Customer Management of Differentiated Services

Ilan Raab

CEO, NetReality

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NetReality

WiseWan™

Agenda

- A look at current user provisioned offerings

- How to gain control over diverse protocols on the network
  - Application Committed Information Rate
  - End-to-End Quality of Service

- Important aspects of monitoring and reporting

- Choosing services on an as-needed basis

- Quick and cost-effective self-provisioning

Current Offerings

- No end-to-end application QoS
  - Layer 3 & 4 QoS only
  - No verification mechanism
- No user provisioning
  - High cost and long lead time to deploy new services
- Line only SLAs
  - CIRs available on line-basis only
- Not many differentiated services
  - SLA verification reporting

What You Need

- Application CIR

- True end-to-end QoS

- Detailed reporting

- Self Management

- Quick provisioning
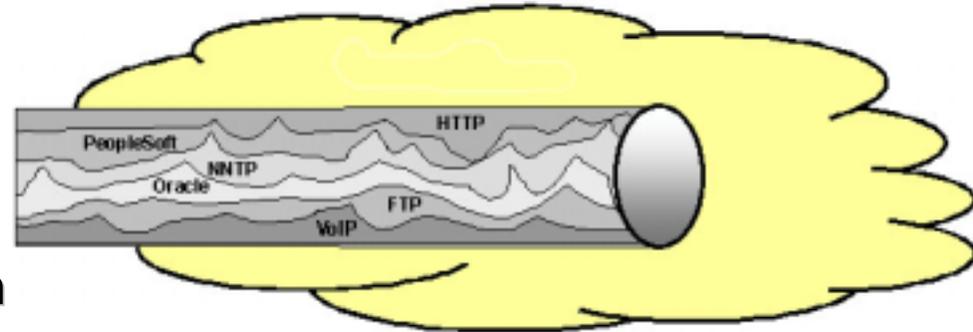
- Flexible offerings
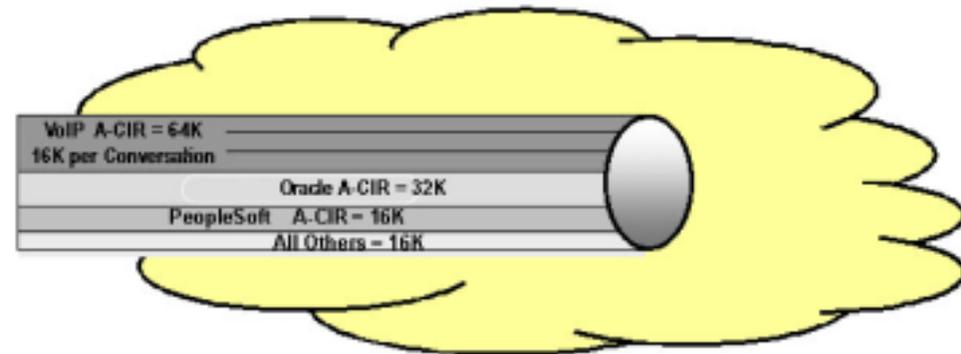
Application-CIR

Application CIR (A-CIR)

- Defines a minimum Committed Information Rate (CIR) for a specific application

- Bandwidth is allocated per application as soon as it starts to generate traffic

- Bandwidth is allocated when needed

Without an application CIR

With an application CIR

End-to-end QoS – access point

Enterprise Access Point

- Identify bandwidth bottlenecks
- Shape traffic based on application data
- Define CIR per application
- Create policies based on user groups and time of day
- DiffServ/MPLS tagging of packets based on Layer 7+ information

End-to-end QoS – backbone

Carrier Backbone

- MPLS-enabled backbone

- DiffServ to MPLS conversion

- Application delivery guarantees

- Application performance guarantees

Monitoring and Reporting

In-depth performance and analysis reports

- Line/IP Tunnel throughput and congestion

- End-to-end application throughput

- Application conversation pair throughput

- Packet delivery ratio, application delay and packet loss

- MTBF and MTTR

- Real-time and historical reports

Self Provisioning

- Define A-CIR for specific applications on demand with no service provider involvement

- Real-time application SLA reports for both customer and service provider

- Secure connection for provisioning and reporting

- Increase bandwidth as needed

- Pay for only what you use

NAPS – The Flexible Solution

Network **A**pplication **P**riority **S**witch

- Layer 7+ deep packet inspection
- Inexpensive drop-in device
- Router/Switch independent
- Multiple interfaces
- Protocol independent
- Deployed as CPE
- Voice and data traffic management
- Performance analysis
- Secure access
- Guaranteed end-to-end

Real World Example - Telia

- Monitor customer traffic in real-time

- Suggest application prioritization

- Anticipate network problems

- Share reports with customers

- Provide secure customer access to reports

- Let customer provision application CIRs

- Provide application QoS

What Customers Get

- Insight into their network like never before
- Unparalleled flexibility
- Predictable application performance
- Service Level Agreements that mean something
- Network control without the infrastructure costs