DCD
TELEPRESENCE NETWORK SOLUTIONS
FOR HEALTHCARE & MEDICAL SERVICES

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www.dcduganda.com

DCD VALUE PROPOSITION

THE DIFFERENCE WE MAKE is….

- **AVAILABILITY**
  - Narrow the "medical specialist demand gaps" and
  - Reduce distance between the patient and Point of Service

- **ACCESSIBILITY**
  - Boost Customer Service Portfolio with TelePresence, Tele-Medicine and Tel-Health Care Services
  - Achieve cost effective and efficient communication through VOIP Networks

- **AFFORDABILITY**
  - Cut, reduce and eliminate time wastage and distance costs - for Patients,
  - Generate cost savings opportunities on Medical and Health Care Networks Operations,
  - Create self-financing possibilities through Tele-presence infrastructure sharing.

- **RELIABILITY**
  - Increase service quality through remote access to highly skilled resources and professional expertise.
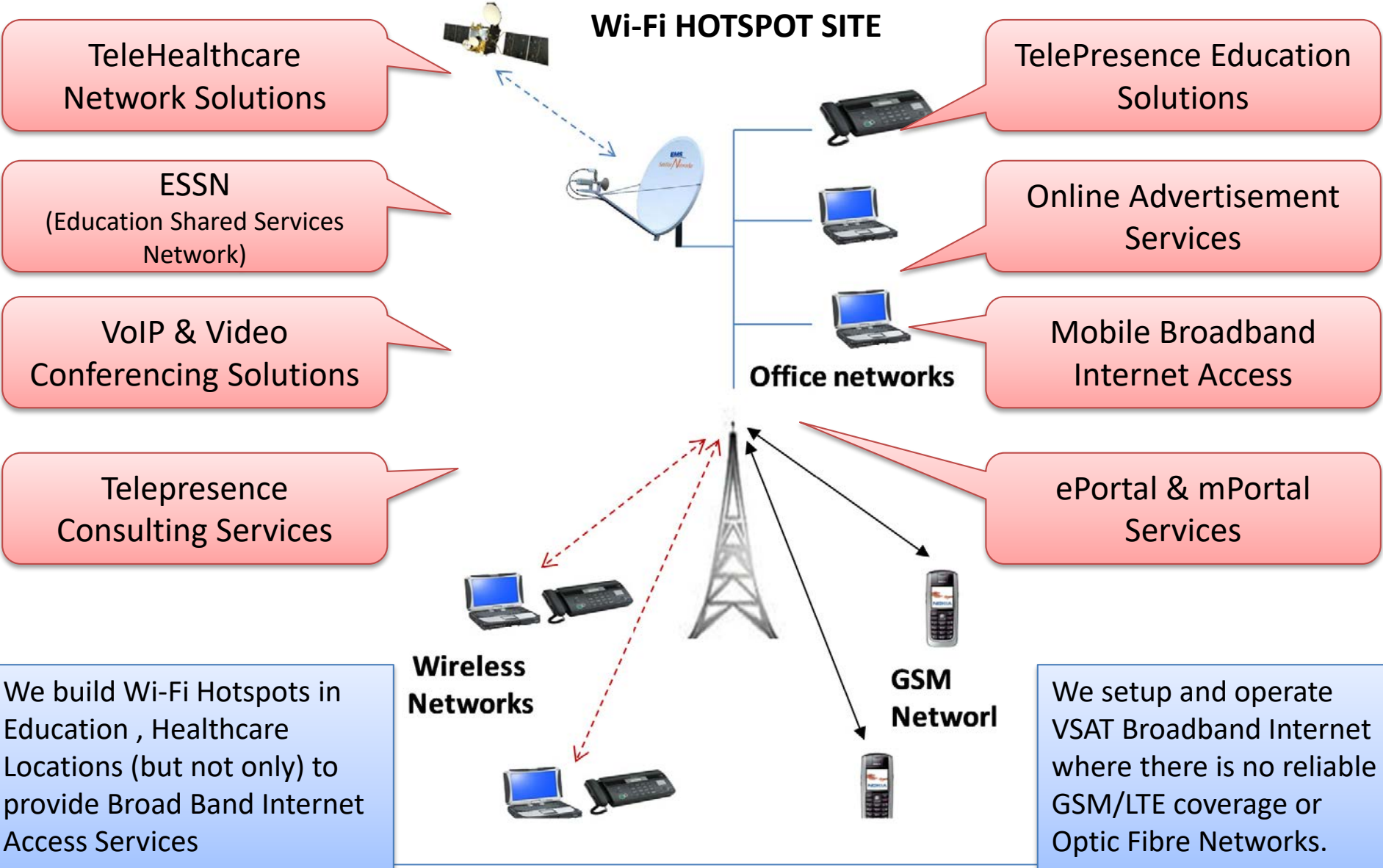
- **MANAGEABILITY**
  - Online real-time management infrastructure for evolving Virtual Medical Teams of Experts and Consultants,
  - Online real-time management infrastructure for Data Privacy, Security and Recovery

- **SUSTAINABILITY**
  - Open low-cost opportunities for sharing knowledge and expertise; both locally and globally,
  - Develop adequate learning and medical competence development environments,
  - Increase financial independence possibilities, e.g. through trading in Tele-Presence redundancies,
  - Achieve and manage customer Loyalty through excellent patient experience and satisfaction

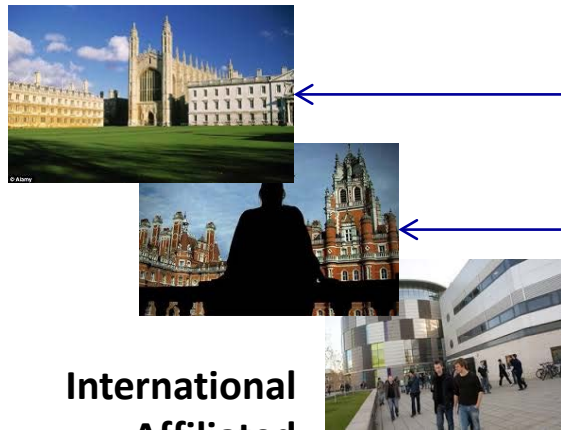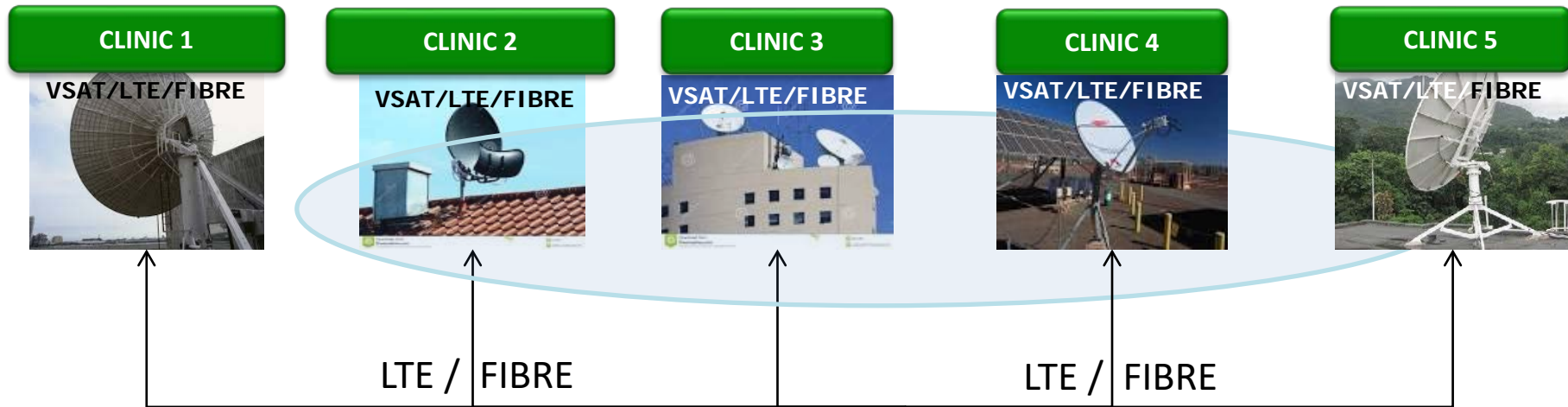# TELEPRESENCE NETWORK SOLUTIONS & SERVICES

TELEPRESENCE NETWORK SOLUTIONS & SERVICES

Wi-Fi HOTSPOT SITE

TeleHealthcare Network Solutions

TelePresence Education Solutions

ESSN
(Education Shared Services Network)

Online Advertisement Services

VoIP & Video Conferencing Solutions

Office networks

Mobile Broadband Internet Access

Telepresence Consulting Services

ePortal & mPortal Services
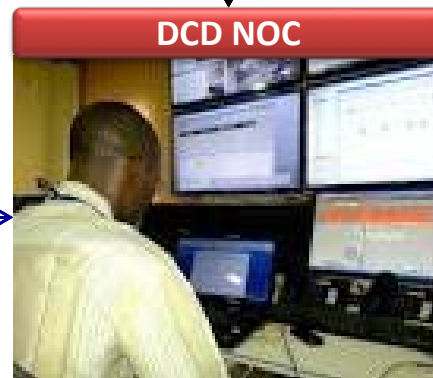
Wireless Networks

GSM Networl

We build Wi-Fi Hotspots in Education , Healthcare Locations (but not only) to provide Broad Band Internet Access Services

We setup and operate VSAT Broadband Internet where there is no reliable GSM/LTE coverage or Optic Fibre Networks.

HEALTHCARE VIRTUAL PRIVATE NETWORKS (HVPN)

CLINIC 1

VSAT/LTE/FIBRE

CLINIC 2

VSAT/LTE/FIBRE

CLINIC 3

VSAT/LTE/FIBRE

CLINIC 4

VSAT/LTE/FIBRE

CLINIC 5

VSAT/LTE/FIBRE

LTE / FIBRE   LTE / FIBRE

International Affiliated Institutions

DCD NOC

DCD implements VSAT (Satellite) Solutions only in locations where there is either poor or no GSM or LTE or Fibre Optic Network Coverage.

DCD PARTNER NETWORK OPERATIONS CENTRE (NOC)

DCD NOC

OPERATED BY PARTNER

- 24/7 Network Operations & Maintenance,
- Technical Helpdesk Support Services during working hours,
- Solving Network Site Problems Remotely,
- Network Traffic Planning and Optimization,
- System SW updates for Network Systems and Platforms,
- Network System User-Configurations,
- Service Charging System Management,
- Network Expansion and Migration,
- Network Preventive Maintenance,
- Network Upgrades Planning & Rollout,
- Supervising field Engineers remotely,
- Hardware spare part management,
- Multi-Vendor Support and Management,
- Network Rollout Project Management,
- Network Performance Improvement and Management,
- Contract Management: Billing and Payments,
- Customer Relationship Management,
- Business Performance Management Support.

DCD CUSTOMER RELATIONSHIP MANAGENT SYSTEM

Access Media

DCD Call Centre

mPortal

Web ePortal

Web Self-Care

Email

Web

Contract & Process Management

Billing / Payment Management	Educators DB Management
Content Management	Customer DB Management

Call Data Records (CDR) Management

CDR Collector	CDR Parser	Consolidator
CDR Analyzer	Logger	CDR Writer

Provisioning

Online Provisioning	Bulk / Single Provisioning	Multi-Network Node Integration to IN,HLR,VMS, AIR ,MMSC etc.
Sequencer	Mobile Number Portability	
Alarms	Logger	

Customer Care

Trouble Ticket Logging	Alerts / Reminders	
Scripts / Checklist	Subscriber Data Viewer	
Subscriber Maintenance	Access Control	Automatic Reporting
Workflows / Escalations	Broadcast / Ticker Tape	CTI Integration
Inbox	Bulk SMS/Email	VAS Integrator

Campaign Management

Subscriber Profiling	Campaign Creation
Campaign Execution	Subscriber Behavior Model
Promotion Delivery	Reports & MIS

CRM = CUSTOMER RELATIONSHIP MANAGEMENT
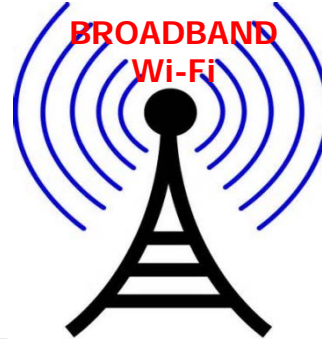
TELE-HEALTHCARE, TELE-MEDICINE & REMOTE CLINIC SERVICES

TELE-MEDICINE REMOTE SERVICES

Tele-Diagnosis & Examination

Medication & Drug Advise

On-Job Medical Field Training

BROADBAND Wi-Fi

Location: Local, National, International

Medical Doctor/Specialist working the Medical Nurse/Specialist in the Field (Remote Area)

Locations: Rural, Urban, Nationwide

Field Medical Nurse/Specialist working remotely with the Medical Doctor/Specialist

PORTABLE TELECLINIC SYSTEMS

- Transportable desktop telemedicine mobile case Wi-Fi solution; with integrated tablet PC, USB ports and can be customized with encounter management software and medical devices for a clinical exam.

- Recommended for disaster response teams, emergency medical services, in-home clinical visits, oil rigs, mining fields and mobile health clinics.
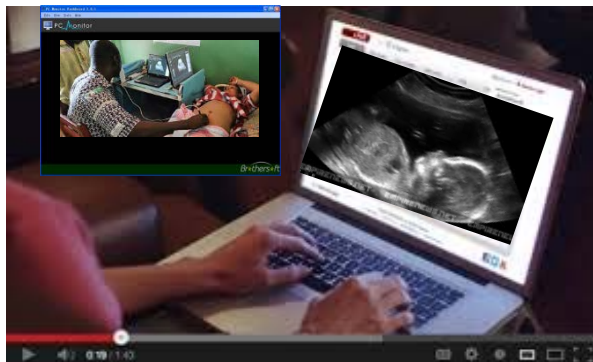
TELE-MEDICINE CLINIC SERVICES

Electronic prescription | **Medical & Drug Advise** | **On-Job Clinical Training** | **Remote Clinic Management**

BROADBAND
Wi-Fi

Location: Local, National, International

Medical Doctor/Specialist sited in the hospital and working the Medical Nurse in a Remote Clinic

Locations: Rural, Urban, Nationwide

Medical in a Remote Clinic working with the Medical Doctor located elsewhere
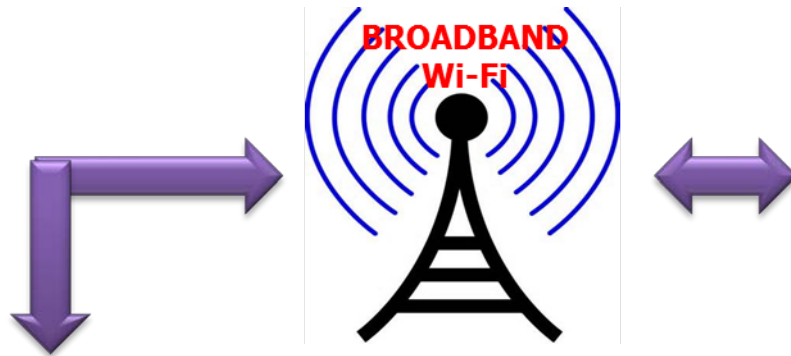
Telepresence Devices and TeleHealth Cart Systems

TELE-PHARMACY SERVICES

Electronic prescription   **Medical & Drug Advise**   **On-Job Pharmacy Training**   **Remote Management**

BROADBAND Wi-Fi

Location: Local, National, International

Medical Doctor/Specialist instructing Drug Specialists in a Remote Pharmacy Centre

Locations: Rural, Urban, Nationwide

Medical in a Remote Clinic working with the Medical Doctor/Specialist located elsewhere

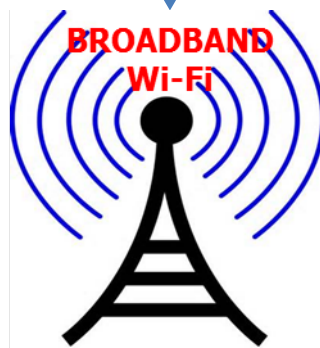**Unlimited number of Medical Doctors/Specialists anytime, anywhere can work with or Assist one Pharmacy**

TELEPRESENCE MOBILE CLINICS SERVICES

MDs in different locations

Mobile Clinics in Remote Areas

Medical Doctors sited in separate locations and working with medical Specialists in Mobile Clinics stationed in different remote areas
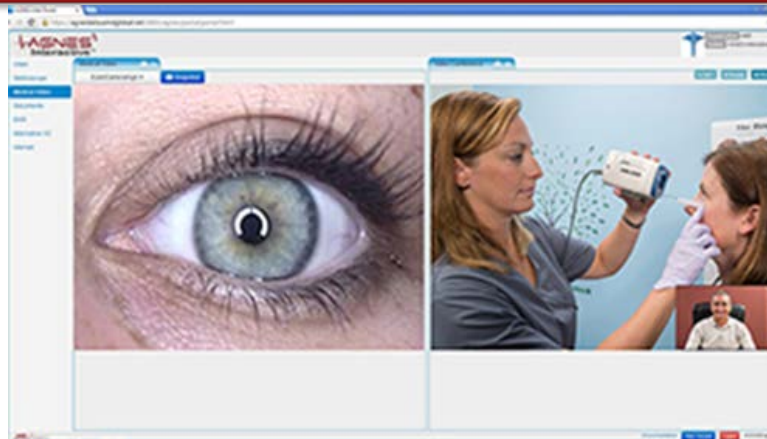
BROADBAND
Wi-Fi

Locations: Rural, Urban, Nationwide

TELEPRESENCE MANAGEMENT SYSTEM

A Collaborative Patient Assessment Tool for Clinical Telemedicine Exams

AGNES InteractiveTM is a web-based telemedicine software that enables remote clinical healthcare providers to capture and share medical device data, exchange documents and medical images in real-time, and participate in a live video conference - all in a single web-based workspace.

PRODUCT FEATURES

Delivers 100% Live Access to a Patient from Any Remote Location
- Transmission of all medical data is done in REAL-TIME and does not rely on any content sharing applications.

Provides Complete Physician Mobility
- Remote users have web-based access to exam site.

Captures Quality Medical Data
- Integrates with over 40 Medical Devices. Look for the AGNES-Ready icon on our each medical device product page.

Enables Live Video Conferencing
- Clinician and remote specialist can teleconference, using the point-to-point video module or the integrated.

Communicates Medical Data at Low Bandwidths
- Two simultaneous video streams as low as 512kbs and one stream from the medical video devices as low as 256kbs. Can also be configured for UDP and TCP.

TELEMEDICINE EQUIPMENT & DEVICES

DCD TELEHEALTH CARTS NETWORK SOLUTIONS AND SERVICES

CUSTOMER SITE LOCATIONS
- Nursing Homes And Health Care Centres
- Medical Clinics And Hospitals
- Mobile Clinics and Ambulance Services

MEDICAL SERVICES
- Tele-Nursing and Tele-Diagnosis
- Tele-Consultation and Tele-Monitoring
- Tele-Training and Tele-emergency

BENEFITS FOR PATIENTS
- Facilitates the availability, accessibility and affordability of Health Care,
- Enables Cost and Time Savings, by eliminating travel needs,
- Increases Quality of Service (QoS) to the Patient Through Consistent Care
- Facilitates the monitoring of chronic disease or on-going support care
- Guarantees, Health Care Continuity.

BENEFITS FOR MEDICAL SPECIALISTS
- Continuity in patient care in a timely manner,
- More efficient time management for consultations,
- Better communication between peers and support care for patients,
- Ability to run training programs for regional and remote nursing staff
- Facilitates Manageability and Sustainability of Affordable High QoS

EQUIPMENT PURCHASE AND SERVICE OPERATIONS
- Pricing Packages: Based on Customer Project Requirements and Needs
- Delivery from manufacturer to customer site: 6-8 weeks
- Installation, operation and maintenance: by DCD based on Customer SLA

TELE-MEDICINE AND TELE-NURSING SERVICES

TELE-MEDICINE SOLUTIONS AND SERVICES

- DCD develops strong strategic alliances with Telemedicine Solutions Vendors to provide services that can be extremely beneficial for people living in isolated communities and remote regions and is currently being applied in virtually all medical domains. Patients who live in such areas can be seen by a doctor or specialist, who can provide an accurate and complete examination, while the patient may not have to travel or wait the normal distances or times like those from conventional hospital or GP visits.

- The first Tele-medicine product solutions we launch during the pilot project are: a) Telehealth carts, b) Patient-Physician Interaction Systems (PPIS) and many more to follow.

TELE-NURSING SOLUTIONS AND SERVICES

- DCD provides TeleHealth Carts applicable in Tele-Nursing, which refers to the use of telecommunications and information technology in order to provide nursing services in health care whenever a large physical distance exists between patient and nurse, or between any number of nurses. Tele-Nursing is part of Telehealth, and has many points of contacts with other medical and non-medical applications, such as Tele-Diagnosis, Tele-Consultation, Tele-Monitoring, etc..
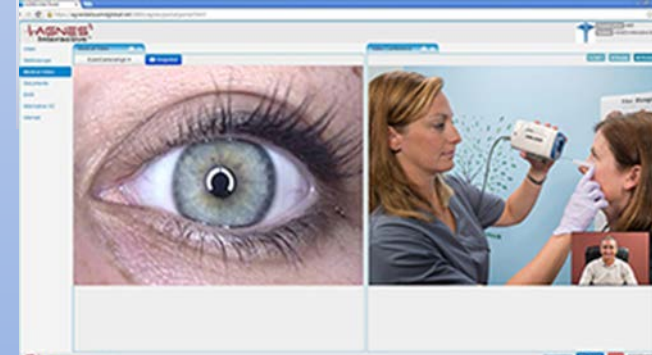
TELE-PHARMACY AND PPIS SERVICES

TELE-PHARMACY SERVICES

- DCD will form strong strategic alliances with Tele-Pharmacy Vendors who are shaping the growing trend for providing pharmaceutical care to patients at remote locations where they may not have physical contact with pharmacists. This encompasses drug therapy monitoring, patient counselling, prior authorization, refill authorization, monitoring formulary compliance with the aid of teleconferencing or videoconferencing. In addition, video-conferencing is vastly utilized in pharmacy for other purposes, such as providing education, training, and performing several management functions.

PATIENT-PHYSICIAN INTERACTION SYSTEMS (PPIS) SERVICES

- DCD develops and tests the PPIS solutions during the customer pilot projects. The main objective is to develop and interaction system platform with:

  - Multiple options for Patients to interact with specialists from different disciplines (medical, dieticians, counsellors, etc.) anytime and anywhere (locally and beyond borders), and

  - Real-time access (for specialists) to valid and reliable patient medical data / info, required to work out solutions, advice info packages and recommendations.

- Overall, the interaction systems work in wireless internet environment and user portal applications that can/will run on PCs, laptops, wireless handsets and devices.

DCD TELEMEDICINE SYSTEMS & DEVICES

PRODUCT	DIAGNOSIS /EXAMINATION USAGE
1. General Examination Camera	1. Remote multi-purpose patient examination.
2. Dental Examination Camera	2. Capture images of intraoral structures and teeth.
3. ENT Otoscope	3. Full range of ear, nose and throat examinations.
4. Dermascope	4. Visual observation of the epidermis.
5. Ophthalmoscope	5. Closely examine a patient's inner eye.
6. Naso-Pharyngoscope	6. Upper airway from the nasal passage to the vocal cords
7. Laparoscope	7. Light up and magnify the structures inside the abdomen
8. Sinuscope	8. Examine nasal and sinus passages
9. Camera & Illumination System	9. Capture quality digital image for examination and evaluation
10. Digital Video Colposcope	10. Clinical examinations of the cervix, vulva and vagina
11. Telephonic Stethoscope	11. Listen to the patient's heart/lung sounds at the same time
12. Littmann Electronic Stethoscope	12. Capture auscultation sounds, unique heart and lung sounds
13. Vital Signs Monitor	13. To capture and document patient vital signs
14. 12-Lead Digital ECG I	14. PC-based resting electrocardiograph system
15. ECG Glove	15. A replacement for conventional 12-lead ECG devices
16. Digital Spirometer I	16. Quickly evaluate respiratory issues
17. Digital Holter Monitoring System II	17. Capture infrequent or activity-provoked ECG rhythm abnormalities
18. Non-Mydriatic Retinal Camera	18. Capture images of the retina and the anterior segment of the eye
19. Abdominal USB Ultrasound Probe	19. Perfect for OB, GYN or other internal examinations
20. Vascular USB Ultrasound Probe	20. Images of the superficial areas of soft tissue, arteries & veins
21. Trans-Vaginal USB Ultrasound Probe	21. Examine to evaluate abnormal bleeding, pain, tumors or infections
22. Other	*22. Contact DETN if what is needed is not on this list*

HEALTHCARE DISTANCE EDUCATION

&

ON-JOB TRAINING FOR NURSES AND MEDICAL SPECIALISTS

HEALTHCARE DISTANCE EDUCATION: (SCENARIO 1/3)
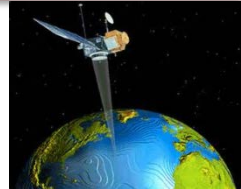
SERVICE PROVIDER
MEDICAL SUPERVISOR, MEDICAL TRAINER, MENTOR, TUTOR

ACCESS
➡ **SMARTPHONE**
➡ **TABLET**
➡ **LAPTOP**
➡ **PC**

SERVICES
▪ **TEACHING**
▪ **COACHING**
▪ **TUTORING**
▪ **TRAINING**

BROADBAND Wi-Fi

DCD
▪ **NETWORK OPERATIONS 24/7**
▪ **TRANSACTION BILLING**
▪ **CONTENT MANGEMENT**
▪ **CRM (CUSTOMER RELATIONSHIP MGT)**
▪ **CONTRACT MGT**

CUSTOMER
NURSE, MEDICAL SPECIALIST

ACCESS
➡ **SPHONE**
➡ **TABLET**
➡ **LAPTOP**
➡ **PC**

HEALTHCARE DISTANCE EDUCATION (SCENARIO 2/3)

SERVICE PROVIDER
**MEDICAL TRAINER
COACH, MENTOR, CONSULTANT**

SERVICES
- **DISTANCE TEACHING**
- **DISTANCE TUTORING**

BROADBAND Wi-Fi
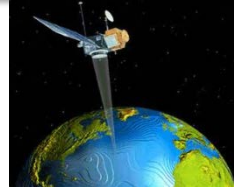
CUSTOMER
PRIVATE CLASS OF NURSES, OR MED SPECIALISTS

DCD
- **NETWORK OPERATIONS 24/7**
- **TRANSACTION BILLING**
- **CONTENT MANGEMENT**
- **CRM (CUSTOMER RELATIONSHIP MGT)**
- **CONTRACT MGT**

ACCESS
➡ **SMARTPHONE**
➡ **TABLET**
➡ **LAPTOP**
➡ **PC**

HEALTHCARE DISTANCE EDUCATION (SCENARIO 3/3)

SERVICE PROVIDER
TEACHER, LECTURER

SERVICES
- **DISTANCE TEACHING**
- **DISTANCE TRAING**

BROADBAND Wi-Fi
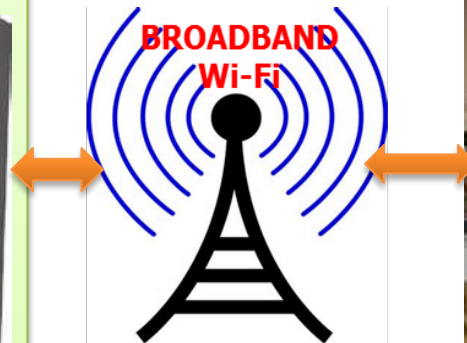
CUSTOMER
SCHOOL
UNIVERSITY
TRAINING CENTRE

ACCESS
➡ **SMARTPHONE**
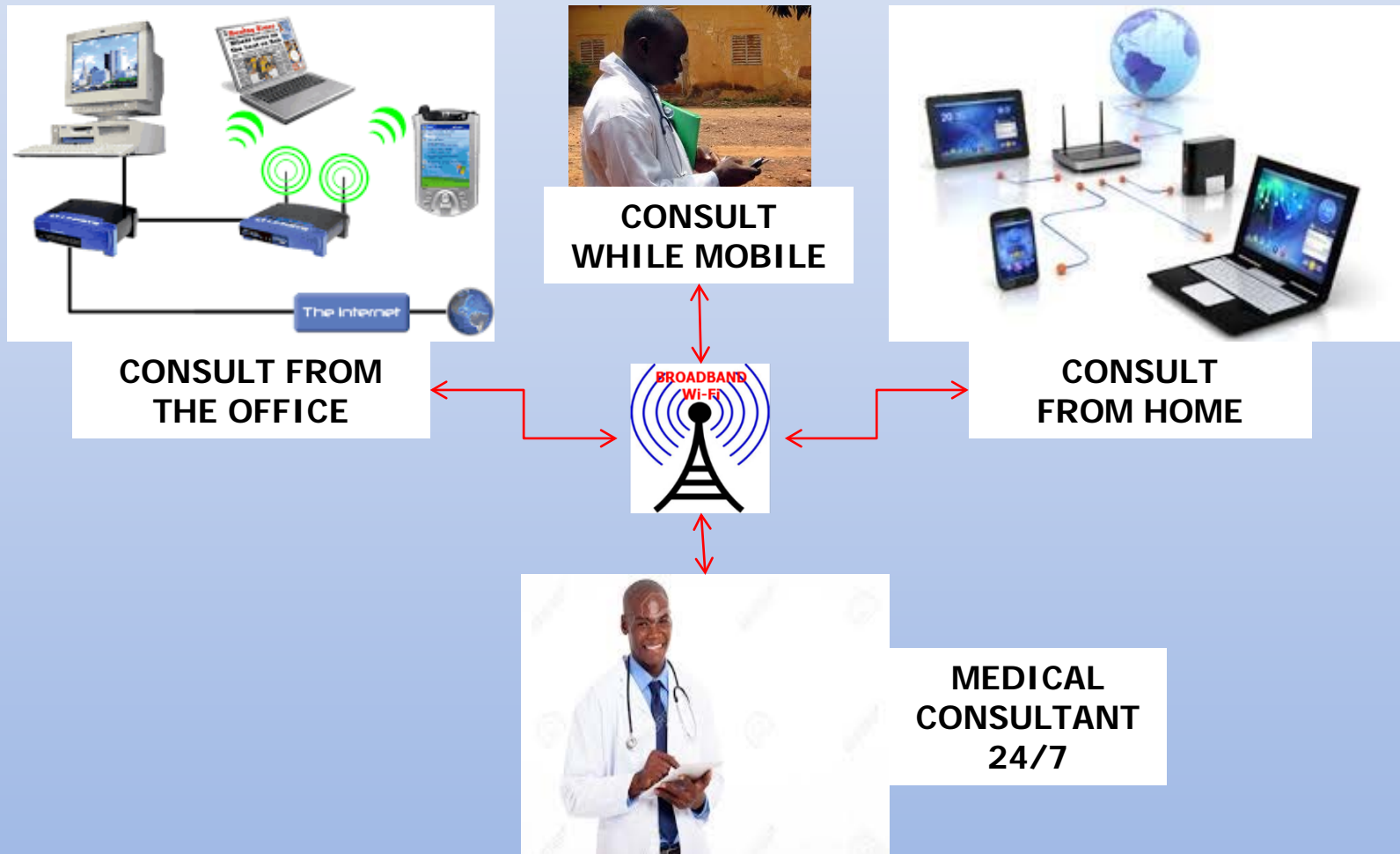➡ **TABLET**
➡ **LAPTOP**
➡ **PC**

DCD
- **NETWORK OPERATIONS 24/7**
- **TRANSACTION BILLING**
- **CONTENT MANGEMENT**
- **CRM & CONTRACT MGT**

ONLINE TELEPRESENCE MEDICAL & HEALTHCARE SERVICES

ONLINE HEALTHCARE & MEDICAL CONSULTING SERVICES

PPIS NETWORK

CONSULT WHILE MOBILE

CONSULT FROM THE OFFICE

CONSULT FROM HOME

MEDICAL CONSULTANT 24/7

PPIS = PATIENT-PHYSICIAN INTERACTIVE SERVICES

PPIS MENU SCREEN FOR PATIENTS

PPIS MENU SCREEN FOR MEDICAL SPECIALISTS

MEDICAL SPECIALIST PORTAL

DETN◉PPIS

ONLINE PATIENT CONSULTING SERVICES

Logged in: John Smith

Logout

Home > Patient Data > John Smith > Blood Test

| Blood Tests |
| Urine Tests |
| Blood Pressure |
| Cholesterol Levels |
| Body Weight Measurements |
| Blood Pressure Measurements |

Description

Result

Date   2015.05.01

Type

save

| My SMS Patients |
| My Email Patients |
| Patient Experience Analysis |
| Benchmarking Reports |
| Specialist Reference Database |
| Best Practises |
| Specialist Consult |
| Medicines |
| Specialist Forums |
| Knowledge Database FAQ & ONLINE HELP |

PPIS OPPORTUNITIES FOR HEALTHCARE CUSTOMERS & PATIENTS

- Access to multiple choices of Medical Specialists, Dieticians, Counsellors, etc.,

- Consultations with Medical Specialists anytime, anywhere,

- Routine test data management capabilities, mainly for Patients with long-term sickness, e.g. Diabetes,

- Preparedness for appointments (telephone, on-site, regular clinic visits, etc.),

- Saving time and cost through effective usage of remote communication,

- Proactive cost planning and travel expenses control,

- Personal Health Management driven by:
  - ➤ Real-time medical specialist advice,
  - ➤ Access to best practices through knowledge database and medical consulting,
 - ➤ Real-Time Value added Performance Feedback.

PPIS OPPORTUNITIES FOR MEDICAL SPECIALISTS

- Be in touch with their Customers/Patients, anytime, anywhere;

- Be better prepared to provide effective solutions – by having on-line and timely patient data input;

- Be able to provide patients with prompt advice and recommendations to improve, in a timely manner;

- Conduct proactive recovery patient data analysis and performance bench-marking, in order to advise Patients more precisely, timely and effectively,

- Have the ability to foresee the Patients' dangers and risks from side effects through real-time online communication and take preventive actions,

- Identify and bench-mark best practises in perspectives like:
  - ➢ Patient Personal health management analysis and advice,
  - ➢ Medication effectiveness,
  - ➢ Patient health & learning curves,
  - ➢ Learning from other specialists,
  - ➢ Performance management analysis.

PPIS OPPORTUNITIES FOR HEALTHCARE MANAGEMENT
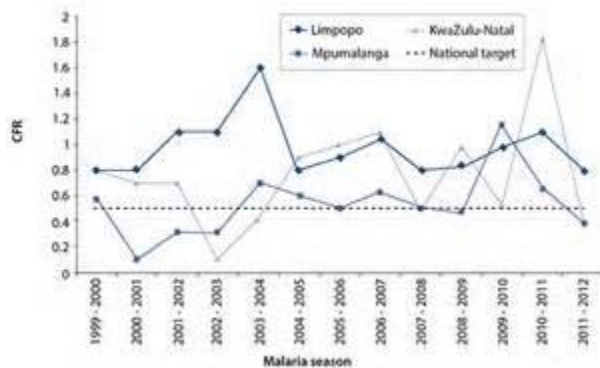
- Increase access to 24/7 high quality medical care in the region;
- Reduce on the cost of medical claims and Patient's waiting time;
- Create opportunities for broader medical consultations, both locally and globally;
- Effective resource optimisation and patient case prioritisation management;
- More patient cases handled with less resources,
- Increase in productivity and service quality, cost effectively;
- Improve on queue management by reducing waiting time in short queues;
- Better personnel preparedness and competence;

- Management by KPIs and constant improvements;
- Performance bench-marking: e.g. "Clinician – Clinician", "Clinic – Clinic", SP – SP (Service Provider)"I, etc.

CUSTOMER PROJECT FINANCING & BENEFITS FOR HEALTHCARE AND MEDICAL ORGANISATIONS

CUSTOMER PROJECT FINANCING OPTIONS

Telepresence Services (Domestic)

OWN CONSUMPTION

CUSTOMER
Education and Healthcare Organizations

Telepresence Value Added Services (Sales Revenue)

MARKET SALES

Telepresence Solutions & Service Delivery

Loan/Lease/Invest Payback

BUSINESS & PROJECT PLANS

DCD
TELEPRESENCE NETWORK SOLUTIONS & SERVICES

Telepresence Solutions & Equipment Payment

BANKS INVESTORS SPONSORS

- Shared Services Network Solutions,
- Rural Wi-Fi Broadband Internet Solutions,
- Multimedia Classrooms & Lecture Halls,
- Collaborate Teaching & Learning Platform,
- Telepresence Network & Consulting Services
- Business Management Consulting Services

- Customer Loans
- Purchase on Lease Options
- Investment Options
- Letter of Credit Services
- Asset Financing Services
- Investments
- Other Special Arrangements (BABA, UPEF)

PROCEDURE FOR FINANCING

- **Prepare a Business Plan for Telepresence deployment in the School or University Premise,**

- **Setup a Pilot Project Specification Plan based on the Business Financial Plan,**

- **Present both the Business Financial and Pilot Project Plans to Financers,**

- **Get the funding in place for pilot project rollout,**

- **Implement (Roll-Out) the Pilot Project as planned,**

- **Conduct Risk Evaluation and Assessment based on the Pilot Project,**

- **Review both the Business Financial Plan and the Project Specification Plan,**

- **Make decisions for further project activities on a larger scale,**

- **Consider separate plans for accommodation, gastronomic services and leisure & tourism services you review business and project plans.**

DCD-CUSTOMER PARTNERSHIP VALUES
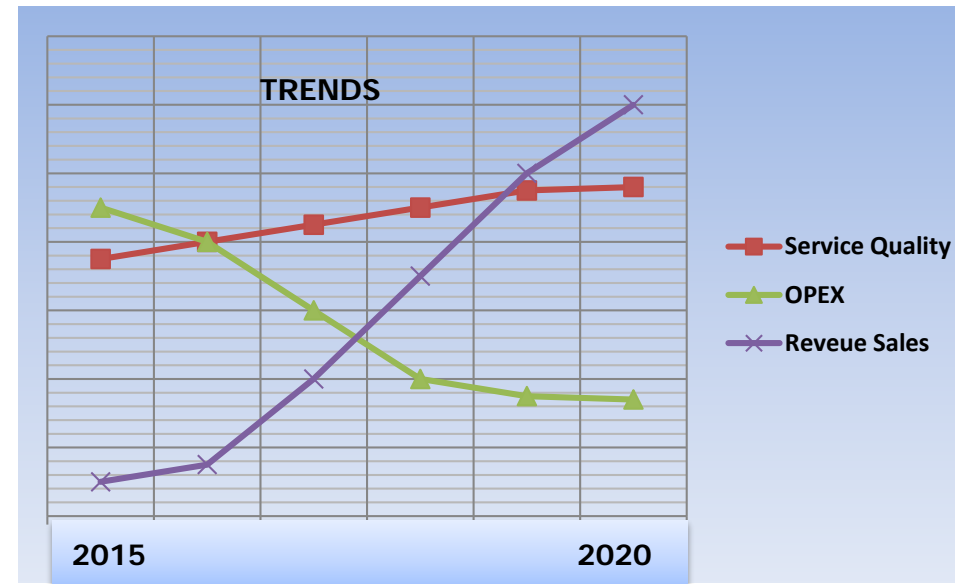
CUSTOMER + DCD

=

Better   & Affordable Education
Shared Service Quality
plus
More Self Financing & Economic
Independence Opportunities
at
Minimum Investments &
Less Operating Expenses

TRENDS

- ■ Service Quality
- ▲ OPEX
- ✕ Reveue Sales

2015   2020

DCD 3ARMS BUSINESS MODEL
"...DCD Telepresence Solutions and Services are designed to enhance High Quality of: Availability, Accessibility, Affordability, Reliability, Manageability and Suitability (3ARMS) of Service Delivery in Education and Healthcare..."

THANK YOU!

FOR MORE INFO, CONTACT:
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