With the increasing number of inter-connected and internet connected devices, the networking space today is going far beyond the traditional human-machine communications. The everyday consumer objects are turning into communication endpoints 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. 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.

The Differentiating Technology

The Internet revolutionized the way people communicate, what they do and how they work. The next wave of the Internet will connect machines and devices together into functioning, intelligent systems. These interconnected devices will work together with unprecedented speed, scale, and capabilities.

Real-Time Innovations (RTI) is the key provider of the communications platform for the Industrial Internet of Things (IIoT) space. RTI is headed by CEO Dr. Stan Schneider and headquartered in Sunnyvale, CA. With more than a decade of experience and hundreds of real-world IIoT applications, RTI is the leading embedded middleware provider. RTI software connects machines to data to build intelligent systems and enables the IIoT to deliver applications never before possible.

Infrastructures for mission-critical power generation, advanced medical systems, wind turbine farms, air traffic control, military systems, robotics and factory automation. Connext DDS products fulfill the demanding performance, reliability, and security requirements of critical infrastructures, including support for deployment in distributed and dynamic environments at the network edge.

Connext DDS offers a simple programming model, flexible integration capabilities, and open interfaces. This allows software architects and developers to develop distributed applications faster, integrate systems more efficiently, and maintain products at a lower cost.

Going forward, the company is weaving new strategies across the globe. The firm’s current user base is spread across the Americas, Europe and Asia. “Our customers span the breadth of the Internet of Things including medical, energy, mining, air traffic control, trading, automotive, unmanned systems, industrial SCADA, naval systems, air and missile defense, ground stations, and science,” said Schneider. “The total value of systems that currently or will soon trust RTI for their fundamental architecture exceeds $1 trillion.”

The CEO concludes by saying, “RTI was recently named the Most Influential Company in the Industrial IoT and I am a steering committee member of the Industrial Internet Consortium (IIC). Now, we’ve been named as one of CIO Review’s Top IoT Solution Providers. Our goal is to accelerate the development of connected industrial IoT applications and to provide a common blueprint for building systems in the Industrial IoT. Companies that require either extreme reliability, high performance or an extended life cycle trust their distributed systems to RTI.”