ENGINEERING
CONNECTED HEALTHCARE

FOR BETTER ACCESS, EFFICACY AND OUTCOME

TRENDS IMPACTING THE HEALTHCARE INDUSTRY

Shift from **Fee-For-Service to Value-Based Care**

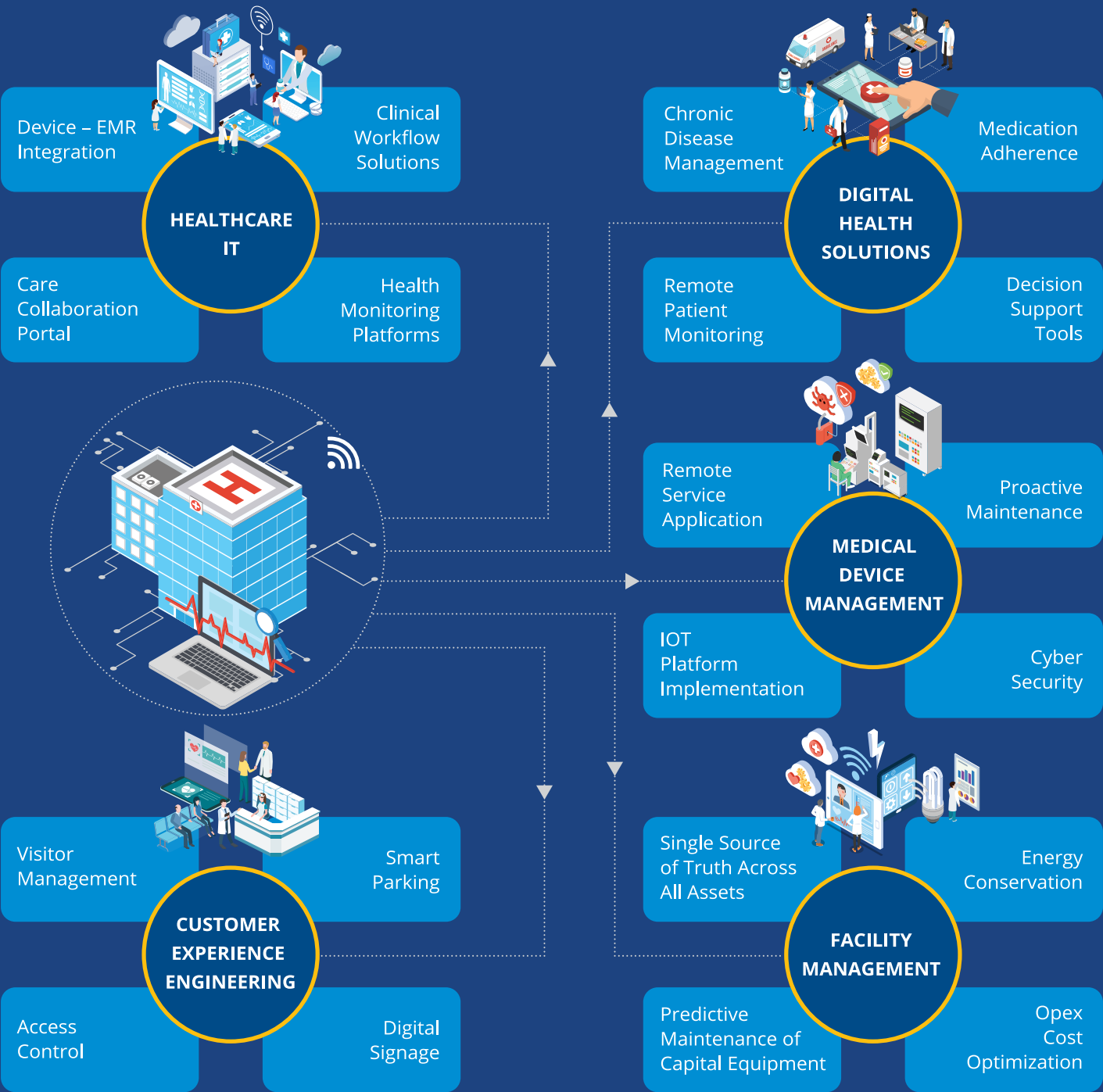**Enhancing customer experience**, a high priority

Continued demand for higher **interoperability and patient access to data**

Increasing competition to control **"Digital Front Door"**

L&T TECHNOLOGY SERVICES HELPING ITS CUSTOMERS TO STAY AHEAD OF THE CURVE

HEALTHCARE IT
- Device – EMR Integration
- Clinical Workflow Solutions
- Care Collaboration Portal
- Health Monitoring Platforms

DIGITAL HEALTH SOLUTIONS
- Chronic Disease Management
- Medication Adherence
- Remote Patient Monitoring
- Decision Support Tools

MEDICAL DEVICE MANAGEMENT
- Remote Service Application
- Proactive Maintenance
- IOT Platform Implementation
- Cyber Security

CUSTOMER EXPERIENCE ENGINEERING
- Visitor Management
- Smart Parking
- Access Control
- Digital Signage

FACILITY MANAGEMENT
- Single Source of Truth Across All Assets
- Energy Conservation
- Predictive Maintenance of Capital Equipment
- Opex Cost Optimization

VIRTUALIZING HEALTHCARE

CHRONIC DISEASE
MONITORING & MANAGEMENT

E2E development of a medical mobile application which connects with diabetes monitoring and drug delivery devices and allows patients to manage their insulin therapies. Mobile App development and integration with Cloud, BGM's, Insulin pens

SOLUTION FOR
MEDICATION ADHERENCE

Solution encompasses sensors/ BLE enabled patient device, doud connectivity, patient mobile app and physician portal for monitoring

Solution to track medication usage & set dosage reminders for Asthma & COPD patients from a BLE enabled Smart Inhaler.

REMOTE MONITORING
OF GERIATRIC PATIENTS

Solution consists of mobile app and web portal that provides notifications to caregivers on care recipient emergencies, access to service history and interactions with customer support.

Continua and FHIR Certified Platform

HEALTH APPLICATION PLATFORM
FOR REMOTE MONITORING

Fully integrated health platform to collect, diagnose and view health information from several medical devices.

HL7 and Clinical Acquisition Tool integration

UNIFYING HEALTHCARE DATA

DIGITAL HEALTH GATEWAY FOR COMMUNICATION BETWEEN SURGICAL INSTRUMENTS, EMRS & THIRD PARTY DIAGNOSTIC MODALITIES

- Built on top of AWS using Philips Health Suite Digital Platform
- The connectivity platform supports both HL7 and DICOM standards
- 3rd party Devices Data (DICOM) Connectivity Edge gateway

CLINICAL APPLICATION & EHR INTEGRATION FOR NEUROLOGY DEVICE

- Sleep diagnostics & Neural Analysis Software with EEG data EMR connectivity
- All physio monitoring data is analyzed, trended and reported
- Replaces different physio monitoring systems in intensive care units and operation theatres

HL7 INTEGRATION OF NURSING STATION

- Patient flow solution to improve bed utilization, turn around time & optimize hospital transportation with status of 1000+ beds in single view
- HL7 integration to ensure interoperability and harmonization of data

EMR CONNECTIVITY FOR OPHTHALMOLOGY

- IHE Unified Eye Care workflow implementation with support for patient update, order and observation details
- Integration with commercially available EMRs using HL7 and DICOM

ENSURING CLINICAL AVAILABILITY

IoMT BASED MEDICAL DEVICE MANAGEMENT

- PTC ThingWorx based device management solution
- Device agents acting as gateway enabling one to many connection
- Remotely configure, track, monitor, diagnose and update
- Integrated security for provisioning and management
- Complete traceability of all devices installed across hospitals, clinics, city

AI/ML BASED DEVICE USAGE ANALYTICS

- Insights from the usage pattern of Magnetic Resonance Devices in different hospitals
- Descriptive Machine Usage Analytics and Data visualization
- Proactive maintenance support of Devices
- Targeted selling of consumables/ components

AR/VR FOR MAINTENANCE

- L&T patented UBIQWeise IOT platform based remote service solution for IVD devices using PTC Viewphoria
- Live camera detects different parts of the product and augments contextual virtual information using Hot Spots on Faulty Parts
- Remote assistance and guided support
- Part Service Guidance and Work Order Management

FAILURE ANALYSIS OF A SURGICAL EQUIPMENT

- Machine data analytics to determine the performance issues & faults
- Machine data analytics to predict failure
- Classify machines that have highest success rate for surgery

ENGINEERING SMARTER HOSPITALS

LTTS iBEMS FOR NEXT GENERATION HOSPITAL MANAGEMENT

- iBEMs platform that sits on top of all other vendor solution for monitoring UPS, HVACs, elevators, lighting, AHUs, etc

- Monitor and control energy consumption and expenses

- Monitor and predict failure of capital equipment

- Digitally enabled solutions for Smart Parking & Lobby, Digital Signage and Way Finder, Visitor management, Access Control

FACILITY OPERATIONS MANAGEMENT

- Implemented iBEMS to monitor energy, UPS, HVAC sub-systems, Water (WTP & STP) and AHUs

- Digital Signage System & configuration of CMS data visualization and automation implementation

- Dashboard & Reporting customization

OT UTILIZATION & PATIENT TRACKING

- Single dashboard view to monitor multiple OT utilization and patient movement in hospital

- Push notifications and Comprehensive reports

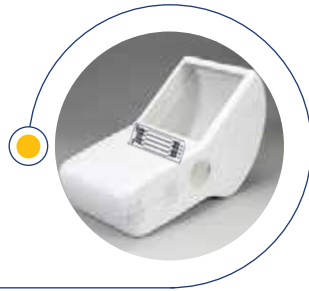- Integration to existing HIS system using HL7

REMOTE MONITORING OF ULTRASOUND DEVICES

- Connected Ultrasound and IXR devices in a hospital enabling faster service responses

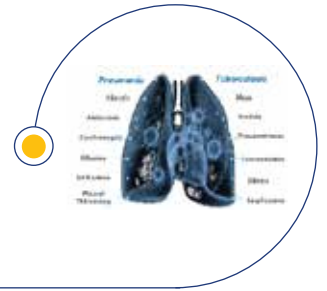# DELIVERING TECHNOLOGY AT THE FINGER TIPS

IN SITU SEPSIS DETECTION

A microfluidic based platform for real time, point-of-care testing enabling detection of gas transmitters as biomarkers for early prediction of sepsis

AI/ML BASED RADIOLOGIST ASSIST SOLUTION

Solution to improve accuracy of diagnosis of pneumonia, TB & 12 other health conditions from millions of chest X-Ray images using L&T's AiKno™ AI framework
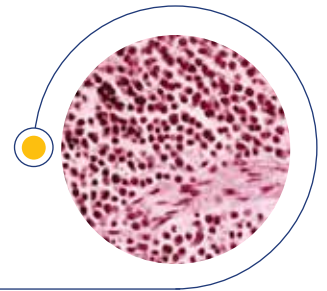

ROBOTIC SURGICAL TRAINER

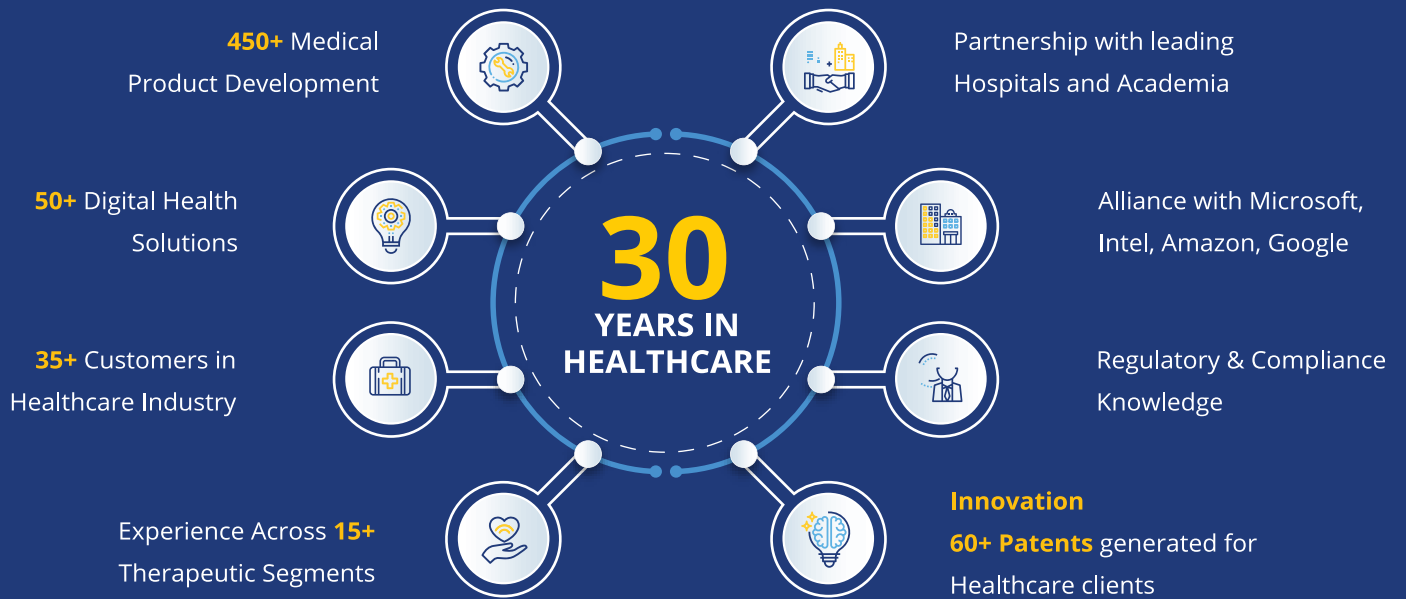3D Vision based low cost training system for Robotic Surgery

POINT OF CARE TESTING FOR MICROBES

An imaging solution for diagnosing infectious diseases & susceptibility testing of microbes e.g. TB, dengue, chikungunya etc.

OUR PEDIGREE

450+ Medical Product Development

50+ Digital Health Solutions

35+ Customers in Healthcare Industry

Experience Across **15+** Therapeutic Segments

30 YEARS IN HEALTHCARE

Partnership with leading Hospitals and Academia

Alliance with Microsoft, Intel, Amazon, Google

Regulatory & Compliance Knowledge

Innovation
60+ Patents generated for Healthcare clients

L&T'S TECHNOLOGY AND DIGITAL FOUNDATION

50,000
Employees

30
Countries

$3.4
billion Annual Revenue

L&T Technology Services

L&T Infotech

L&T NxT

Mindtree

L&T Technology Services

ENGINEERING **THE CHANGE**