3rd Annual i3Forum Conference

The Future is All IP

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IPX Service Status and Future

Piero Irrera, Director Wholesale Carrier Services
Vodafone Germany

www.i3forum.org
Agenda

1. About IPX
2. Relationship with other organizations
3. Customer requirements and solutions
4. Status of IPX-NNI solutions
6. Summary and outlook
About IPX

- GSMA Definition of IP Packet Exchange (IPX) as private managed backbone providing guaranteed QoS, security and cascading payments (2008)
- Concept of GSMA-IPX (source: GSMA)

Inter-IPX-provider multi-service interconnect: IPX-NNI
Relationship with other organizations

- i3forum is co-operating with all relevant industry organizations
- Process of close and positive co-operation with GSMA on how to meet (customer) requirements with (supplier) solutions
- Regular exchange with IWG and IREG
- Input from Euro5 Group (documents submitted to GSMA + i3forum in April 2012)
Customer requirements and solutions

WHAT
- GSMA IPX requirements

HOW
- i3forum IPX solutions

- business models
- industry solutions
- new technologies

market trends

test results

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Status of IPX-NNI solutions (hops)

* GSMA and i3forum agreed that for voice services more than 2 hops are possible as long as QoS requirements are met.
Status of IPX-NNI solutions (services)

Scope of services:
- Service-unaware IPX-Transport service (optional)
- IPX-Voice service
- Others to be specified in the future

Type of services supported
- If offered, service-unaware IPX transport service need to support different (Type of) Service (ToS), security and privacy

QoS performance and features of the service
- QoS to IP layer performance (latency, packet loss, jitter) AND service specific parameter (e.g. for IPX VoIP this could be parameters like codecs supported, ASR, NER, CLI).
- Specific KPI’s as best effort
Status of IPX-NNI solutions (transport)

- Commercial settlement models for service unaware IPX transport between IPX-P and SP
  - Standard fallback model is Sending Party Pays
  - Other models (installed port capacity, average or peak used capacity, percentile used capacity, volume in GB) are optional and to be commercially negotiated

- Opportunity and risk of IPX transport service:
  - IPX-P is not obliged to offer separation transport service to other IPX-P unless commercially negotiated
  - If commercially negotiated one IPX-P might expand its (e.g. voice) service reach through other IPX-P‘s transport service (opp or risk for IPX / opp for other IPX)
Status of IPX-NNI solutions (voice)

- IPX Voice service components:
  - Termination fee (minute based, often regulated)
  - Voice transit fee
  - IPX-P is not obliged to offer separation of transit fee and termination fee unless commercially negotiated

- Possible commercial settlement models for IPX voice transit fee (if offered):
  - Minute based
  - Others (e.g. installed port capacity, average or peak used capacity, percentile used capacity, volume in GB)
Status of IPX-NNI solutions (summary and outlook)

- GSMA (customer) requirements and i3forum’s (supplier) ready-to-use solutions are evolving.

Definitions and scope of IPX services
- On-net, off-net, multi-hop off-net, break-out
- Service-unaware IPX-Transport service (optional)
- IPX-Voice service (others to be specified in the future)
- Separation of IPX Core and Services (technical + commercial) might occur

- Different (Types of) Services and QoS to be supported

- Commercial settlement models for IPX transport and IPX voice service (beyond minute-based) tbd
Thank You
Panel discussion on IPX

- Glenn Marschel, Chief Executive Officer, NetNumber
- Shawn Zargham, Chief Technology Officer, Telarix
- Christian Michaud, Director Business Development, Tata Communications
- Carlos da Silva, Director Business Development, PCCW Global
- Chris Lengyel, Director Strategic Marketing and New Products, iBasis
- Piero Irrera, Director Wholesale Carrier Services, Vodafone Germany