Wireless Guide

CNI
Comstor Networking Initiative

Trends in Enterprise

7.5B Things

Enterprise IoT

Infrastructure convergence vulnerable endpoints

3.64 Devices / person

Changing workforce and apps hyper-connected

Mobility

100K Devices

AWS Windows 10

Devices per Admin
Agility consumption models

Cloud

Security

Average cost of a data breach

$3.5M

Traditional Networks Cannot Keep Up

Difficult to Segment

Ever increasing number of users and endpoint types

Ever increasing number of VLANs and IP Subnets

Complex to Manage

Multiple steps, user credentials, complex interactions

Multiple touch-points

Slower Issue Resolution

Separate user policies for wired and wireless networks

Unable to find users when troubleshooting
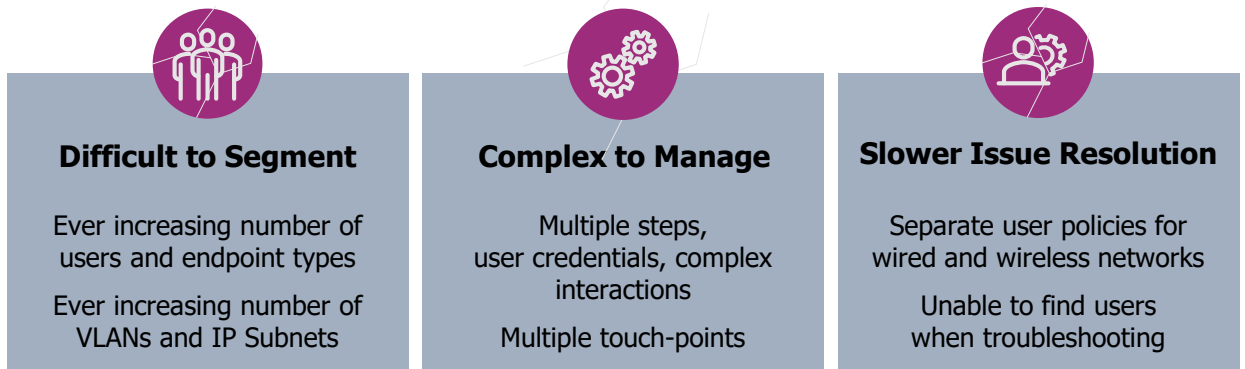
Criminals know more about your network than you do

Motivated and targeted adversaries

State sponsored
Financial and espionage motives
$1T cybercrime market

Increased attack surface

BYOD blurring perimeter
Public cloud services
Enterprise IoT

Increased attack sophistication

Advanced persistent threats
Encrypted malware
Zero-day exploits
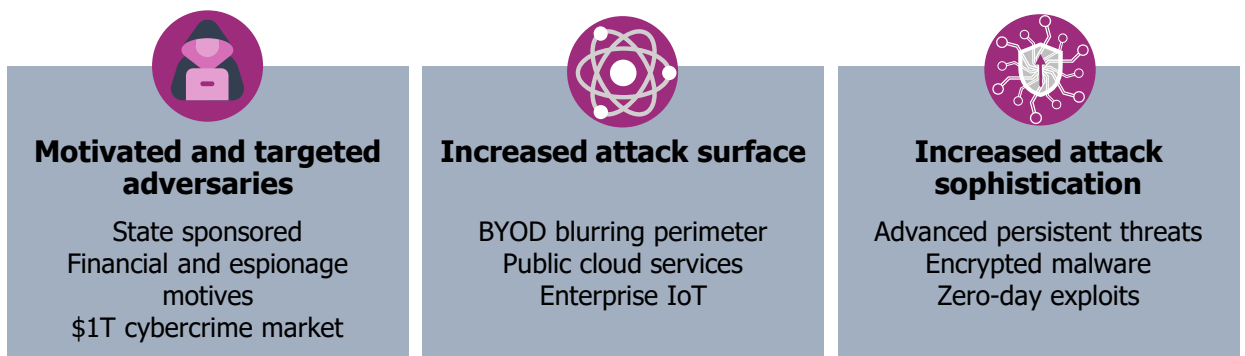
The need for intent-based networking

CNI Comstor Networking Initiative

Unpacking intent-based networking

Location Services
DNA Spaces

Security Services
Umbrella

Policy Services
ISE

Automation & intent-based
DNA Center

Threat Visibility
StealthWatch

Catalyst
9100 Series

Wi-Fi 6

Wi-Fi 6

Wi-Fi 6

Wi-Fi 6

Catalyst
9200/9300/9400

Wi-Fi 6, 802.3bt Ready

48P 5G + 25G/
40G uplinks

Most comprehensive
mGig portfolio

Catalyst
9500/9600 Series

Campus Optimized
25G/40G/100G

Catalyst
9800 Series

Industry's only modular
WLC with 40G/100G
uplinks

Access points   Access switches   Core switches   Wireless controller

← The full experience, end to end →

The components

Cisco Catalyst 9000 Family: It's a new era in intent-based networking. The Catalyst family now extends to wireless, and we're introducing new switches for midmarket and simple branch deployments.

Cisco delivers **key wireless innovation** through custom-built, state-of-the-art access points that go beyond the 802.11ac wireless standard to provide radio-frequency excellence for high-density environments. Transmitting data at speeds beyond 1 Gbps across a wireless network, they provide the performance and functionality to support Wi-Fi mobility for your customers and employees into the future.

A better way to control your network: Cisco DNA Center is the network management and command center for Cisco DNA, your intent-based network for the enterprise. Provision and configure all your network devices in minutes. Use advanced analytics to proactively monitor, troubleshoot, and optimise your network. Cisco DNA Center allows integration with third-party systems for improved operational processes.

Scalable visibility and security analytics across your business: Outsmart emerging threats in your digital business with industry-leading machine learning and behavioral modeling. Know who is on the network and what they are doing using telemetry from your network infrastructure. Detect advanced threats and respond to them quickly. Protect critical data with smarter network segmentation. And do it all with a solution that grows with your business.

Intuitive network security for the digital age: The Cisco Identity Services Engine (ISE) offers a network-based approach for adaptable, trusted access everywhere, based on context. It gives you intelligent, integrated protection through intent-based policy and compliance solutions. And it is all delivered with streamlined, centralized management that lets you scale securely in today's market.

Your first line of defense: Cisco Umbrella WLAN is a cloud-delivered security service for the Cisco Wireless LAN Controller. With Umbrella, you can easily secure your wireless environment and protect any device on your network in minutes. Umbrella blocks requests to malicious domains and IPs before a connection is ever made, stopping threats earlier.

Get more from your Wi-Fi: Cisco DNA Spaces is the world's most powerful location platform that leverages existing Wi-Fi infrastructure to give you actionable insights and drive business outcomes.

WiFi 6

CNI
Comstor Networking Initiative

With the introduction we can fully optimize the use of the available wireless data space. This new standards is not as much about more speed but more about optimization simultaneously and accommodating as much clients as possible.

WiFi 6

The Benefit

Wi-Fi 6 will build on the success of 802.11ac. It will let access points support more clients in dense environments and will provide a better experience for typical wireless LAN networks. It will also provide a more predictable performance for advanced applications such as 4K or 8K video, high-density high-definition collaboration apps, all-wireless offices, and the Internet of Things (IoT). Wi-Fi 6 will drive Wi-Fi toward the future as the growth of wireless continues.

There are some Wi-Fi 6 access points already on the market, targeted for early adopters and customers who are eager to test the new standard. The access points that are released early will be pre-standard APs because the standard will not yet have been ratified. This means key features that are part of Wi-Fi 6 may not be supported on some of these initial, pre-standard access points. However, when available, some of these access points will be able to become certified through software updates and Wi-Fi 6 features will be supported. This approach is similar to the introduction of prior generations such 802.11ac and 802.11n.
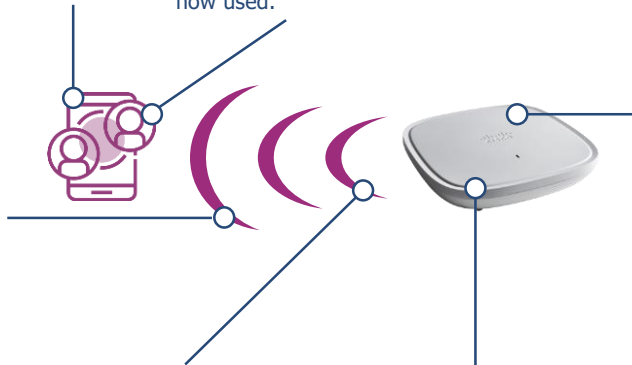
The Access Point

The benefit

Target-Wakeup Time (TWT) is a sleep and wake-up scheduling for end points. When there are devices using the same frequency for their transaction with the access points, the AP will orchestrate who can send, and when. The end point will now know exactly when the AP is ready for it and when it has to wait. One benefit is no more collisions or the need to resend a packet, the other benefit is that while waiting, no energy will be consumed and the battery life of mobile devices will be extended.

WiFi6 has 3 'Multi-user' dimensions. The first is time, this exist since the beginning of WiFi. Each device will be given a brief moment to send or receive. The second dimension is spatial division or antenna allocation. When having 8 antennas, in one moment of time up to 8 users can receive data at once. This has been introduced in WiFi5. In both of those dimensions we loose a lot of available bandwidth. Each antenna uses the same amount of bandwidth for a HD video transaction as for an IOT reader or a text message. A lot of the available bandwidth is simply not used. And now we have the third dimension, frequency division (**OFDMA**). Within this one spatial stream we can now allocate from 1 up to 74 concurrent connections to optimise the spatial usage and make sure all of the available bandwidth is now used.

10 BITS PER SYMBOL: going from 256 QAM to **1024 QAM** increases peak rates by $10/8 = 1.25$ times. Being closer together, the constellation points are more sensitive to noise, so 1024 QAM helps most at shorter range. 256 QAM is more reliable, but 1024 QAM does not require any more spectrum or more antennas than 256 QAM.

8 SPATIAL STREAMS: The speed is directly proportional to the number of spatial streams. More spatial streams require more antennas. WiFi 6 allows the use of up to 8 antennas which is twice the maximum number provided in 802.11ac products today.

LONGER SYMBOLS: In WiFi 6 it takes four times longer to send one symbol of data and the AP can wait up to four times as long before sending the next symbol of data. At first this looks like a speed decrease but this will greatly effect efficiency levels.
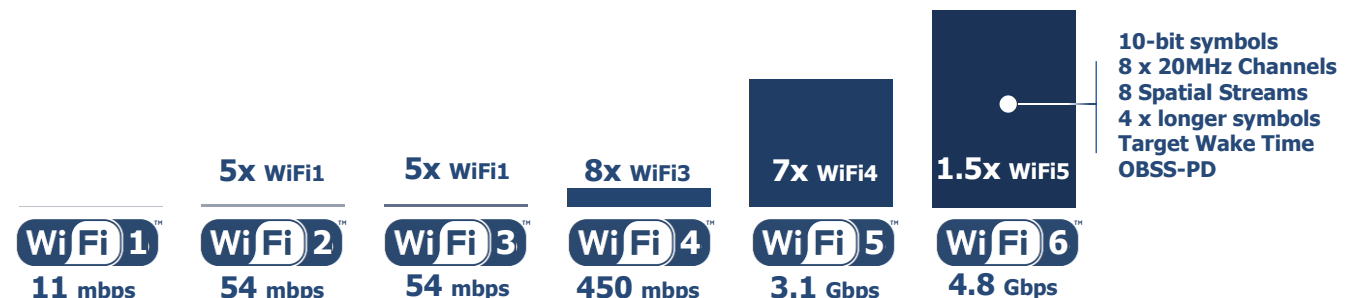WiFi suffers a lot from reflecting signals. Because of this every end point will receive the same signal multiple times. When the symbol is short, the end point might think a symbol has been sent multiple times due to this reflection, hence the complete transactions has to start over again. By extending the symbol time, the end point has a better way to understand what a reflection is and what the original symbol is.

WiFi6 supports Dynamic **Overlapping Basic Service Set Packet Detection** (**OBSS-PD**). The likelihood of one BSS (access point) interfering with a neighboring BSS (access point) in the frequency range exists.
OBSS-PD will tag every packet between the end points and access points so both will understand which packet belongs to them. Other packets with another tag are identified as a neighboring transaction and will be ignored.

10-bit symbols
8 x 20MHz Channels
8 Spatial Streams
4 x longer symbols
Target Wake Time
OBSS-PD

5x WiFi1	5x WiFi1	8x WiFi3	7x WiFi4	1.5x WiFi5

Wi Fi 1	Wi Fi 2	Wi Fi 3	Wi Fi 4	Wi Fi 5	Wi Fi 6
11 mbps	54 mbps	54 mbps	450 mbps	3.1 Gbps	4.8 Gbps

Access Points

Cisco delivers **key wireless innovation** through custom-built, state-of-the-art access points that go beyond the 802.11ac wireless standard to provide radio-frequency excellence for high-density environments. Transmitting data at speeds beyond 1 Gbps across a wireless network, they provide the performance and functionality to support Wi-Fi mobility for your customers and employees into the future.

	1815t	1815w	1815m	1815i	1830i	1840i ¹	1850i	1850e	2800i	2800e	3800i	3800e	3800p	4800
Hardware Comparison														
MIMO	2x2	2x2	2x2	2x2	3x3	4x4	4x4	4x4	4x4	4x4	4x4	4x4	4x4	4x4
Spatial Streams	2	2	2	2	2	4	4	4	3	3	3	3	3	3
Channel Bonding	VHT80	VHT80	VHT80	VHT80	VHT80	VHT80	VHT80	VHT80	VHT160	VHT160	VHT160	VHT160	VHT160	VHT160
Band Select	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
VideoStream	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CleanAir									Yes	Yes	Yes	Yes	Yes	Yes
Dual 5GHz / XOR									Yes	Yes	Yes	Yes	Yes	Yes
Special Purpose	Teleworker	Wall											Stadium	Location
BLE		Yes	Yes	Yes	Optional	Yes	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Yes
Antenna	Internal	Internal	Internal	Internal	Internal	Internal	Internal	External	Internal	External	Internal	External	External	Internal
Ports	1 in | 3 out	1 in | 3 out	1	1	1	2	1	1	2	2	1 + 1 MGb	1 + 1 MGb	1 + 1 MGb	1 + 1 MGb
Max Tx Power	20 dBm	20 dBm	27 dBm	20 dBm	23 dBm	23 dBm	23 dBm	23 dBm	23 dBm	23 dBm	23 dBm	23 dBm	23 dBm	23 dBm
Max Speed 2.4GHz Mbps	144	144	144	144	144	144	216	216	216	216	216	216	216	216
Max Speed 5GHz Mbps	866	866	866	866	866	1,733	1,733	1,733	2,304 4,608 ²	2,304 4,608 ²	2,304 4,608 ²	2,304 4,608 ²	2,304 4,608 ²	2,304 4,608 ²
Integrated Controller: Mobility Express														
Mobility Express		Yes 50	Yes 50	Yes 50	Yes 50	Yes ¹	Yes 50	Yes 50	Yes 100	Yes 100	Yes 100	Yes 100		Yes 100

	9115i	9115e	9117i	9120i	9120e	9120p	1540i	1540d	1560i	1560e	1560d	1572EAC	1572IC	1572EC
Hardware Comparison														
MIMO	4x4	4x4	8x8	4x4	4x4	4x4	2x2	2x2	3x3	2x2	2x2	4x4	4x4	4x4
Spatial Streams	4	4	8	4	4	4	2	2	3	2	2	3	3	3
Channel Bonding	HE160	HE160	HE160	HE160	HE160	HE160	VHT80	VHT80	VHT80	VHT80	VHT80	VHT160	VHT160	VHT160
Band Select	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
VideoStream	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CleanAir			Yes	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes
Special Purpose						Stadium	Outdoor							
BLE	Yes	Yes	Yes	Yes	Yes	Yes								
OFDMA*	UP/Down	UP/Down	Down	UP/Down	UP/Down	UP/Down								
OBSS*	Yes	Yes		Yes	Yes	Yes								
TWT*	Yes	Yes	Yes	Yes	Yes	Yes								
Dual 5GHz / XOR				Yes	Yes	Yes								
Apps Container				Yes	Yes	Yes								
Antenna	Internal	External	Internal	Internal	External	External	Internal	Directional	Internal	External	Directional	External	Internal DOCSIS	External DOCSIS
Ethernet Ports	1 MGb	1 MGb	1 MGb	1 MGb	1 MGb	1 MGb	1	1	1	1	1	2	2	2
Max Tx Power	23 dBm	23 dBm	23 dBm	23 dBm	23 dBm	23 dBm	27 dBm	27 dBm	29 dBm	27 dBm	27 dBm	30 dBm	30 dBm	30 dBm
Max Speed 2.4GHz Mbps	572	572	1,144	572	572	572	144	144	216	144	144	216	216	216
Max Speed 5GHz Mbps	4,804	4,804	4,804	4,804	4,804	4,804	866	866	1,300	866	866	1,300	1,300	1,300
Integrated Controller: Mobility Express														
Mobility Express	Yes ¹	Yes ¹	Yes ¹	Yes ¹	Yes ¹	Yes ¹	Yes 50	Yes 50	Yes 100	Yes 100	Yes 100			
Mandatory DNA	Yes	Yes	Yes	Yes	Yes	Yes								

¹ Roadmap| ² Dual 5GHz mode

RP-TNC: ANTENNA	2524DB-R	2524DG-R	2524DW-R	2535SDW-R	2566P4W-R	2524V4C-R	2544V4M-R	2566D4M-R	AIR-CAB002-DART-R
2.4 GHz | 5 GHz	2 | 4 dBi	2 | 4 dBi	2 | 4 dBi	3 | 5 dBi	2 | 4 dBi	6 | 6 dBi	4 | 4 dBi	6 | 6 dBi	Adapter for XOR
Type	Omni Black Long	Omni Gray Long	Omni White Long	Omni White Small	Direct 4-Port Patch	Omni 4-port Ceiling	Omni 4 port Wall	Direct 60°	

Wireless Management

CNI
Comstor Networking Initiative

For a network below 100 access points you have the option to choose for Mobility Express. Mobility Express is a controller function to manage and monitor the entire wireless network without the requirement to install additional hardware or buy management licenses. This controller is installed on every access point that is equipped with this function.
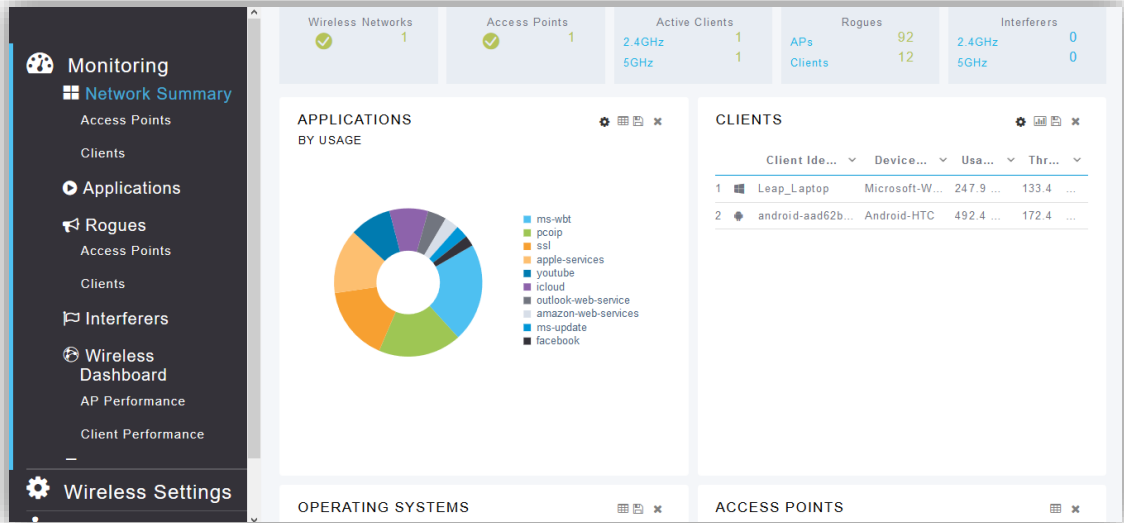
Mobility Express

Fast and Easy Deployment:
Perfect for lean or no IT staff

No license, No hardware:
Ideal for smaller budgets

Enterprise-class features:
For high demanding networks

Wireless Networks	Access Points	Active Clients		Rogues		Interferers	
1	1	2.4GHz 1		APs 92		2.4GHz 0	
		5GHz 1		Clients 12		5GHz 0	

Monitoring
- Network Summary
- Access Points
- Clients
- Applications
- Rogues
  - Access Points
  - Clients
- Interferers
- Wireless Dashboard
  - AP Performance
  - Client Performance

Wireless Settings

APPLICATIONS BY USAGE
- ms-wbt
- pcoip
- ssl
- apple-services
- youtube
- icloud
- outlook-web-service
- amazon-web-services
- ms-update
- facebook

CLIENTS

	Client Ide...	Device...	Usa...	Thr...
1	Leap_Laptop	Microsoft-W...	247.9	133.4
2	android-aad62b...	Android-HTC	492.4	172.4

OPERATING SYSTEMS

ACCESS POINTS

Scalability:
Scale up to 100 Access points

Easy Integration with the below enterprise solutions

Easy management with intuitive dashboard or App

Easy add-on

Integrate with Enterprise Solutions and Products

DNA Spaces	ISE	Umbrella	DNA Center
Analyse	**User Identity**	**DNS Security**	**Monitoring & Automation**
Track the connectivity ROI from your wireless infrastructure by measuring Wi-Fi adoption. Measure how frequently people visit and how much time do they spend at your property. Compare and benchmark the performance of properties historically, by group or by industry.	AAA Services - Who gets online - What network can be accessed - Where, When & How Guest Access: - Hotspot - Self-registration - Sponsor Portal Visibility: - Users - Network Devices	Cisco Umbrella WLAN is a cloud-delivered security service for the Cisco Wireless LAN Controller. With Umbrella, you can easily secure your wireless environment and protect any device on your network in minutes. Umbrella blocks requests to malicious domains and IPs before a connection is ever made, stopping threats earlier	Overall health dashboard Network health dashboard Client health dashboard Application health dashboard Predefined reports Custom threshold KPIs Inventory | Discovery | Topology Software image management (SWIM) Network Plug and Play provisioning Network Functions Virtualization (NFV) provisioning Cisco Virtual Network Functions (VNF)
DNAS > DNAS-SEE License per AP	**L-ISE-BSE-PLIC** License per active session		**AIR-DNA-E > AIR-DNA-E-3Y** License per AP
Engage	**End Point Identity**		**Intent-based networking**
The above plus: On-board people and things with their enterprise identity and map them to a global business view. Trigger notifications and work flows based on their at-location behavior. Connect with other applications using APIs.	**The above license is required.** Extend with the following: Extend AAA Services with: - end point type & Profile BYOD Services: - Provisioning - My Devices Portal Cisco pxGrid: Context sharing - Quarantine infected end points Automatically and in Real-time by linking with your security products Visibility: - End Points		**The above plus:** 360-degree health score | targeted insights | device view Apple iOS insights Active sensor tests Wireless location heat maps Guided remediation Custom reports Third-party integrations Application policy Software Maintenance Upgrade (SMU) patching Software-Defined Access (ISE Req.)
DNAS > DNAS-ACT License per AP	**L-ISE-PLS-LIC=** License per active session / Year	**UMBRELLA-SUB > UMB-WLAN** License per AP	**AIR-DNA-A > AIR-DNA-A-3Y** License per AP
Install this service on:			
Cloud	Server: SNS-3615-K9	Cloud	Server: DN2-HW-APL

Wireless Management

CNI
Comstor Networking Initiative

For a network above 100 access points an external controller is needed. The controller needs to be equipped with a license for each access point in the network. Depending on the license type selected a range of additional features is included to help with operating larger wireless networks and integrating into the in the rest of the switched network.

Controller

	Mobility Express	3504	9300-A ¹ *NEW* ¹	5520	9800-40 *NEW*	9800-CL *NEW*	8540	9800-80 *NEW*
Hardware								
Access points	100	150	200	1,500	2,000	3,000	6,000	6,000
Clients	2,000	3,000	4,000	20,000	32,000	32,000	64,000	64,000
RF-Tags	500	1500	200	25,000	2,000	6,000	50,000	6,000
Teleworker		Yes		Yes	Yes	Yes	Yes	Yes
Throughput	1 Gbps	4 Gbps	-	20 Gbps	40 Gbps	2 Gbps	40 Gbps	80 Gbps
WLANs	16	512	64	512	4,096	4,096	512	4,096
Access Lists	Yes	Yes		Yes	Yes	Yes	Yes	Yes
App Visibility AVC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Rate Limiting	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
VideoStream	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Wireless Guest	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Wired Guest		Yes	Yes	Yes			Yes	
Fail-over	Cluster	SSO	SSO	SSO	SSO	SSO	SSO	SSO
QoS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RRM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cisco DNA License (Mandatory for Catalyst 9100 Access Points, optional for others)								
Top-Level SKU		**AIR-DNA**						
Essentials		**AIR-DNA-E > AIR-DNA-E-3Y**						
Advantage		**AIR-DNA-A > AIR-DNA-A-3Y**						
Premier		**AIR-DNA-P > AIR-DNA-P-3Y**						

¹ DNA Center is required

Easy add-on

Integrate with Enterprise Solutions and Products

DNA Spaces	ISE	Umbrella	DNA Center
Analyse	**User Identity**	**DNS Security**	**Monitoring & Automation**

DNA Spaces — Analyse

Track the connectivity ROI from your wireless infrastructure by measuring Wi-Fi adoption.

Measure how frequently people visit and how much time do they spend at your property. Compare and benchmark the performance of properties historically, by group or by industry.

Essentials: **DNAS > DNAS-SEE**
Included in Advantage | Premier

ISE — User Identity

AAA Services
- Who gets online
- What network can be accessed
- Where, When & How

Guest Access:
- Hotspot
- Self-registration
- Sponsor Portal

Visibility:
- Users
- Network Devices

Included in Premier

Umbrella — DNS Security

Cisco Umbrella WLAN is a cloud-delivered security service for the Cisco Wireless LAN Controller. With Umbrella, you can easily secure your wireless environment and protect any device on your network in minutes. Umbrella blocks requests to malicious domains and IPs before a connection is ever made, stopping threats earlier

DNA Center — Monitoring & Automation

Overall health dashboard
Network health dashboard
Client health dashboard
Application health dashboard
Predefined reports
Custom threshold KPIs
Inventory | Discovery | Topology
Software image management (SWIM)
Network Plug and Play provisioning
Network Functions Virtualization (NFV) provisioning
Cisco Virtual Network Functions (VNF)

Included in Essentials

Engage	**End Point Identity**		**Intent-based networking**

DNA Spaces — Engage

The above plus:
On-board people and things with their enterprise identity and map them to a global business view. Trigger notifications and work flows based on their at-location behavior. Connect with other applications using APIs.

Ess | Adv: **DNAS > DNAS-ACT**
Premier: **D-CISCODNAS-ACT-T**

ISE — End Point Identity

The above license is required.
Extend with the following:
Extend AAA Services with:
- end point type & Profile

BYOD Services:
- Provisioning
- My Devices Portal

Cisco pxGrid: Context sharing
- Quarantine infected end points
  Automatically and in Real-time by linking with your security products

Visibility:
- End Points

Included in Premier

Umbrella

UMBRELLA-SUB > UMB-WLAN
License per AP

DNA Center — Intent-based networking

The above plus:
360-degree health score | targeted insights | device view
Apple iOS insights
Active sensor tests
Wireless location heat maps
Guided remediation
Custom reports
Third-party integrations
Application policy
Software Maintenance Upgrade (SMU) patching
Software-Defined Access (ISE Req.)

Included in Advantage | Premier

Install this service on:

Cloud	Server: SNS-3615-K9	Cloud	Server: DN2-HW-APL

DNA Spaces

Get more from your Wi-Fi: Cisco DNA Spaces is the world's most powerful location platform that leverages existing Wi-Fi infrastructure to give you actionable insights and drive business outcomes.


SEE

Cisco DNA Spaces See gives you incremental value from existing Wi-Fi investments. It makes your wireless infrastructure do more than just connectivity by adding digitisation capability, without having to upgrade hardware or change any of the existing network configurations. Compare and benchmark the performance of properties historically and the footfall right now.
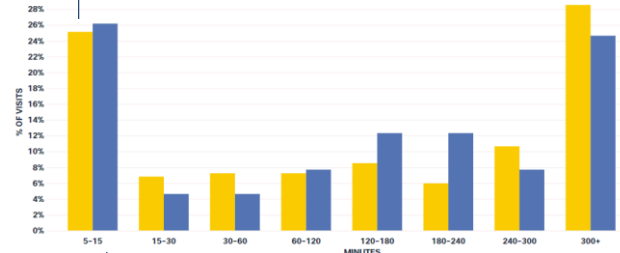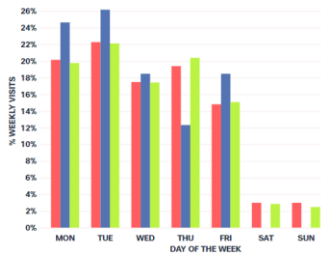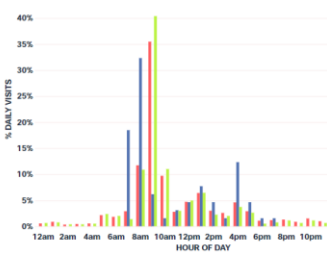
Measure at what time, how frequently people visit and how much time do they spend at your property.

ACT

On-board people and things with their enterprise identity of social profile and map them to a global business view. **Trigger notifications and work flows** based on their at-location behavior. Connect with other applications using APIs.
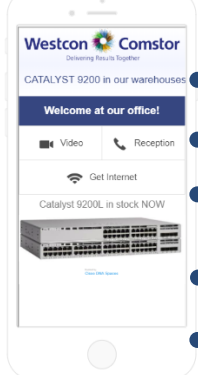
WHEN to show
Evening, after check in, 5pm

WHO to show
Personalized messaging

HOW
Contextual API &
Marketing Cloud Integration

WHERE to show
Hotel, Brand, Location, etc.

WHAT to show
Relevant services specific to that day

Keep track of new and returning customers

Engage with customers with targeted content

Inform the business using Webex Teams

Additional included features and Benefits:
- Identify & monitor assets, detect anomalies and trigger alerts with **Operational Insights**
- Search and display location of devices based on MAC or IP address with **Detect & Locate**
- Set and manage functions of BLE Radios with **BLE Manager**
- Provides real time location for triggers, wayfinding paths, and points of interest with **Location SDK**

Extend

Get access to the DNA Spaces APP STORE. Enable 3th party solutions on top of your DNA Spaces solution.

Smart Account

CNI
Comstor Networking Initiative

Cisco Smart Accounts offer a simple-to-use, centralised and organised solution to license management. Serving as a central repository, Smart Accounts give full visibility into your Cisco software assets across your organisation.

WHY

Knowledge
Traditional license methods are done using spreadsheets or home-grown tools. With Smart Licenses, all Cisco software, services, and devices are available in an easy-to-use portal.

Registration
Activation keys require each device to be registered manually. With Smart Licensing, the concept of PAK has been eliminated and the products self-register for easy activation and are ready to use.

Ownership
Traditional licenses are device-specific so there needs to be one license per device. Smart Licenses are designed to be flexible and put in a pool, so they can be moved around to different devices or redeployed.

Flexibility
Traditional licenses only give access to devices that have been paid for. Smart Licenses allow for customers to temporarily go into an overuse situation that can be resolved later.

WHAT

To maximise flexibility, two types of Smart Accounts exist. The Holding account is for transferring licenses only, the Customer account is for License use only. An End User only has one type, the customer accounts. A reseller has two accounts, one for resale and one for own license use.

https://apps.cisco.com/ccw

Holding Account: This account is ONLY for transferring licenses to a Customer Account, not for using licenses.
1 account / Reseller

To Transfer: 'Orders' > 'Smart Account Orders'
Select your order & transfer the licenses.

Virtual Account: If desired, you can split the above account in virtual accounts. i.e. you are working with departments that need order separation.

Create Account: on https://software.cisco.com
Administration > Request a Partner Holding Account
This is only visible for partners.

Manage Account: on https://software.cisco.com
Administration > Manage Smart Account
Add users to this account or create virtual accounts

https://software.cisco.com

Customer Account: This account is your license dashboard. You are not able to transfer licenses once they are placed in this account.
1 account / End User (-or- Reseller)

To Use: 'License' > 'Smart Software Licensing'
Identify the number of active licenses.

Virtual Account: If desired, you can split the above account in virtual accounts. i.e. you are working with multiple resellers that need license separation.

Create Account: on https://software.cisco.com
Administration > Request a Smart Account
This is visible for all users.

Manage Account: on https://software.cisco.com
Administration > Manage Smart Account
Add users/resellers to this account or create virtual accounts

HOW

When you order licenses from Cisco through distribution, as a reseller your license will be moved to your Holding account. Log on the holding account (CCW) website and transfer your license(s) to the Customer account of your customer.

CISCO Distribution Partner → **Holding Account** → **Reseller** → **Customer Account** →

Ask access to the Customer account so you will be able to manage, configure and activate the license. Request virtual accounts if the customer is working with multiple resellers and you whish to keep license visibility separate. At this moment you have an overview of the licenses consumed and the duration of your subscription licenses, in 1 place, visible on 1 dashboard.

Get Trained

When it comes to new Cisco products and solutions, it is beneficial for both you and us that your sales, pre-sales and technical teams are up to date. For this reason, we provide you, our customer, with free technical hands-on training sessions and on-demand video trainings.

Cisco Mobility Express & DNA Spaces

The Cisco Mobility Express & Cisco DNA Spaces Training is a 3 hour training program designed to get Partner Engineers up to speed on Cisco Mobility Express Solutions. You'll learn how to configure and set up your own Wireless Mobility Express network linked to Cisco DNA Spaces Portal for WiFi analytics.

Content of the training
- Introduction to Cisco Mobility Express
- integrate Mobility Express into the cloud
- Introductions to Cisco Connected Mobile Experience Cloud (Cisco DNA Spaces)
- Build Guest Portals and learn how to tag and engage with customers

The Products
- Cisco Mobility Express
- Cisco DNA Spaces

Cisco Mobility Express & ISE

The Cisco Mobility Express & IES Training is a 3 hour training program designed to get Partner Engineers up to speed on Cisco policy Solutions. You'll learn how to integrate your wireless network with Cisco's ISE policy engine.

Content of the training
- Introduction to Mobility Express
- Introduction to Cisco ISE
- Create BYOD Rules
- Create Identity Rules
- Create Guest Sponsor Portals

The Products
- Cisco Mobility Express
- Cisco Identity Services Engine

www.simplycomstor.com

Find more trainings, videos and documentation about our focus area on simplycomstor.com! The goal of this site is to get you up-to-speed with our focus solutions, in a quick & efficient way. By doing so we offer you Videos on Demand, Technical Trainings & Documents to Download on each topic.