



Network Services: Which Ones and Where?

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INTEROP[®]
LAS VEGAS | APRIL 27-MAY 2, 2008

Network:
a system containing any combination of computers, computer terminals, printers, audio or visual display devices, or telephones interconnected by telecommunication equipment or cables: **used to transmit or receive information.**

High Complexity == High Cost

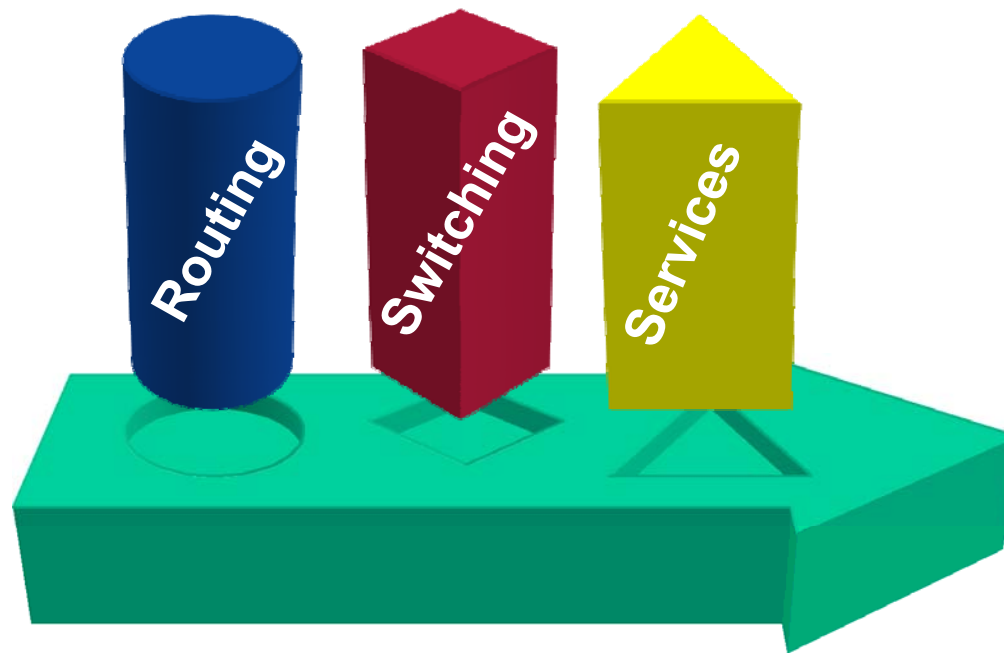
- **Network element based services need to be sufficient to effectively deliver the transmission and reception of data and no more.**
- **Data path based services are fundamental to achieving effective delivery of data**
- **In a modern, multi-service, low latency, secure network, network element based services are natural and necessary**
- **Non-data path based services, or services shared by servers and hosts are not best served in the data path engines**

The Multi-petal Approach



Data Path Engine Foundation for Services

- Flexible design to support new capabilities
- Proven track record in integrating new services
- Expanding to support security and other services



So what belongs on the data path?

- **Forwarding**
- **QOS**
- **IPS**
- **Firewall**
- **Policy enforcement**
- **WAN acceleration**
- **Encryption/Decryption**
- **VPN**
- **MPLS**
- **Encode/decode/transcode**
- **Instrumentation**

What does not belong on the data path?

- **Control plane functions**
- **Identity management**
- **Analytics**
- **Reporting**
- **End user applications**
- **Element management**
- **Network management**

High-Performance Network



Access to Applications and Services



Thanks!



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