



Cisco Kinetic



Connection
Management



Fog
Computing



Data
Delivery

In recent years, companies across the globe have embraced the idea of a hyper-connected, digital world. Cisco starting to see a level of maturity within those companies, an understanding that they need to move beyond the test-and-learn phase to truly master IoT as a way to drive massive business growth.

At Cisco is committed to making it faster and easier for these businesses to get their IoT initiatives from proof of concept to implementation to scalable bottom-line results. Cisco Kinetic will help companies accelerate their progress by leveraging the network, automating management of their IoT devices, and extracting value from the terabytes of IoT data at their disposal.

Cisco Kinetic does this by solving three substantive IOT challenges for companies, within a single platform:



Easily connect their
devices on the world's
enterprise networks



Benefit from a highly
distributed computing
environment to deliver
fast decisions.



Ensure data is securely
extracted and routed to
where it can deliver the
most value.

Connection Management

The sheer scale of IoT demands a new, automated way to onboard, authenticate, monitor, and manage IoT devices. There are billions of devices yet to be connected, and as we've learned after 10+ years in IoT, ensuring that every connection works as flawlessly on day 3000 as it did on day one is absolutely critical. After all, if you can't get the data from the device to an end point, nothing else matters.

Cisco Kinetic is designed to solve that problem by deeply understanding how to turn connected things into trusted IoT devices, and making the enterprise network a welcoming, secure place for those devices to connect.

Fog Computing

One critical effect of connecting billions of devices is that computing will be highly distributed – from the public cloud down to the furthest reaches of edge devices, and everything in between. The simple truth is that, when devices are generating terabytes of data, it's not practical to send everything offsite.

Cisco Kinetic addresses this by significantly increasing the efficiency of how and where data is processed, automatically determining what needs to stay local, be shared on site, or delivered to the cloud. With fog computing, we make it possible to process data at the edge and execute fast decisions close to the action, when and where that information is needed most.

Take the example of Chevron, who realized it was inefficient to send massive amounts of data thousands of miles from oil well sensors to the engineers responsible for optimizing their production. With Cisco Kinetic, they now can process much of that data onsite, then parse and send only the essential data to the subject matter experts in Houston, Texas. As a result, they have been able to reduce time-to-decisions from 2 weeks down to a matter of seconds. This approach also reduces bandwidth needs and latency, helping companies like this to manage costs while extracting maximum value from their IoT hardware and network. One critical effect of connecting billions of devices is that computing will be highly distributed – from the public cloud down to the furthest reaches of edge devices, and everything in between. The simple truth is that, when devices are generating terabytes of data, it's not practical to send everything offsite.

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Data Delivery

One of the biggest challenges in IoT is how companies can extract maximum value from the terabytes of IoT data at their disposal. Cisco Kinetic helps companies achieve this by making it easy to extract, normalize and securely deliver data, across all the participants of an ecosystem, based on rules defined by the data owner(s). We play a vital role in enforcing the rules that have been negotiated between parties.

One example of this is some of the work we're doing with Industrial Machine manufacturers like FANUC or Makino, who benefit greatly from extracting data from their products running on a factory floor. However, many of those factory owners are concerned about enabling a connection to a 3rdparty and what data is being collected and shared with whom. Cisco Kinetic is there to ensure both parties – the Thing Maker and the Thing Owner – get access to the data they are authorized to access, while protecting the connection from threats and vulnerabilities.