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# Intent-Based Networking across the Extended Enterprise

Maximize the business impact of intent-based networking across the Extended Enterprise

Digital transformation and a proliferation of Internet of Things (IoT) end-points require a new approach to networking, one that is intent-based, to manage the challenges of scale and security faced by the enterprise. The Extended Enterprise includes outdoor environments, distribution centers, roadways, warehouses and more.

Expanding intent-based networking into the Extended Enterprise empowers IT and lines of business to work cooperatively to drive new business growth with network automation to lower complexity and costs, and reduce risks with built-in security and actionable insights across the network.

Requirements for improving operational efficiency, delivering new service offerings, and increasing customer satisfaction:

- Expansion of Enterprise network to rugged and harsh environments
- Secure, highly reliable and high-bandwidth connectivity for IoT end-points
- Integration with operational systems
- Visibility for reliable and resilient operation and services

Core/HQ/
Data Centers

Campuses/
Branches

Extended
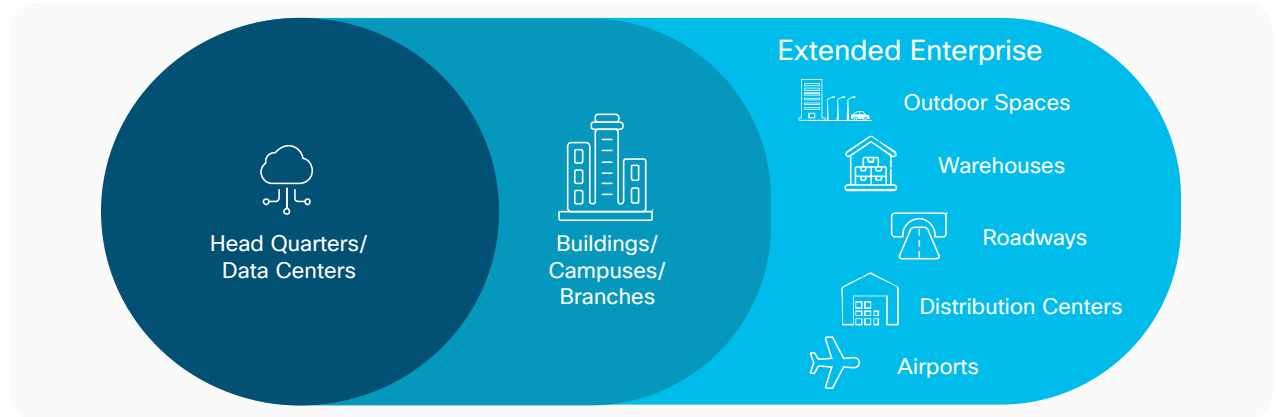Enterprise

Intent-based Networking
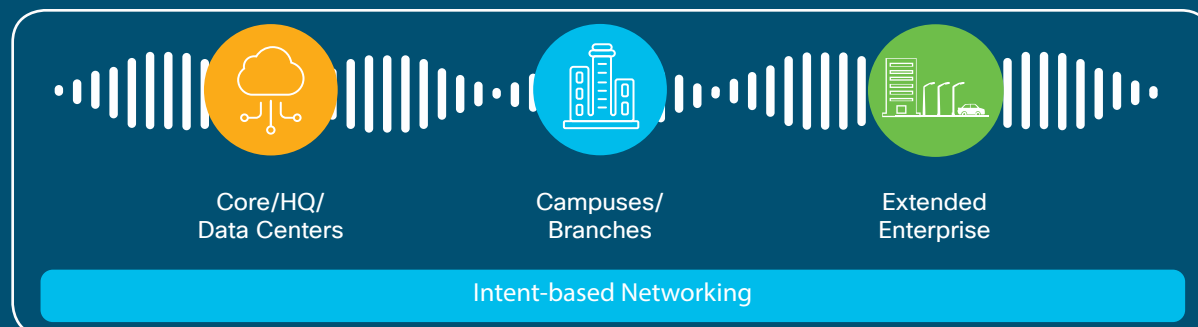
Benefits

- Automate and go fast:
  - Extend the Enterprise network to IoT endpoints in rugged environments
  - Design once and replicate to scale across the entire Enterprise network
  - Centrally manage the Enterprise Network at scale with Cisco Digital Network Architecture (Cisco DNA) Center network management
- Protect the business:
  - Define security policies for IoT end-points and applications for the entire Enterprise network
  - Onboard new IoT end-points and services to the Extended Enterprise network without the security of traditional IT services
- Act with insight:
  - Increase IT productivity with tools to centrally monitor the entire Enterprise network
  - Gain visibility into IoT end-points in the Enterprise network and leverage assurance to troubleshoot failures and discover issues

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Why Cisco?

- Technology leadership
- End-to-end security, assurance, and automation
- Best-in-class integrated architecture
- Global, award-winning services and support
- Broadest developer and partner ecosystem

Scalable, secure implementations support both current and future applications, allowing IT and operational managers to confidently plan for tomorrow's capabilities while continuing to maximize existing technologies.

Head Quarters/ Data Centers

Buildings/ Campuses/ Branches

Extended Enterprise
- Outdoor Spaces
- Warehouses
- Roadways
- Distribution Centers
- Airports

Example use case	Primary business outcome	Primary functional components
Warehouses	Improved worker and overall process productivity • Ability to digitize distributed operations and manage centrally • System-wide connectivity and process visibility	• Cisco Catalyst IE4000 Rugged Series: secure, rugged, gigabit connectivity for automated receivers, sorters, conveyors, refrigeration controllers, IP cameras, Wi-Fi access points, and mobile devices. • Cisco Aironet IW3700 Rugged Series: secure Wi-Fi access for operations integrating real-time communications with control room and operations staff.
Outdoor Spaces	Safety, customer satisfaction and improved employee productivity	• Cisco Catalyst IE4000 Rugged Series: secure rugged gigabit PoE connectivity for outdoor digital signage, service kiosks, IP cameras, Wi-Fi access points. • Cisco Aironet IW3700 Rugged Series: secure Wi-Fi access for operations integrating real time communications with mobile applications and data.
Roadways	Increased safety and reduced traffic congestion • Real time traffic monitoring	• Cisco Catalyst IE4000 Rugged Series: secure ruggedized connectivity for integration with digital signage, cameras, signaling controllers, weather sensors, and emergency systems. • Cisco IR829 Industrial Integrated Services Routers Rugged Series: secure, highly reliable data delivery over LTE.