The Internet of Things (IoT) represents a very complex value chain from devices, to connectivity, to data instrumentation and aggregation, to business intelligence and ultimately, to managed services and system integration functions. Different entities in the industry play in this complex ecosystem and when we work with our operator customers, we are trying to provide them with assurance across all the layers.

In IoT, the operator typically sits between industry verticals and an array of networks and endpoints that are aligned with a variety of standards and alliances. The service provider’s cloud interacts with these networks and endpoints to deliver policy rules, service assurance, security mitigation and business analytics. On the industry side, the service provider’s cloud is also exposed to different verticals (transport, smart City, healthcare, utilities) through APIs.

As today’s IoT World is neither well integrated nor fully interoperable, service providers are looking to deliver value through harmonization. Service Providers need to be sure that a device on their mobile network can interoperate with a device in the home or in an industrial setting. This is where the real value of IoT can be unlocked.

The challenge of IoT devices, the range and variety of devices service providers will encounter in IoT increases beyond the handful of smartphones they are familiar with today. As growing device complexity pushes pre-validation and pre-testing limits, operators will need more flexibility to handle issues in the live network. They will need a solution that can help them capture misconfiguration issues, timing issues, and latency issues that arise from unexpected device behaviors, network behaviors, and behaviors in the cloud.
As today’s IoT World is neither well-integrated nor fully interoperable, service providers are looking to deliver value through harmonization.

Assuring Applications with an End-to-End, Full Stack View Interoperability will be a key challenge for our customers. When the devices, the network and the applications all interact together they can create complex issues from a service assurance point of view as well as from the end user experience. We add value to the IoT services by making sure that the protocols, the network and the applications sitting in the cloud all work in sync and in the right way. Our advantage is that we are able to monitor not only the protocols at the lower layers but also the API interactions taking place at the application layer.

From a NETSCOUT® perspective we can measure and monitor the messages that are going back and forth between the industry verticals and the network silos. On the application side, we can provide a holistic view with the right business analytics to help service providers determine how applications are being used by different end users and across the different networks. As most of the core network elements will likely move to a more virtualized architecture with IoT, our suite of virtual agents, virtual probes and active agents will also underscore our ability to deliver end-to-end visibility and effective instrumentation to our customers.

We add value to the IoT services by making sure that the protocols, the network and the applications sitting in the cloud all work in sync and in the right way.

LEARN MORE
For additional information on IoT, visit:
www.netscout.com/solutions/iot-monitoring/service-provider