

## Session 3: Network QoS and Control – Summary and Next Steps

- Resource and Admission Control for NGNs
  - Hui-Lan LU, Lucent Technologies
- NGN QoS Control Architectures and Protocols
  - Keith MAINWARING, Cisco Systems
- NGN OAM Capabilities
  - Dinesh MOHAN, Nortel
- NGN Service and Control Requirements
  - Tobey TRYGAR, Telcordia Technologies

# Session Summary

- NGN QoS and Resource Control Architectures and Protocols
  - RACF enables dynamic, application-driven resource management
    - Edge-to-edge or end-to-end, can support many applications
  - TISPAN RACS defines similar functionality, focused on access
    - Specifies protocols/extensions for interfaces (e.g. H.248.1/v3)
- NGN OAM
  - Required to fulfill user/service provider/operator contracts (SLAs)
    - Each NGN layer must support OAM independently
  - Carrier Ethernet is a key NGN enabler — Carrier Ethernet OAM (e.g., Y.1731) functions meet NGN OAM requirements
- Performance Interaction between IP and OTN Layers
  - ASON enables IP clients to change optical network characteristics
    - Bandwidth, topology (e.g., link creation)
  - Control may be direct or through network management systems
    - A generic inter-layer signaling model may be needed

# Next Steps for ITU-T (with Cooperating SDOs/SROs)

- NGN QoS and Resource Control Signaling
  - Complete Y.RACF, select or develop the associated protocols
  - Harmonize RACF/RACS work and results among SDOs
  - Specify Release 2(+): Inter-PDF communications, end-to-end transactions, enterprise network connections, non-SIP applications (e.g., IPTV)
- NGN OAM
  - Resolve “Last Call” comments on Y.1731 (Ethernet OAM)
  - Coordinate OAM functions among interworking NGN technologies
  - Define OAM interactions with NGN signaling, network management
- IP/Optical Network Control and Management Interworking
  - Define how IP networks, as ASON clients, can affect OTN performance and connectivity
  - Consider/address need for inter-layer QoS allocation/accumulation
  - Consider/address need for a generic inter-layer signaling model