With the increasing number of inter-connected and internet connected devices, the networking space today is going far beyond the traditional human-to-machine communications. The everyday consumer objects are turning into communication end points for a well connected world—the trend fondly called as Internet of Things (IoT). Now, with the help of a multitude of internet connected sensors, a retailer knows when to replenish the stocks in their vending machines and a driver can select the shortest route for travel, based on the information about the traffic delays. No wonder, IoT is increasingly integrating into our society and supporting our daily life.

The spectrum of IoT probably spans more areas than the existing technologies of today—including multiple research areas like Body Area networks, Device-to-Device communication networks, Home Area networks, Unmanned Aerial Vehicle networks, and Satellite networks. The development of device sensors and wireless networking technologies like Wi-Fi, Bluetooth, 3G and 4G, is giving the momentum required by the IoT.

With a scenario set like this, the future of IoT might be closer than we think. Smart homes are just the beginning and a driver can select the shortest route for travel, understanding the world, without the limitations of human-entered data. New technologies like artificial intelligence and machine learning will result in exciting new range of connected devices in the times to come. IoT is surely taking the world beyond standalone devices, into a new era where everything is connected.

This entire spectrum of IoT offers significant opportunities for technology providers. Integration of new technologies, marketing and sales support for small customers and ecosystem presence, are the attributes that define a successful IoT technology provider. For the semiconductor and electronics hardware vendors, it can be a high-volume, low-dollar market. To drive the revenue growth from the vast IoT ecosystem, the vendors must enhance their embedded software and middleware capabilities or partner with software component suppliers.

In this edition of CIO Review, we bring to you ‘50 Most Promising Internet of Things Companies 2014’, featuring the best vendors and consultants providing technologies and services related to Internet of Things.

A distinguished panel comprising of CEOs, CIOs, CTOS, analysts including CIO Review editorial board has decided the top companies that are at the forefront of tackling challenges in the Internet of Things market in the US.

Company: Geotab

Description: A proven industry leader in the area of GPS fleet management and vehicle telematics.

Key Person: Neil Cawse, CEO

Website: geotab.com

Geotab: A Telematics Engineering Leader

A couple of decades ago the Telematics industry was in its embryonic stage where various companies were striving to give the best to their customers. As the world has traversed forward, the industry has gotten rich and broad with numerous firms and organizations apprehending the need to provide the data pertaining to customer’s vehicle. One such eminent example is Canada based Geotab, who, since 1999, is a part of the Telematics space and thus has emerged as a leader in Telematics platform with a rich, free software development kit enabling Telematics service providers and customers access to quality, and reliable datasets.

Geotab has been leveraging IoT since past many years, long before many were still getting acquainted with this space. With the advent of Cloud, now the firm has streamlined their services even further, enabling themselves to cater their customers in more efficient manner. “Connecting vehicles with all the rich data about what the vehicle is doing, how it is performing and what may be wrong with it, to the Internet and then analyzing everything using the Cloud has been part of Geotab’s long standing vision,” explains CEO of the company Neil Cawse. “A key part of our IoT strategy is our Software Development Kit that enables customers to extend the Geotab Telematics data with other IoT software systems,” he adds.

A Telematics Protagonist

Geotab is primarily focused on Fleet Telematics. This firm is considered to be the fastest growing market leader selling fleet Telematics device in both 2013 and 2014 and has 40 of the top 100 fleets in terms of vehicles relying on Geotab GO cellular IoT connected devices hosted in MyGeotab. Geotab is unique in the world of Telematics providers in IoT as they are the sole provider of collection devices, cellular network connection, IoT gateway management portal, and an IoT based data center supported by APLs.

Geotab has a number of patents related to Fleet Telematics. One of the most novel solutions the firm provides is the method of determining when to transmit data. Data is not sent on a time or distance basis rather it is send whenever there is a change in direction, speed, engine parameter, and such related aspects. It confer customers an optimum amount of quality data, without noise and duplicates at the lowest possible cellular MB and server overhead cost. Other novel innovation pertains to hardware itself. With four separate CANBUS networks on board, Geotab now monitors simultaneous, multiple vehicle communication networks and protocols. Customers can now detect all of the vehicle data communications from the engine, the driverain, the instrument cluster as well as other subsystems that may be installed.

The Roadmap

Geotab is an engineering company that relies on professional Value-Added Resellers who represent their technology. Over the next three years, Geotab intends to further encourage companies to build software user interfacing solutions and third party applications on top of a Geotab data foundation, which the company believes has the best opportunity for innovation.