BUILDING SMART CITIES OF TOMORROW

A Managed Internet of Things (IoT) solution for Smart Cities

HARMAN offers a comprehensive portfolio of solution for smart city, from smart healthcare – from neo-natal to elderly care and telemedicine solution to Smart transportation – Intelligent Urban transportation system to Smart environment – Air, Water Quality and Waste Management to Smart Infrastructure – Smart Buildings and Safety enablement.

HARMAN

Nearly 843 million people are estimated to be living in Indian cities by 2050, and smart cities are the most efficient way to manage this urban expansion by ensuring superior quality of life while maintaining an environment conscious and green society.

Smart City Solution
by HARMAN Connected Services

HARMAN, a market leader in Internet of Things (IoT) solution implementation – from sensors to analytics, offers a comprehensive portfolio of solution for smart city, from smart healthcare – from neo-natal to elderly care and telemedicine solution to Smart transportation – Intelligent Urban transportation system to Smart environment – Air, Water Quality and Waste Management to Smart Infrastructure – Smart Buildings and Safety enablement.

Smart City Solutions from HARMAN include

Smart Healthcare - Telemedicine
Smart Urban Mobility – Intelligent Transportation System and Smart Parking
Smart Environment – Air Quality, Water Quality, Waste Management
Smart Infrastructure – Green Buildings

Smart Healthcare

Right from Neo-natal care, to vitals monitoring solution for out-patients, to elderly care and to designing cataract eye simulator. HARMAN has been at forefront of designing, developing and deploying cutting edge health and wellness solution for markets world-wide.

Salient expertise in healthcare for HARMAN includes:

* Home Health and Real time Patient Monitoring
* Connecting to the home health and diagnostic devices and monitoring real time in order to identify any anomalies in the patient data
* Clinical Diagnostics
* Clinical diagnosis using the real time data from home health and other information that is gathered from multiple data channels and equipment
* Equipment Remote Monitoring and Diagnostics
* Test and diagnose the health of the connected infrastructure, data usage from the equipment to measure the usage, consumables quantity, etc.

Smart Urban Mobility

Manage and regulate the smooth movement of automobiles through the city and enable decongestion through smart sensors and motion trackers powered by IoT. Urban mobility services include:

* Setting up and installation of smart parking systems
* Intelligent traffic management systems
* Integrated multi nodal transport

Smart Transportation for City of Bhopal

HARMAN in association with the Ministry of Urban Development in Bhopal transformed urban transport management in Bhopal through IoT services. HARMAN powered public transport in Bhopal with automated fare collection systems and POS systems to disburse transport tickets and smart cards with ease. All stations and buses were equipped with surveillance cameras, passenger information systems, eTicket vending machines and automated fare gates.

Over this, a digital command and data centre provided real-time information on the bus routes, the traffic, vehicular statuses and a comprehensive vehicle list. Data collected from each bus was analyzed and managed to provide commuters with hassle free transport experiences through the city of Bhopal.

Smart Environment

HARMAN brings to the table the most advanced environment monitoring, control and management of key city environmental assets such as Air Quality, Water Quality, Solid Waste etc. HARMAN's state of the art managed IoT infrastructure leveraging public ISM band to wirelessly transfer data from sensors to applications, along with best in industry partner eco-system of sensors and analytics deliver end to end safe and smart environment, with capability to do simulations and analysis tools to enable city planners to enable them in taking key policy decisions.

Optimized Waste Management

Optimize waste management and ensure high standards of hygiene within the city. Automate waste processing and channelize waste for better treatment. Waste management monitoring services including:

- Conversion of waste to usable energy and fuel
- Waste to compost conversion
- Smart treatment of waste water
- Recycling and reduction of C&D waste

Intelligent Water management
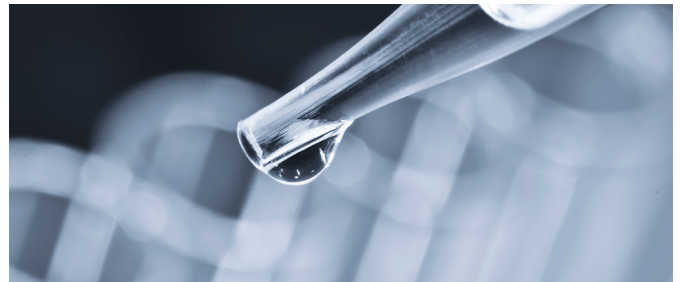
Monitor city wide water supply and take rapid action from smart insights and sensors to ensure smooth flow of water across various parts of the city. Water management services include:

- Water Quality monitoring – pH, TSS monitoring and highlighting in real time any contamination instance
- Water control smart meter and management
- Leakage identification and preventive maintenance

Air Quality monitoring

Monitor Air Quality for various pollutant – NOX, CO, PM 2.5, PM 10.0 etc. and also identify the various sources of pollution – Traffic, Residential, industrial, energy generation etc. to identify the key contributors and do simulation analysis to better plan city policies to improve Air Quality levels within the city infrastructure

Smart Building

A high-performance building automation solution for monitoring and controlling the different systems across your facility. The solution seamlessly integrates with different systems, equipment and field devices that control your access, occupancy, heating, ventilation and air conditioning (HVAC), energy consumption, lighting, hydraulics, water, electrical equipment, ERP and much more.

HARMAN Connected Services

Your gateway to the connected world, led by the Internet of Things

We bring to the IoT world, a managed services solution for IoT that delivers improved quality of life for citizens on Smart cities by deploying state of the art solution to deliver solutions across healthcare, transportation, safe environment and smart green buildings for city infrastructure. Further simulation and analysis tools from our partners enable policy makers to make intelligent decision based on real-time data to appropriately allocate city resources for critical projects.

Why you should work with us

Shortening Time-to-Market

Shorten your time from concept to delivery using our best practices, turn-key delivery models and rich talent pool.

Cross-platform
Take advantage of our experience in multiple industry verticals and leading platforms to rapidly exploit new market opportunities.

World Class delivery footprint
Our skilled, talented engineers deliver solutions to companies like yours from centers throughout the world.

Solution accelerators
Get access to leading edge innovation and best practice by using our solution accelerators and global pool of partnerships.

6	500+	1200+	50+
Key IoT Verticals	Sensors Supported	IoT Specialists	current IoT customers

Microsoft IoT Partner of the Year

MICROSOFT IOT PARTNER OF THE YEAR 2015

#1 IoT solution provider (HFS)

HfS BLUEPRINT WINNERS CIRCLE 2015 IOT SERVICES
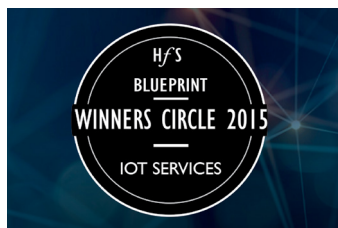
Zinnov Leader in mobility and cloud

FOREMOST LEADER MEDIA AND ENTERTAINMENT ZINNOV GSPR 2015

Partner with an industry expert

HARMAN Connected Services, a leader in software design and development, helps global brands dramatically reduce time-to-market while improving quality and productivity. Our end-to-end software engineering, IoT and data analytics services enable the world's top automotive, mobile and communications and software-enabled businesses drive innovation-led growth.

Visit us at www.harman.com

HARMAN