draft-khan-ip-serv-peer-arch-00.txt
IP Service (Voice and Multimedia) Peering Architecture

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- Chapter 7:
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Definitions

- **IP Service (Voice + Multimedia) Provider**
  - Provides telecommunication and entertainment services using IP
  - An entity that provides voice, video, data and multimedia related IP services

- **Examples of IP services**
  - SIP Processing and Transport
  - Media Processing and Transport
  - Security and Policy Implementation
  - Emerging application support

- **Examples of End Users of IP Service providers**
  - PSTN
  - IP Wireless
  - Non IP Wireless
  - Cable
  - Media Distributors
  - SIP based devices
    - Users
    - Applications
IP Service Provider Network

- PSTN
- SIP Proxys/B2BUAs
- PSTN
- PCS/EVDO
- PSTN
- MGW
- Cable IP
- Peer IP ServiceProvider
- MGW
- Routers

- Wireless IP
  - P2P Users
  - Legacy Wireless
  - PSTN
  - Data base
  - APPS
  - Presence
  - P-ENUM
  - SIP Proxys/B2BUAs
  - Peering Interface Functions

- Wireline IP
  - 4G

APPs: Application Servers
ENUM: Electronic Number

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Peering Interface Functions

- Application Function (AF)
- Signaling Function (SF)
- Media Function (MF)
- Traffic Engineering Function (TF)
- SECURITY (SF)
- O & M (OF)

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Reference Peering Functions

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Example Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF</td>
<td>SIP Proxy, B2BUA, Session Admission Control (SAC), SIP Interoperability, SIP DoS protection, SIP Topology Hiding; SIP Security, Privacy and Encryption</td>
</tr>
<tr>
<td>MF</td>
<td>Transcoding, Data integrity, Media security, Privacy, and Encryption</td>
</tr>
<tr>
<td>TF</td>
<td>Routing Protocol harmonization, VPN mediation, Session Admission Policy Enforcement, Rate Shaping, Load Balancing, Bandwidth theft protection, Data integrity, Network Address Translation (NAT)</td>
</tr>
<tr>
<td>OF</td>
<td>CALEA Implementation; Accounting, Billing and Operational Data Mediation</td>
</tr>
<tr>
<td>AF</td>
<td>An Interworking service coordinator</td>
</tr>
</tbody>
</table>

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Type of Peering Interface

IP Service Provider A1
- IP Access
- Data base
- APPS
- Presence
- P-ENUM

IP Core

IP Service Provider B
- IP Core
- Data base
- APPS
- Presence
- P-ENUM

IP Service Provider A2
- IP Access

IP Service Provider C
- IP Access

User-Network Peering
- Internal Intra Peering
- Access-Network Peering
- External Intra Peering
- External Intra Peering
- User-Network Peering

Note: A1 and A2 are in Federation A

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Next Step

- Looking for a co-author to continue work on the draft
  or
- Merge information of this draft to other SPEERMINT drafts