



Cisco Expo 2008

Cisco Connected Health



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Old scenario: Knee surgery



Person with pain in his knee visits his GP



Patient need to call and book appointment for X-ray. After X-ray taken, need to book new appointment with his GP. Bring his own images to GP



When arriving at hospital, no information about patient is there, need for new examination, and new tests before admitting the patient to hospital



Patient calls GP, set up new appointment. GP does follow up examination.

From visit to GP to reimbursement done – more then 3 months

Physician have no information about patient, and are not able to do a diagnose, writes referral to X-ray. Patient need to call and book appointment for X-ray.

GP examines the x-ray, decide to book appointment for laparoscopi at hospital. Patient needs to go home and wait for letter from hospital. Hospital has waiting time, 6 weeks

Patient gets discharged after successful surgery, Asked to book appointment with GP for follow-up examination after 2 weeks

GP files for reimbursement to Health Insurance by sending the diagnose and treatment description to Social services. Reimbursement after 8 week.



State of Healthcare

Challenges

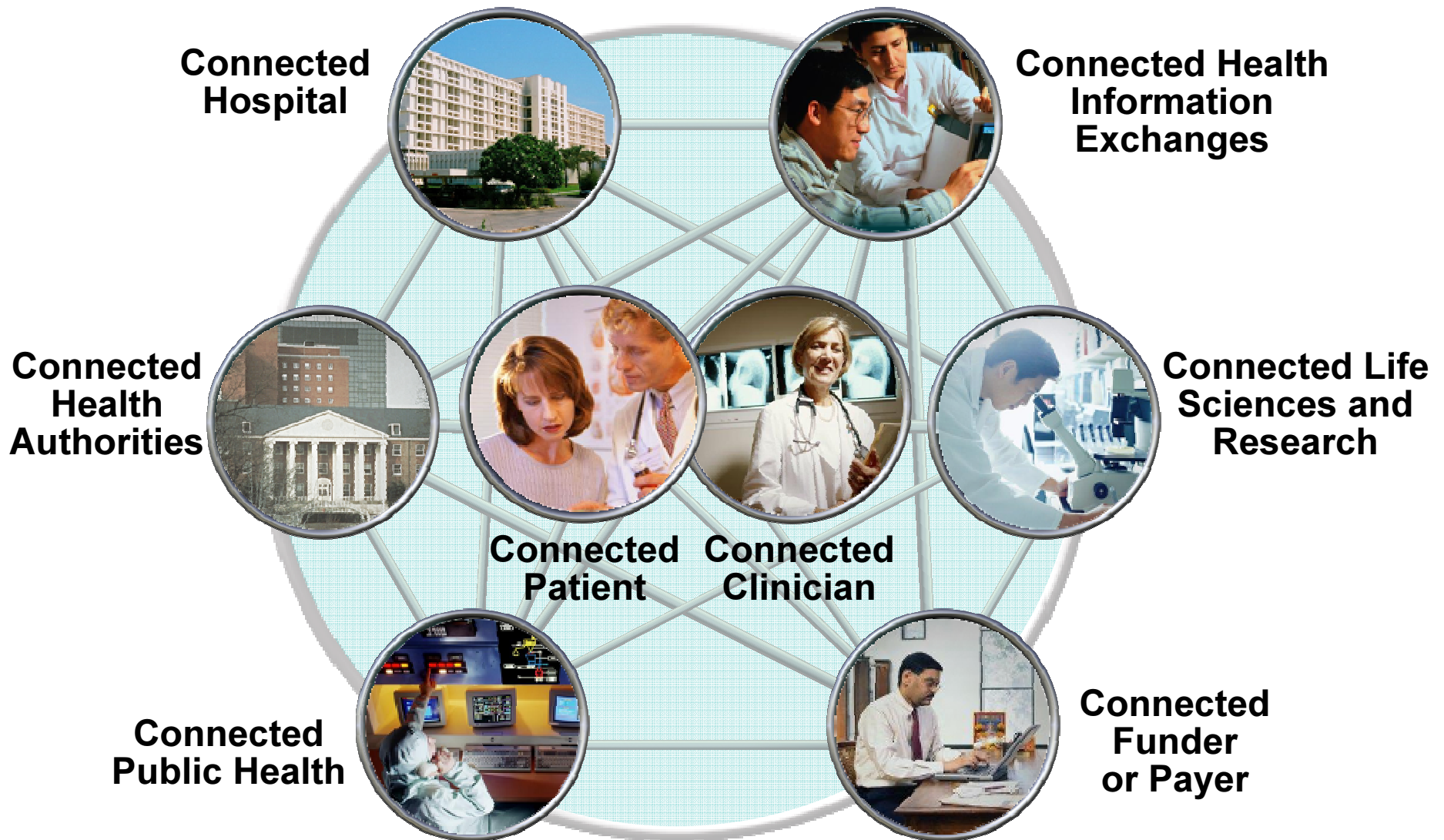
- Changing demographics
- Labor shortages
- Disease patterns
- Quality/patient safety
- Access/wait times
- New medical technology

Desired Results

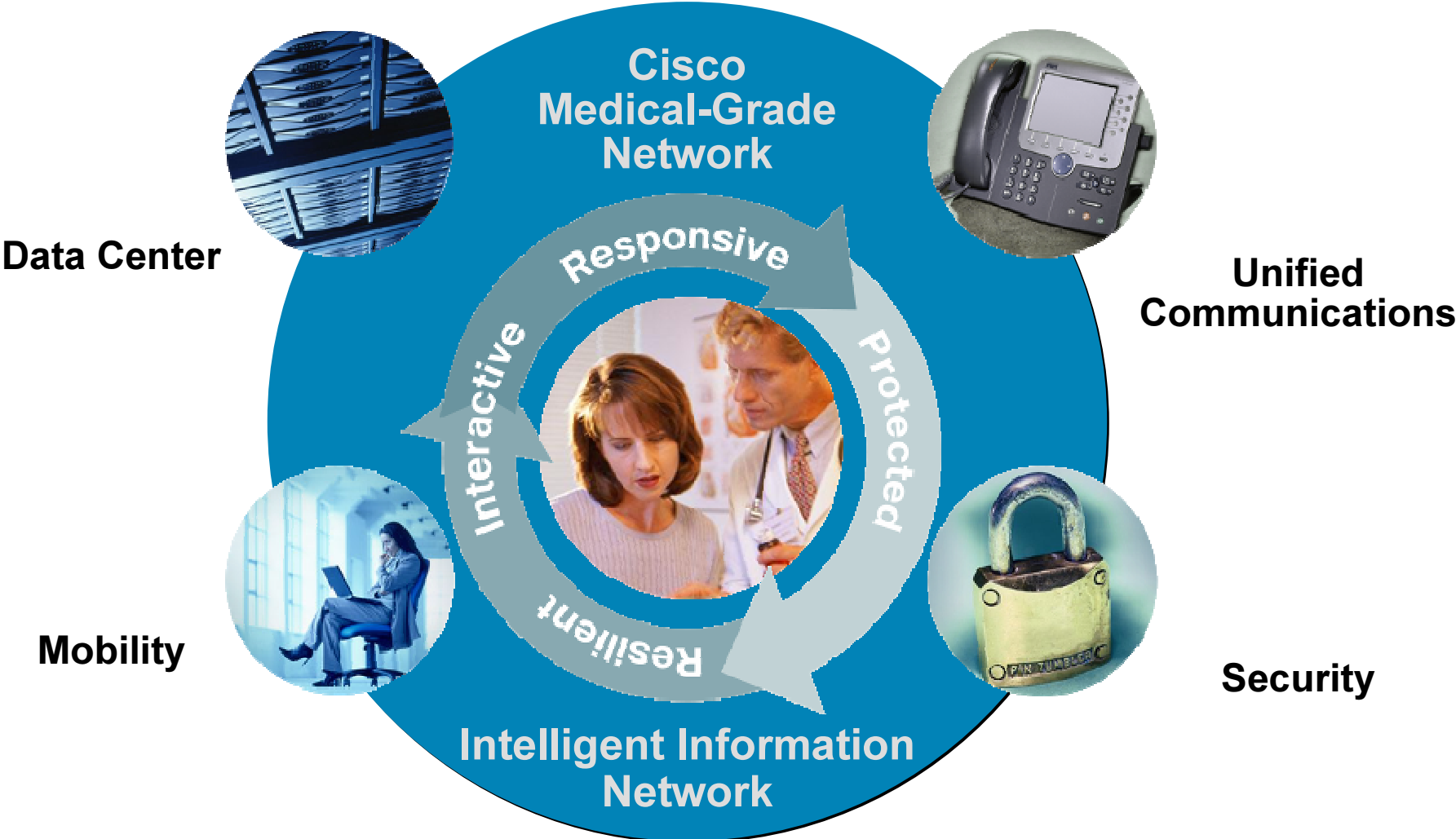
- Safe
- Effective
- Patient centered
- Timely
- Efficient
- Equitable



The Connected Health Community



Cisco Medical-Grade Network



Connected Health Framework

Patient Safety, Quality of Care, Patient Satisfaction, Cost Challenges, Staff Satisfaction, Regulatory Compliance



Mobility for Healthcare

- Mobile Care
- Location Aware Hospital
- Secure Wireless

Connected Imaging

- Performance & Management
- Collaboration & Reporting

UC for Healthcare

- Mobile Care
- Collaboration & Reporting
- Collaborative Care



Medical-Grade Network Architecture & Assessment

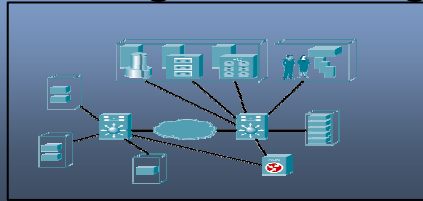
Mobility



Security



Routing & Switching



Storage Networking



Unified Com



Business Drivers

Business Solutions

Network Technologies



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Mobility for Healthcare



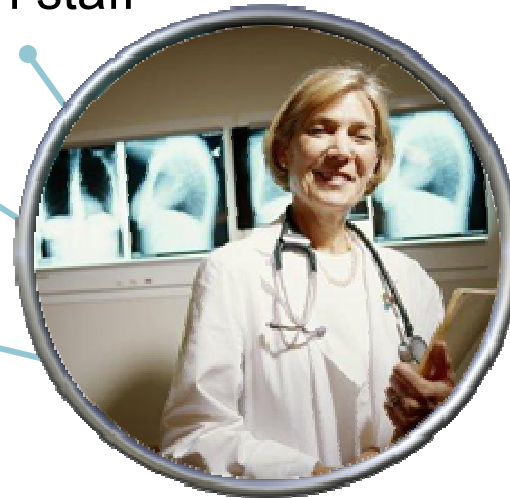
Delivering Mobility from the Medical Grade Network

Improving Care = Improving Communications

65% → 20-60+ min / day
just trying to reach staff

66% → Search **more than one channel** to reach staff

84% → Time spent trying to reach staff **impacts patient care**



“Every minute engaged in tracking and locating others reduces a nurse’s availability for the patient.”

– Forrester

Source: Forrester, Feb 2006

Cisco Mobility Solutions for Healthcare

Mobile Care

Enhanced collaboration between caregivers to increase responsiveness and employee satisfaction

Location Aware

Solution to monitor and streamline operations involving medical equipment and staff

Secure Wireless

Wireless foundation that enables regulatory compliance and patient privacy as well as provides access to crucial information anywhere



Medical
Grade
Network

Mobile Care

Seamless Mobile Collaboration Features

Wi-Fi phones
Single Number Reach
Push-To-Talk
Messaging



- Mobile within the hospital only
- No...
- Heavy...



Nurses

Physicians



Dual mode devices
Single Number Reach
Mobile Communicator
Messaging
Clinical apps. integration



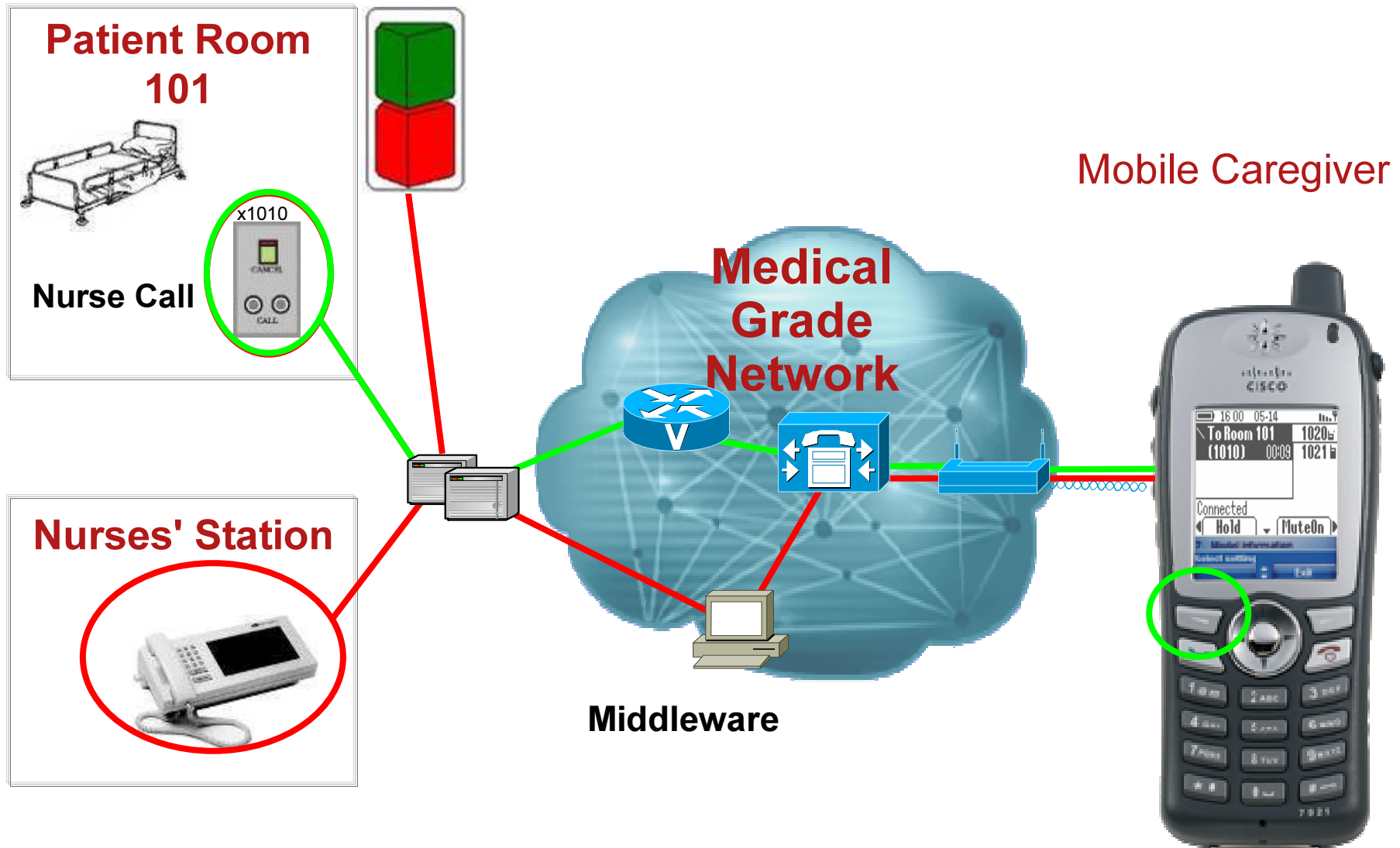
Administrative

- Mobile within the hospital only 20% of the time
- Mainly in working office
- Heavy user of LoB applications

Wi-Fi Laptops
Single Number Reach
Personal Communicator



Mobile Care: Unified Communications - Nurse Call Integration



Location Aware Healthcare

Use cases



Ensure that there is always a physician in ER



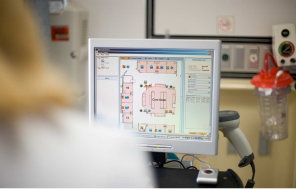
Secure all the members of a core team prior to a surgery



Locate medical equipment faster



Initiate a request to sterilize



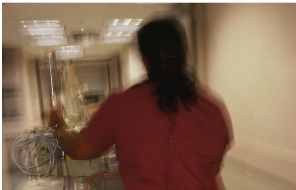
Update the number of heart monitors left in the storage room



Automate bed management applications



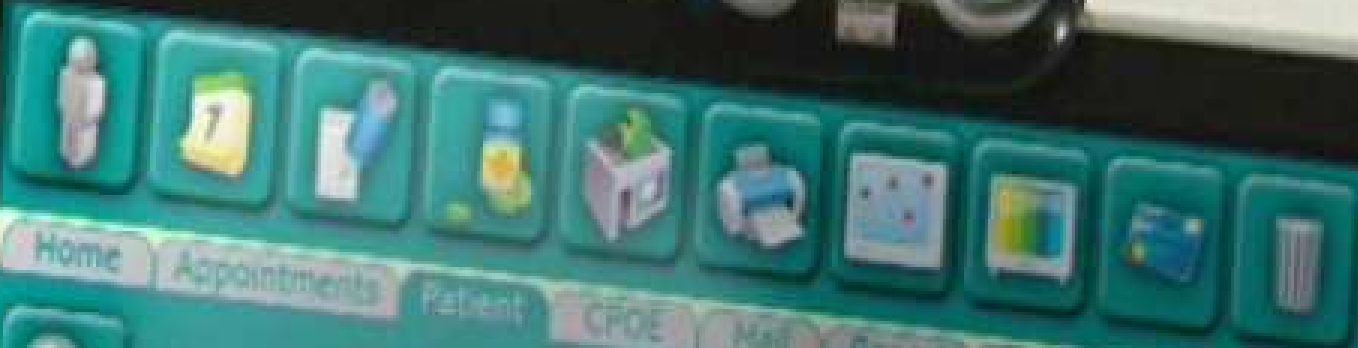
Monitor storage conditions for equipment or medication



Ensure that perishable goods are kept in the right condition or alert



Provide patient comfort in a responsive manner



Home Appointments Patient CPOE Mail Report Settings

St Mar
eREC



McCain, Jennifer 2938631

- Start Features
- Face Sheet
- Vitals
- HPI
- ROS
- Physical Exam
- Specialty
- Last Lab Results

PATIENT TRANSPORT

Order Transport

- Wheelchair
- Gurney

	T	W	T	F	S	S
				1	2	3
4	5	6	7	8	9	10



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Unified Communications for Healthcare



Delivering Unified Communications from the Medical Grade Network

Healthcare Communication Characteristics

- Highly Mobile Workforce
 - Trends towards more specialised care
 - Expertise spread across the facilities and constantly moving
 - Proprietary solutions
 - Need for streamlined communication between caregivers, patients, GP's, nurses etc.
- Fast Decision Making Process
 - Limited planning possible
 - Need for minimum reaction time



Healthcare providers must be agile to improve patient care while reducing costs

Collaborative Care

Problem

Delivering quality care to non-native language speakers

Reducing patient wait time

Need for interpreters to be physically present

Audio only services miss visual cues

Costly and inefficient use of 'mobile' consultants

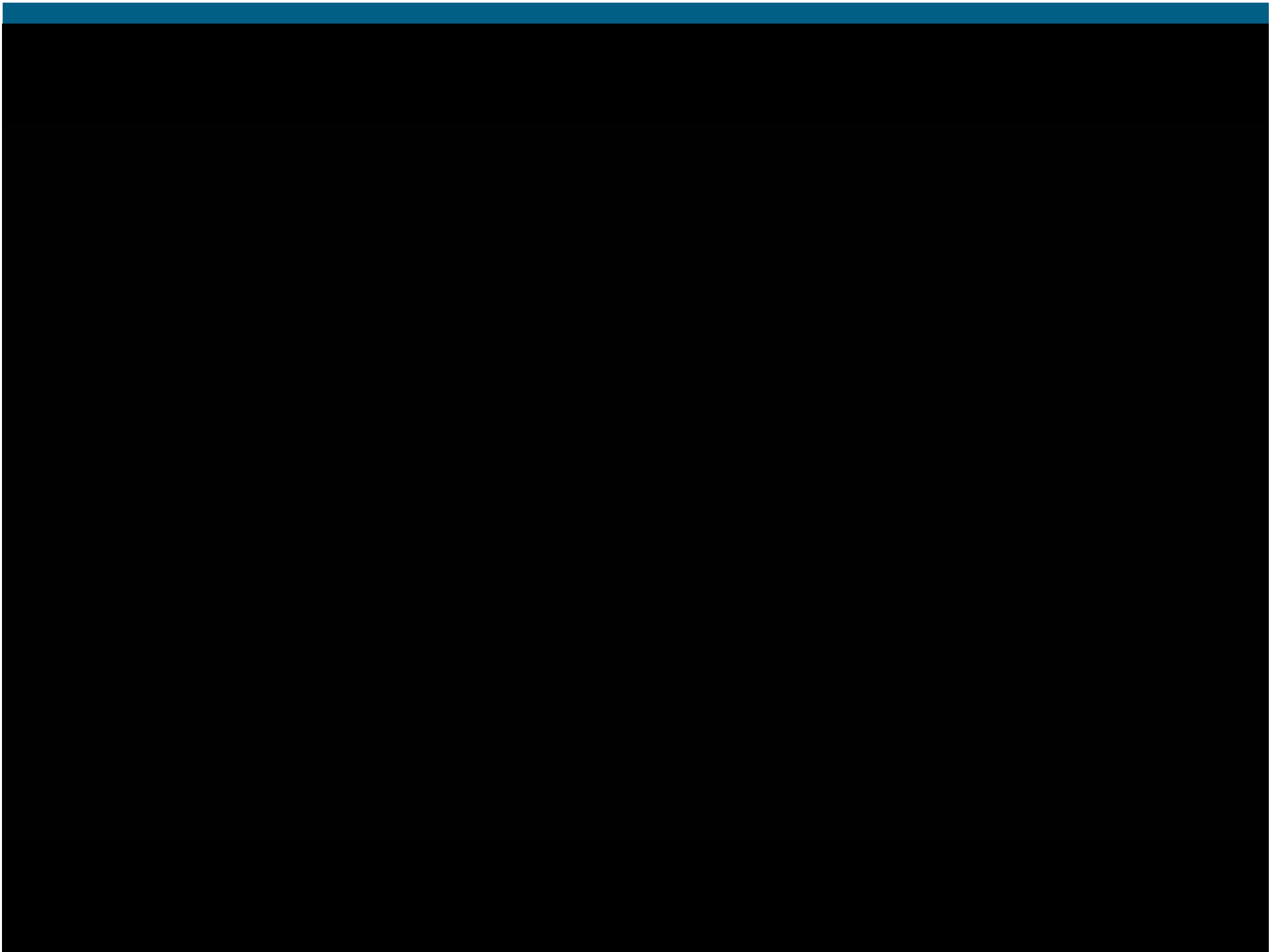
Solution

On-demand video consultations

“Language barriers can affect the delivery of adequate care ...” – Institute of Medicine report on Racial & Ethnic Disparities.

60% of ED visits don't speak English





Bedside Services

Challenge

- Improve patient care experience
- Simplify patient / family education

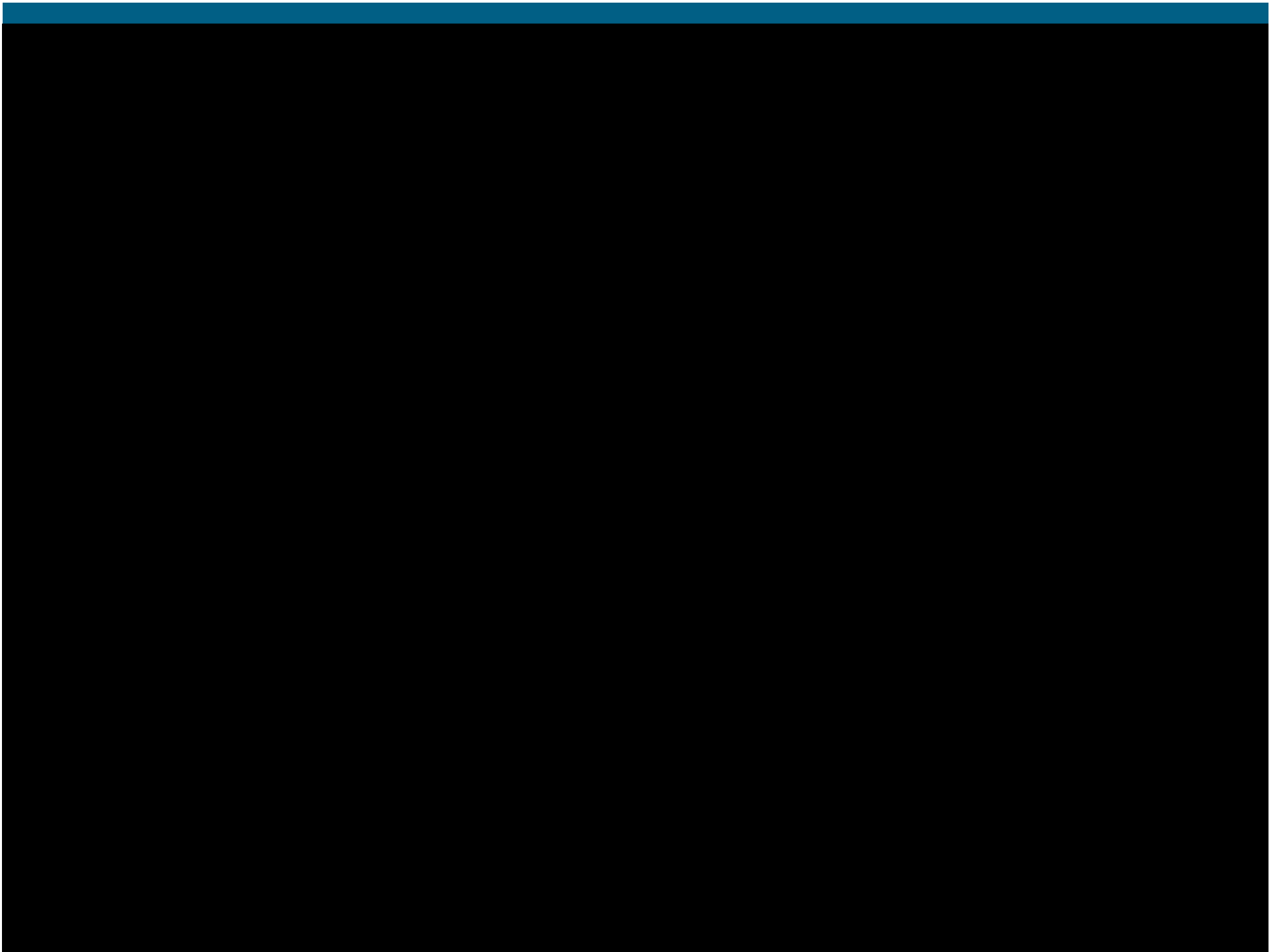
Solution

- Integrated bedside services
 - IP Content streaming
 - IP communications

Partners

- Imatis, mGate, Lincor





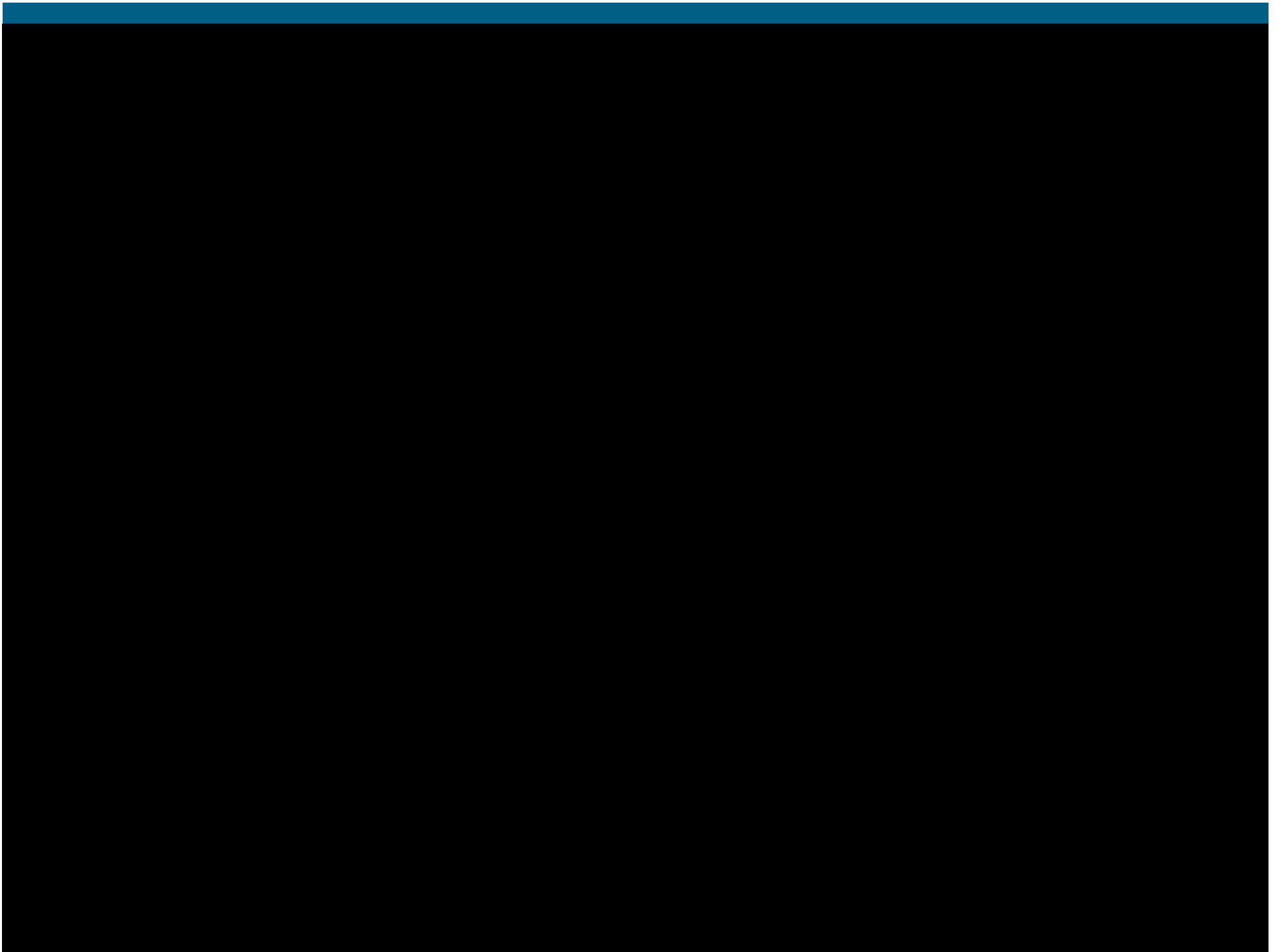
Collaboration & Reporting – In Imaging Communications

Physician needs imaging consultation

- Connect request to available Radiologist on call
- Connect via preferred method
- Collaborate by sharing images in real time, passing control of the mouse & application back & forth
- Simultaneously view, manipulate, & discuss images, confirming the diagnosis



A composite image showing a Cisco collaboration interface. The top part is a 'James Demo' window with a menu (File, View, Actions, Help) and icons for phone, video, email, chat, and calendar. Below the menu is a 'Contacts' list with categories like Allergy/Immunology, Cardiac Center, Emergency, etc. The bottom part is a 'Conversation with Kevin Ngo, Dr.' window showing a video call with 'Jere King, Dr.' and a 'Connecting...' status. In the background, there is a woman looking at medical imaging on a computer screen.



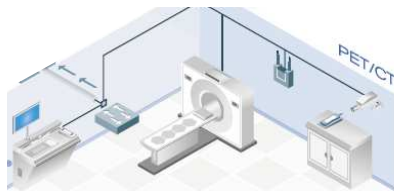
Connected Imaging addressing key issues faced by healthcare organizations

Connected Imaging Stakeholders

CEO's, COO's, Radiologists, Directors of Radiology, and CIO's

Image Acquisition

Enables end-to-end security to secure modalities against attacks and ensure image data integrity



Performance & Management

Supports scalable imaging transport, routing, and storage



Collaboration & Reporting

Promotes multi-specialty and multi-radiologist collaboration for effective image consultations





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Innovation in Healthcare



Cisco HealthPresence



Cisco Healthcare Partner Eco-System

PHILIPS



AeroScop
Enterprise Visi

Cisco Technology Developer Program

Unites Cisco with 3rd Party Application vendors of complementary network-enabling technologies to deliver interoperable products, solutions, and services

> 400 Partners
~ 49 Affiliates

Carestream
HEALTH

Empowering Healthcare

ERCOM
TOGETHER. GREAT THINGS HAPPEN.

PanGo®
Intelligent Wireless

ZETTLER, INC.

ascom

Q and A



