VoIP Business Model Case Studies

Why “No Network” May Actually be an Advantage!

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The Utopian Dream
Carrier Interconnections in an all-IP World

- Ubiquitous connectivity - Any Carrier can connect to any other carrier anywhere in the world
- Seamless and Instantaneous Provisioning
- Dynamic Allocation of capacity to any other network
- New revenues and lower fixed and operating costs
- End of “hubbing”, geographic isolation and distance-based pricing
- No fixed cost hurdle to overcome to justify an interconnection
The big “BUT”

Problems with VoIP interconnections, or “VoIP peering”:

– **Soup** of systems, standards, practices, and protocols
– **Complexities** of VoIP routing techniques
– **Lack** of ability to control voice quality
– **Islands** of VoIP surrounded by TDM – Parallel networks!
– **Commercial** practices still being defined
What is VoIP Peering anyway?

- New paradigm that will replace standard carrier to carrier TDM interconnections over time.
- An interconnection method in a carrier-neutral environment which resolves interoperability issues and promotes network transparency.
- Similar to IP Peering, but with key differences need to be MANAGED!

**IP Peering**
- All Packets Valued Equally – Based on volume
- Protocols Standardized & compatible
- Higher Tolerance for Quality Variance
- Financial Settlements Simple

**VoIP Peering**
- Value of Packets Variable – Based on Voice Regulation
- Different Protocols & Interoperability Standards
- Low Tolerance for quality variance
- Financial Settlements Complex
What you need to do to peer...

Some requirements of VoIP Peering:
1) Build connectivity from TDM to VOIP
2) Develop and implement voice routing features for VOIP
3) Develop and manage VOIP interconnects with partners
4) Optimizing IP routing across Internet
5) Deploying NOC/OSS for management, reporting and billing
A Question

Do you really want to go through all this pain?
A Potential Solution...

- VoIP Interconnections delivered as a managed service by a **Neutral** party
  - *Unwind and organize the “Ball of Twine”*
  - *Concentrate on what you do best!*
  - *Let 3rd party handle technology and complexities*
The Case for Managed VoIP Solutions

**Internal Build**

- **Disadvantages**
  - High cost of entry
    - High Capital
    - Expertise Required
  - High Risk investment
  - Low flexibility
  - Limited routes
  - Limited connectivity

- **Advantages**
  - Low cost of entry
    - Minimal Capital
    - No Expertise Required
  - Pay as you earn
  - Low shared risk
  - High flexibility
  - Routes availability
  - Good connectivity

**Managed Service**
Just one example – Carrier Interconnects

- IXC
- International
- LEC
- IXC
- Wireless Carrier
- LEC
- Wireless Carrier
- LEC
- International
Some VOIP Interconnection Issues

- IXC
  - TDM
  - VOIP

- International
  - TDM
  - VOIP

- LEC
  - TDM
  - VOIP

- IXC
  - VOIP
  - TDM

- LEC
  - VOIP
  - TDM

- LEC
  - SIP
  - H.323

- International
  - International
Individual Internal Solutions

- IXC

- International

- LEC

- IXC

- LEC

- LEC
Managed Carrier Neutral Solution!

VoIP Peering Network

- IXC
- International
- LEC
- IXC
- LEC
- LEC
- SIP
- H.323
- VoIP
- TDM
- Wireless Carrier
- Wireless Carrier
- International
- International
- International
Benefits of Carrier Neutral Managed Service

- Interworking
- Voice Route Management
- Media Peering
- IP Route Optimization
- Settlement
- Transparency

VoIP Peering Network

IXC

International

LEC

IXC

LEC

LEC

International

TDM

VOIP

TDM

VOIP

VOIP

TDM

SIP

H.323

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What does a managed solution look like?

InfiniRoute MVP Platform
(Signaling & Gateway Switching, Routing, Ops)

VoIP Gateway
IMT or PRI
VoIP Gateway
VoIP H.323
VoIP H.323

VoIP Handoff
TDM Handoff

SS7
PSTN

TDM switch
SLT
PGW

Customer Networks

Customer Web Tools
Routing, Load Balancer
CDRs

Monitoring,
Route mgt.
Alerting Tools
Pages, SMS,
Email

Other Carrier’s VoIP Gateways

VoIP
Router
Internet

Infinite Route
Networks

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Results of Managed VoIP Peering Platform
Integrated Voice and IP for Hybrid networks

- **Voice-side Services**
  - Voice Route Provisioning
  - Voice Route Management
  - Call quality monitoring
  - CDR Collection and aggregation
  - Customer-accessible Status and detail reports
  - 24 x 7 NOC monitoring and response
  - VoIP Peering Features & Capabilities

- **IP-side Services**
  - Performance-based routing
  - Best-cost Routing
  - Customer-accessible Status and detail reports
  - 24 x 7 NOC monitoring and response

- **Eliminate technology risks of changing standards and unpredictable Internet performance**
- **Service-based approach gets you to market NOW**
- **Allows Carriers to focus $ and talent on customers, marketing, and core competencies, **NOT** on resolving problems at the VoIP level!**
Summary

Integrated Voice and IP Service model provides:

- Greater access to global markets
  - Contributing new revenue streams
  - Extending the viability of existing switch investment

- Lower operating costs
  - No expensive TDM / fiber deployment
  - Streamlining route management
  - Integrating OSS / billing systems

- Reduced technology risk
  - Avoiding large scale capital investment
  - Service becomes “Revenue” item, not “Capital item”

- Speed to market
  - Packaged and ready to deploy
  - Avoiding training and staffing ramp and costs

Focus on core market, customers and applications
Thank You

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