



IoT WoRKs
by HCL Technologies

LEADING HEALTHCARE TRANSFORMATION WITH IoT



ENVISIONING HEALTHCARE OPTIMIZATION WITH THE POWER OF IoT

The future is here – Healthcare is slated to witness a comprehensive transformation, building engagement, effectiveness and costs-management.

The healthcare and life sciences landscape today is being reshaped by the Internet of Things (IoT); connected devices are finding widespread applications in hospitals and care facilities. IoT is literally changing the way healthcare-providers operate - allowing physicians to monitor and advice patients from any location in the world by using data received from connected devices (such as tablets, wearables, and interconnected physical devices).

And at the center of this transformation is data. For instance, **4,000 PB of data was generated by US hospitals in 2015 alone.** IoT helps focus, cleanse and converge incoming data into an enriched bedrock of insights and enhanced patient/user understanding.

As a result, today consumers have the chance to control their health alternatives in a highly 'personalized' manner, geared to their unique needs.



THE RISING IMPORT OF PERSONALIZATION - **HEALTHCARE THAT'S 'HUMAN' AND 'PROACTIVE'**

"Big Data" and advanced insights can help physicians analyze patient behavior, impacting customized services, care delivery, and the approach of healthcare professionals. Patients, who as consumers want improved healthcare services, can benefit from the convenience of making appointments, ordering tests, and accessing their reports from the comfort of their homes.



Three out of five patients concur that they would opt for tele-health services

over outpatient appointments for check-ups and follow-ups. More than 50% of respondents in another survey suggested that they were comfortable sending pictures of skin problems to a physician for diagnosis. A significant **64% of the respondents were ready to receive care, via online solutions.** Further, as mentioned, IoT applications offer a substantial costs-intervention scenario. Goldman Sachs believes that



IoT would bring down **healthcare costs by a massive \$300 billion.**

A report, put out by the banking heavyweight opines that there are massive opportunities in tele-health, remote monitoring of patients, and bedside-behavior modification. These insights clearly portend a change in the old order; the need for creating deeper and involved relationships with patients, placing them at the core of the sweeping changes in the healthcare space.



THE MODERN VALUE PROPOSITION - CUSTOMIZED SERVICES AND CONTINUOUS CONNECTIVITY

'Consumerization' - or the need to develop a smartly tuned customer-centric bouquet of services for every patient - is now an inescapable trend in healthcare. In fact, studies indicate that most patients are playing an active role in their care experience, selecting the most applicable/affordable care-giving alternative.

Healthcare systems that gather and store customer preferences and interact with them effectively using communication channels of their own preference, will be in the vanguard of changes in healthcare. These systems will help organizations bolster customer satisfaction and brand loyalty, driving higher patient volumes and, therefore, revenues and profitability.

Uninterrupted monitoring of health parameters and processing of the data are at the fulcrum of personalized healthcare. Indeed, the days of 'boutique medicine' are behind us, when patients had to suffer through medical services fraught with multiple complexities. The 'one-size-fits-all' approach to healthcare is now a thing of the past - hardly effective in dealing with contemporary problems, patient challenges and expectations.



THE WAVE OF INNOVATION - ENRICHING THE LIFE SCIENCES INDUSTRY

IoT implementation is also set to introduce several innovations in the life sciences industry. It can help increase efficiency and bring down costs across the system. Connected technologies can improve transparency of processes so that decision makers can now obtain a clear view of redundancies.



92% of life sciences companies plan to increase their investment in digital healthcare in course of the next 18 months.

Dipping R&D productivity, rising costs, noncompliance, and increasing stakeholder expectations have put pressure on pharmaceutical companies, pushing them to look at smarter, agile and cost-optimized solutions.

What's more, a plethora of ground-breaking possibilities are already in practice - IoT-based smart technologies like organs-on-chips, enabling companies to run diagnostic scenarios, and chip in a pill, which when ingested captures the health status, including the effects of drugs on organ systems, and sends the data to a wearable device.



THE IMPACT OF STAYING FUTURE-READY - **LEADING THE TRANSFORMATION**

It's imperative then to fully grasp the change set into motion by IoT; revolutionizing industries across the board – and hugely boosting the very nature of healthcare and life sciences. Today healthcare can be reimagined as a 'more accessible and human' platform, connecting patients with physicians/emergency services/care-givers on a 24/7 basis.

Therefore, enlightened healthcare providers must be at the forefront of this change – large-scale digitalization in order to deliver a vastly revitalized service portfolio.



WATCH THE IoT WoRKs™ VIDEO

To request for a complementary IoT Works™ roadmap workshop - Write to us at iotworks@hcl.com