Effective Distributed Video / Visual Conferencing

Objectives
- Virtual Presence - (togetherness)
- Natural Visual Experience -
- Natural Conversation -
- High Impact & Retention -
- Transparent Technology -
- Flexibility -
- Agility -
- Security -
- Minimal Support -
- Upgradeability -
- Blend w Collaborative Tools -

Venues
- Auditoria -
- Executive Conference Rm. -
- Regular Conference Rm. -
- Individual & SOHO -

Facilities
- Room -
- Back Room -
- Control Room -
- Gallery -
- Table -
- Walls -

Technology
- Cameras -
- Projectors -
- Screens -
- Monitors -
- Microphones -
- Speakers -
- "Specialty Processors" -
- Computers -
- Encoders -
- Control Panels -

Network Interconnect, Protocols, and Components

Infrastructure
- Local Area Network - Capacity & Contention
- Wide Area Network - Capacity & Contention

"Services": What-How-Where

Organization
- Research & Design -
- Operations -
- Contractors / Integrators -
- User communities -

Organizational Leadership

Human Factors
- Science of human ad-hoc & opportunistic encounter.

- Images
  - Placement
  - Size
  - Picture Quality
  - Fidelity of Motion
  - Persistence
- Eye Contact
- Audio
- Behavior
  - Desirable
  - Undesirable
- Meeting Control
- Ease of Use
- Overall Experience

Operations
- Setup: User Sys. & Management Sys. / SW
- Session Management
  - Operator
    - Centralized
    - In-Room
  - User
- Problem Recovery: Ticketing, Tracking, OPS, Management of Systems and Knowledge
- Communication
  - With the Team
  - With Meeting Leaders
- Security
  - Leading Edge usage of capabilities
  - Independent component integration

Risks
- Technical
- Operational Support

Budgets
- R&D / Design
- Procurement
- Programming
- Build-out
- Installation
- Maintenance
- Upgrade

Constraints
- Staffing & Hiring
- Maintenance of the business process and support of daily activities & goals

- Technical
  - State of Market
  - Readiness of Integrators
  - Work-around
- Physical
  - VTC v Meeting
  - Existing rooms
  - New rooms and single individual spaces
- Participant Behavior
- Backward Compatibility: All tech.
- Network: Capacity, Type, Control
- Audio Interference
- Operator Capacity & Speed

Other Collaborative Tools
- NetMeeting, VoIP, Streaming (all forms)

Design Trade-Offs
- Screen Space Allocation
  - Position & Size of Sites
  - Persistence **v** Switched
  - Computer, DVD, et al "screen"
  - Secondary Monitors
- Cameras
  - Eye-contact **v** Obstruction
    - Placement
    - Dual (wide-view) **v** Parallax
  - Fixed **v** Mobile or movable
- Support Requirement **v** Capabilities & Features
- Picture Quality **v** Smooth Motion
- Redundancy **v** Technical Simplicity
- Internal OPS & Services **v** Out-sourced / Contracted

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Technology
- T + D (Of the internal Design & Operations Groups, and equipment providers & vendors)
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- Projectors
- Screens
- Monitors
- Microphones
- Speakers
- "Specialty Processors"
- Computers
- Encoders
- Control Panels

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Organizational Leadership

T + D = TRAINING & DEVELOPMENT