Service Provider IoT Solutions

Capture New Opportunities with Digitization

What if you could build a platform to deliver managed services for the fast-developing markets enabled by digitization and the IoT—from smart cities to connected cars to digital stores and more? As companies digitize, their networked connections will expand dramatically to include physical objects or things embedded with electronics, software, sensors, and connectivity.

And what if you could tap into this opportunity and work with solutions partners to manage the network and also offer the security, tracking, and analytics that will make these digital applications possible?

You can with an IoT managed services platform, which Cisco is uniquely positioned to help you build with our end-to-end capabilities supported by services. We offer a comprehensive IoT portfolio that includes industrial grade connectivity gateways, wireless products, edge/fog computing, application enablement platform, cloud platform for IoT service management and delivery automation, physical security and cyber-security products. These products support the unique requirements in targeted verticals, such as transportation, energy, public safety, defense, smart city, manufacturing and others.

Benefits

- **Capture new services revenue** in the rapidly growing digitization and Internet of Things (IoT) markets for managed services.

- **Use Cisco® end-to-end IoT solutions** and our partner ecosystem to quickly build new offerings and enter untapped markets.

- **Address and monetize targeted verticals** including transportation, energy, public safety, defense, smart city, manufacturing and others.

- **Defend** all layers of your services by deploying Cisco pervasive security solutions.

Figure 1. Cisco IoT Components
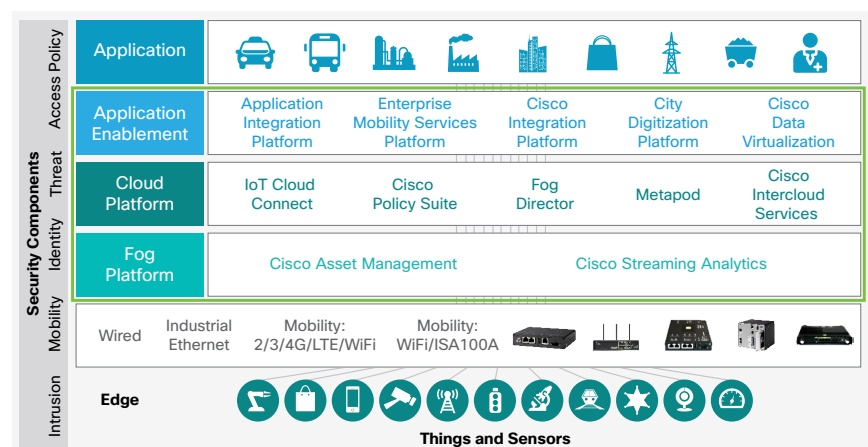
Large Market Projected

You can tap into a significant opportunity by providing a range of services to these growing IoE and IoT markets. Major global service-provider grouping grew machine-to-machine (M2M) revenue 41 percent in 2014, and connections 30 percent[1]. Not only are connections growing rapidly, but also the value per connection is growing, too. Connections growth was the second highest of any line of business (behind pay TV).

[1] Machina Research, State of the Industry Report Nov 2015

Next Steps

To find out how to get started with a Cisco service provider IoT solution, visit the following:

- Cisco Service Provider Mobile Internet Products website
- Cisco Mobile Internet website

Your options in the IoT market can be as small as providing connectivity or as large and involved as a provider of full vertical solutions. Both are feasible and require different level of investment and effort, but also have different returns.

Figure 2.   Service Provider IoT Solutions

	Smart Cities	Asset Management	Entertainment (Sports, Retail, Hospitality)	Connected Vehicle
Use-case	▸ City WiFi ▸ Smart Parking ▸ Smart Lighting	▸ Site Assets ▸ Remote Assets ▸ Mobile Assets	▸ Sports Stadiums ▸ Store in a Box ▸ Digital Store ▸ Managed IQ	▸ Connected Car/Bus ▸ Fleet Management ▸ Connected Roadside
Sell to	City Council	Industrials	▸ Retail ▸ Stadiums	▸ Car Rental/Share ▸ Automakers ▸ Bus Companies

Cisco IoT Components

The Cisco service provider IoT solution is end to end (Figure 1), from the edge providing mobility, wired and Industrial Ethernet connectivity to things and sensors, up through application enablement platforms. The major layers of our solution include:

- **Fog platform,** a distributed computing infrastructure for the IoT that extends computing capabilities, such as asset management and streaming analytics, to the edge of networks. Cisco Asset Management takes full advantage of network infrastructure, advanced analytics, and historical data so you can identify, track, control, monitor, and better secure connected assets. These include cell sites, buildings, remote construction sites, healthcare and manufacturing facilities, and more.

- **Cloud platform,** which includes Cisco IoT Cloud Connect, a hosted managed cloud platform that manages and automates IoT service delivery for mobile network operators. It combines the power of the Cisco innovative packet core portfolio and M2M services delivery platform with the technologies of Cisco IoT ecosystem partners.

- **Application enablement,** which includes major mobility offerings such as Cisco Service Exchange Platform and Enterprise Mobility Services Platform, along with vertical-specific offerings, such as Cisco city digital platform. The city digital platform contains open APIs to integrate city assets quickly such as lighting, parking, utility vehicles, and others on the platform.

- **Security,** based on a defense-in-depth approach that we weave into all layers, from endpoint to physical access to network, cloud, and analytics. Solutions range from firewalls and intrusion prevention to Cisco Advanced Malware Protection, identity services, and access policy management.