

# Televisit™ 100



Bringing  
**healthcare**  
to the patient's  
**HOME**

San Angelo Telehealth Conference  
November 2005



# AGENDA

- About PHD Medical
- The Televisit Platform
- Televisit 100 for Home Ventilation
- Televisit Demonstration
- Questions & Answers

## PHD Medical Inc.

- PHD Medical works in partnership with healthcare stakeholders, designing products and services to meet the specific needs of the home diagnostic and telemedicine markets.
- Through technical and clinical expertise we bring complete solutions to market that facilitate outpatient care and management.

## PHD Products & Services

- Expert System Platform
- Televisit<sup>™</sup> Platform

# Expert System Platform

**Clinician  
Input**



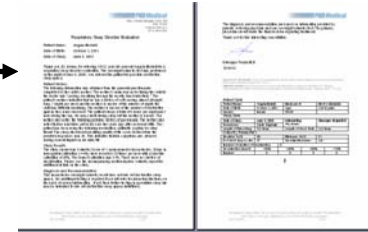
**Relevant  
Medical History**



**Test or  
Measurement**



**Expert System**



## Expert System in Use

### **Pediatric Obstructive Sleep Apnea Diagnosis**

- **Technology: Expert System**
  - Licensed expert system which allows diagnostics to be executed centrally
  - Three clinic locations in Montreal
  - Installed at The Montreal Children's Hospital
    - with outreach center in Gatineau, Quebec

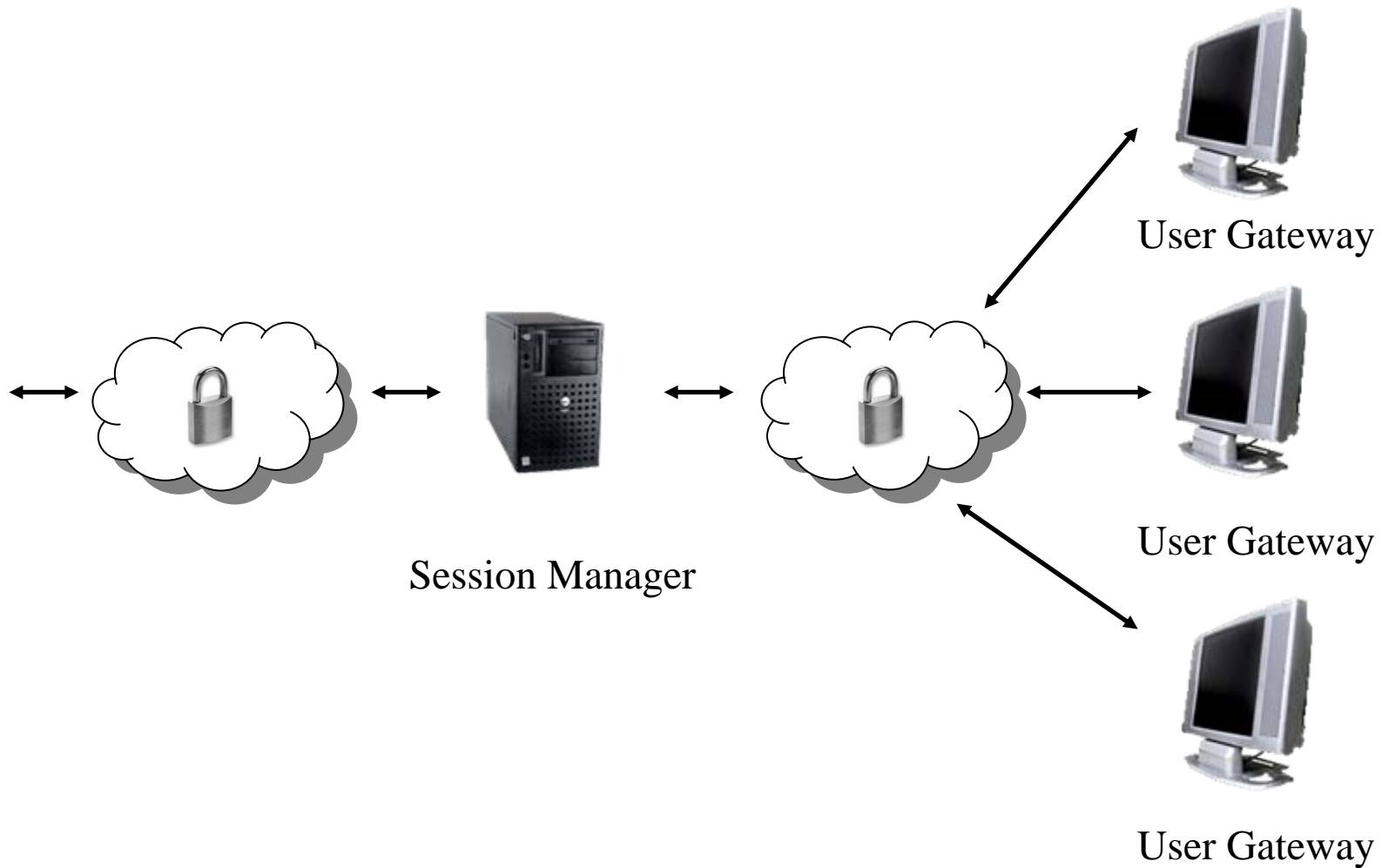




# Televisit Platform



Clinician



## Televisit Platform

- The Televisit system brings increased access to specialized healthcare services into the patient's home and/or local community health center.
- Patients in remote settings are able to remain at home, thus avoiding expense, travel, and social isolation to stay in a distant hospital.



## Televisit Platform

- The Televisit system is a bi-directional communications and clinical data collection platform that enables healthcare professionals to conduct remote medical check-ups on patients who have limited mobility or live in remote locations
- The platform integrates clinical data management and scheduling software, videoconferencing capabilities and remote medical device data connectivity
- Televisit 100 has been configured for:
  - Homecare patients suffering from respiratory failure
  - Elderly patients with loss of independence

# Televisit 100 for Home Ventilation

## PNAVD Background

### PNAVD Program:

- National program that provides specialized services to ventilator-assisted outpatients (adult and pediatric) across Quebec
- Based at the McGill University Health Centre (MUHC), Montreal

### Goal:

- Empower patients, their families and local community health centers with knowledge and tools to help patients in remote settings to remain at home

### Why PNAVD Chose Televisit:

- Improved delivery model for ultra-specialized services
- Increase access without increasing costs
- Empower physically fragile patients with limited mobility
- Reduce number of on-site visits
- Lower utilization of inpatient hospital and clinician services
- Improved management of clinician time
- Increase access of services to new patients



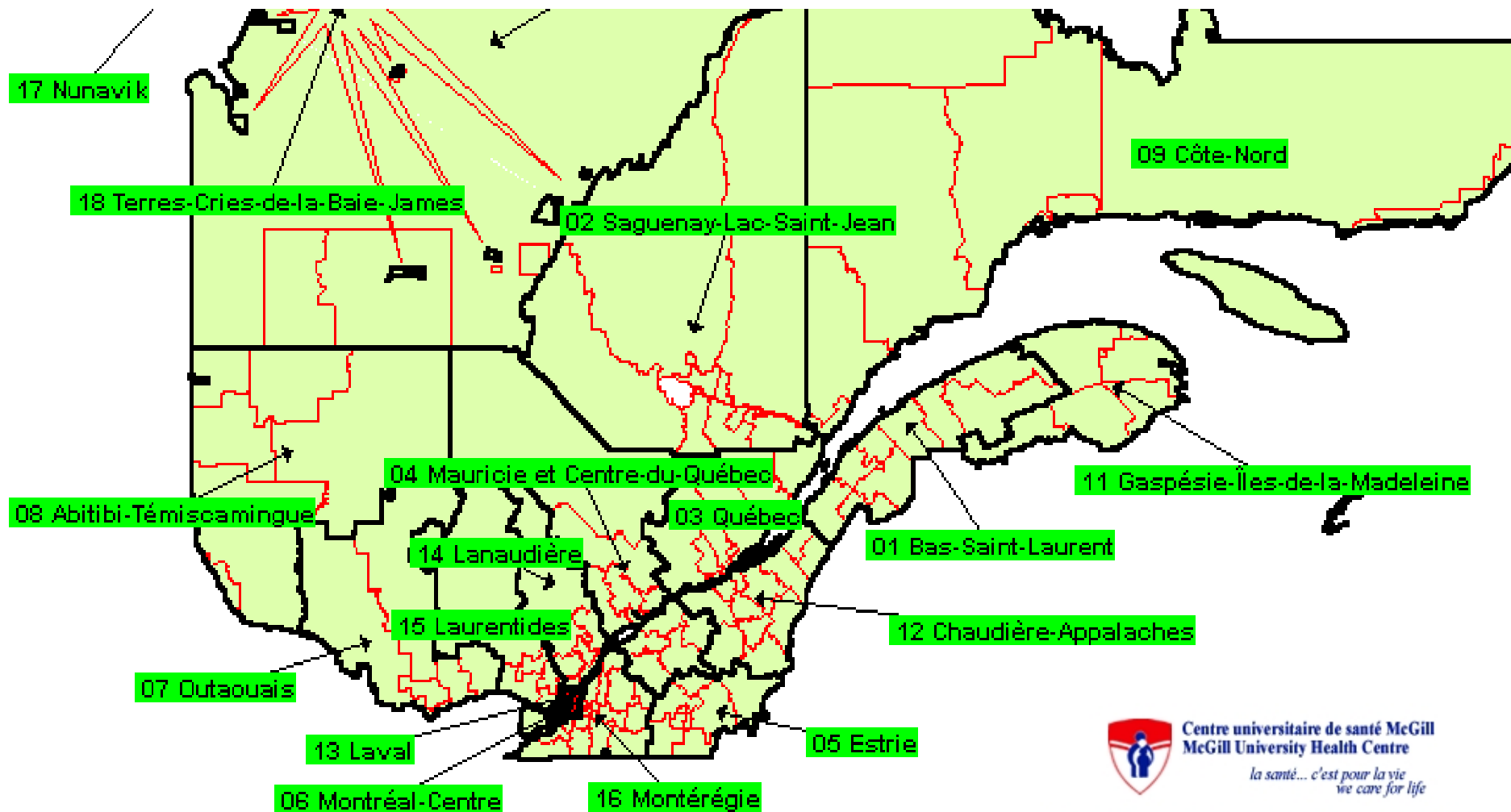
Centre universitaire de santé McGill  
McGill University Health Centre

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we care for life*

**Projet télé visites PNAVD du CUSM**

# Televisit 100 for Home Ventilation

## Patient Population in Quebec



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Projet télé visites PNAVD du CUSM

# Televisit 100 for Home Ventilation

## Project History and Status

- Project development initiated by MUHC/PNAVD in fall 2003
- Final project plan submitted in fall 2005
- Jointly funded by provincial and federal health ministries, McGill University, and private benefactors
- All home ventilated patients in Quebec will have a Televisit terminal
  - 158 patients currently on home-ventilation
  - 100+ additional patients on waiting list
- Allowing one tertiary care facility to manage remote patients across an area over 2 x the size of Texas
- First units to be deployed in January 2006



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**Projet télé visites PNAVD du CUSM**

# Televisit 100 Components

PHD Medical - TEST CLINICIAN Home Search My Info Help Logout

Patient Details		New Appointment	
Medicare Number: 12345	Name: M Eric Wrazen	Address: 500 Morgan	Date: <input type="text" value="4/13"/>
Birthdate: 1964-01-01	Phone: 514-694-0367	Caregiver: Docteur Brouillette	Time: <input type="text" value="14:00"/>
Email: eric.wrazen@phdmedical.com	Primary Physician: Mark	Language: FR	Duration: <input type="text" value="15 (minutes)"/>
			Clinician: <input type="text" value=""/>
		<input type="button" value="Create"/>	

Scheduled Appointments					
Edit	Date	Time	Duration (mins)	Clinician	Status
No appointments have been scheduled					

Appointment History								
Details	Report	Date	Time	Clinician	Pulse (avg)	SpO2 (avg)	Temperature	Blood Pressure
		2005-4-13	10:00	Clinician, Test	67.639	96.617	35.2	132 / 78
		2005-4-13	09:30	Clinician, Test	0	0	0	0 / 0
		2005-4-12	16:30	Clinician, Test	50.529	93.829	0	147 / 84
		2005-4-5	11:30	Clinician, Test	60.89	81.225	0	0 / 0
		2005-4-4	12:00	Clinician, Test	65.68	95.59	35.7	161 / 88
		2005-4-4	10:00	Clinician, Test	65.407	96.322	35.9	142 / 90
		2005-4-1	10:30	Clinician, Test	0	0	36.1	0 / 0
		2005-4-1	10:00	Clinician, Test	0	0	35.4	0 / 0
		2005-4-1	09:30	Clinician, Test	61.714	93.235	35.8	0 / 0
		2005-3-24	15:00	Clinician, Test	67.77	97.509	36.9	124 / 74
		2005-3-24	11:00	Clinician, Test	63.419	95.738	0	129 / 75
		2005-3-24	11:00	Ghosh, Tanima	63.555	97.759	42.2	141 / 88
		2005-3-21	09:00	Clinician, Test	0	0	0	0 / 0

## Management Software



Clinician  
Terminal



Device Gateway



Patient  
Terminal

## Televisit 100 Terminals



### Clinician Terminal:

- Point and click control
- Multi-functional, integrates with existing technology
- No IT skills required

### Patient Terminal:

- Integrated medical devices
- Focus on interaction with clinician
- No medical or technical skill required





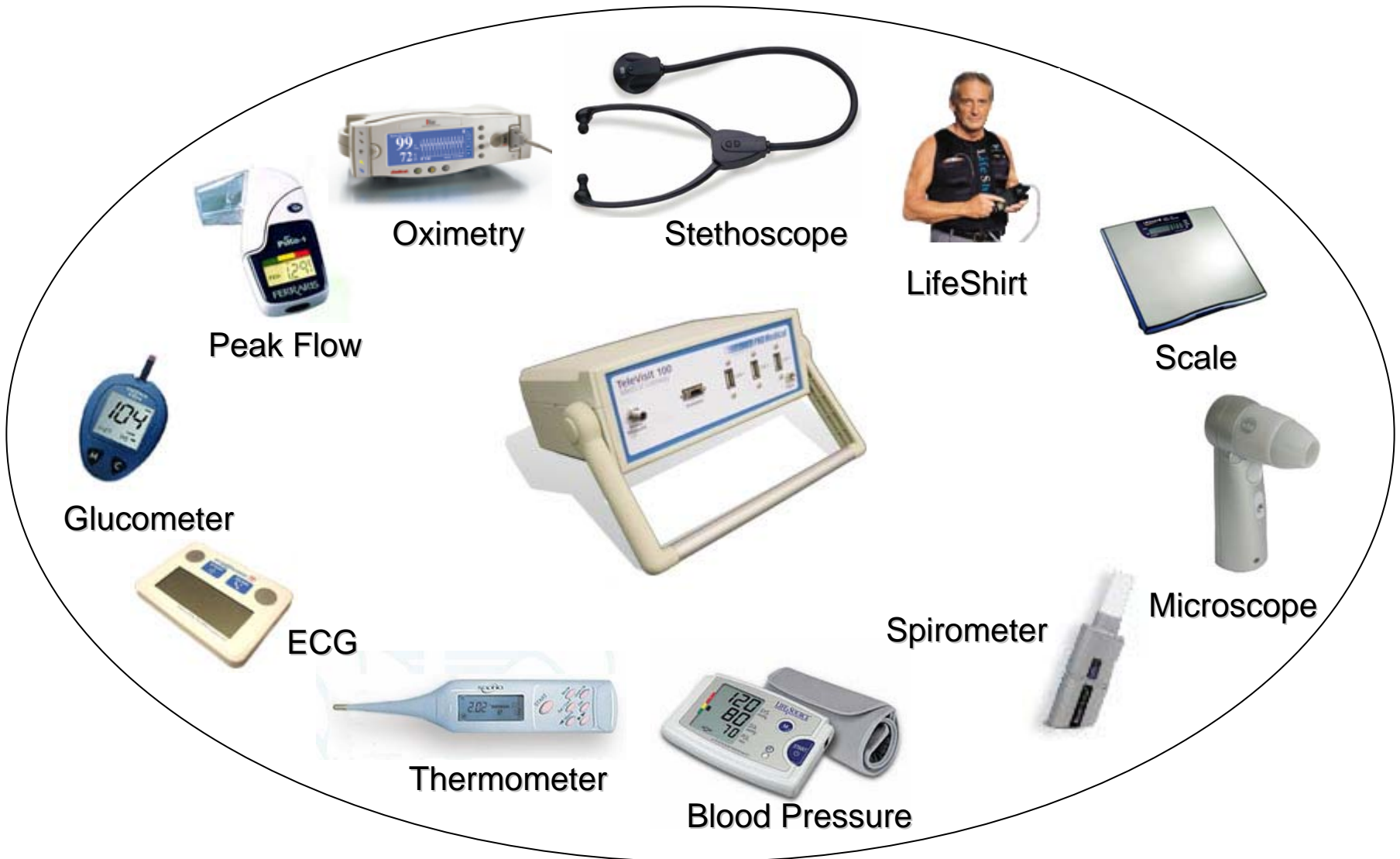
# Medical Device Gateway



- Point of contact between clinician and patient (clinician controlled)
- Integrated devices
  - Blood Pressure, Pulse Oximetry
- External devices
  - Stethoscope, Microscope, Thermometer
- Realtime clinical data transfer
- Self-managed troubleshooting
- Flexible design - accepts data from clinical devices with digital output (RS-232, USB)



# Medical Device Gateway



# Televisit Management Software

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Page d'accueil Recherche Mon dossier Aide Quitter

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Projet télé visites PNAVD du CUSM

Grille d'horaire pour les deux prochaines semaines

Patient	Clinicien	Date / Heure	État
Patient, Test	Clinician, Test	2005-5-11 10:30	✓
Patient, Test	Clinician, Test	2005-5-12 15:00	✓
Patient, Test	Clinician, Test	2005-5-25 09:00	✓

Calendrier des rendez-vous

Dim Lun Mar Mer Jeu Ven Sam

1 2 3 4 5 6 7

8 9 10 11 12 13 14

15 16 17 18 19 20 21

22 23 24 25 26 27 28

29 30 31

Aujourd'hui

PHD Medical

Home Search My Info Help Logout

Patient Details

Medicare Number: 12345

Name: M Eric Wrazen

Birthday: 1964-01-01

Phone: 514-694-0367

Email: eric.wrazen@phdmedical.com

Address: 500 Morgan

Caregiver: Docteur Brouillette

Primary Physician: Mark

Language: FR

New Appointment

Date:

Time:

Duration:  (minutes)

Clinician:

Create

Scheduled Appointments

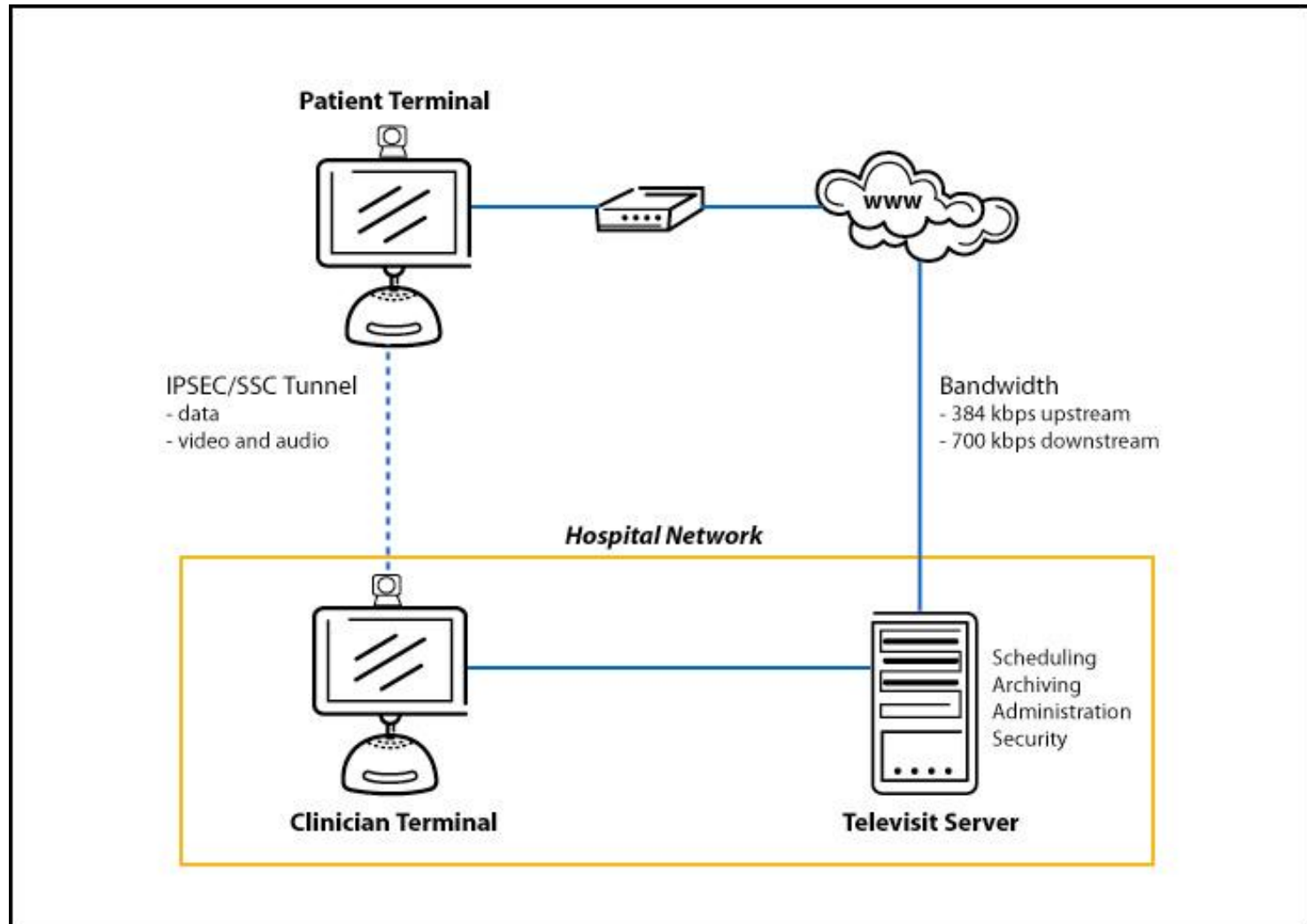
Edit	Date	Time	Duration (mins)	Clinician	Status	Action
No appointments have been scheduled						

Appointment History

Details	Report	Date	Time	Clinician	Pulse (avg)	SpO2 (avg)	Temperature	Blood Pressure
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✓	✓	2005-3-21	09:00	Clinician, Test	0	0	0	0 / 0

- Realtime interaction with remote patients
- Clinical data streamed realtime and saved in patient history
- Multiple types of data formats in patient history (images, audio, text)
- Full appointment calendar and scheduler
- Integrates with existing eHealth records systems
- Multi-lingual interface
- Manage users, terminals, and clinics without IT skills

# Televisit Network Structure



# Televisit Network / Administration

## Network Structure

- Open architecture
  - configurable and scalable: allows for rapid expansion
- Integrates with the existing communications infrastructure
- Secure environment: all data is encrypted with IPSEC or SSL
- Designed to comply to HL7 standards

## System Administration

- Once configured, no IT skills required to manage the Televisit network:
  - Create and manage user and clinic profiles
  - Assign, re-assign and monitor terminals remotely
  - Troubleshoot terminals remotely

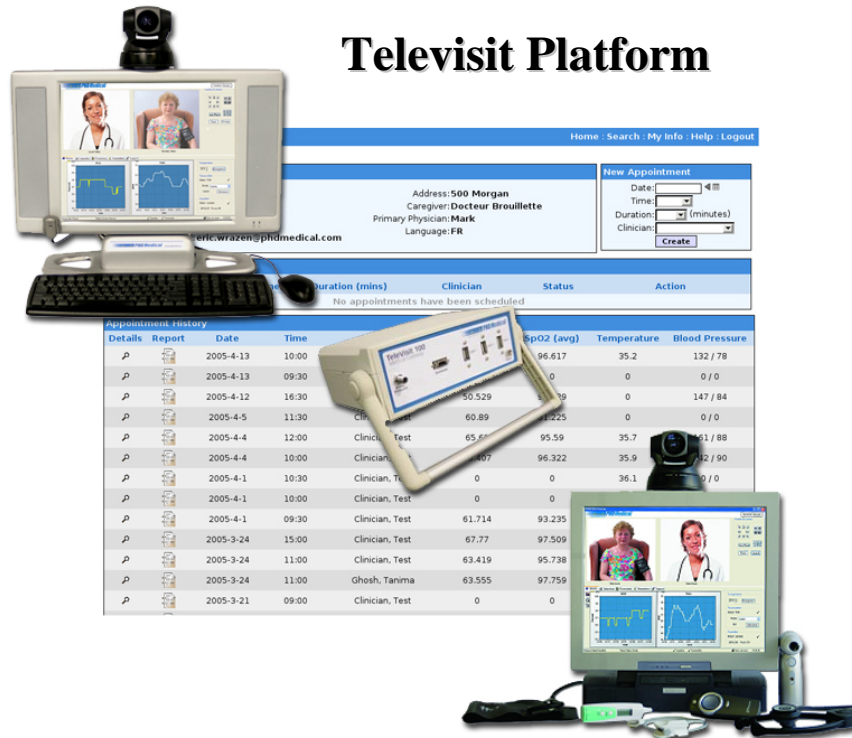
## HealthCare Institutions

- Effectively manage remote outpatients
- Improved delivery of care
- Facilitate timely health interventions
- Streamlined Communications
- Flexible, scalable and secure



## Televisit Advantages and Benefits

### Televisit Platform



Address: 500 Morgan  
Carrier: Docteur Brouillette  
Primary Physician: Mark  
Language: FR

New Appointment  
Date:   
Time:   
Duration:  (minutes)  
Clinician:

Duration (mins)	Clinician	Status	Action
No appointments have been scheduled			

Details	Report	Date	Time	SpO2 (avg)	Temperature	Blood Pressure
P		2005-4-13	10:00	96.617	35.2	132 / 78
P		2005-4-13	09:30	0	0	0 / 0
P		2005-4-12	16:30	95.529	36.1	147 / 84
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P		2005-4-4	10:00	96.207	35.9	92 / 90
P		2005-4-1	10:30	0	0	36.1
P		2005-4-1	10:00	0	0	
P		2005-4-1	09:30	61.714	93.235	
P		2005-3-24	15:00	67.77	97.509	
P		2005-3-24	11:00	63.419	95.738	
P		2005-3-24	11:00	63.555	97.759	
P		2005-3-21	09:00	0	0	

## Remote Locations

- Ease of use
- Increased access to specialized services
- Improved communication with health professionals
- Improved quality of care
- Improved quality of life





# Televisit™ 100

## Questions and Answers