BT Unified Communications Video

Transform global communication and
collaboration with telepresence

Market trends

The cost of global business

European executives take part in 559 meetings per year

Dynamic Markets Limited, *Efficiency of Business Meetings*, 2004

Long haul business fares will rise 3% to 7% in 2007

American Express, *Global Business Travel Forecast*, 2006

Remote collaboration can generate average savings of $1,700 per month in travel

Sage Research, *Unified Communications Application: Uses and Benefits*, 2006

The drive for efficiency and productivity

"Improving the productivity of knowledge workers is seen as the major boardroom challenge of the next fifteen years."

Economist Intelligence Unit, *Foresight 2020*, 2006

"Virtually every major Global 5000 company will adopt a technology allowing them to interact with people, no matter how far away, as if they were in the same room."

Human Productivity Lab, *TelePresence, Effective Visual Collaboration and the Future of Global Business at the Speed of Light*, 2006

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What this means for organisations today

- Improving global communication and collaboration
  - Working better with distributed customers, colleagues and partners
  - Processes depend on multiple people in multiple locations
  - Effective communication depends on face-to-face contact, not just your voice

- Traditional remote meeting tools are no substitute for being there in person
  - Existing video conferencing systems can be difficult to use, needing hands-on IT support
  - Unreliable quality and performance create a poor meeting experience
  - This has resulted in low use of videoconferencing investments

- As a result, people rely on travel to attend important meetings
  - It's seen as necessary to maintain high quality relationships
  - But travel is costly, and impacts productivity
  - It also has an effect on your personal life and the environment

55% of communication is visual. 38% is tone of voice. Only 7% is verbal.

Albert Mehrabian, *Silent Messages*, 1971

Traditional videoconferencing systems average approximately 15 hours usage per month

Human Productivity Lab, *Effective Visual Collaboration and the Future of Global Business at the Speed of Light*, 2006

Travel stats

Source, *title*, 2006

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The BT solution: Unified Communications Video

- Ultra-high quality video conferencing: it's like being there

- Combines BT networking and conferencing capabilities with advanced technologies from Cisco and Polycom

- We can design, install and manage the complete solution

- Part of BT's range of Unified Communications solutions that exploit convergence to improve operational efficiency

- Immersive video meetings for 2 to 56 people

- Solutions range from office-based screens to dedicated conferencing suites

- Transform the way you work with distributed customers, colleagues and suppliers

Transforming remote communication and collaboration

- **Immersive video conferencing**
  - Every participant is life sized
  - You can make eye contact with the person you're talking to, and speak in your normal voice
  - Remote voices sound like they're coming from the person who's speaking
  - There is no perceivable latency
- **A natural, transparent meeting environment**
  - Technology is invisible to the user – it's a natural meeting environment
  - Setting up a video session is as easy as making a phone call
- **In-person communication and collaboration**
  - Use the network to provide an immediate personal presence on a global basis
  - You get the benefits of face-to-face communication without having to travel

Strategy and decision making
Job interviews, employee support
Project management, team meetings and collaboration
Customer support, troubleshooting
Sales presentations and demonstrations
Access to experts from branches
Negotiations
Face-to-face consulting advice
Collaborative product development

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The benefits of BT Unified Communications Video

- **Personal and business benefits**

    - Spend less time out of the office

    - Increase the number of interactions you can have with co-workers, partners, and customers

    - Get more value out of each interaction through richer and more valuable communication

    - Maintain key business relationships between in-person visits

- **Ease of use: make video communication part of everyday business**

    - Integrates with groupware (e.g., Microsoft Outlook) – you can schedule a video meeting just like sending a calendar invite

    - The meeting information is pushed to an IP phone in the meeting room, which you use to control the session

    - Cameras are pre-positioned for optimal coverage: you don't need to adjust them during the meeting

    - Services in the network ensure high quality, security, and reliability for every meeting

The benefits of BT Unified Communications Video

- **Reduce business travel**
    - Minimise travel time and costs, increasing productivity and reducing the impact on your personal life
    - Less travel also means less fuel consumption and reduced environmental impact
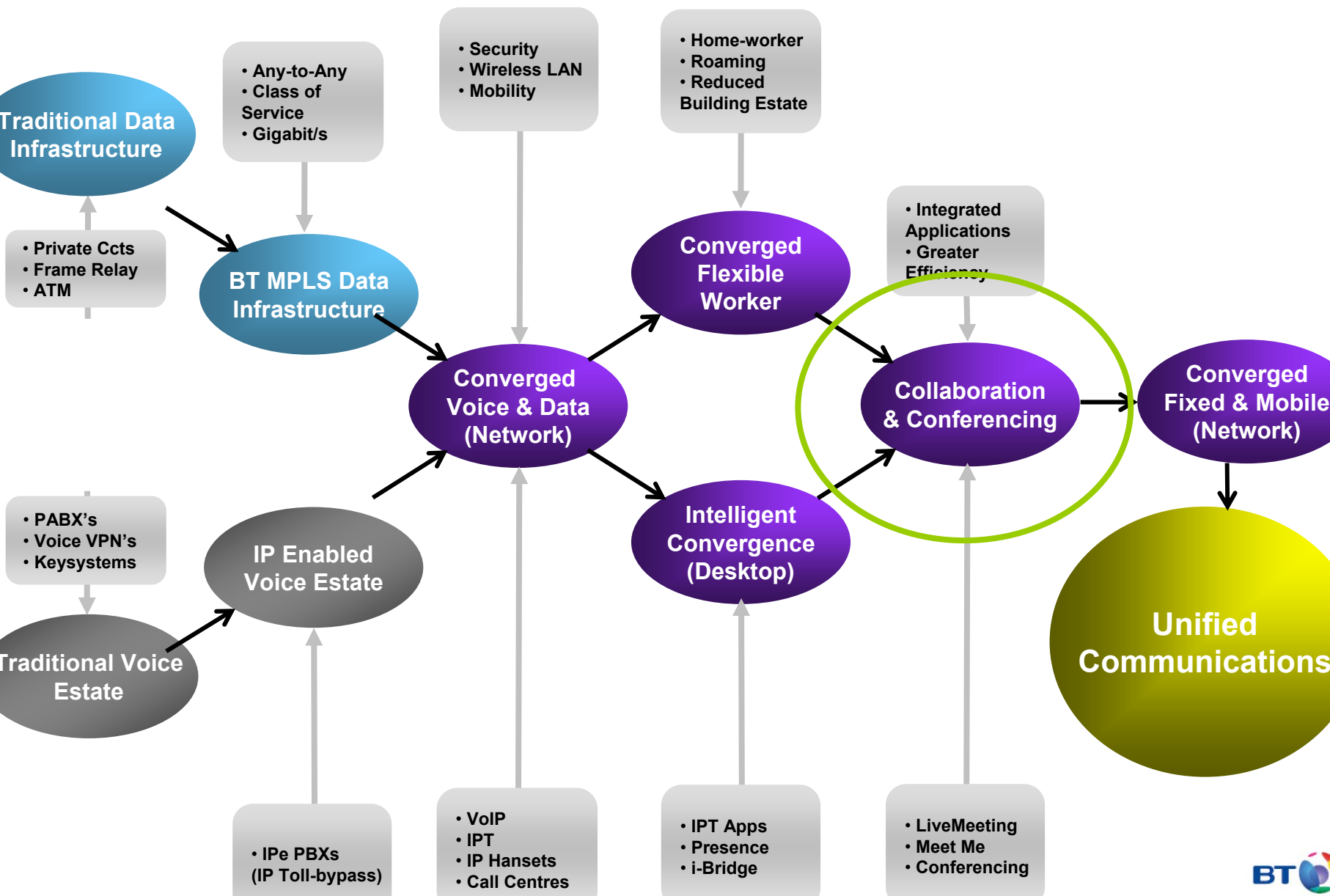
- **An end-to-end solution**
    - BT managed services enable smooth deployment and ongoing support
    - We can manage all LAN, WAN, IT and communication components with one SLA

- **The power of unified communications**
    - With a unified communications-ready infrastructure you have a platform for the transformation of many communication and collaboration processes
    - With BT you can make best use of existing infrastructure and create the right roadmap towards unified communications

The journey to Unified Communications with BT

Traditional Data Infrastructure

- Any-to-Any
- Class of Service
- Gigabit/s

- Security
- Wireless LAN
- Mobility

- Home-worker
- Roaming
- Reduced Building Estate

- Integrated Applications
- Greater Efficiency

- Private Ccts
- Frame Relay
- ATM

BT MPLS Data Infrastructure

Converged Flexible Worker

Converged Voice & Data (Network)

Collaboration & Conferencing

Converged Fixed & Mobile (Network)

- PABX's
- Voice VPN's
- Keysystems

IP Enabled Voice Estate

Intelligent Convergence (Desktop)

Unified Communications

Traditional Voice Estate

- IPe PBXs (IP Toll-bypass)

- VoIP
- IPT
- IP Hansets
- Call Centres

- IPT Apps
- Presence
- i-Bridge

- LiveMeeting
- Meet Me
- Conferencing

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A complete solution

BT Unified Communications Video

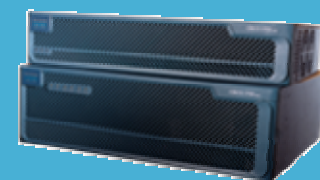|	
Telepresence endpoints	**Group and Executive**
High Definition Video Switch	**For the Carrier For the Enterprise Telepresence enabled**
Software	**Scheduling Automated Call Launch Management Video Concierge**
Network	**Firewall/NAT traversal Certified Telepresence Network**
Services	**Readiness assessment Planning and design services Operate services**

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Customer and market comments

Comments from enterprise executives attending Cisco focus groups

- "I knew it was good when I tried to shake the hand of the person across the room, who was in another room."

- "I need to see expressions. Cisco TelePresence would make my meetings more productive – a must if we cut back on travel."

- "With Cisco TelePresence you're able to focus on the conversation, not the technology."

- "I like the idea of a one-button launch."

- "A Cisco certified TelePresence network connection would give me greater confidence as to the reliability and quality of the service."

- "The resolution and sound are years ahead of what has been available."

Immersive video systems average 120 to 275+ hours usage per month, with greater reported end-user satisfaction.

Human Productivity Lab, *Telepresence, Effective Visual Collaboration and the Future of Global Business at the Speed of Light*, 2006

The benefits of telepresence

"The obvious gains of reductions in travel time and travel costs [from telepresence] may, in fact, be far outweighed by potential gains in increased productivity, efficiency, time to market and other factors"

Gartner, *Comparing Videoconferencing Telepresence Systems*, 2006

ROI calculation: reducing travel

If a company's employees make three domestic business trips monthly, each meeting has an average of four participants, and employees are paid $80,000 annually, the company can save approximately $110,000 the first year if 10 employees conduct 40 percent of their meetings with telepresence.

The Business Case for Videoconferencing - Wainhouse Research, 2005

Why choose BT?

- **Next-generation video communication and collaboration**
  - Transform the way you work with distributed customers, colleagues and partners
  - BT has extensive conferencing expertise (BT Conferencing)
- **BT provides an end-to-end solution**
  - Full range of LAN and WAN technologies, together with supporting capability
  - Managed service approach requires minimal initial investment
- **BT MPLS**
  - An intelligent network is essential for effective remote collaboration
  - We have industry-leading expertise and capabilities in converged IP networking
- **Leverage existing infrastructure**
  - BT offers an evolutionary approach encompassing traditional and IP technologies
- **BT can deliver long-term business benefits with the Roadmap to Unified Communications**
  - Unified Communications Video is just one of several Unified Communications and Operational Efficiency propositions

BT Unified Communications Video – Solution Detail

Cisco TelePresence System 3000

- 3 x High Definition IP-based codecs working in a Master-slaves model
- 3 x High Definition IP-based cameras clustered together
- 3 x 65" High Definition plasma screens
- 4 x Power/Network Connector Boxes embedded in the table legs
- 1 x Cisco 7970 IP Phone
- 3 x high fidelity speakers
- 3 x high fidelity microphones
- A façade with free standing mount support and light cove
- A back-wall with special treatment fabric (acoustic and light reflectivity)
- A purpose-built table that will accommodate 6 participants
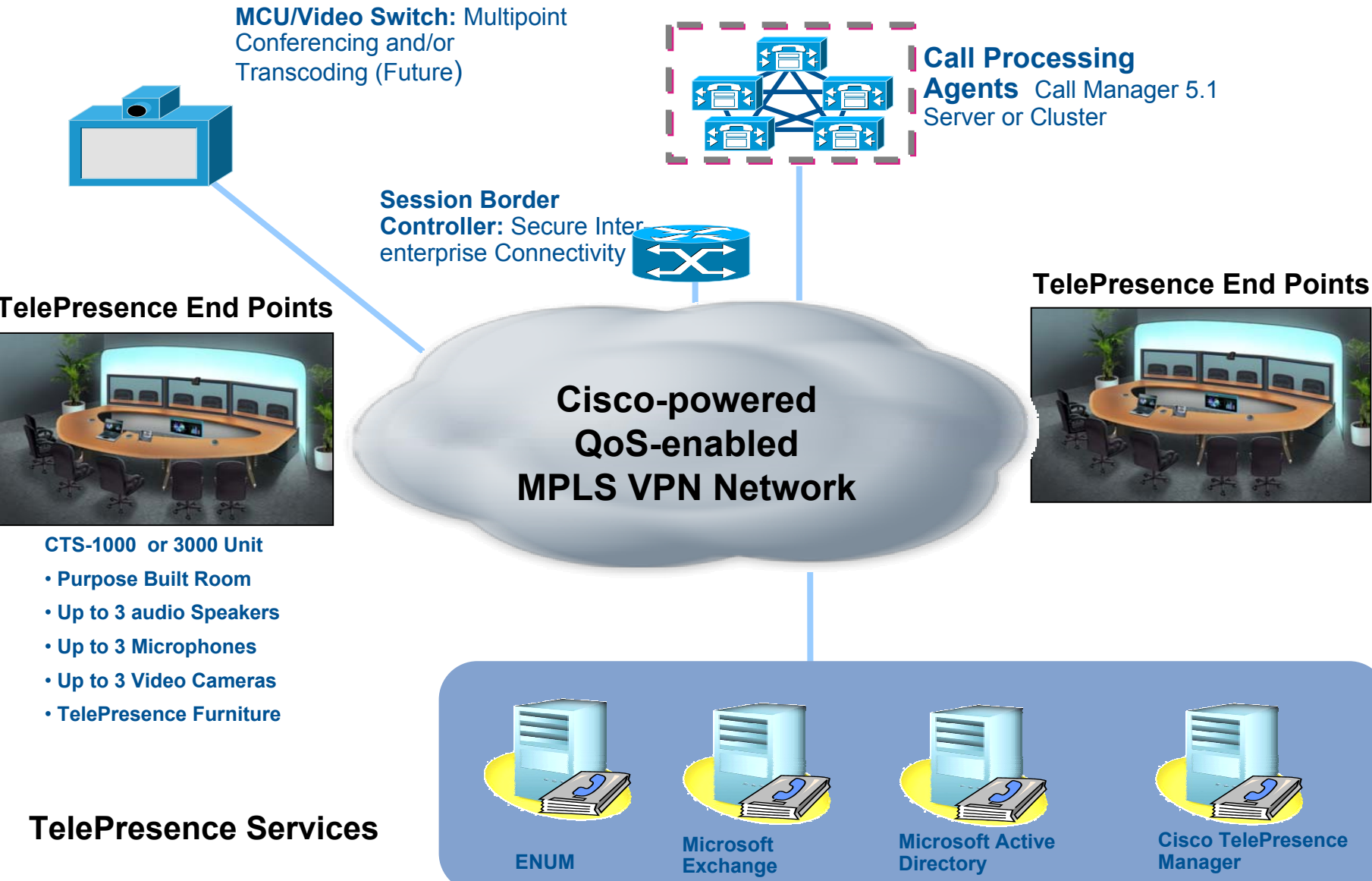
Cisco TelePresence System 1000

- 1 x High Definition IP-based codec
- 1 x High Definition IP-based camera
- 1 x 65" High Definition plasma screen
- 1 x Cisco 7970 IP Phone
- 1 x high fidelity speaker
- 1 x high fidelity microphone
- A wall mount structure and light cove
- A regular or purpose-built table that will accommodate 4 participants

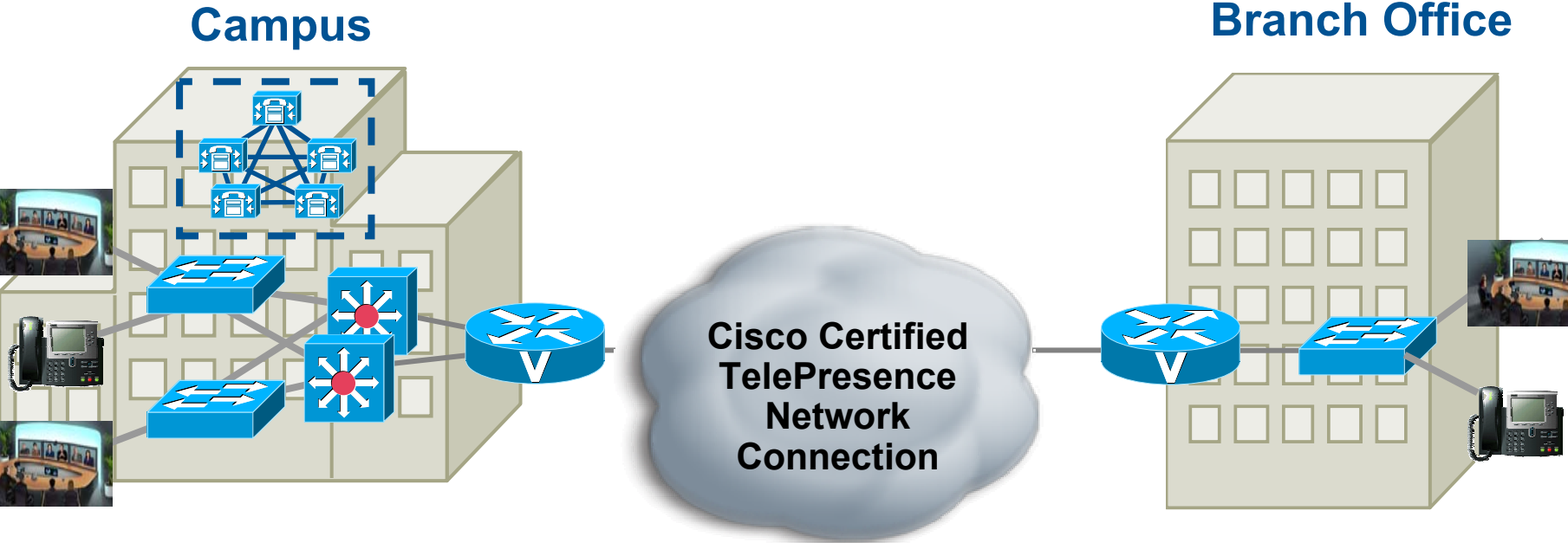# BT Unified Communications Video: Cisco technical features

- Uses the latest standards and technologies to offer the best audio and visual results:
  - Session Initiation Protocol
  - H.264 video codecs for the highest quality and lowest bit rate
  - Native 720p and 1080p high-definition cameras and encoding/decoding
  - Low-latency architecture and low bandwidth utilization
  - Wideband advanced audio coding with low delay (AAC LD)
  - Multi-channel spatial audio with echo cancellation and filters to eliminate feedback from mobile devices
  - Optimised environmental conditioning to provide the best audio and video and overall user experience

- Network
  - These systems use the standard IP technology deployed in corporations today, and should run on an integrated voice/video/data network
  - Such systems support high-quality, real-time voice and video communications with branch offices using broadband connections
  - They also offer capabilities for ensuring quality of service (QoS), security, reliability, and high availability for high-bandwidth applications such as video…
  - …particularly high definition video, which can require 1Mbps to 5Mbps, depending upon the resolution

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BT Unified Communications Video: Cisco solution architecture

MCU/Video Switch: Multipoint Conferencing and/or Transcoding (Future)

Call Processing Agents Call Manager 5.1 Server or Cluster

Session Border Controller: Secure Inter-enterprise Connectivity

TelePresence End Points

TelePresence End Points

Cisco-powered
QoS-enabled
MPLS VPN Network

CTS-1000 or 3000 Unit

• **Purpose Built Room**

• **Up to 3 audio Speakers**

• **Up to 3 Microphones**

• **Up to 3 Video Cameras**

• **TelePresence Furniture**

TelePresence Services

ENUM

Microsoft Exchange

Microsoft Active Directory

Cisco TelePresence Manager

BT MPLS: a Cisco-certified TelePresence connection

Campus

Branch Office

Cisco Certified TelePresence Network Connection

High Availability

HA Target: 99.999%
- **HA hardware platforms**
- **HA protocols**
- **HA designs**
- **HA operations**
- **HA network**

- Intra-Enterprise VPN Connectivity
- End-to-End QoS
- TelePresence-specific SLA

Quality of Service

QoS Targets: Latency, Jitter, Los
- **Classification Tools**
- **Policing Tools**
- **Queuing Tools**
- **Selective Dropping Tools**

Value-added services with Cisco TelePresence

- **Hosted TelePresence Service**
  - Hosting and managing the entire suite of TelePresence services at a public location

- **Managed TelePresence Endpoint and Scheduling**
  - A managed endpoint and reporting service, with scheduling proxy/dial plan management to enable easy meeting schedule planning

- **TelePresence Virtual Concierge**
  - Virtual concierge services based on IPCC, including moderated meetings, bridging non-TelePresence meeting participants, and additional meeting resources

- **Multipoint TelePresence Connections**
  - A service that facilitates secure MCU calls between multiple locations

Polycom RPX system options

- **Polycom RealPresence Experience (RPX)**: Tailored meeting room solutions to cater for 8 to 56 participants, with rooms fully fitted with furniture, collaboration LCD screens, power connections at every seat, and a wireless keyboard and mouse:

  - **RPX 204** – 2 large screens with 4 possible participants at one endpoint

  - **RPX 210M** – 2 large screens with 10 possible participants at one endpoint, with the ability to use the room as a meeting room when a call isn't being made

  - **RPX 210M+** – 2 large screens with 18 possible participants at one endpoint (8 without desk space), with the ability to use the room as a meeting room when a call isn't being made

  - **RPX 218M** – 2 large screens with 18 possible participants at one endpoint, with the ability to use the room as a meeting room when a call isn't being made

  - **RPX 408M** – 4 large screens with 8 possible participants at one endpoint, with the ability to use the room as a meeting room when a call isn't being made

  - **RPX 428M** – 4 large screens with 28 possible participants at one endpoint, with the ability to use the room as a meeting room when a call isn't being made

Next steps

- Contact BT Convergence at **convergence@btireland.com** for more information.