



# Cisco HealthPresence Solutions

Presentation to Vodacom, South  
Africa

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**Cisco Healthcare & Life Sciences Vertical  
(Asia Pacific and Emerging Markets)**

Cisco Services.  
Making Networks Work.  
Better Together.

# Agenda

- Cisco in Healthcare
- Cisco Healthcare Solutions Overview
- Cisco HealthPresence Solutions
  - Enterprise Solution
  - Desktop Video Solution
- Key Benefits
- Case Study
- Next Steps



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# Cisco in Healthcare

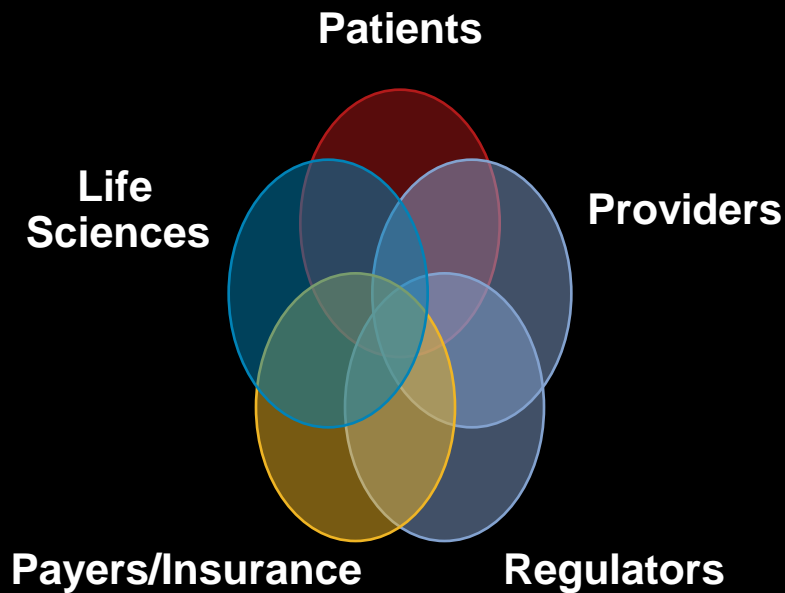
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# Cisco Healthcare- Enabling Healthcare Transformation

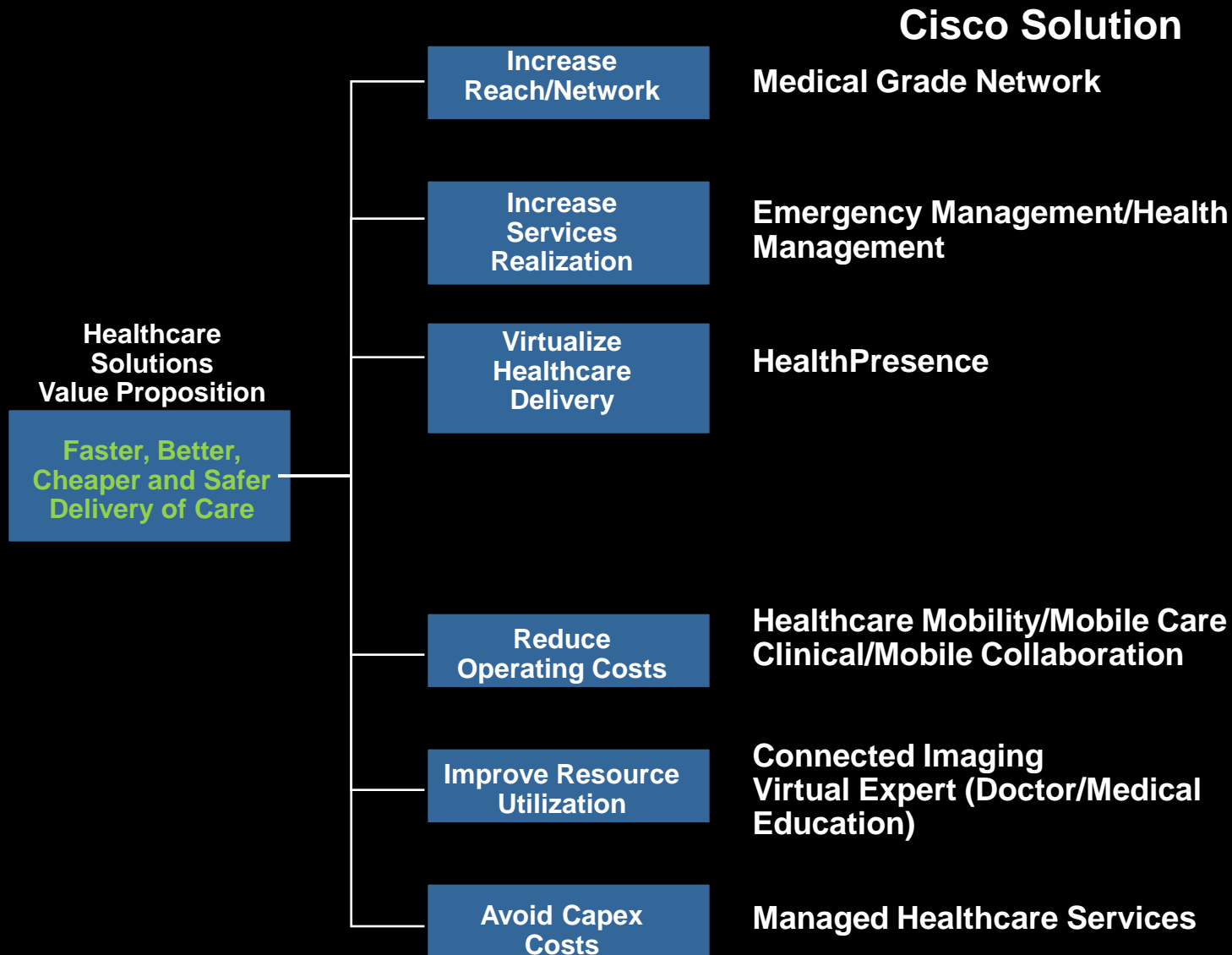


Cisco Healthcare Solutions – transforming the healthcare industry through

- **Collaboration** among stakeholders
- **Convergence** of all medical content (voice, video, and data)
- **Virtualization** of business processes

# Cisco Healthcare Solutions

## Key Drivers & Customer Value Proposition





# Cisco HealthPresence Solutions

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# Cisco HealthPresence Solutions

## Enterprise Solution



## Healthcare Exchange



## Desktop Video Solution



- High Definition Video Conferencing
- TelePresence
- Bio Medical Device Integration

- Open Network Medical Exchange
- Datacenter
- Telemedicine as a Managed Service

- Low Bandwidth
- Unified Communication
- Bio Medical Device Integration



# Cisco HealthPresence (Enterprise Solution)

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# Cisco HealthPresence – Enterprise Solution

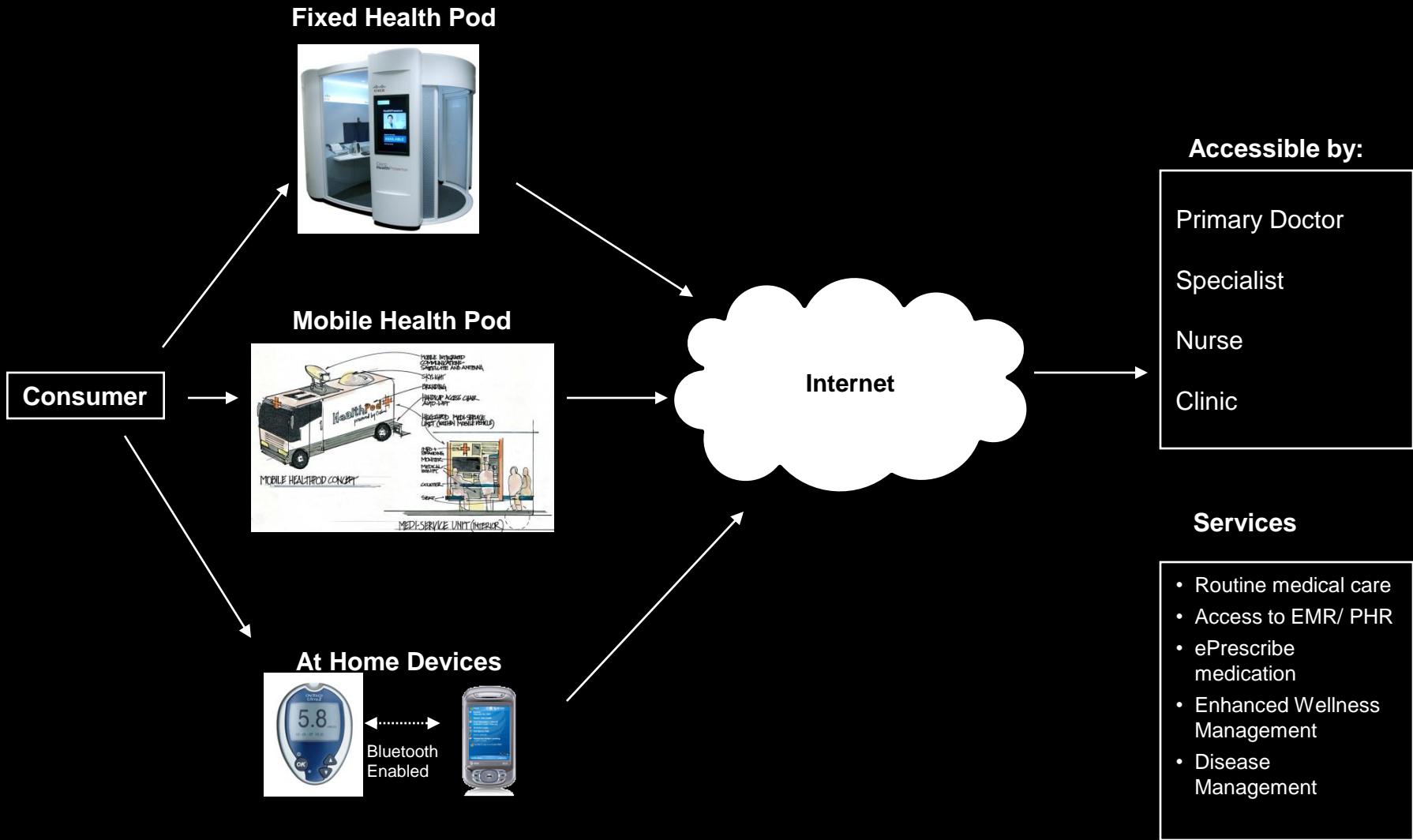
## Virtualizing Healthcare Delivery

- An alternative healthcare delivery model offering convenience, better access, lower cost, quick deployment and creates a net new market for healthcare providers
- 3rd Party Peripherals
  - Welch Allyn LXi vital sign monitor
  - Allyn 23101 Otoscope
  - AMD 3700 Electronic Stethoscope
  - ENT- scope & handheld camera
- Target customers: Hospitals, nursing homes, retailers, clinics, correctional institutions, educational facilities, government/corporate offices
- Pilots: Cerner, Scotland NHS, Walgreens, Cleveland Clinic

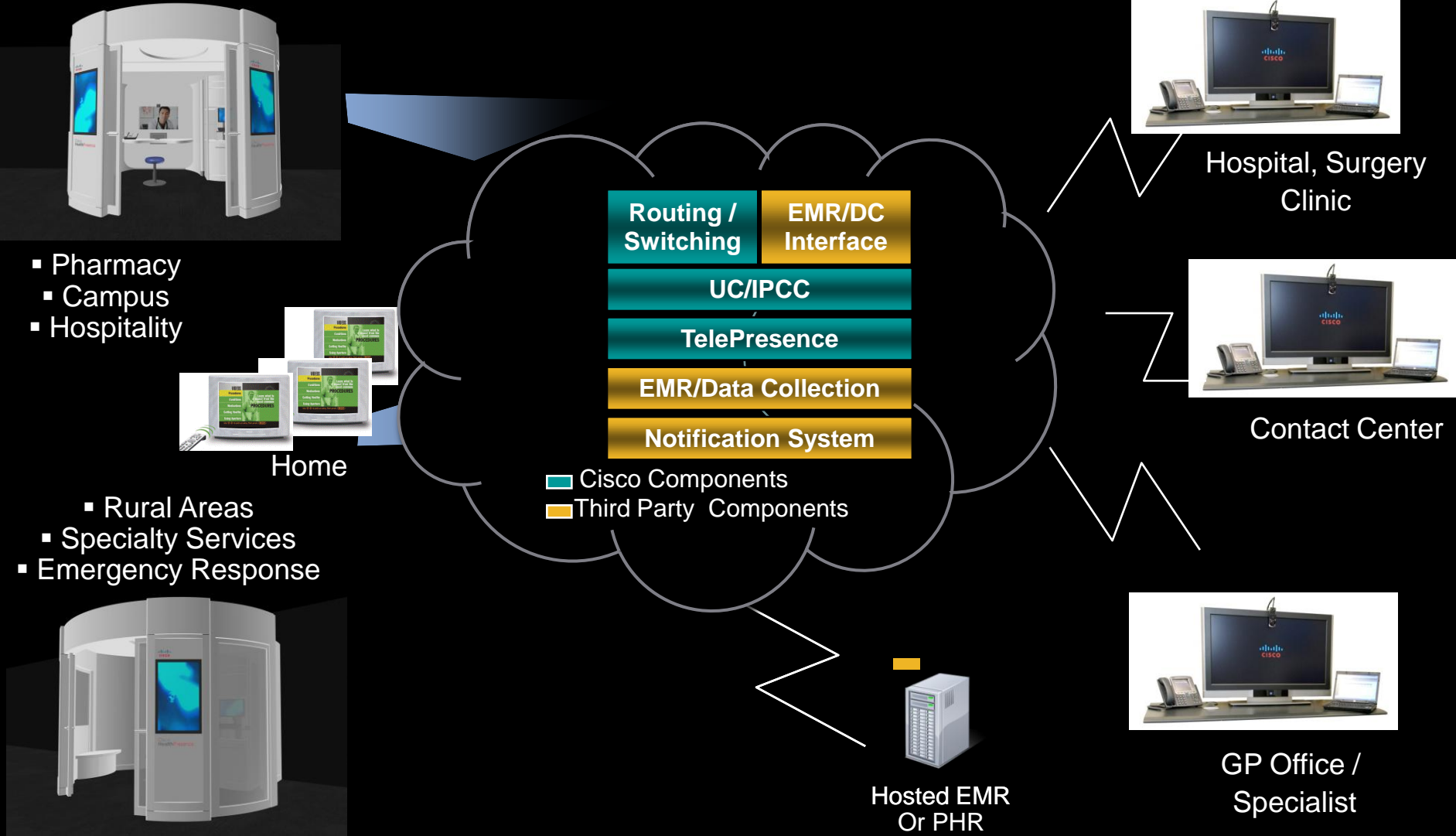
Cisco  
HealthPresence



# The Virtual Clinic Concept

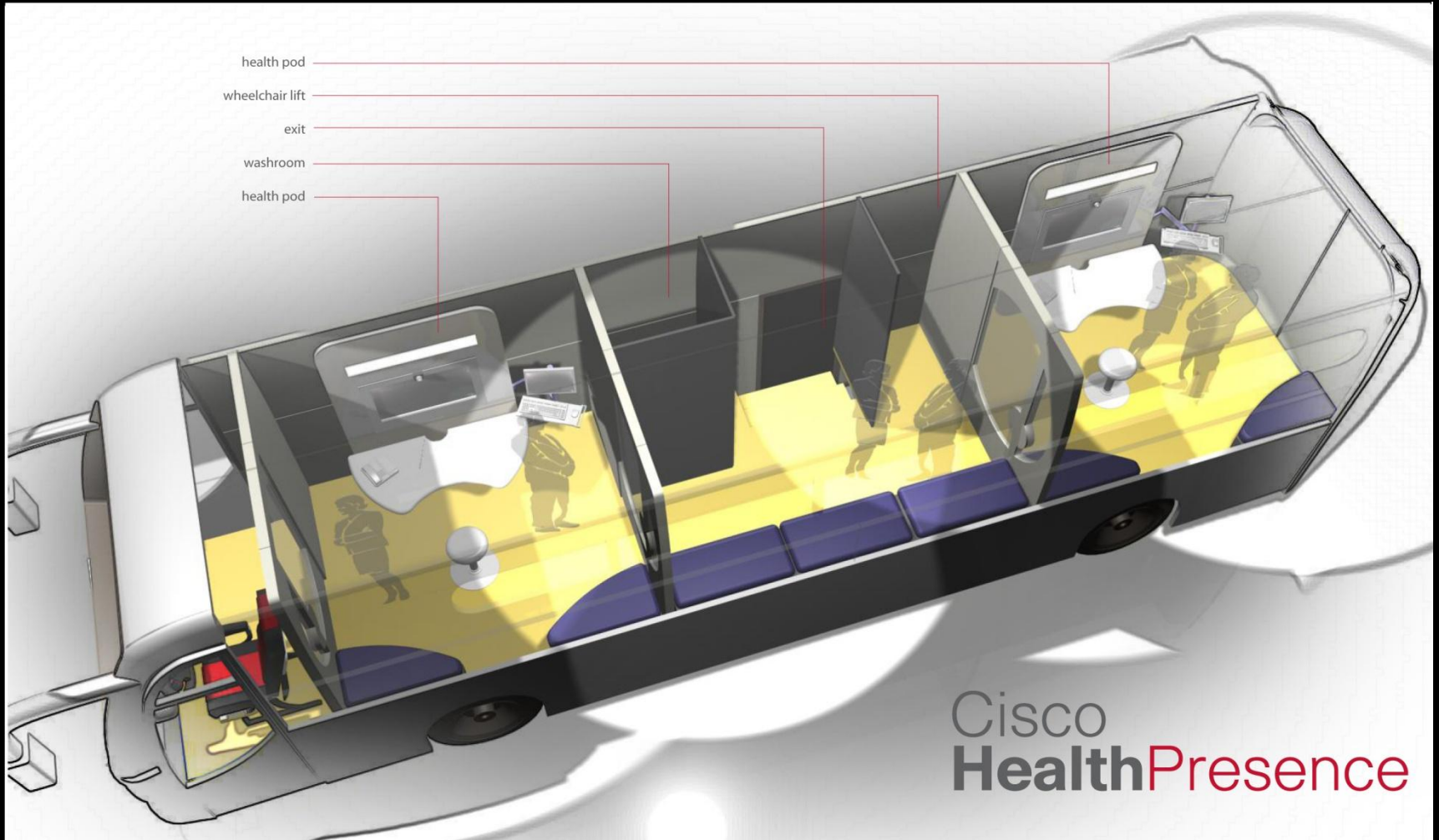


# HealthPresence - Solution Architecture



# Mobile HealthPresence

## Remote Healthcare Delivery



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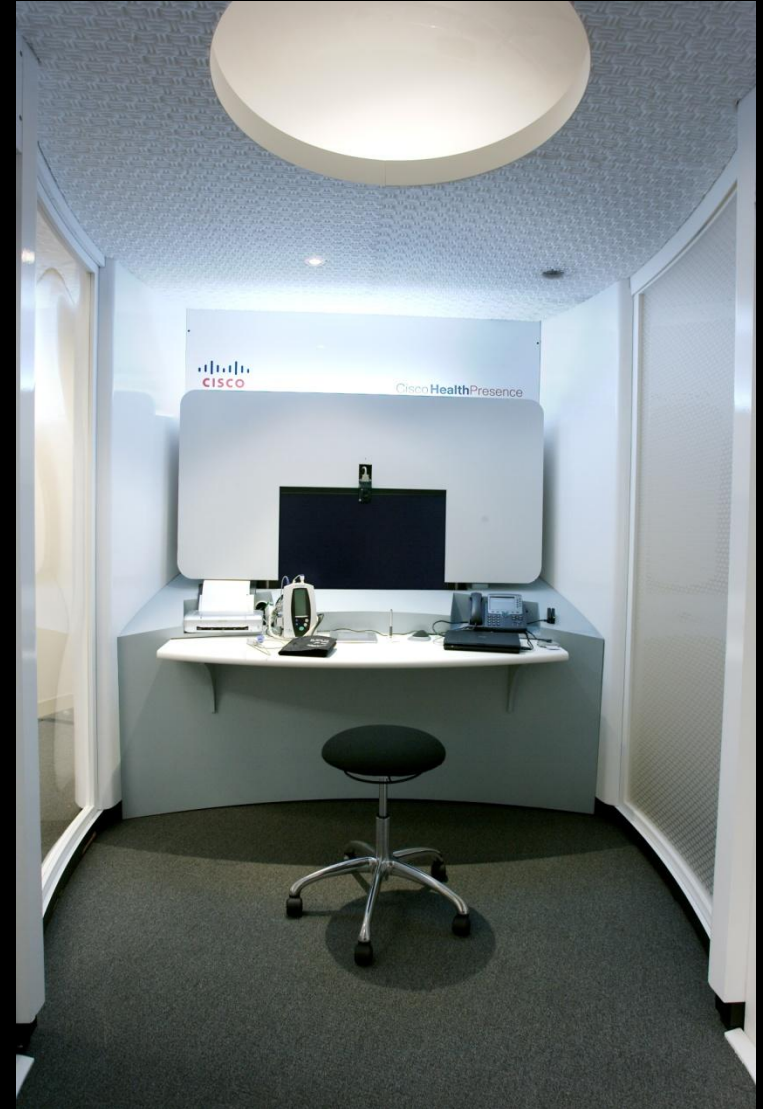
Cisco HealthPresence

LISTEN · ANALYZE · CREATE

DISPLAYWORKS

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# Virtual Clinic through HealthPresence



# National Health Services Pilot



# HealthPresence Demo in India





# Cisco HealthPresence (Desktop Video Solution)

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# Cisco Desktop Video HealthPresence Solution

## Enabling Remote Consultations



- **Patient visits the remote clinic** - Para medical staff needs a consult from a physician / specialist located off-site
- **Check to see who is available** - A call is initiated to the appropriate specialist / physician via IP Phone
- **Available specialist responds** - Voice and Video communication established between specialist and Patient
- **Specialist performs a remote exam and provides a diagnosis** - Patient is provided with hands-on treatment and prescriptions remotely

### Patient Centric Collaboration

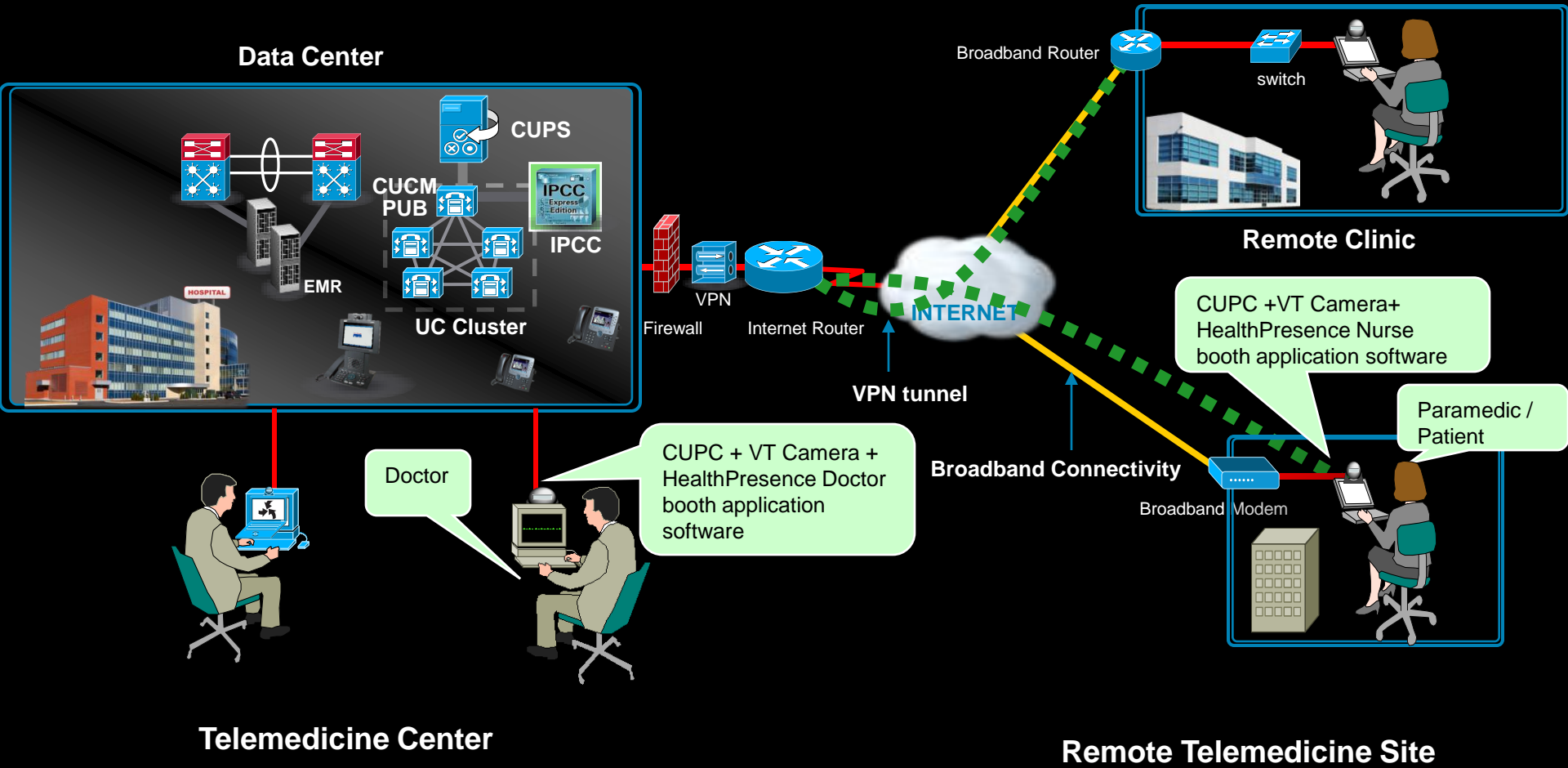
- Physicians often need to consult specialists
- Nurses often need to reach specialists, medical technicians etc.
- Clinical staff need to collaborate with remote experts in clinical and non- clinical scenarios

The Healthcare Virtual Telehealth Solution is the state of the art **Cisco Unified Communication (UC)** based telemedicine solution leveraging Cisco technologies such as Voice, Video, Web Collaboration and Presence.

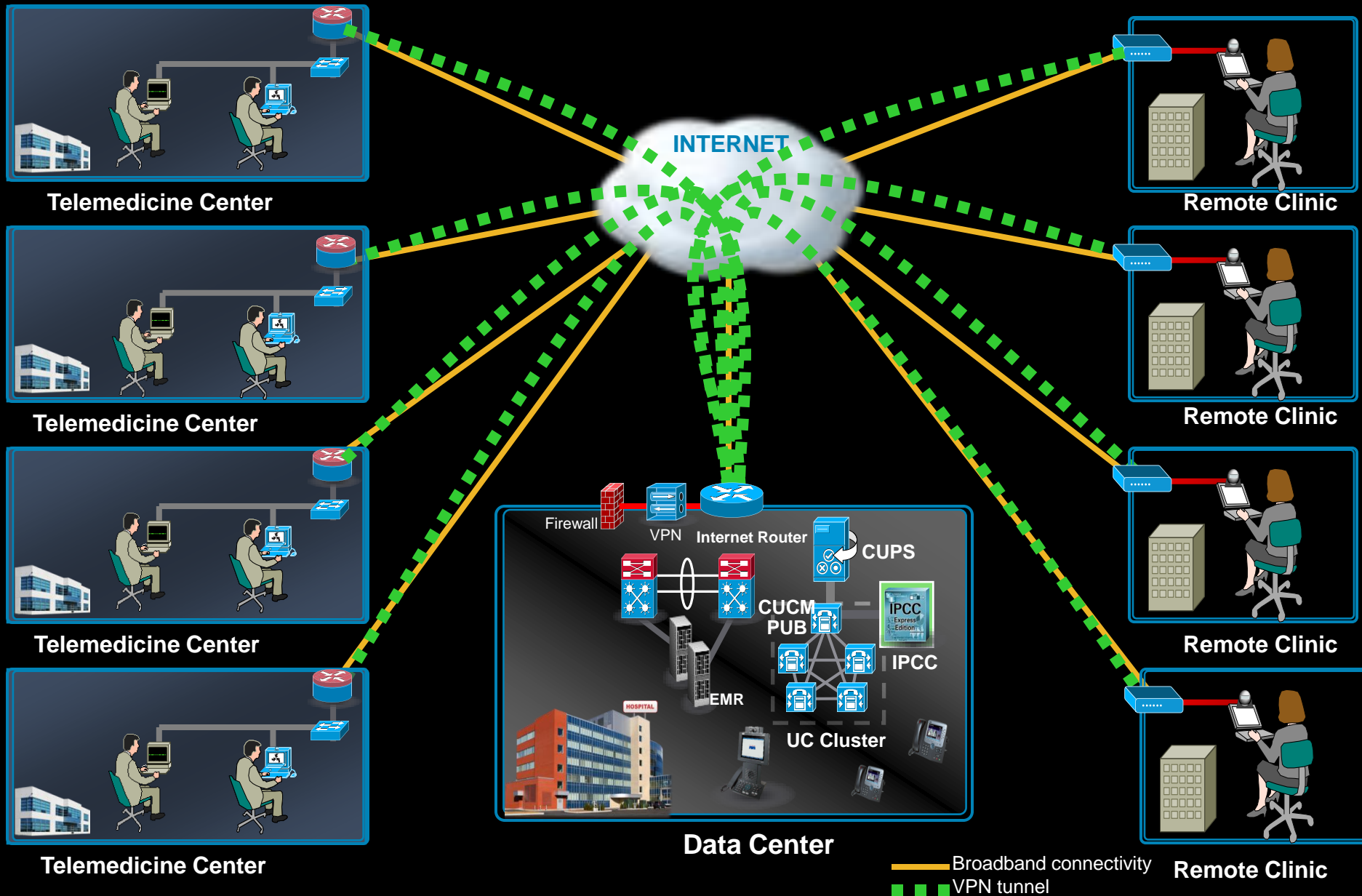
# Cisco Desktop Video HealthPresence Solution overview

- The telemedicine center ( Hospital) and Remote clinics will initiate secure VPN sessions through the Datacenter. VPN Server will be hosted in the Datacenter.
- Internet Router provides VPN tunnel establishments from remote clinics
- Cisco Firewall Appliance validates the traffic and manage user level authorization
- Cisco Unified Presence Communicator (CUPC) will register with Cisco Unified Communications Manager and Cisco Unified Presence after the successful VPN tunnel establishment
- Simple, Flexible, Threat protected VPN and easy to manage the network architecture
- Perform mobile base consultations without traditional network infrastructure
- Recommended 512 Kbps broadband internet connectivity for each remote telemedicine center for consultations with central hospital

# Desktop Video – Solution Architecture



# Solution Architecture – WAN approach through Internet



# Bio-Medical Devices Integration

- **Digital ECG**
- **Electronic Stethoscope**
- **Temperature**
- **Spirometer**
- **Glucose Meter**
- **Pulse Oximeter**
- **Heart Rate**
- **NiBP**



The above Bio-medical devices will be integrated with the solution. 12-channel ECG, NiBP, Auscultation Sounds (Stethoscope), Temperature and Heart rate along with Pulse Oximeter Spirometer probes. All the devices will have a single USB interface



# Cisco HealthPresence Solutions – Key Benefits

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# HealthPresence Solutions – Key Benefits

Features	Key Benefits
<ul style="list-style-type: none"><li>▪ Based on Cisco TelePresence and desktop video secure networking infrastructure</li><li>▪ Combines state of the art video technology with physiological data captured by an array of medical devices</li></ul>	<ul style="list-style-type: none"><li>▪ Enables access to care anywhere anytime</li><li>▪ Can be configured to deliver primary care, specialty care and chronic care management services</li><li>▪ Facilitates new care delivery models, extending the service delivery area</li></ul>
<ul style="list-style-type: none"><li>▪ Can be located anywhere there is broadband access, integration with satellite communications is expected in the future</li></ul>	<ul style="list-style-type: none"><li>▪ Provides better and more convenient access to healthcare</li><li>▪ Patients can access remote specialists without traveling</li></ul>
<ul style="list-style-type: none"><li>▪ Based on industry leading audio and video technology offering high definition images</li></ul>	<ul style="list-style-type: none"><li>▪ Replicates the in person experience for both patient and provider with life sized images and no voice delay</li></ul>



# Case Study & Value Proposition

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# Case Study: Telemedicine – Scottish Centre for Telehealth, NHS Scotland

## Healthcare Delivery to Rural and Urban Areas

### Business Need

- Improve access to healthcare services in rural and urban services
- Scale healthcare services to meet increasing patient demand
- Optimize the use of scarce medical expertise

### Cisco Solution

- Cisco HealthPresence system for remote consultations combines state-of-the-art video, audio and medical information to create a virtual “in-person” doctor visit
- Integrates with call-centre technology, offering increased scalability and optimization of scarce clinical resources
- Uses network as a platform to provide the foundation for more efficient collaboration

### Business Results

- Provide diagnoses consistent with face-to-face consultations
- Received excellent feedback from both patients and clinicians
- Received an agreement to extend the NHS Scotland / SCT pilot
- Doctors providing out-of-hours services could cover a wider geographic area, thereby increasing number of cases they see.

# Cisco Healthcare Solutions - Value Proposition

## Characteristics

**Breadth of Services**  
( Scalable end to end solution)

**Patient Care Benefits**  
( Enhances Patient Safety, improves Patient Satisfaction)

**Financial Benefits**  
( Enhanced Operational Efficiency, Reduce Cost)

**Proven Smart Delivery Model**  
(Industry Best practices, Increased Productivity)

**Innovation & Centers of Excellence**  
(Labs for Competency, Poc's, training, templates)

**Partnerships & Alliances**  
( Partnership with leading Health IT Vendors, Best of breed)

## Benefits

**Supports multiple services for medical applications**

**Protection of PHI, Faster test results, Streamline patient care process**

**Optimizes technology investments**

**Tangible cost benefits**

**Thought Leadership & SME's**

**Versatile & Qualified Solutions**

**Cisco enables Faster, Better, Cheaper and Safer Delivery of Care**



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