

# **Quality of Service Task Force**

April 2002 Paris, Fr.

Jean Hammond, Chair Sally Long, Director

## Agenda: QoS Task Force

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Welcome

Status of the QoS Task Force

### Our Agenda in Paris / Euro Disney

- This morning with Mobility Management Forum Looking at expectations, technologies and user requirements for addressing the diverse QoS needs for mobile services
- TeleManagement Forum and TOG QoS SLA White Paper and other plans objectives
- Tomorrow with Real-time Forum and Enterprise Management Forums focus on business processes, use examples and on standards addressing application metrics
- Projects of the QoS Task Force

## QoS Task Force Status / Plans

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Welcome

Status of the QoS Task Force

- Vision & Roadmap
- Phase 1: Conceptual tools for communication for example the Component Map to display functional components and QoS architecture
- Phase 2:
  - Accurate assessment of standards, begin work with customers, consortia and other Open Group forums to map QoS across relevant domains
- Phase 3: Enhance standards and develop certification strategy

## QoS – What It Is and Why It's Important

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### What it Is

 Guaranteed service levels for delivery of information (voice, video, data) as fast, as securely and as accurately as required

### Why it has become so Important

- Functionality is no longer a differentiator alone
- Business Bottom Line and IT Operations Inseparable
- Distributed IT paradigm
- Dependency on Outsourced Services
- Accountability for Delivery of Quality of Service Levels

# **QoS Implies Different Things to Different Constituents...**

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- QoS means certain things to the Enterprise
  - Availability, Reliability, Load Balancing, Applications competing for Enterprise Resources, Process Control, Human Interaction and Customer Satisfaction
- Network and Service Provider Concept of QoS is what many think of...
  - Guaranteed Bandwidth, Jitter, Latency, End-to-End, Internet Applications competing for Bandwidth
- True End-to-End QoS includes more than Networks and the Internet
  - Extends from the Enterprise, through WANs, to Remote Services
- Specialist environments need even stronger QoS system
  - Building extreme systems show the extent of the possible

# What users really want ... & IT departments & service providers can profit from providing

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Instrumentation & Resource mgmt. systems

**Map Traffic to Data Center Resources** 

Network
Aware
Applications

Policy
&
Control
Systems

Policy
Stores
Rules
Engines

Application
Aware
Networks

- Enable IT organizations to respond to the needs of individuals & to business objectives
- End-to-end service means lots of different organizations and entities need to work together or provide 'peering' services

**Map Traffic to Network Resources** 

Monitoring & Control systems

**Provisioning** 

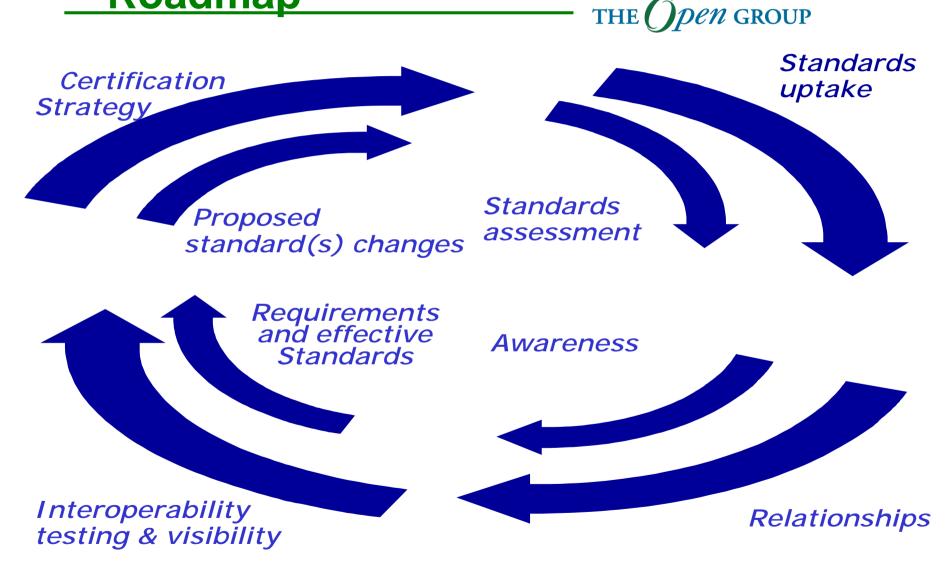
Transport Aggregation & Class of Service Circuit Enforcement in the backbone

## **Quality of Service Taskforce -- Vision**



- Business Managers have control over the level of service that they offer to their customers through an open standards-based approach to end-to-end Quality of Service for IT systems by
- Evolving current standards to meet customer requirements in Service Provide & Remote Services and Network domains.
- Exploring requirements for additional standards in the Enterprise Domain
- Engaging Customer, Consortia and The Open Group forums to map QoS across all domains and drive certification

# Quality of Service Taskforce - Roadmap



# Quality of Service Taskforce Roadmap THE Open GROUP

11. Certification Strategy – Q4

1. Standards Information Base - Q1

- 8. Business Scenario QoS Transaction Paper – Q2 (Boeing)
- 9. Publish TMF SLA Handbook Vol. 4 Q3
- 10. Standards PrioritizationPaper Q3

### **Working Groups, White Papers**

- 2. Applications & Servers white paper (definition) Q2
- 3. Networking & Transport ..especially traffic marking Q2
- 4. Architecture & Policy Q2
- 5. SLA Survey Q1
- 6. EMF (Enterprise) SLA Objectives Q2
- 7. Real-Time (Measurement) Q2

# Phase 1 Deliverables: Component and Decision Point Maps THE Open GROUP

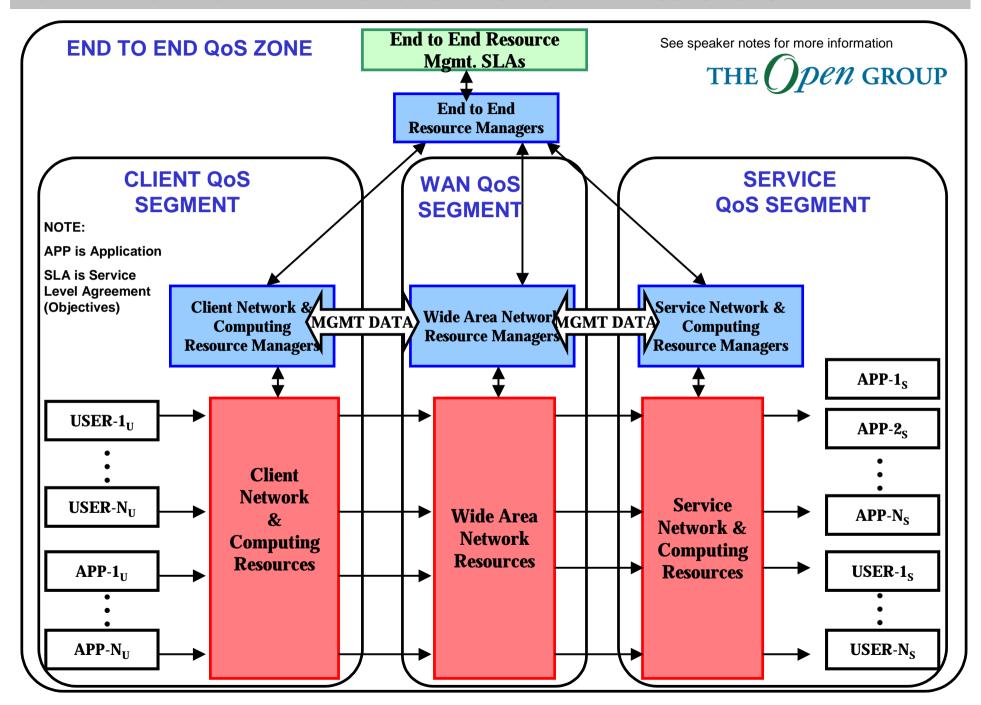
### Component Model Objectives – Point of Reference

- Provide a reference for constituents involved in end-to-end QoS (system vendors, integrators, router/switch/edge technology vendors, application developers, service providers, data storage vendors, other consortia etc.)
- Provide a reference of functional components and QoS architecture from system-wide level and further detailed at a unit level
- Provide points of identification for existing standards and policies and potential new areas for development of APIs, testing, or certification

### Decision Point Map

- Define feedback and actions steps in decision points
- Create method to discuss the purpose of configuration affecting policies

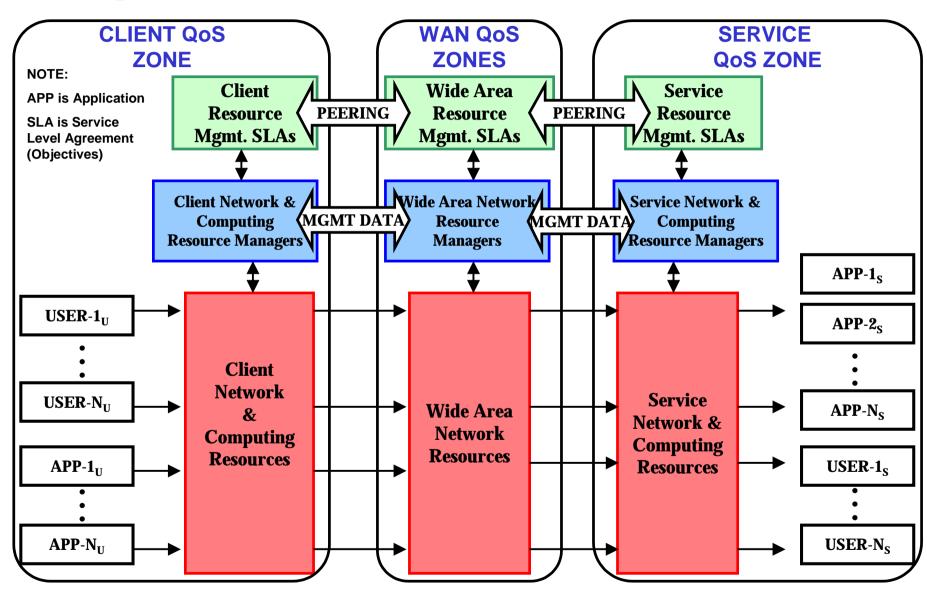
### TOP LEVEL COMPONENT MAP FOR SINGLE AUTHORITY E2E SOLUTIONS



### TOP LEVEL COMPONENT MAP FOR FEDERATED E2E SOLUTIONS

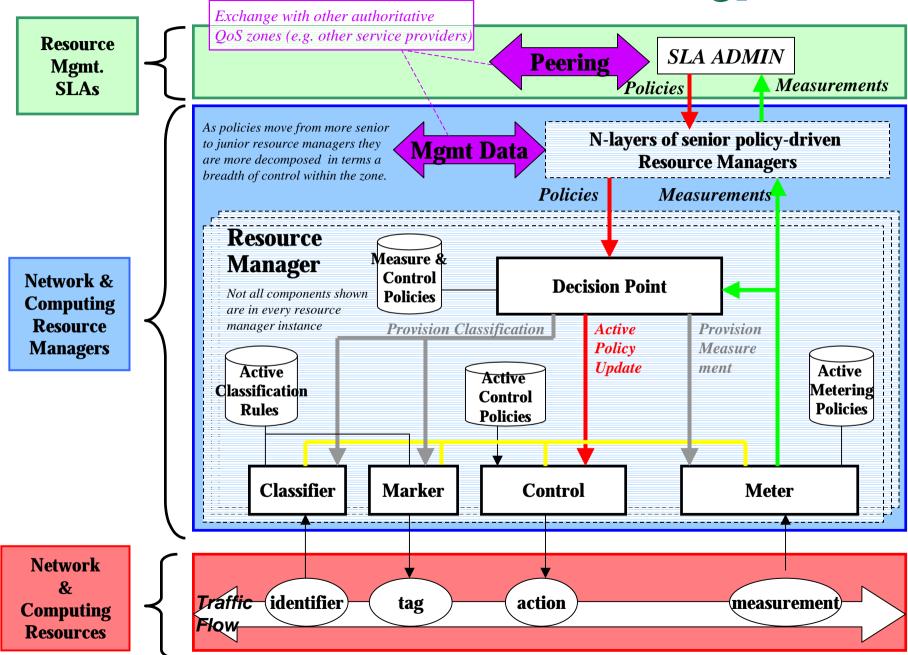


See speaker notes for more information

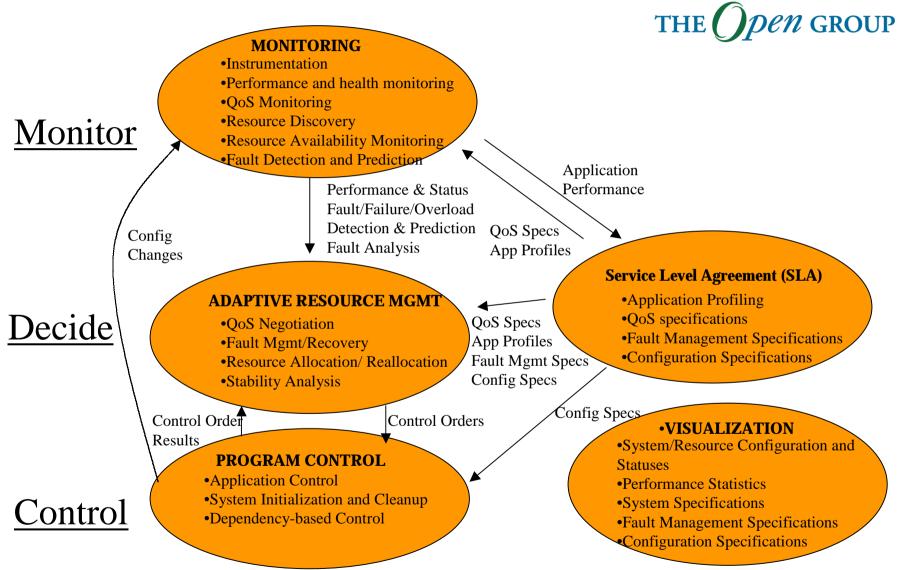


#### **MID-LEVEL COMPONENT MAP**





# **Decision Point -- Policy & SLA Driven Resource Management Functions**



### QoS Task Force Status: Committees



- 1) Applications & Servers Looking into QoS management based on internal instrumentation of applications. Management of servers, server farms & storage environments can be increasingly rationalized
- 2) Architecture & Policy Control Architecture / Decision Point / Monitoring Point -Architecture for user & condition specific policies. Many efforts to date have very specific monitoring metrics Service Level Definition, Policies, Policy Stores - Policy stores and policy language in many domains need mapping to one another
- 3) Networking & Transport QoS / CoS Define the range of behaviors that can be taken in the network to support QoS policies including prioritization, path selection and policies for aggregating traffic (especially in IP environments). These can be joined with QoS enforcing transport services such as MPLS. Mobile networking especially challenges the delivery of services with QoS.

## **QoS Membership**



### **QoS Task Force Membership**

**Allot Communications** 

Consignia

**Compaq Computer Corp.** 

**Hewlett-Packard** 

**Motorola** 

**NetReality** 

**Nexor** 

**Predictive Systems AG** 

**Sitara Networks** 

**Teknowledge** 

**Aurema** 

DISA

**IBM** 

**MEGAXESS** 

**The MITRE Corporation** 

**NeTraverse** 

**Quarry Technologies** 

**Sun Microsystems** 

**The Boeing Company** 

SIAC (Securities Industry Automation Corporation)
S/TDC (Systems/Technology Development Corporation)

For more information Membership Contact: Sally Long s.long@opengroup.org

# Quality of Service Task Force

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End-to-End Quality of Service

