

Tech
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HealthcareNXt: Redefining care in the era of 5G



The Healthcare industry landscape is changing rapidly. Key factors driving this change are the aging population, rise in chronic diseases, demographic shifts, urbanization, climate change, etc. These have led to a rapid increase in global healthcare costs. Global healthcare spend rising rapidly at a CAGR of 5.4% over the next five years to \$10 trillion, out of which providers consume around 80%.

Healthcare providers today are undergoing a fundamental shift in how they do business to reduce cost, increase their quality of care, expand healthcare benefits, and navigate new payment models. This massive shift has caused providers to adopt Virtual Care

enabled by Electronic Health Records (EHRs), diagnostic and video conferencing devices at customer premises, and effective communication mechanisms. The COVID-19 pandemic has accelerated these trends and put pressure on healthcare systems.

In the next few segments, we shall endeavour to address the challenges faced by CXOs, who are looking to take advantage of technology, specifically,

- How digital transformation of healthcare business models will be enabled by 5G.
- How 5G can be leveraged to improve patient outcomes while opening up new revenue lines and enhance competitive advantage





Turning Crisis into an opportunity - digital transformation in healthcare business models

Virtual care enabled by HD video calls, remote sensor monitoring, medical data transfer, AI-powered assessment apps, and other technological advancements in the healthcare sector are expected to become the new normal.



5G Healthcare market by 2026 - **\$156 Billion**.¹



Global Healthcare spend growing at a CAGR of **5.4%** expected to reach **US\$ 10 Trillion** by 2022.⁴



The global wireless health market is projected to **\$315 Billion** by 2025 - a CAGR of **23.5%**.²



Chronic diseases (Heart disease, Cancer, Diabetes) rising rapidly throughout the developed world account to over **80%** of deaths.⁵



The telemedicine market was estimated to be **\$40 Billion** in 2019 and - CAGR of **15.1%** till 2027.³



Expected rise in life expectancy from **73.5** (2018) to **74.4** (2022) likely to further boost healthcare spending.⁶








COVID-19 like situations will fast track investment and adoption of Tele Health.⁷

Digital in 'Healthcare' is not a thing; it is the 'new way' of doing things

5G, along with its inherent benefits like Ultra-high data rate, Low latency, and High-energy efficiency, are effective healthcare transformation tools.

Impact of 5G on Healthcare

	Connected Ambulance
	Real time transfer of Medical Imaging
	Robotic Surgery
	AR assisted Surgery
	Impact of 5G on Healthcare

Key Technology

100x

Devices per Unit Area

10x

Bandwidth

<5ms

Latency

**10yr
Battery Life**

for Low Power Devices

**Tailor Made
Dynamic
Quality of
Service**

Multi-Access

Edge Computing (MEC)

Devices



A 'digital-first outlook' towards healthcare can be instrumental in adapting to the customers' changing needs. With strong inroads already into digital health, it is time for healthcare providers in the UK to augment their healthcare offerings and infrastructure.



Tech Mahindra – End-to-end Solutions provider for delivery of ‘Transformative Healthcare Outcomes’

Increasingly, the entire healthcare ecosystem is being pushed towards achieving the KPIs used to measure the efficiency and quality of care provided. These solutions are tools the providers can utilize to achieve those KPIs and drive differentiated business models.

The implementation of the solutions are designed to achieve the following outcomes:



Improved Patient Outcomes



Improved Surgical Outcomes



Better Management of Hospital Assets



Driving Efficiency



Improved Healthcare Access





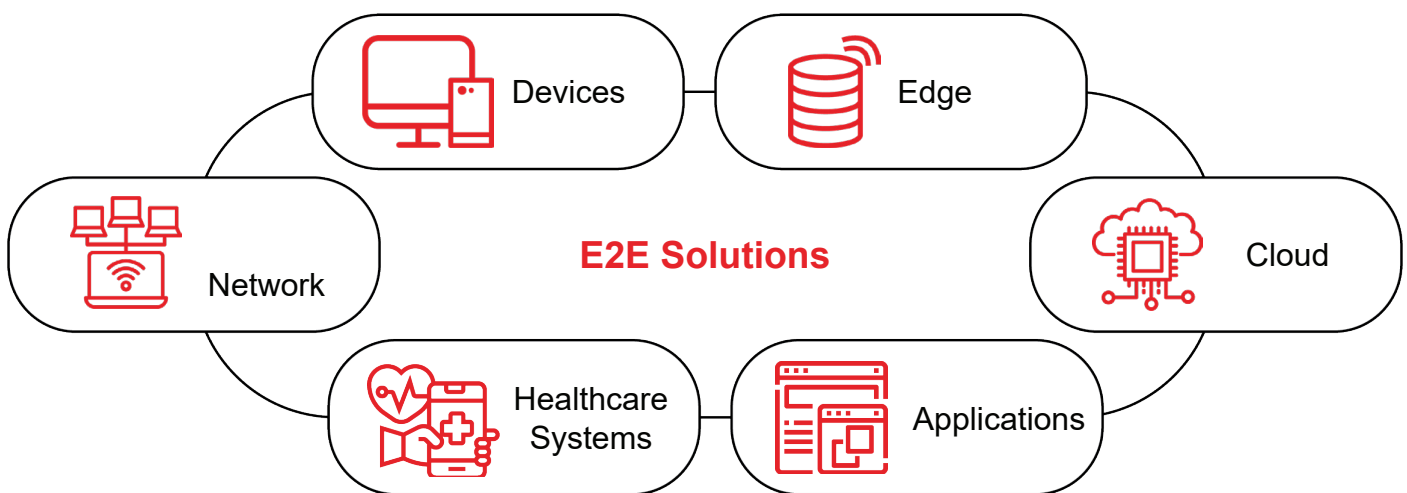
Below is the high-level view of the end-to-end solutions (E2E) developed by Tech Mahindra in conjunction with our ecosystem partners.

Solution Offering	Real Time Remote Diagnosis in Emergency Care	Real Time Remote Monitoring & Consultation	Tele Surgery	Hospital Asset Management	Digital Supply Chain
Benefits	Improved Patient Outcomes	Improved Healthcare Access	Improved Surgical Outcomes	Enable Asset Utilization	Improved Efficiency
Use Cases	<ul style="list-style-type: none"> Emergency Detection In personal cars Drone Based Delivery of Emergency Supplies AR based pre-hospital assessment Patient Monitoring inside Ambulance 	<ul style="list-style-type: none"> Tele-Consulting from Mobile Health Unit (MHU) Virtual Care Point Telehealth at Skilled Nursing Facilities Virtual Patient Rounds 	<ul style="list-style-type: none"> Duplicating Video on Multiple Monitors at OT Robotic aided & Tele-Surgery AR assisted surgery 	<ul style="list-style-type: none"> Patient & Personnel Tracking Hospital Indoor Navigation Equipment tracking & Utilization In-Hospital Door To Treatment Reduction 	<ul style="list-style-type: none"> Automated Warehouse Operations Drone based delivery of Urgent Supplies Condition Based Monitoring

Why Tech Mahindra and why now?

With its vast experience in Communications, Engineering Services, Tech Mahindra, along with HCL Group (a global leader in digital healthcare transformation), have created 5G based digital solutions for the ever-evolving healthcare sector. The key focus has been on disruptive innovation, design thinking, and cost optimization.

Tech Mahindra has put together a set of solution packs where TechM would act as a single point of contact who would deliver end-to-end solutions by bringing multiple components ranging from devices to managing the private network.



Solution Integration for realizing healthcare use cases

We offer End to End digital solutions deployed over private network with 3 tier architecture

We offer application localization, customisation

We manage the network, solutions and ensure security

Tech Mahindra has a strong partner ecosystem that includes diverse stakeholders such as solution providers, healthcare systems, OEMs, cloud hosting providers, telecommunication providers, and medical equipment & device manufacturers. We can be the Solutions Integrator (SI) for realizing healthcare use cases through 'Subscription-based Enterprise

Digitalization' enabled by 5G & Edge Computing.

- Solution As A Service - Solution Packs on a Subscription basis
- Single Window Solutions Integrator and Operator

Stay ahead of the curve by accelerating your healthcare business's digitization through reliable 5G service offerings from Tech Mahindra, the experienced and preferred 'Solutions Integrator'.

For more details about our offerings, please contact us at 5GForEnterprise@TechMahindra.com

References

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- 3 Grand View Research - Telemedicine Market
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PolicyAdvice - The State of Health Care Industry (2020)
- 5 WHO - Preventing Chronic Diseases
PAHO - Chronic Diseases in the Americas
- 6 Deloitte - Outlook 2019
- 7 World Economic Forum - Telehealth could be a game-changer in the fight against COVID-19

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