for next session
  - New surveys
  - Best practices guide
  - VoIP Bulletin and issue tracking

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Where is VoIP going?

The voice market is going through a period of rapid and radical change … traffic is migrating away from fixed connections to mobile and IP based connections.

The multiplicity of different VoIP Implementations necessitates effective and efficient solutions for their interconnection. The industry needs a technical and economic solution that encourages networks to interconnect and exchange VoIP Traffic.

- Source: Ovum 2010

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Focus of Ops WS

- Operations ws has a focus on the overall migration process from TDM to VoIP
  - Provide guidelines, recommendations

- Provide feedback to other ws groups based on actual implementations

- Makeup of team
  - Provisioning, Operational support, Network design, Network planning, Product Mgmt, Traffic Mgmt

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Interconnect form

- Goal: Standardize on relevant information to share to facilitate interconnect
  - Starting point in interconnect
  - Follows i3 recommended settings, parameters, SIP RFCs
  - Used for technical validation between carriers
  - Needs to be simple, easy to use and understand

- Challenge: How do we get the industry and i3 Forum members to adopt this form?

- Located on i3forum.org website (library)

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Test plan

- Goal: Create a unified test plan that will ensure VoIP interconnect is validated
  - Simple test cases designed to find problems
  - Verify voice, fax, CLI, numbering format
  - QOS parameters

- Challenge: Again, how can we get both i3 Forum and rest of industry to adopt this form?

- Located on i3forum.org website (library)

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Use of Survey – last year

- Method to get feedback from all i3 members

- Types of questions:
  - Readiness for VoIP, migration plans and timing
  - Technical details (codec, etc)
  - Services to support

- Key learning's
  - Not all carriers ready for full migrations
    - Many looking to add additional capacity (still keep TDM)
    - Commercial side seems to be holdup – TDM safety net
  - Most carriers adhere to i3 forum recommendations
    - Codec, fax, DTMF
  - Signalling protocol
    - SIP and SIP-I are the majority – H.323 is going away

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Tracking of Migrations

- Migrations took place last year, but limited response from i3 members
  - Initial tracking was only between i3 members
  - About 9 companies responded on regular basis
  - We created the 10 stages of migration
    - Planning all the way through traffic migration and TDM close

- Decision made to re-evaluate how and why we are tracking migrations
  - We will include all VoIP interconnects (i3 and non-i3)
  - Do not have to provide partner name – rather focus on stage and overall # of migrations

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Operational issues

- SIP-I implementations between carriers
  - ISUP version and base
    - Solution: Updated interconnect form
  - Router MTU size – 1500 bytes (potential issue on public IP connections)
  - SIP Stack size on VoIP equipment
  - Implementations taking too long vs SIP
    - Configuration, testing – mostly related to experience

- Codec mismatch
  - Not all i3 recommended codec's supported by carriers
  - Transcoding (yes or no?)
    - Solution: Added to next survey, interconnect form and test plan updated

- Fax
  - T.38 functionality
  - Consistent completion
    - Solution: Technical ws leading effort

- Numbering format (Calling and Called party)
  - E.164, with our without the "+"
    - Solution: updated interconnect form and test plan

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Focus items for next work cycle

- Continue tracking migrations with new format

- Further use of surveys
  - IP connection methods, use of codecs, security

- Bulletin to track operational issues and major problems

- Best practices guide
  - Provisioning, Testing, Ops support, monitoring, etc

- Field feedback on QOS implementations and Release code mapping

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Thank You !

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