

# IOT AONE IQ SOLUTIONS

Revolutionizing Your Business

## IoMT Services Overview

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- Rewards & Recognition/ Patent



# Problem Statement

Define the Problem which your product or service will solve in detail



Challenges in Healthcare delivery in India, especially poor ratio of Doctor availability per 1000 persons and not at par to growing population.



Poor access to Healthcare in remote locations



Shortage of doctors and minimally equipped Para Medical Staff



Need for early identification of high-risk pregnancies



Due to legacy devices, forced to share non-electronic patient data and in-turn delay in diagnosis & treatment of disease



Empowering caregivers and patients with a solution that puts patient comfort first while helping to optimize caregiver workflow



Patients expect more issues during their labor and birthing experience and caregivers are looking for ways to increase patient satisfaction. Patients are often uncomfortable during labor and restrictions on movement can make that discomfort increase. Patients are looking for more.



Unawareness of correct technical solutions, regulations & approach involved in achieving target of smart healthcare



Emergency Care system not properly connected to real time monitoring



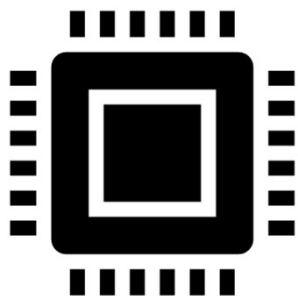
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# Solution: Internet of Medical Things



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# What is Internet of Medical Things (IoMT) ?



IoMT comprises of a network of interconnected medical devices and other appliances that can have machine to machine conversation over a network to form a connection of smart devices. The internet of medical things, also known as healthcare IoT basically the extension of the internet of things into the healthcare domain.



The computing devices embedded into the medical devices enables them to send and receive data over a shared network like a wi-fi. Equipped with state-of-the-art sensors, these devices are able to capture and transmit vital healthcare data thus improving the efficiency of healthcare delivery and resulting in improved patient outcomes.



# IoMT Device Category

## Clinical

### 1. Wearables

They include biosensors for monitoring blood pressure, heart rhythm, respiratory rate, blood oxygen saturation, temperature, eye pressure, glucose level, brain waves, sleep metrics, etc. These can be used for monitoring inpatients and for remotely monitoring patients after they are discharged from hospitals or under home care.

### 2. Implants

They include ingestible or implantable sensors used for tumor detection, tracking genomic signals, drug tailoring and inflammation detection

## Non-Clinical

### 1. Equipment

It includes bedside monitors, smart beds, community kiosks, medication dispensers and medicine adherence trackers. These can be used in a hospital or for home care.

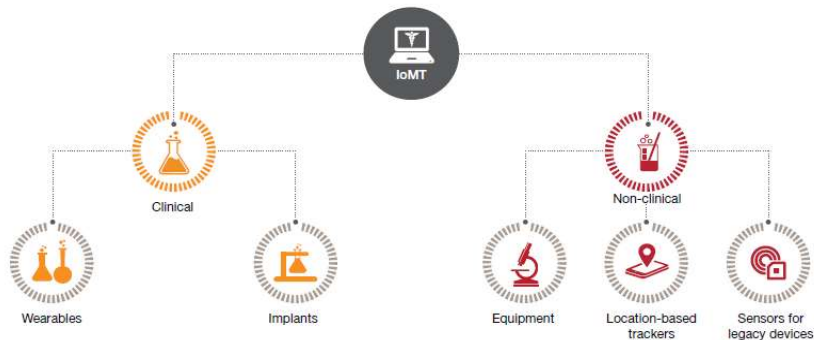
### 2. Location-based trackers

They include sensors or RFID tags used for tracking patient movement. The data is used to improve operational efficiency, track critical equipment and identify whether a patient has fallen and not recovered, etc.

### 3. Sensors for legacy devices

They include sensors that are used to simply transmit the data captured by legacy biomedical devices. These devices are costly and sometimes do not offer connectivity options. The sensors thus enhance their utilization by connecting them to the enterprise applications.

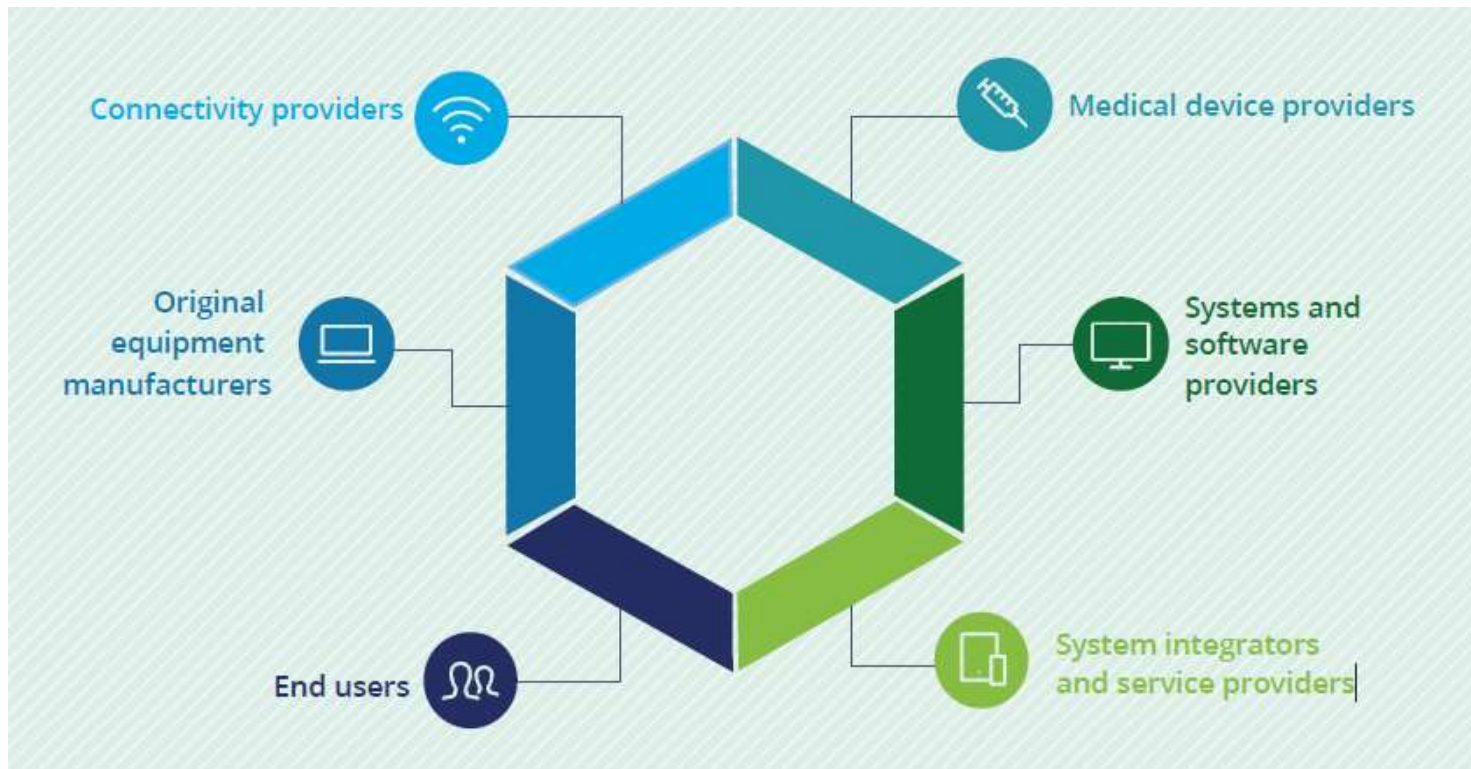
IoMT device categories



On the basis of their applications, IoMT devices can be split into two major types—clinical and non-clinical—which can be further classified into five device types.



# IoMT Ecosystem

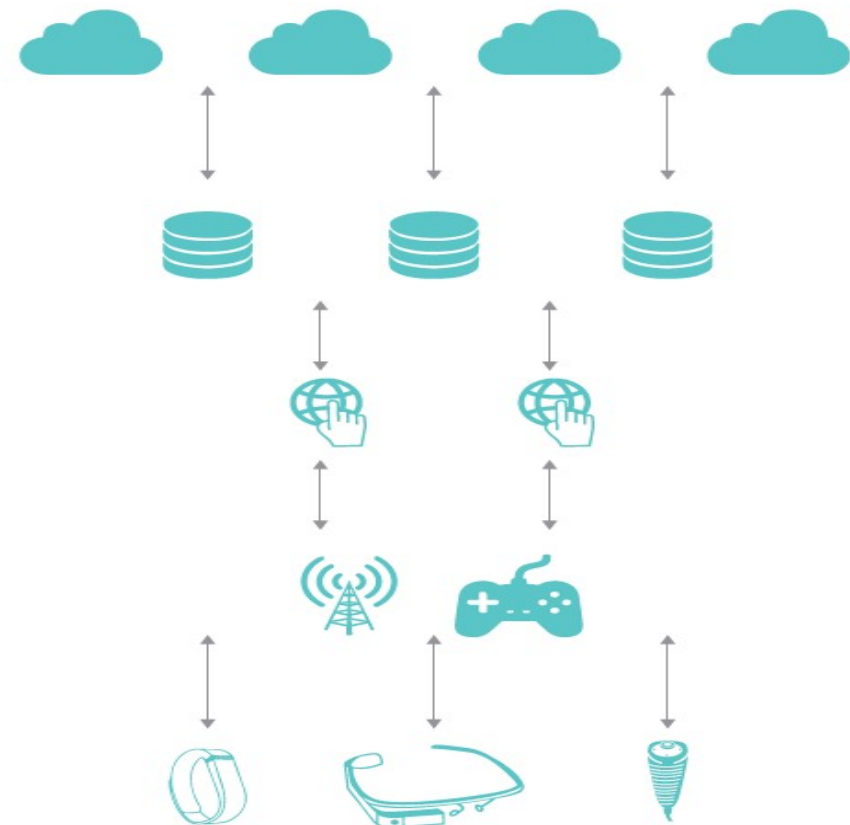


Source : Gartner



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# Architecture of IoMT Systems





# IoMT Device Cloud

- The IoMT device cloud offers proven, reliable device connectivity services platform on a global scale. It supports any kind of (compatible) connected device or mobile app.
- Offered as a Platform-as-a-Service (pay per use), as part of IoMT Digital Platform, it avoids the cost and effort of setting up, maintaining and operating your own backend. Instead, online service communications, such as firmware updates, user registration and data collection, are handled easily and smoothly through our scalable platform.
- Connecting customers' products with the device cloud allows for seamless updates to devices as well as collection of valuable usage data. At the same time, our 24/7 monitoring and support makes the IoMT device cloud a highly stable and reliable choice for your device connectivity.



# Solution: Driving Factor & Target Audience



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# National Digital Health Mission : VISION (2019)

*“To create a National Digital Health Eco-system that supports Universal Health Coverage in an efficient, accessible, inclusive, affordable, timely and safe manner, through provision of a wide-range of data, information and infrastructure services, duly leveraging open, interoperable, standards-based digital systems, and ensuring the security, confidentiality and privacy of health-related personal information.”*

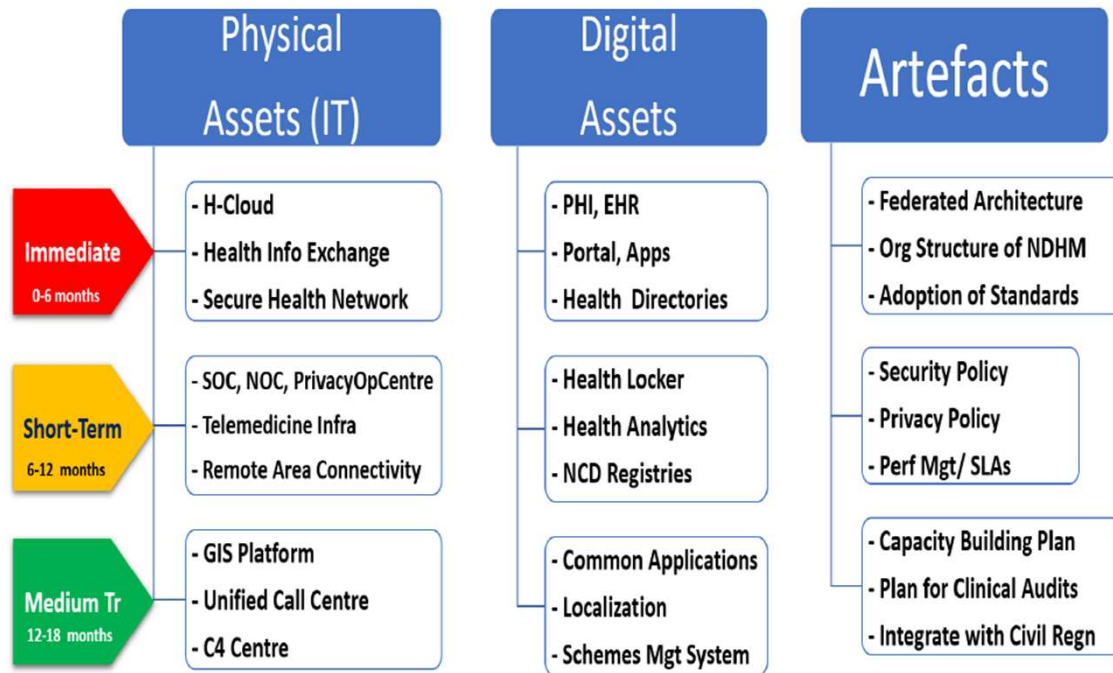
A few of the ongoing initiatives in Digital Health being implemented by MoHFW include:

- Reproductive Child Healthcare (RCH)
- Integrated Disease Surveillance Program (IDSP)
- eHospital
- e-Shushrut
- Electronic Vaccine Intelligence Network (eVIN)
- National Health Portal (NHP)
- National Identification Number (NIN)
- Online Registration System (ORS)
- Mera Aspatal (Patient Feedback System) and
- National Medical College Network (NMCN).



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# National Digital Health MISSION ACTION PLAN (SUGGESTED)



# Target Audience

Clearly state the target audience of your product/service. Use guestimates if needed

Working Model follows both : B2B and B2C approaches. We are directly targeting three specific target populations for our solutions:

## Hospitals :

Targeting both OPD & IPD sections of Hospitals / Polyclinics in big as well as small cities. Dependent patients will benefit the most from our solutions as for them IOT AONE IOT SOLUTIONS will represent safety, peace of mind, increased convenience, and an economically-wise investment, that pays for itself over time.

## Clinical Care / Diagnostics / Pathologies:

IOT AONE IOT SOLUTIONS will offer solutions for faster diagnostics ensuring increased owner ROI, patient satisfaction, significantly lower operational and maintenance costs.

## NGOs & Remote Area Clinics:

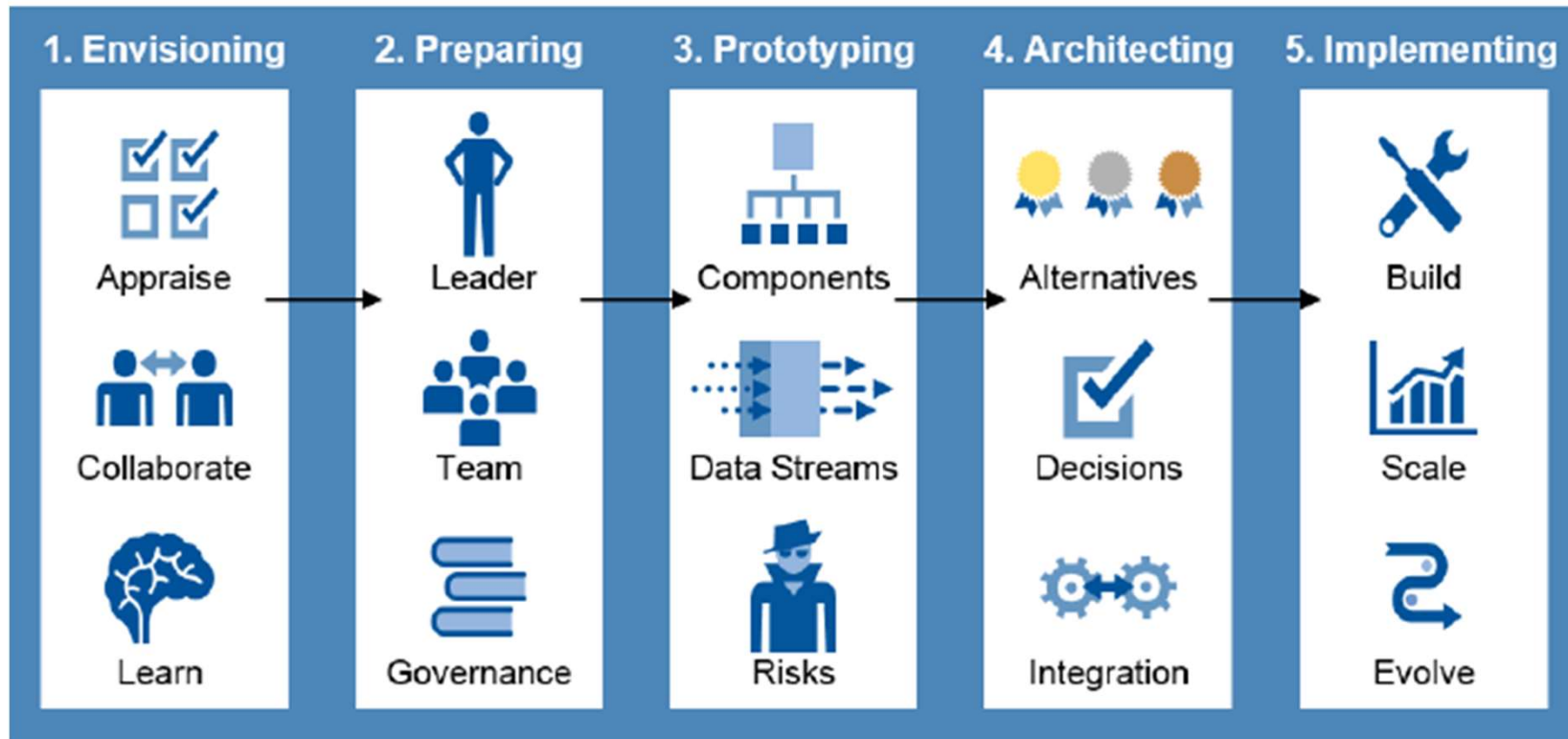
Timely accessibility to much needed health check and monitoring which in turn ensures reachability of quality healthcare services even in remote areas, far away from Senior Practitioners / multispecialty hospitals



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# Approach

Approach for Executing an IoMT Initiative (Source Gartner)



# IOT AONE IQ SOLUTIONS RESPONSIBILITIES



## **IOT PLATFORM INTEGRATION**

A tri-layered (device, cloud, app) platform to integrate full-fledged IoT solutions from well known brands, providing user/data/device management, analytics, notifications and other services.



## **MANUFACTURING SUPPORT**

Identifying and managing the right device manufacturer (OEM and ODM) to ensure high quality products and the lowest possible cost.



## **DISTRIBUTION & LOGISTICS**

Leveraging a robust supporting infrastructure.



## **BILLING & PAYMENTS**

Integration with carrier billing and other payments to enable monetization.



# Solution: IoMT Use Cases



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# Remote Monitoring : Current Situation

- No adequate healthcare to people who are in dire need of help. Every day, lots of people die because they do not get timely and prompt medical attention.
- Minimum or no real-time patient information availability and assistance with symptom-based diagnosis, which can save doctors' time and enable them to consult more patients, at same time ensuring fast diagnosis & reducing response time.
- Still in person visits being made by patients even in case of critical situations, minimum or no consultations (Telehealth / e-Health) remote area's patient thus making basic healthcare facilities inaccessible.
- Reactive (and delayed) approach for diagnosis & treatment, even in case of emergency for urban area's patients, no enablement for the patient(s) and healthcare providers to take proactive measures based on an analysis of vitals captured remotely using wearable medical devices.
- To get ICU type of close monitoring admission to hospital is only the available option, no viable option exists for critical home care with the same level of care and cleanliness that is provided in the ICU, along with remote monitoring of a patient's vitals.
- Even in an ICU, it is of utmost importance to record patient vitals on a regular basis and present them to physicians as and when they visit the patient. Generally, a nurse manually records patient vitals at regular intervals. However, this leads to risks of missing out on certain spikes in vitals in between the nurse's rounds. Along with nurses, physicians manually operate bedside patient monitors too.



# Remote Monitoring: Solution

## Critical Care for Remote Areas & ICU

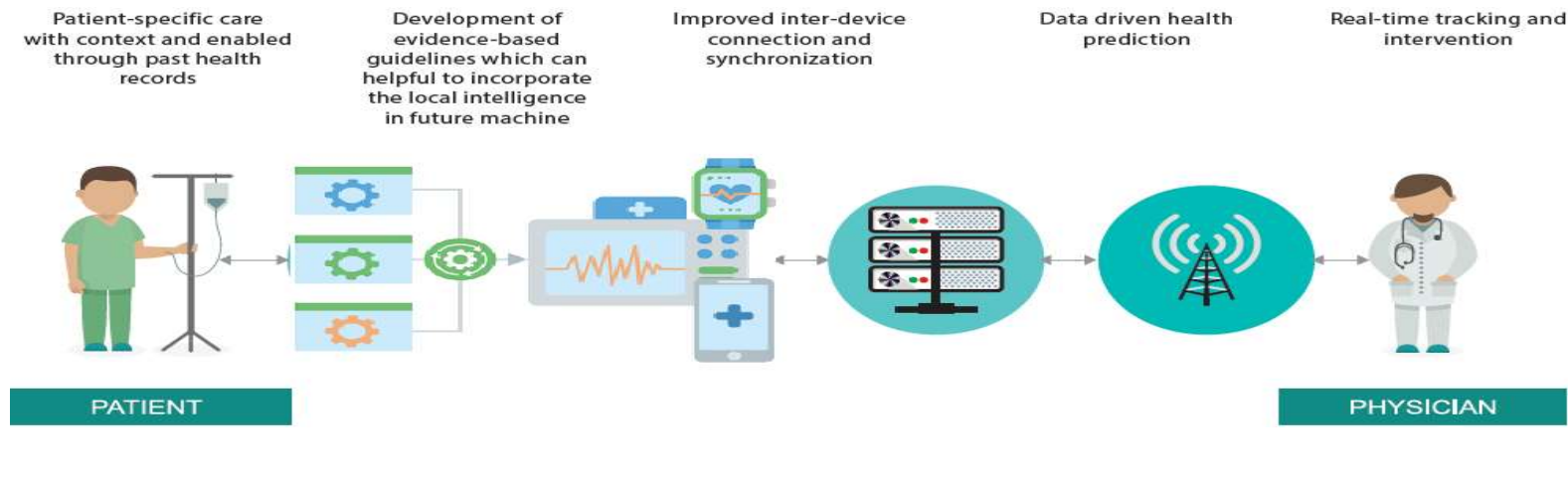
- Remote health monitoring is an important application of IoMT & Artificial Intelligence. With this combination, devices fitted with sensors notify the connected healthcare providers when there is any change in the vital functions of a person.
- These devices would be capable of applying complex algorithms and analyzing them, so the patient receives proper attention and medical care. The collected patient information would be stored in the cloud.
- Through remote monitoring, patients can significantly reduce the length of hospital stay and perhaps, even hospital re-admission. This kind of intervention is a boon to people living alone, especially seniors. If there is any interruption in the daily activity of a person, alerts would be sent to the family members and the health providers concerned. These monitoring devices are available as wearables too.
- Physicians visit rural areas with mobile monitoring devices that either attach to a mobile to transmit data or transmit data to a mobile device through communication protocols such as Bluetooth Low Energy. Patient data is transmitted to physicians sitting miles away and, if needed, tele-consultations are arranged with specialists. Remote monitoring has also found application in rural areas where access to hospitals/clinics is limited.
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- ICU beds, whereby IoMT sensors attached to bedside patient monitors detect spikes in vitals on a continuous basis, trigger alarms when approaching a threshold and keep the data ready in the form of insightful dashboards for physician visits. The dashboards generated using data captured through IoMT sensors not only provide an accurate analysis of the changes in vitals, but also save physicians the trouble of manually operating bedside patient monitors to see spikes in the last few hours.



# Remote Monitoring: Solution (Contd..)

## Critical Care @Home

- For some illnesses, it is preferable for patients to stay at home and receive the care that only their families can provide. However, it is also of utmost importance for patients to receive the necessary medical care and cleanliness that healthcare service providers offer. Critical care at home with ICU facilities is possible due to IoMT solutions. While the home provides a convenient environment for the patient and family members, the service provider ensures that the patient's vitals are continually recorded using IoMT devices; the vitals are then transmitted to physicians at their treating hospital.
- Physicians have continuous access to the patient's vitals and can instruct the attending nurse at the patient's home to adjust the dosage, if required, basis the vitals reported remotely. Remote monitoring also assists in triggering automated alarms to physicians, ambulance service providers and patient's family members in cases of emergency. Remote monitoring has also found application in rural areas where access to hospitals/clinics is limited.



# Remote Monitoring: Benefits



- **Decreased Costs:** When healthcare providers take advantage of the connectivity of the healthcare solutions, patient monitoring can be done on a real time basis, thus significantly cutting down on unnecessary visits by doctors. In particular, home care facilities that are advanced are guaranteed to cut down on hospital stays and re-admissions.
- **Improved Outcomes of Treatment:** Connectivity of health care solutions through cloud computing or other virtual infrastructure gives caregivers the ability to access real time information that enables them to make informed decisions as well as offer treatment that is evidence based. This ensures health care provision is timely and treatment outcomes are improved.
- **Improved Disease Management:** When patients are monitored on a continuous basis and healthcare providers can access real time data, diseases are treated before they get out of hand.
- **Reduced Errors:** Accurate collection of data, automated workflows combined with data driven decisions are an excellent way of cutting down on waste, reducing system costs and most importantly minimising errors.
- **Enhanced Patient Experience:** The connectivity of the health care system through the IoMT, places emphasis on the needs of the patient. That is, proactive treatments, improved accuracy when it comes to diagnosis, timely intervention by physicians and enhanced treatment outcomes result in accountable care that is highly trusted among patients.
- **Enhanced Management of Drugs:** Creation as well as management of drugs is a major expense in the healthcare industry. With IoMT processes and devices, it is possible to manage these costs better.
- **Predicting the Arrival of Patients in PACU:** With the intervention of IoMT, clinicians can predict the arrival of patients who are recuperating in the Post-Anaesthesia Care Unit (PACU). They can also monitor the status of patients in real time.



# Remote Monitoring: Unique value Proposition



**Gives Confidence:** Be confident that you are monitoring correct parameters. All caregivers should feel empowered by their technology – combined with their clinical skill - to drive the best possible outcomes.



Alignment to eHealth initiative of National Digital Health Mission (Vision 2019)



Integration with existing EMR / HIS and surety of security at data and network layer, in line with set regulations & policies.



**Saves Time:** Your time is valuable, and you deserve technology that helps you focus on your patient – not the technology.



Using a large amount of time in arranging medical equipment / devices, to ensure a continued trace, can be a burden in workflow. More focus can be diverted towards patient to give him “**Value Based Care**” experience.



20-50% Economical Solutions as compared to traditional counterparts.



# Integration of Legacy Biomedical Devices

## Current Situation:

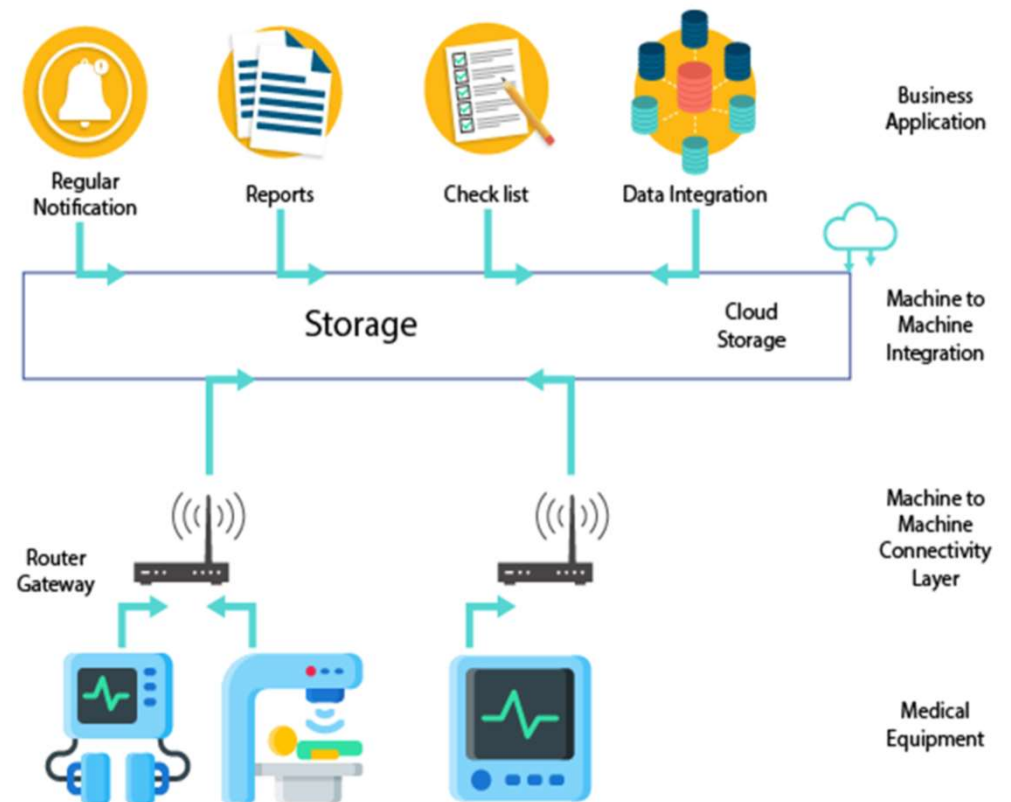
Legacy biomedical devices are costly and do not offer flexibility in terms of connectivity. While some offer Wi-Fi, others only provide wired connections, impeding the integration with EMR and remote monitoring.

## Solution:

IoMT sensors can be used to capture data from such legacy biomedical devices, even the ones which are used in ICUs and share the same with a smart hub. Since the IoMT sensors are only used for transmitting data, the reliability of vital parameters transmitted is unquestionable.

## Benefits:

- The smart hubs provide insightful and configurable digital charts to physicians who now don't have to manually operate the biomedical devices to identify irregular patterns in vitals or rely on data captured manually by nurses at regular intervals.
- IoMT sensors also assist with automated alarms in case a threshold is reached. IoMT sensors thus assist in making legacy biomedical devices more user friendly.



# Legacy Biomedical Devices: Unique value Proposition



Integration with existing ecosystem to enhance digitalization.



Economical than what is currently used in traditional



Can customized as per requirement of environment. Alignment to vision of National Digital Health Mission.



Security at data and network Layer



# Use Cases in Pipeline

## Smart ambulance

### Current Situation:

- Currently ambulances are used merely for transporting a patient and giving necessary care during transit. The lack of automated transmission of patients' vitals on a regular basis hindered analysis by senior physicians and also didn't provide enough information to the healthcare providers to prepare for the treatment by calling specialist doctors, arranging medical equipment, etc.
- Traffic jams can delay the result in life threatening situations for emergency cases.
- In case of Trauma cases, though required treatment is initiated without much delay, but absence of required data doesn't give accurate insight into the actual patient condition.

### Solution:

With implementation of IoMT sensors (along with required connectivity) and integration with Road Traffic Management System in an ambulance, it is possible to quickly direct ambulance on best route to hospital, with track of patient's vitals and share them in real time with the healthcare ecosystem so that physicians can analyze the vitals and make the necessary preparations for treatment before the patient reaches the hospital. IoMT has thus helped improve operational efficiency and enabled healthcare providers to provide better care.

### Benefits:

- Further integration with Insurance Claim System will ease the process claim reimbursement for emergency cases.
- Timely treatment will help to bring down mortality rate due to accidents / emergency cases.





# Use Cases in Pipeline Contd..

## Pre-Screening (Clinical Care)

### Current Situation:

Despite advancements in medicine, the ratio of the number of qualified doctors to patients seeking care remains poor. While technology has made it possible to test vital parameters with ease and alacrity, the unavailability of doctors to interpret reports has led to increased waiting time for diagnosis. As a result, the time that could be spent getting treatment is needlessly spent on diagnosis instead.

### Solution:

IoT & Artificial Intelligence driven, noninvasive portable Pre-Screening systems are used for patients who needs fast diagnosis & immediate attention and its isn't possible due to remote location or inaccessibility to diagnostics labs. These systems employ sensors to collect physiological information which is analyzed and stored using gateways and the cloud. This information is then sent wirelessly to caregivers for further analysis and makes telehealth / telemedicine model practically possible. This comprehensive ecosystem allows to perform a wide range of tests and measure all vital parameters quickly and easily. Thus, the quality of care is improved through fast prescreening & treatment which in turn lowers the cost of care and eliminates the need for a caregiver to actively engage in data collection and analysis.

### Benefits:

With use of IoT & Artificial Intelligence based Edge Computing devices not only diagnosis gets speeds up, but also helps in prognosis, which can be validated by Physician during actual inspection , this approach makes Pre-Screening process so easy that even a Para Medical Staff can independently conduct complicated tests like that for diabetic retinopathy, breast cancer (using thermography) etc.



## Use Cases in Pipeline Contd..

**Real Time Location Services:** Through IoMT, doctors can use real time location services and track the devices used for treating patients. Medical staff may sometimes keep the devices in out-of sight areas which makes them difficult to find when another medical staff comes on the scene. Medical apparatus and devices like wheelchairs, scales, defibrillators, nebulisers, pumps or monitoring equipment can be tagged with sensors and located easily with IoMT. Apart from real time location services, there are IoT devices that help in environmental monitoring as well (checking the refrigerator temperature, for example).

**Hand Hygiene Compliance:** There are hand hygiene monitoring systems that would detect the degree of cleanliness in a healthcare worker. According to one study, about one patient out of every 20 gets infections from lack of proper hand hygiene in hospitals. Numerous patients lose their lives as result of hospital acquired infections. The interactions in the hand hygiene monitoring systems are done in real time and if a clinician comes near a patient's bed without washing his hands, the device would start buzzing. And that's not all. The information about the healthcare worker, his ID, time and location will all be fed into a database and this information would be forwarded to the authorities concerned.

**Indoor navigation:** It is not always easy to navigate from one point to another within a hospital and most of the time we have to seek directions from hospital staff. A leading hospital in India has implemented IoMT-based location awareness technology. Patients must download a mobile application which connects to beacons placed all across the hospital. The beacons detect a patient's location and guide them from Point A to Point B by giving detailed turn-by-turn navigation. This same technology also has the potential of locating assets placed in the hospital.



# Use Cases in Pipeline Contd..

## **Remote Assisted Living (Tele Health)**

Data from network devices is registered at a central location at the physician's office. Compiling and processing patient-specific data enables healthcare automation, which analyzes fresh data against past records and decides the future course to manage the patient. This machine-enabled intelligence helps service providers transfer the tasks of routing, monitoring, and field administration to IoMT machines, thus saving the cost incurred from implementing follow-up resources and infrastructure utilization. Additionally, remote monitoring has led to a decrease in member drop-out rates and increase in healthcare resource productivity. Commercialized Remote Monitoring System are used for cardiac monitoring that separates the patient's identification information and observation data to ensure security. Furthermore, encryption protocols are used to transmit and store critical information, which ensures the reliability of the solution.

## **Remote Intervention**

Real-time data obtained from sensors enables physicians to administer drugs and evaluate response in case of emergencies. Such timely interventions offer high-tech medical assistance and reduce the cost of hospitalization.

## **Improved Drug Management**

IoMT-based RFID tags manage drug availability problems and supply cost. Regulatory Authority has suggested guidelines for RFID (Radio-frequency identification) and drug supply chain management. These include the addition of the tags on medication packaging, which enable manufacturers to ensure supply chain quality. Other solutions include adding this technology to medication; edible IoT "smart" pills, which help monitor drug doses and the patient's pharmacodynamics. Such solutions may help drug companies mitigate risks and losses during supply chain and administration.



# Conclusion

- IoMT's greatest advantage would be an enhanced operational efficiency through a growing use of networked devices. Transparent data flow from lower-level physical devices to the cloud (and associated data analytics) could enable real-time response from remote locations, perhaps saving lives now more than ever before.
- Data-driven decision making is likely to empower caregivers to accurately monitor a patient's comprehensive health status, take pre-emptive preventive measures, as well as instantaneously respond to emergency situations. The interconnected systems are forecast to reduce the burden of cost on patients, increase patient compliance, and leverage the advantages of smart devices that can provide instantaneous responsive healthcare.
- Although automation in healthcare monitoring would increase operational efficiency, it may pose serious risks during implementation, such as data theft, insecure data transfers, and irregular network connections. These challenges, combined with regulatory hurdles, are projected to drive growth in IoT-based networking and data solutions.



# Market Potential & Scalability



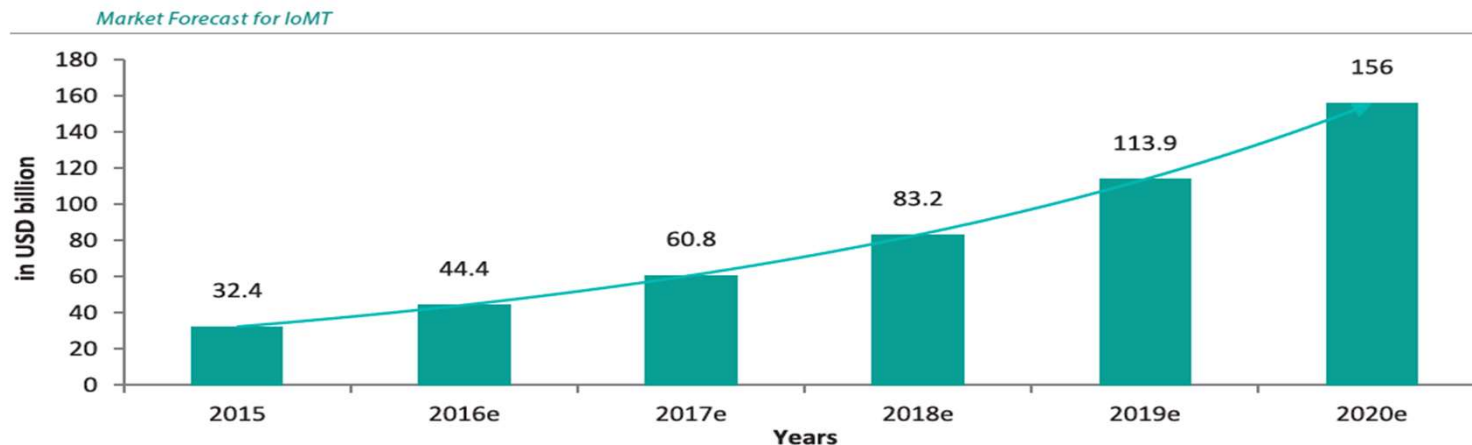
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# IoMT Market Study

**Define the market which you will target for your product/ solution. Show your market study in detail to bring out the market potential of your product/solution**

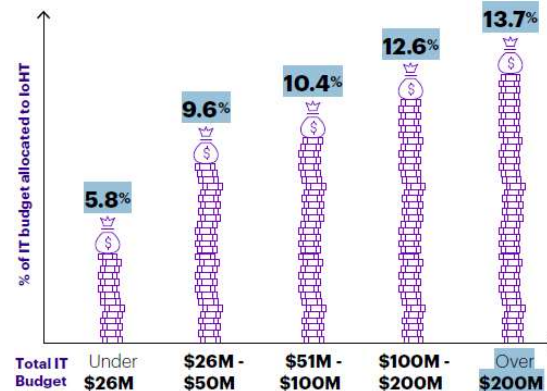
The IoMT market is forecast to expand at a CAGR of 37 % to USD 156 billion by 2020. Technologies used in IoMT can be divided into the three technical classes: local patient systems and controls include sensors, controllers, firmware, and end medical devices; device connectivity and data management comprise networking and database systems; and analytics solutions broadly consist of data analytics and cloud-enabled solutions and services.

The major technology contributors in the IoMT ecosystem layers are firms that provide semiconductors and embedded systems; application developers; firmware companies; wireless network operators; data management companies; sensor, tele-presence, and location technology providers; Internet security/privacy and machine-to-machine vendors; IoT service providers; and general telecommunication players. In the current scenario, North America leads the market in the high penetration of medical technologies and government insurance policies. In future, analyst forecast growth of technology in Asia pacific and European market due to increasing awareness, changes in lifestyle, improved diagnostic facilities and disease burden



# IoMT Market Study Contd.

- The Internet of Medical Things (IoMT) is changing health care, and the industry needs to prepare if it wants to harness the technology for value-based care.
- Experts are predicting rapid growth in IoMT adoption, making it vital that health systems confront challenges, such as security, interoperability, and analytics, that are needed for the technology to meet its promise of helping expand access to care, improve quality, and reduce cost.
- Internet of Medical Things (IoMT) deployments are expected to reach \$117 billion by 2020 according to MarketResearch.com. The reasons for this shift include dramatic improvements in healthcare operations and the ability for companies to generate recurring revenue.
- As IT budgets grow, so do IoMT investments. It is not just technology departments that are investing in IoMT. While 57 percent of healthcare organization surveyed say that their IT departments lead the IoMT charge, 26 percent say their research and development (R&D) divisions are leading their IoMT efforts and one in ten organizations even have dedicated IoMT subsidiaries or business units.
- Today, healthcare organizations allocate on average around 10 percent of their annual IT budgets to investments for IoMT solutions; this amount grows incrementally as the size of IT budgets as a whole grow larger.



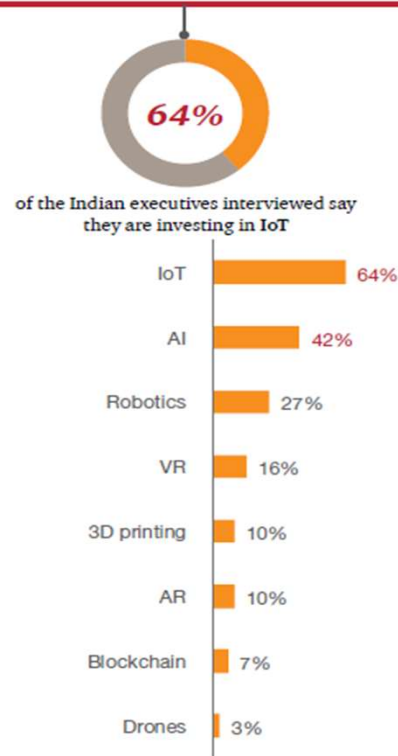
# IoMT Market Study Contd.

Adoption of IoMT among Indian healthcare providers is **higher for driving care delivery and customer experience than improving operational excellence.**

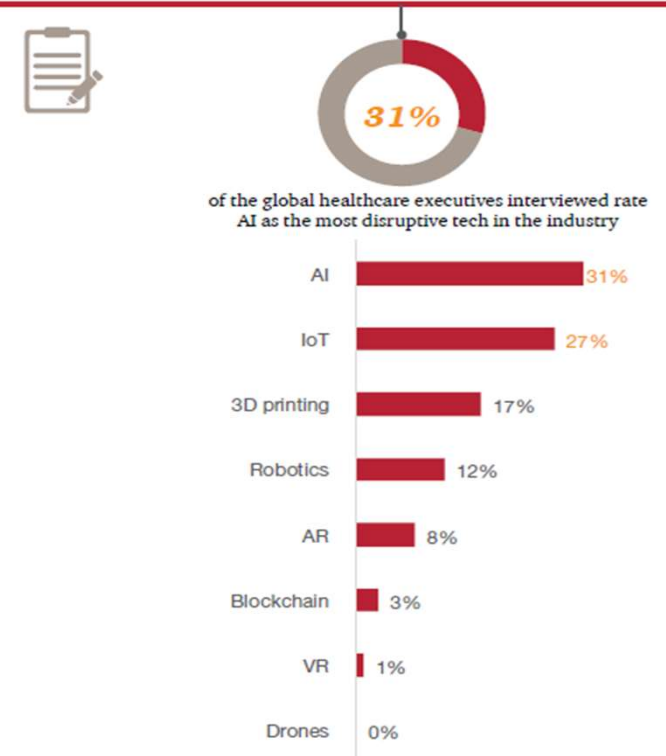
While IoMT has been used to collect and present patient vitals to assist physicians with real-time information, Indian healthcare providers can utilize emerging technologies to explore use cases such as asset tracking, identifying defects in assets and tracking patient waiting times to enhance queueing mechanisms in order to improve operational efficiency.

Considering such a big market opportunity IOT AONE IOT SOLUTIONS focuses on Systems Integration of IoMT solutions.

In India, investments are happening in IOT and AI:



Globally, healthcare executives rate AI as most disruptive tech in the industry, followed by IoT:



Source: PwC's Global Digital IQ Survey, February 2017



# IoMT Survey for North India\* : Current Situation

Doctor's Specialization	Awareness of IoMT Solutions?	Existing Usage : Remote Monitoring	Existing Usage : Clinical Care	Existing Usage : Wellness & Wearables	Description of Current Usage
Orthopaedics	No	No	No	No	No Awareness
Gynaecology and Obstetrics	No	No	No	No	No Awareness
Cardiology	Yes	Yes	No	Yes	ECG , Heart Rate , Blood Pressure being tracked under Remote Monitoring & Clinical Care
Anaesthesia	Yes	Yes	No	No	ICU , IPD and NICU do leverage remote monitoring solutions
Diabetology	Yes	Yes	Yes	Yes	ECG , Heart Rate , Blood Pressure being tracked under Remote Monitoring & Clinical Care , while IoT & AI based solutions being used for diabetic retinopathy detection
Radiology	No	No	No	No	No Awareness
Oncology	Yes	No	No	No	Pending Clinical Trials
General Surgery	No	No	No	No	No Awareness

\*North India : UP, Bihar, Uttarakhand



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# IoMT Survey for North India\* : Evolving Requirements

Doctor's Specialization	Area of Interest : Remote Monitoring	Area of Interest : Clinical Care	Area of Interest : Wellness & Wearables	Requirement
Orthopaedics	Yes		Yes	An <b>artificial intelligence (AI)</b> system can interpret and prioritize abnormal <b>X-rays</b> with critical findings, potentially reducing the backlog of exams and bringing urgently needed care to patients more quickly, according to a study appearing in Radiology Post Surgery Stride Pattern Analysis
Gynaecology and Obstetrics	Yes	Yes		Pre-Screening Solutions helpful in fast diagnosis and treatment, especially helpful in OPD & Camps. CTG Remote Monitoring for Maternal Care
Cardiology	Yes		Yes	Realtime monitoring of parameters critical for cardiology, especially for patients who have undergone surgery
Anaesthesia	Yes			Smart Ambulance and ICU Remote Monitoring to enable data driven quick response and correct treatment
Diabetology	Yes		Yes	Use of IoT & Artificial Intelligence based solution for Radiology , especially in case of Ultrasound
Radiology		Yes		Use of IoT & Artificial Intelligence based solution for Radiology for quick findings
Oncology	Yes	Yes		Non- Invasive, Smart Patches & Clinical Care Solutions to detect cancer, especially artificial intelligence-based solutions for breast & cervical cancer detection.
General Surgery	Yes			Smart bandages designed to monitor and tailor treatment for chronic wounds

\*North India : UP, Bihar, Uttarakhand



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# Sustainability

## How do you plan to grow in the coming months and years with that strategy?

IOT AONE IOT SOLUTIONS has carefully developed a diverse marketing plan intended to keep our brand in the hearts and minds of our existing and prospective customers, enabling us to continue expanding our reach, and grow our business. Between our massive social network followings and email database contacts, we regularly communicate directly with consumers.

### **SEO & Social Networking:**

We will drive traffic and conversions to our website using social media marketing via Facebook, LinkedIn, Twitter, YouTube, and others. We are also exploring SEO and SEM.

### **Content Marketing:**

We will consistently release marketing content through our blog that aims to educate our audience about the value that our product provides. Our content marketing efforts aim to influence and persuade readers without having to rely solely on conventional direct selling tactics.

### **Emails, Newsletters & Influencer Marketing:**

We will launch an initiative to guest blog articles and features in IoMT, healthcare, and startup tech publications and other outlets in our industry.

### **Local & State level Symposium**

- Creating an ecosystem (webcasts, F2F sessions) for increasing the consumer / public awareness of IoT & Artificial Intelligence in Healthcare .Organizing Symposium and training sessions for manpower in IoT Healthcare delivery, targeting all layers: Medical college levels, Para Medical / Caregiver Staff & Practitioner.
- Working closely with Ministry officials, Prominent Specialists, Industry Players, Healthcare firms, Startups & Associations like IET/IoT India Panel to draw up a “India IoT in Healthcare Plan” with a list of key areas to be focused on – maybe a phase wise approach to bring in IoT in many areas of HealthcareDelivery in India



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# Sustainability Contd..

With much of the heavy lifting already completed, IOT AONE IOT SOLUTIONS has laid the groundwork for rapid expansion going forward. Below is glimpse of future:

## **Regular Market Survey:**

After conducting initial round of interview of Elite Group of Doctors, target is to complete a survey in a structured manner in prime cities of Uttar Pradesh & Uttarakhand, so to better gather & analyze the IoMT scope & specific market requirements, considering the demographics.

## **Further Alignment to Government Initiatives & Framework:**

IoT Framework from regulatory authorities (TRAI) and eHealth initiatives MoHFW are the most important guiding principles while finalizing the solutions.

## **Continued Strategic Partnerships:**

We are in the process of building relationships with notable manufactures, industry leaders, influencers, and development teams in the IoMT sector.

## **Investor-Backed:**

We have bootstrapped the business with a total of INR 10 lacs investment, in next stage plan is to get funding from angel investors, founder capital and VCs.

## **Press Mentions:**

Plan for IOT AONE IOT SOLUTIONS is to receive coverage in many of today's most renowned tech (Electronics For You) and entrepreneurial publications.

## **Collaboration & Awareness:**

Work towards creation of awareness & collaboration ecosystem



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# Scalability & Reachability

How can your product/service be scaled to reach out to the maximum audience globally?

**Below actions will ensure scalability & reachability of services:**

- Develop partnership with similar type of organizations and expand it on regular basis.
- Work in consortium model for deployments, so there are no challenges in skill set, human resourcing & quality of work.
- Start developing a franchise / Channel Partner model so services can scale out to increase reachability.
- Though used solutions will be market proven for its scalability but will still review the pattern along with OEM vendors / Production units.



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# Competition Analysis



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# SWOT Analysis

## Strengths

**Diverse Product Capabilities & Brand Agnostic:** Access to wide range of branded products which are already tested / certified and cover all aspects of Smart Healthcare. Mature consortium model in place.

**Better User Experience & Strong Network**

Our solutions will be easy to use and doesn't require much technical-savvy. Setup and configuration will be simple, users will be able to up & run out of the box within short time. This new service is like a value add to existing strong network in healthcare sector.

**Implement Operational Excellence & Affordability**

While delivering superior functionality and value affordability factor is essential for our sustainability in market. Over the air software / firmware updates.

**Security and Alignment to National Digital Health Mission:** No compromise with Security & Privacy features and alignment of solutions with set regulations & policies.

## Opportunities

**Benefiting Patients**

Real-time interventions in emergency situations  
Cost reduction  
Reduced morbidity and financial burden due to less follow up visits

**Value add to Health Care Service Providers**

Optimal utilization of resources and infrastructure  
Reduced response time in case of medical emergency

**Reachability to Remote Area & Small Cities**

Standardization/compatibility and uniformity of data available  
Capability to sense and communicate health related information to remote location

## Weakness

**Young organization, still building partnership**

**Dependency on Bootstrap funding , still exploring other sources.**

## Threats

**Technical Threats**

Lack of standards and communication protocols  
Errors in patient data handling  
Data integration  
Need for medical community awareness of new technology  
Managing device diversity and interoperability  
Scale, data volume and performance

**Market Threats**

Physician compliance  
Data overload on healthcare facility  
Mobile hesitation  
Telehealth regulations



# Team Overview



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# Leadership Team : Credentials

## Credentials of Team Members

### **Neha Mehrotra | Founder , Finance Head & Chairman**

Neha is a Commerce / Accounts / Finance Postgraduate with over 10 years of leadership experience in education & supporting functions. Apart from this she holds experience in multiple discipline of education, healthcare & library information sciences. She manages IOT AONE IOT SOLUTIONS's financial risk analysis and handles all financial planning, record-keeping, and reporting.

### **Anuj Mehrotra | Co-Founder & CTO**

Anuj is a Computer Application Postgraduate with extensive technical expertise and over 18 years experience in IT industry, which includes 10 years experience in Systems Integration (including IoT solutions). He is responsible for IOT AONE IOT SOLUTIONS's technical vision, heading up all aspects of our technological development, strategic direction and future growth.

### **Amit Sinha | Sales & Marketing Head**

Amit earned his degree in Bio Science and Marketing / Sales. Prior to joining IOT AONE IOT SOLUTIONS, Amit spent 18 years as Sales & Marketing Head of a Healthcare & Pharmaceuticals company headquartered in Lucknow. He currently manages ongoing operations and procedures and is responsible for driving IOT AONE IOT SOLUTIONS to achieve and surpass sales, profitability, cash flow, and business goals and objectives.

### **Swati Sinha | Human Resourcing Head**

Swati is a postgraduate with more than 8 years experience in human resourcing and skill development. She oversees all of IOT AONE IOT SOLUTIONS's human resourcing & skill development.



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# Dream Team : Supporting Factor

Why does your team qualify to be a dream team? Why do you think that you can achieve your vision with this Dream Team?

## Reason to Qualify for Dream Team

In Healthcare, patients should be able to readily obtain medical services and information, and providers should have access to the most up-to-date information about their patients. Access to care is a complex, multi-faceted and incredibly important factor in overall population health—especially preventative care. Access to care is affected by provider, supplier and health care information technology capabilities, payer plans and even government policy.

With decades in the Systems Integration & design space, Anuj knew he had the knowledge to improve upon IoT & Artificial Intelligence based healthcare solutions that not only made healthcare accessible but also affordable. In June 2019, IOT AONE IOT SOLUTIONS was born. Neha, Anuj and the IOT AONE IOT SOLUTIONS team have made it their mission to completely revolutionize the healthcare and IoT space with innovative technology available in market, ensuring solution affordability, availability, accessibility, accommodation and acceptability, all factor into and influence access to care.

**Team Strength** :Our team is comprised of industry veterans who bring decades of experience to the table across industrial design, mobile tech, cloud-based technology, artificial intelligence, and more. Our leadership team has a history starting and leading companies to successful exits and have established valuable relationships with industry leaders along the way that will help the us strategically position IOT AONE IOT SOLUTIONS as a market innovator in the days ahead.



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# Dream Team : Supporting Factor

Why does your team qualify to be a dream team? Why do you think that you can achieve your vision with this Dream Team?

## Our Mission:

To make healthcare smarter, more connected and safer for families while helping them save money and conserve energy through the power of affordable, automated technology.

## Our Vision:

To become the leading Systems Integrator of IoT technology for healthcare appliances on a global scale with application across both medical devices & patients.

## Supporting Factor which makes Vision achievable:

Alignment of organization's vision to that of National Digital Health Mission (2019):

*"To create a National Digital Health Eco-system that supports Universal Health Coverage in an efficient, accessible, inclusive, affordable, timely and safe manner, through provision of a wide-range of data, information and infrastructure services, duly leveraging open, interoperable, standards-based digital systems, and ensuring the security, confidentiality and privacy of health-related personal information."*



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# Rewards & Recognition / Patents

- IoMT Business plan was shortlisted for the pitch-in competition in IT/ITES Startup Sector at UPStartup Conclave 2019, scheduled on 14<sup>th</sup> September at Indira Gandhi Pratishthan, Gomti Nagar, Lucknow

