

The Mandate for a 21st Century Network Design

Jim Metzler

Webtorials Editorial/Analyst Division



Today's Speakers



Jim Metzler
Lead Analyst
Co-Founder –
Editorial/Analyst Division



Steven Taylor
Moderator
Co-Founder -
Editorial/Analyst Division

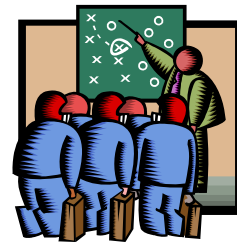


Berna Devrim
Cisco
Senior Manager
Access Switching



Goals & Non-Goals

- Goals
 - Describe the traditional approach to LAN design
 - Identify the factors driving the need to take a different approach to LAN design
 - Focus on Green IT and Collaboration
- Non-Goals
 - To present specific network designs



In the 1990s

- LANs were based on shared media
- There were myriad technologies
 - Ethernet, Token Ring, FDDI/CDDI, ATM 25, 100 VAnyLAN, etc.
- The deployment of LAN switching prompted the development of an architecture based on access, distribution and core
- The key design principle for LANs was speed

Factors Driving Change

- Security
- Industry and Government Regulations
- WLANs
- Network and Application Optimization
- New Application Architectures
- IP Storage

Green IT

- Refers to conserving energy, using computing resources efficiently, reducing carbon emissions, appropriate handling of hazardous waste.
- Driven by the desire to reduce cost, benefit the environment and be a good corporate citizen.
- Examples:
 - Integrate multiple network elements into a single branch office router.
 - New network design that reduces the number of devices and uses energy efficient devices.
 - Enable collaboration to reduce travel.



Drivers of Collaboration

- Highly distributed workforce
- The workforce's productivity depends on the ability of the employees to:
 - Work together on common projects
 - Share knowledge
 - Build consensus
- Requirement to collaborate with myriad 3rd parties: outsourcing, joint development, supply chain management

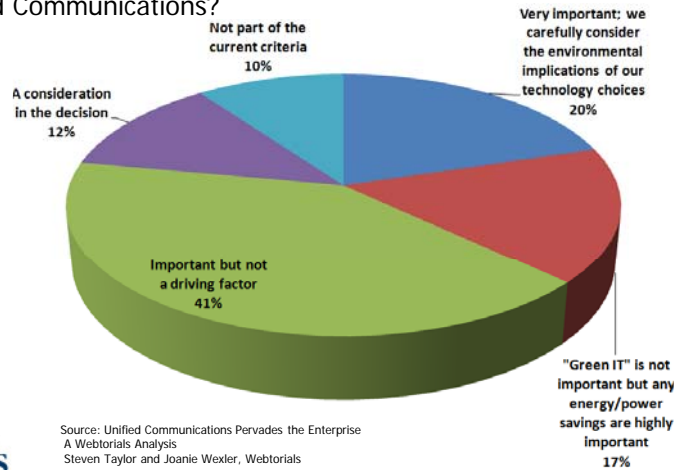
Collaboration Tools

- Traditional tools:
 - Audio conferencing
 - Video conferencing
- Emerging tools:
 - Telepresence
 - Unified Communications
 - Wikis
 - Blogs
 - Mashups



"Green" is Serious Business

- Sample data point from recent research
 - How important are the environmental (or "Green IT") benefits of Unified Communications?



Green IT

- IT organizations that do not implement green IT will:
 - Continue to cause unnecessary harm to the environment
 - Incur higher operating costs
 - Tarnish the reputation of the company
 - Cause their company to lose revenue

Cisco's Green Strategy

We Aim to Be Environmentally Responsible by:

- Impacting how we operate as a business
- Creating efficient and innovative products
- Providing solutions to our customers to address global environmental issues
- Inspiring our employees to get involved and take action



Catalyst Switching Contribution to Green

Power Efficiency

Optimized Power Supplies
Performance-to-Power Gain
Intelligent Power Management

Green Operations

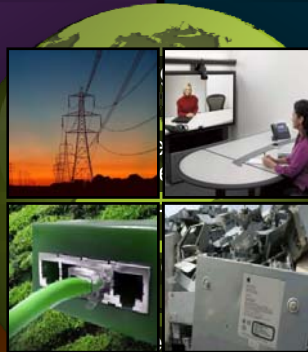
Integrated Services
Collaboration Services
Network Virtualization

Evolving Services
Progressive Design
Regulatory Compliance

Continuous Innovations

Services Readiness
Platform Extensibility
Backward Compatibility

Extended Service Life



Thank You!

Webtutorials