New Enhancements in Voice over IP

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Session 26

Agenda

- The Changing VoIP LANscape
  - Steven Taylor, DNA/Webtorials.Com
- Boundary Traversal
  - Steve Davies, Ridgeway Systems
- E-911 and IP Telephony
  - Craig Cotton, Cisco
- VoIP and the Transaction System, Security, and Storage
  - Phil Hippensteel, Penn State University
- Discussion
  - Panel

The Changing VoIP LANscape

Steven Taylor

Webtorials.Com
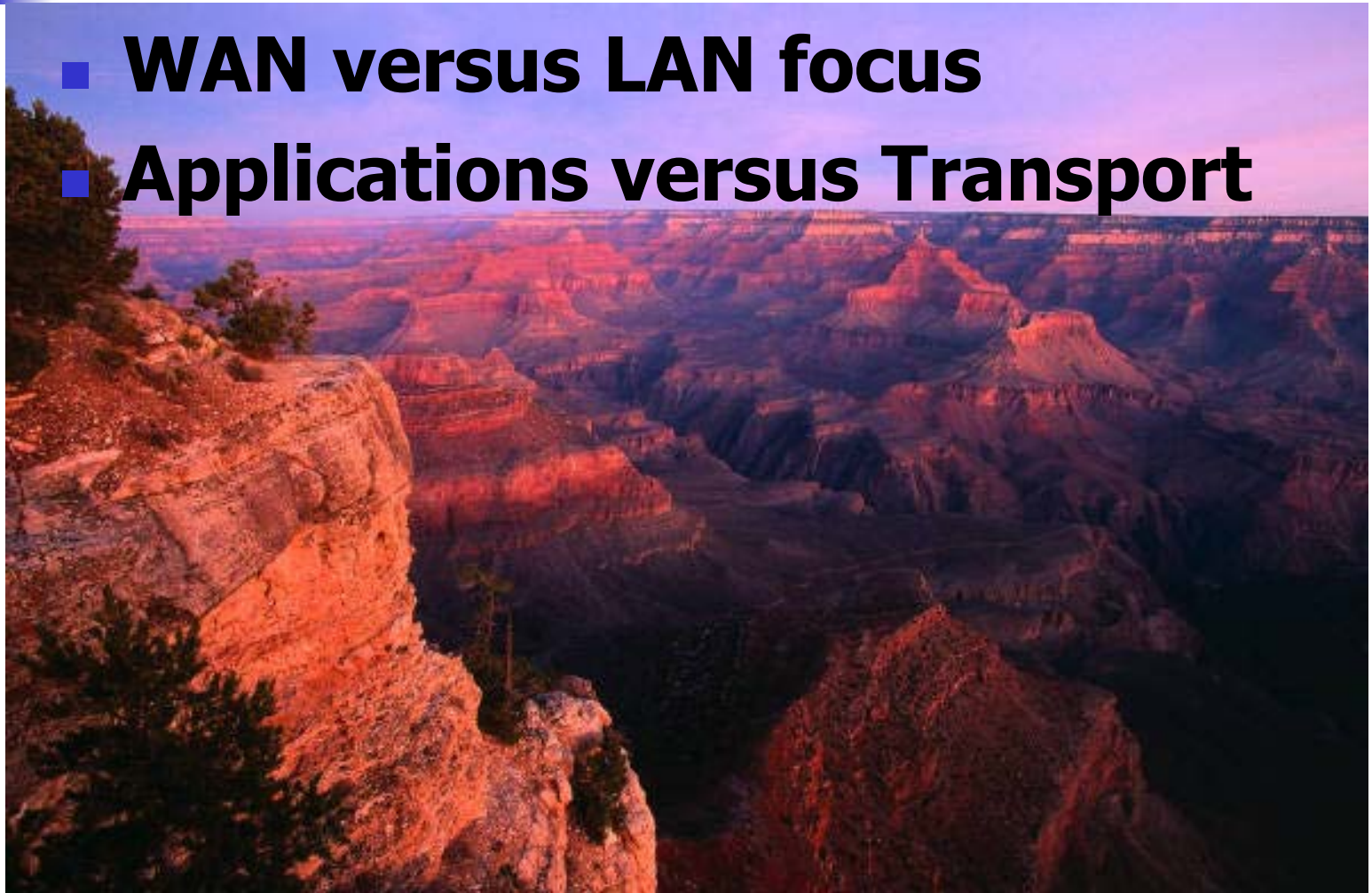
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The Changing LANscape

- **WAN versus LAN focus**
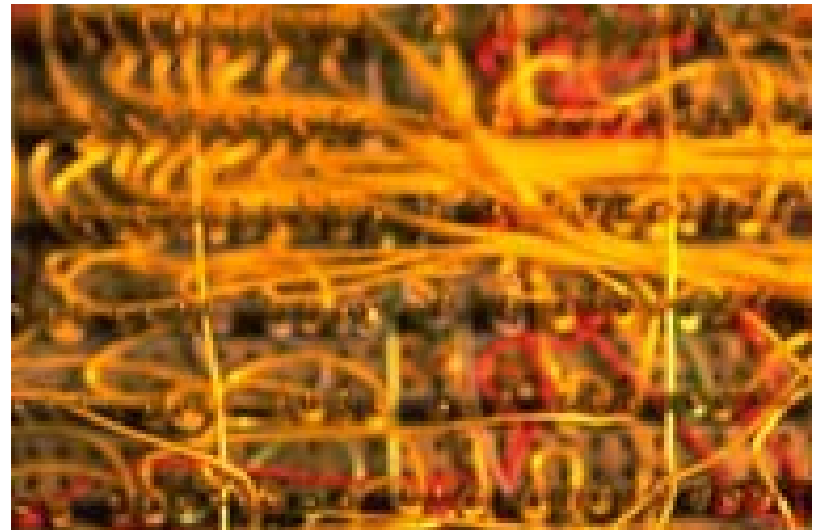- **Applications versus Transport**

VoIP in the "Good Old Days"

- Tactical as opposed to strategic
  - Concentrated in the WAN
- Focused on Toll Bypass
  - International applications
  - Router-centric
  - "Almost as good"
  - Low-bit-rate voice
- Good, but not enough
  - It's tough to get cheaper than free

VoIP in 2003…

- Quickly becoming LAN-centric
  - IP PBX market growth
  - Fewer bandwidth and QoS Issues
  - Installation for enhanced applications more than toll savings
- WAN transport issues remain, but at a different level
  - SLA is the key metric
- Moving to strategic positioning

Strategic vs. Tactical IT Organizations

- Defining strategy versus tactics
    - If the primary emphasis of the IT organization is to provide only a basic set of services at the lowest possible unit cost, that IT function is largely tactical in focus.
    - If the IT organization also has a strong mandate to help the business achieve its goals, then the IT function is strategic.
- Tactical VoIP is a "nice to have"
    - Toll bypass, Single WAN for convenience
- Strategic VoIP is critical for business success
    - Redefines business processes
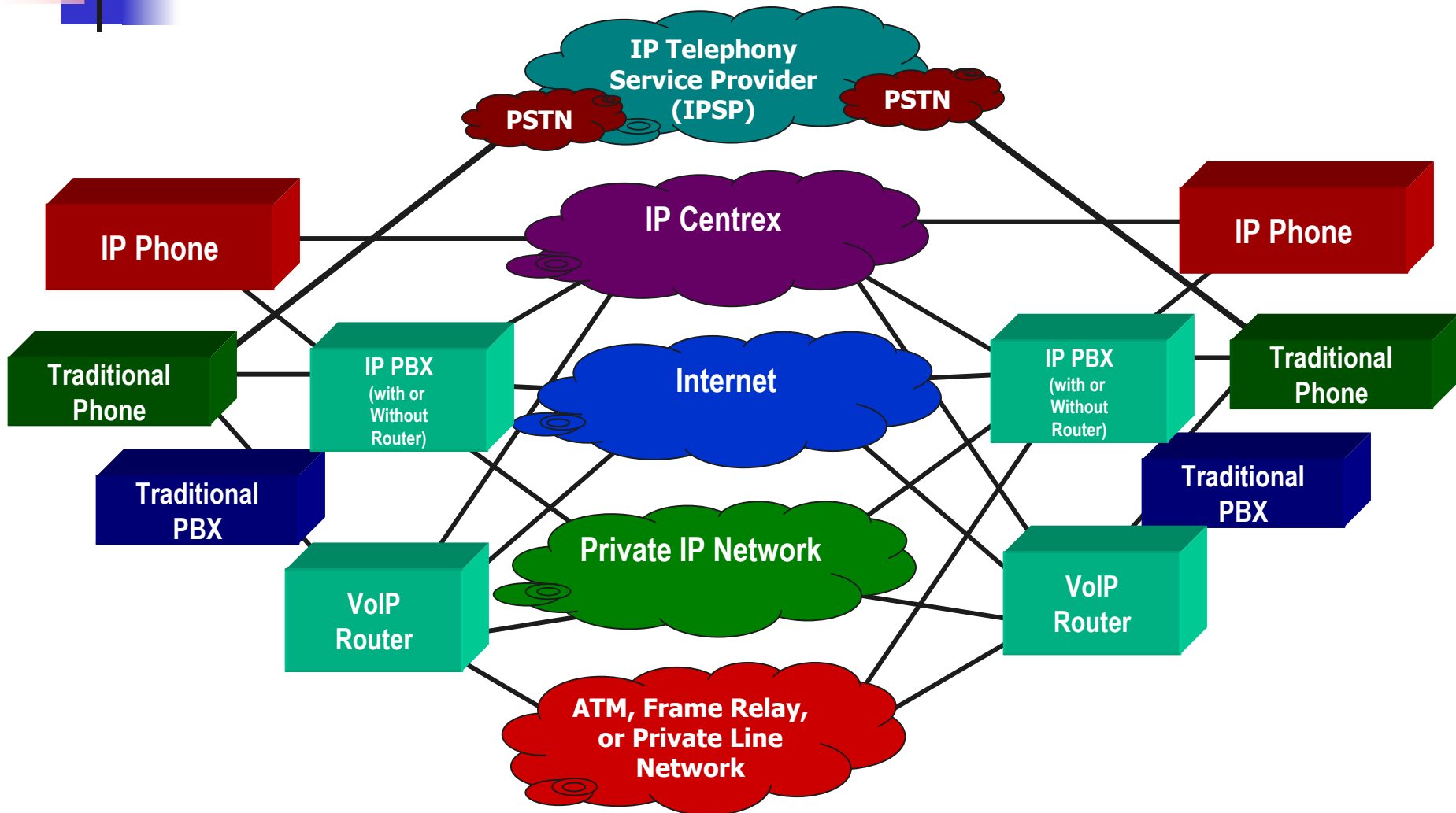
Fundamental Premise

- The "demarcation" between networking and computing is becoming non-existent.
  - We can no longer say where the network ends and the computer begins
  - Many of the demarcations were due to 1984-era regulatory issues
    - Access versus CPE versus network
    - Processing versus communications
- The next level of convergence is "IT Convergence"

Reminder: What is Convergence?

- The integration of all types of information — voice, data, video, image, and information processing/storage — into a single network infrastructure.

- This integration involves both technology and people

- Sometimes technology is the easy part

VoPacket Network Architecture

Converged IT Network Architecture

Information Processing and Storage

IP Phone

Traditional Phone

Traditional Phone

VoIP Applications

- Sample applications that can benefit from VoIP
  - Converged messaging
  - Next-generation contact centers
  - Converged collaboration
- The real power of VoIP doesn't come from enhancing current applications.
  - You have to be creative and imaginative
  - Application development platforms are a key enabling technology