Emerging Technologies and Innovation @ Cisco

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Agenda

• Increasing Role of Technology & Communications
• Cisco’s Internal Innovation Strategy
• Emerging Technologies:
  - Interoperability Systems
  - Physical Security
  - Digital Media Management
  - TelePresence
• Summary
Everything Will Be Connected

14 billion devices will be connected to the Internet by 2010

Source: Forrester Research, February 2005
The World is Changing Fast
Opportunities Abound

Content/Applications

Experience

Devices
Innovation Strategy: Network as a Platform
Extend the Value of the Network

VALUE

Standard + Extensible = Value-creation

New Systems:
- Cisco TelePresence
- IPICS
- Physical Security
- Digital Media

NETWORK PLATFORM

MultiProtocol Routing
Data-Voice Video
Content Aware
Emerging Technologies
Global IP Traffic Growth by Segment

Traffic grows to nearly 9
Exabytes per Month by 2009

For Perspective:
1 Exabyte = 5 X all the world’s printed matter
5 Exabytes: All words ever spoken

Source: Cisco Estimates, Ovum, Bernstein, Public Company Data
Network price performance: doubling every 12 months*

*Ray Kurzweil, 2005
Where Does the IT Money Go?

Growth in IT Spending in Worldwide, 2006–2009

2006 WW IT Spending: 1,148 B$
Agenda

• Increasing Role of Technology & Communications

• **Cisco’s Internal Innovation Strategy**

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• Summary
Cisco Strategy for Growth

1. Expand Core Markets
2. Grow AT Markets
3. Create New Opportunities
An Extensive Portfolio

**The 85% You Don’t See:**
*The Intelligent Information Network*

**The 15% You See**
EMTG: A New Growth Model
New Products for New Markets—Disruptive Innovation

New Products for New Markets—Disruptive Innovation

EMTG Focus

Source: Prof. Ed Roberts, MIT Sloan School
Cisco: Innovation for Growth

To achieve 15% CAGR

ETs = $6.5B by FY12

Projected
1,000 Prospects

15 Successful ET’s

75%

2%
Cycle of Innovation

1. Invent Differentiated Offering
2. Deploy Differentiation at Scale
3. Manage Mission-critical Processes at Scale
4. Offload / Repurpose

Advanced Technology

Emerging Technology

Foundation Technology

Reinvent Technology

Fund Next Innovation

Source: Cisco, TCG Advisors
Invent Like a Startup,
Scale Like Cisco

Marketing
Mfg
Sales
Services

New BU
Integrated
Go-To-Market
Approach

Sell
Support

Integrated Go4To4Market Approach
The EMTG Framework for Innovation
Find and Filter—Then Initiate → Accelerate → Eliminate/Graduate

1. Initiate
- BU formed
- $1B, 5–7 yrs?

2. Accelerate
- Deploy

3. Graduate
- Seed, Kill?
- $100M–$300M?
- Barriers to entry in place?
- Exploit macro trends
- Preempt disruption to Cisco
- Reconsider prior attempts?
- Feedback from partners, customers
- Significant pull-through opportunity?
- "Pay as you grow" profile?
- Crossed the Chasm?
- Market Share vs. nearest competitor?
- $100M–$300M?
- Barriers to entry in place?
- Insufficient market?
- Product not viable?
- Cisco can't sell?
- Losing share?
The Emerging Technologies

Stage 1 Emerging Technologies (unannounced)

Stage 2 Emerging Technologies (announced)
- Communication Interoperability Systems (IPICS)
- Physical Security
- Digital Media Management (DM)
- TelePresence
- Server Networking and Virtualization
- Consumer Electronics
- Intelligent Services Management

Advanced Technologies (announced)
- Application Networking Services
- Home Networking
- HSBS (Linksys One)
- Digital Video (SA)
- IPC
- Optical
- Security
- Storage
- Wireless

As much as I would love to do it, I cannot show you that.
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Systems Interoperability—Cisco IPICS
Cisco IPICS
System for Communications Interoperability

Contextually Integrates Multiple Modalities of Communication for Interoperability and Collaboration

Comprehensive Voice Interoperability

Radio Interoperability

PSTN
Cell
VoIP
PSTN
NXTL

Automation, Inference Engine, Workflow Integration

Policy-Based Communications Interoperability

GIS and Data
Video
Sensor

Cisco Innovation @ Work
25 Patents Filed
Same IPICS System
Enterprise Safety and Security - Business Operations - Interoperability

Same Horizontal Platform Across Verticals

IPICS System
LMR Gateway

Radio to IP

Phase 1

IT$ Ops$

Defense

Federal

Public Safety/ State and Local/ Education

Transportation

Fleet and TacOps (Tactical Mobile Ops)

Financial

Oil and Gas /Utilities

Enterprise, Commercial, Retail, Healthcare, etc.
Physical Security—Video Surveillance
Cisco Services Platform

Network Video Recorder

Cisco Innovation Delivers Access to Video at Any Time from Any Place, Enabling Real Time Incident Response, Investigation and Resolution

Service Oriented Network Architecture (SONA)

Cisco IP Gateway
Video Encoder/Decoder

Cisco Services Platform
Digital Video Recorder

Cisco Client Software
Viewing and Configuration
Integration with Cisco Products

- Deployed on SONA foundation to increase business impact
- Network integration is a critical differentiator, providing
  - Interconnectivity
  - Security
  - Availability
  - Storage
  - Remote management, monitoring and viewing
- Video surveillance drives foundation sales
Digital Media Management—Digital Media System
What Is the Digital Media Opportunity?

YouTube for the Enterprise

Future

Today

Yesterday

Growth

New Opportunities

Mobile Media Mgmt.

Digital Signage

Live Webcasting

Video on Demand

Digital Media System

$2B - $3B Market by 2010

Digital Media System
Cisco Digital Media System

Media Creation
- Digital Media Encoder 1000
- Digital Media Encoder 2000

Media Management
- Program Manager
- Category Manager
- Interface Manager
- Lineup Manager
- Account Manager
- Deployment Manager

Digital Media Manager

Media Delivery
- Cisco Video Portal

Solution that Spans Across the Digital Media Value Chain
Cisco TelePresence
Why call it TelePresence?

Telegraph

Better Customer Experience

Telephone

Better Customer Experience
Cisco TelePresence
Complete Solutions

Cisco Product Solution

Endpoints • Group and executive

High Definition Video Switch • Multi-point

Software • Scheduling
• Automated call launch
• Video concierge

Network • Business to Business

Services • Planning and design
• Operate services
Cisco TelePresence Meeting Solution
Endpoints Product Breadth

**Cisco TelePresence System 3000**
- 12 seats at the virtual table
- Purpose-built room
- Ships FY Q2

**Cisco TelePresence System 1000**
- 4 seats at the virtual table
- General purpose room
- Ships FY Q2
Cisco TelePresence Manager
Experience Middleware

Room Scheduling
Enterprise Groupware

Automated Call Launch
“One Button to Push”

Real-Time Services
*Roadmap

User Experience

CCM
Network Platform

Outlook Notes

IPCC
IPCMB

Reporting Billing Administration

Cisco TelePresence Manager
Roadmap
Multipoint Solutions

- Cisco TelePresence multipoint

- Optimized for Cisco TelePresence
  Full-size continuous presence by screen
  Switching by table segment
  Interoperable between endpoints CTS 3000, 2000, 1000

- Call launch, “one button to push”

- Second half FY’07
Cisco TelePresence Global Deployment Plan

San Jose
CBC/EBC
Field Sales and Other Offices

FY 07

Q1
Q2
Q3
Q4
Conclusion
Cisco—Innovation

- $3.8 billion R&D investment annually
- 17,000 engineers working in more than 10 major labs worldwide
- #1 in most markets in which we compete
- Over 100 companies acquired
- More than 2,300 patents issued to Cisco inventors in last 10 years

MAJOR INNOVATIONS

- Multi-Protocol Routing and Switching
- Voice over IP
- WiFi wireless
- Largest contributor to IETF, IEEE

EMTG = 6x number of patents than rest of Cisco R&D
Conclusions

• Partnership, acquisition, and internal innovation
• Internal innovation unleashes employee creativity
• Transparency promotes participation
• Build on inherent advantages of scale
• Leverage architectural strengths
Thank You

Cisco Networking Solutions Forum 2007