

# Hewlett Packard Enterprise: The Quiet Giant of Internet of Things

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*Experienced provider to enterprise & operations organizations quietly develops hardware, software, services, & partnerships to deliver IoT solutions*

## Executive Summary

Enterprise and operations organizations looking to digitally transform their businesses using Internet of Things (IoT) technology often face a daunting initial task. How do I pick a partner to help guide us on this journey? How do I find a vendor that understands my industry, can help me architect the big picture, and then help me put it all together? At their core, IoT solutions are all about gaining business insight from data collected from things, and that requires **connectivity** to access the data, **computation** to analyze and act on data, and **security** to protect that data. Finding these components from a single vendor is virtually impossible, which is why most organizations believe developing IoT solutions involves putting together a vast array of partnerships.

Moor Insights & Strategy (MI&S) believes there are a few organizations with significant experience in Information Technology (IT), IoT vertical markets, IoT focused hardware, software, services, and the ability to integrate with best-of-breed partners to bring real IoT solutions to market today. Hewlett Packard Enterprise (HPE) is one of those companies. Enterprises and operations organizations looking to engage with a vendor that has experience, technologies, and partners in the IoT space, along with a long history in delivering IT solutions should strongly consider HPE to help them navigate the IoT waters.

## HPE IoT Strategy

HPE's corporate strategy is focused on three core pillars, all required for IoT success.

- **Make Hybrid IT simple:** Software-defined infrastructure, multi-cloud management, and flexible financial consumption models
- **Power the Intelligent Edge:** Connectivity, security, and computing power to create the next generation of digital experiences and services
- **Expertise to bring it all together:** To advise, integrate, and operationalize solutions in conjunction with a broad ecosystem of partnerships

For HPE's IoT initiatives, this translates to using its knowledge and expertise in the enterprise IT, industrial / operations, and public sectors. HPE combines this with company innovations, strategic hardware and software acquisitions, and strong IoT partnerships outside of its own expertise to deliver customer solutions today.

## Experience Where It Counts

Internet of Things solutions affect virtually every industry, but IoT deployments themselves are very market-specific. MI&S believes enterprise and operations organizations looking to start (or continue) their digital transformation should look for partners who can provide IoT products and who also have experience providing advice and deploying and supporting solutions in **their specific market**. Understanding specific market needs at the project's inception reduces risk, delivers the right solution, and provides real return on investment (ROI).

**Figure 1: HPE IoT Industry Expertise**



Source: Hewlett Packard Enterprise

HPE has a long history, including over 25 years of enterprise-grade IT and telecom experience, of engaging with customers that can now gain efficiencies and develop innovations using IoT solutions. HPE Pointnext has over 25,000 experts in 80+ countries who are already engaged with enterprise and operations organizations. Many, if not all of these organizations, are already engaged with HPE for IoT applications such as connected vehicles, predictive maintenance, and location-based services.

## Solutions

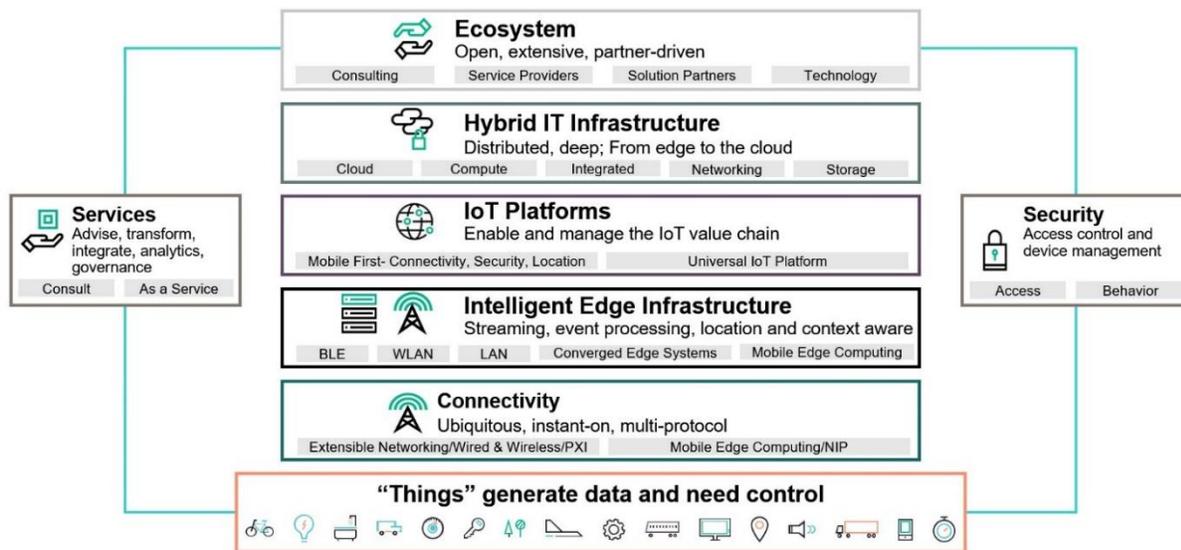
HPE has developed and deployed IoT-focused products and services.

- **Universal IoT (UIoT) Platform** provides technology-agnostic Wide Area Network (WAN) management, monitoring, and analysis for customer applications, such as smart cities, autonomous vehicles, and telecom deployments, where massive scale and mobility are key.
- **Aruba Meridian Analytics & Location Engine, ClearPass, and Niara location-based services and security platforms** provide secure connectivity for Industrial IoT applications, such as asset management and tracking,

predictive maintenance, and hazard monitoring, in addition to enterprise mobile applications, such as intelligent space design for airports and stadiums using beacons and location services.

- **Edgeline Converged Edge Systems (including IoT gateways and servers)** are architected for data collection, aggregation, and analysis in industrial settings or wherever the data are generated. Applications such as fault, alarm, and telemetry monitoring and predictive maintenance can take advantage of compute, networking, and storage architected specifically for IoT applications.
- **Pointnext** provides advice, deployment, and support services for IoT applications, helping customers put the entire solution together. Pointnext can make it easier for customers by providing a single focal point with experience in the customers’ markets and can help them develop a solution that meets their needs in the right timeframe. Pointnext has the ability to help customers manage costs and RIO by offering new IoT business models such as “edge-as-a-service”.

**Figure 2: HPE IoT Solutions**



Source: Hewlett Packard Enterprise

## Partnerships

IoT is all about partnerships, and HPE has developed relationships with key IoT players including GE, Microsoft, National Instruments, PTC, SAP, Schneider Electric, AT&T, and Verizon just to name a few. In addition, in key verticals markets, systems integrators (SIs) and independent software vendors (ISVs) provide value-added and often customer-tailored integration services. HPE has relationships with SIs and ISVs such as Accenture, Deloitte, Tata, Tech Mahindra, and DXC Technology that provide customers with experienced integrators and software vendors who understand their specific systems and needs.

## Real IoT Use Cases, Today

The key to success in providing IoT deployments that work is experience. HPE has that experience across a broad range of IoT industrial and enterprise applications. MI&S believes what makes HPE unique in the IoT realm is its industry experience, the breadth of its IoT solutions and services, and the partnerships it has developed. These can best be illustrated by examples of specific IoT use cases for enterprise, industrial, and public sector IoT deployments.

**Figure 3: Examples of HPE & Partner Use Cases**

|                                   |   |   |   |
|-----------------------------------|---|---|---|
| <b>Customer:</b>                  | <br>Cities of India        | <br>RIOgaleão<br>aeroporto internacional<br>tom jobim | <br>HIROTEC<br>AMERICA |
| <b>Partners:</b>                  | <br>TATA                   | <br>Ziva (Deployment)                                 | <br>ptc                |
| <b>Use case:</b>                  | Smart Buildings<br>Connected Healthcare<br>Fleet Management<br>Security<br>Healthcare Services<br>Utilities | Location-based Services<br>Smart Building   | Predictive Maintenance<br>Augmented Reality   |
| <b>Business model innovation:</b> | LoRaWAN™ network to connect up to 400 million people  | Ultimate airport experience   | Factory of the Future   |

Source: Hewlett Packard Enterprise

### Tata Communications LoRa Deployment

Tata Communications is deploying the world’s largest LoRa IoT network across cities and towns in India to provide needed health and safety services. The plan is to cover nearly 400M people in more than 2,000 communities. Working in conjunction with HPE and using HPE’s UIoT platform, it plans to deploy and manage millions of IoT devices in a Wide Area Network (WAN), both inside and outside of structures to provide applications for utility services, fleet management, security, and healthcare services across the country. Using the HPE UIoT Platform will help Tata Communications develop new products and services across multiple industry verticals using a variety of connectivity options, protocols, and interfaces.

### RIOgaleão-Tom Jobim International Airport Location-Based Services Deployment

Prior to hosting the 2016 Olympics, RIOgaleão Airport knew it was facing a monumental task: dealing with a massive increase in airport traffic for the games. The airport was looking to deliver a high-quality customer experience and accelerate airport operations with a new mobile app powered by IoT technologies, such as wayfinding, Bluetooth Beacons, and geo-fencing. Working with ZIVA for installation and Accenture Digital for mobile applications development, design, and integration, HPE/Aruba a Hewlett

Packard Enterprise Company installed a wide variety of networking and location hardware in conjunction with network management software. The result helps deliver a best-in-class customer experience for airport visitors. Now passengers can better manage and enjoy their time in the airport, quickly and easily finding flight information, restaurants, shops, and more, using indoor navigation.

### **HIROTEC Predictive Edge Analytics Deployment**

As one of the world's leading private automobile parts manufacturers, HIROTEC understands what it means when machines go down. One of HIROTEC's critical priorities is to ensure continuous operations—*i.e.*, to virtually eliminate unplanned downtime in its manufacturing facilities. Collaborating with HPE for edge analytics, PTC for ThingWorx Technology platform, and its system integrator Otsuka, HIROTEC has been able to implement a system that:

- Performs real-time visualization and automatic, paperless report generation for the entire production line of an automobile door production facility
- Gains real-time visibility into its business operations, which in turn allows the company to address issues that impact its efficiency and throughput
- Uses machine learning functionality, which it will leverage to predict—and therefore prevent—failures in critical systems, like robotic arms in its exhaust system testing line
- Performs sophisticated analysis of historical data, so it can better understand production facility performance and ways to drive improvements

### **Call to Action**

The hardest part of initiating an IoT project is beginning. Understanding that you can get business value out of data is easy; identifying the business value and the insights needed to gain the value is not. Finding the right partners to help you architect your IoT solution, to deliver hardware, software, and services, and to help maintain your IoT solution is one of the most critical decisions a company must make.

Moor Insights & Strategy believes that enterprise, industrial, and public sector organizations looking for a partner to help them achieve their IoT goals should strongly consider HPE. HPE's combination of IoT market and customer experience, its ability to assist in the design, deployment, and support of these systems, its strong portfolio of IoT focused hardware and software solutions, as well as its deep IoT industry partnerships make it a natural choice as a focal point for IoT deployments.

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