

Cisco Spaces: Advanced Location Based Services for Enterprise Networks

cisco Live !

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Agenda

- 01 **Future Proofed Workplaces for Location Outcomes**
- 02 **Design your wireless networks for Location**
- 03 **Deploy Advanced Location Outcomes with Cisco Spaces**
- 04 **How can Cisco help**

Future Proofed Workplaces

Evolution of campus refreshes

From Standard Refresh:

- Low density 1 for 1 refresh
- No change to use cases that addresses yesterday's needs
- IT often seen as a cost center
- Multiple siloed h/w & s/w stacks, most times pushed by business
- IT obligated to manage unplanned assets

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To a Future-proofed Refresh:

- Medium & high-density for workplace modernization
- Future-proofing your network for 5-7 years
- Integrated & validated stack = lower TCO, less complexity, better manageability, security and scale
- IT seen as a Hero

Are you planning to deploy any of these use cases in the next 5-7 years?

- ☐ High throughput & low latency connectivity (VOIP roaming, cloud apps)
- ☐ Higher density of IoT devices and sensors
- ☐ Secure guest Wi-Fi & Open Roaming
- ☐ Occupancy Analytics
- ☐ Asset Tracking & RTLS
- ☐ Sustainability
- ☐ Indoor Navigation
- ☐ Employee Experience & Wellbeing

Are you planning to deploy any of these use cases in the next 5-7 years?

If you checked any of these boxes, then choosing the **right infrastructure**, at the **right density**, matters. today...



High throughput & low latency connectivity (VOIP roaming, cloud apps)



Higher density of IoT devices and sensors



Secure guest Wi-Fi & Open Roaming



Occupancy Analytics



Asset Tracking & RTLS



Sustainability



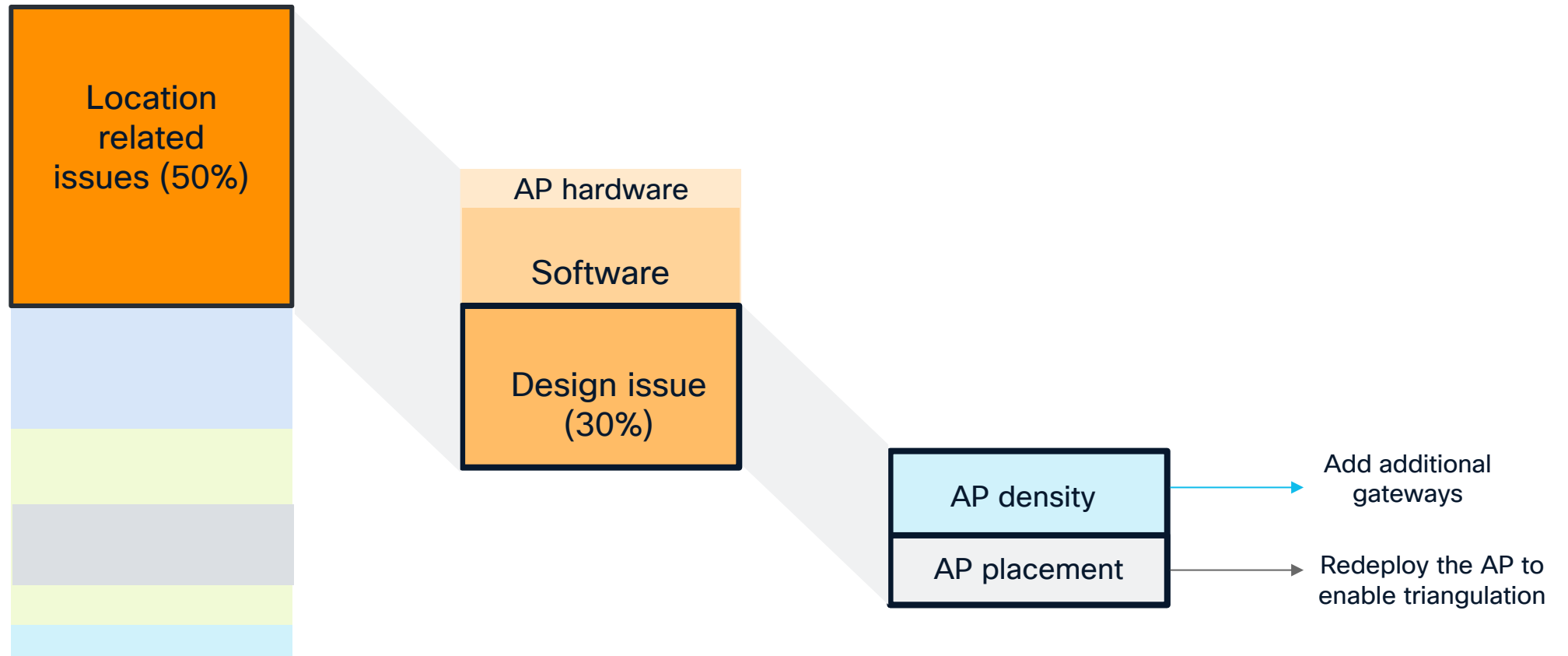
Indoor Navigation



Employee Experience & Wellbeing

Design your network for Location Outcomes

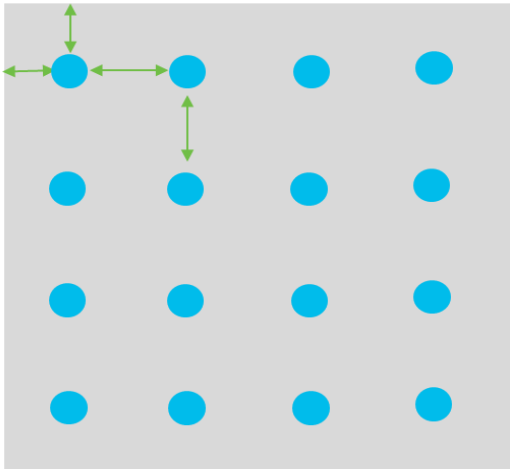
Customer issues funnel overview



What is AP Density

AP density refers to number of APs deployed in a given area. It plays a critical role in determining network coverage, capacity, mobility experience, and the type of use cases to be supported

Design A

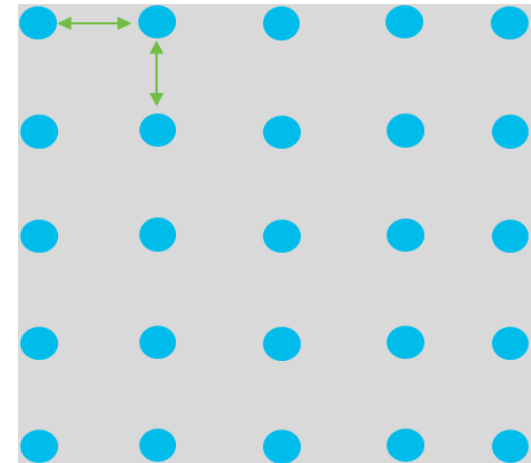


- No perimeter APs
- Good data connectivity
- Presence led Bldg./Floor level occupancy

- Most deployments use Design A
- Some doing RTLS use Design B
- Both types are Wi-Fi first

- Offices, Retail, Schools, etc. that have data connectivity & capacity as primary requirements use Design A
- Healthcare and Manufacturing tend to use Design B

Design B

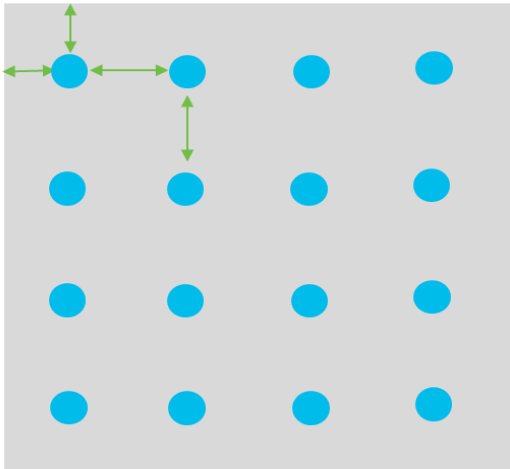


- With perimeter APs
- Good for capacity & basic location
- X,Y based Bldg./Floor level occupancy
- Wi-Fi/BLE location

What is AP Density

AP density refers to number of APs deployed in a given area. It plays a critical role in determining network coverage, capacity, mobility experience, and the type of use cases to be supported

Design for connectivity

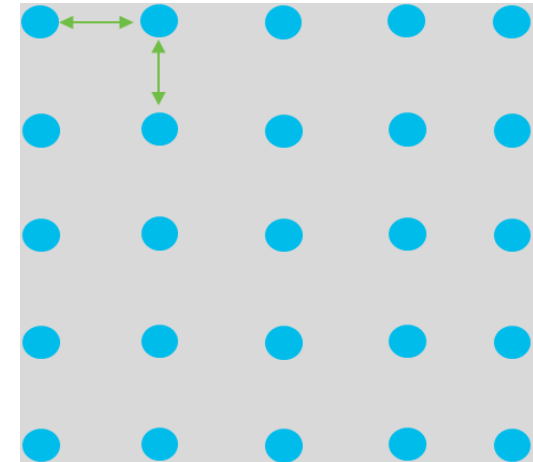


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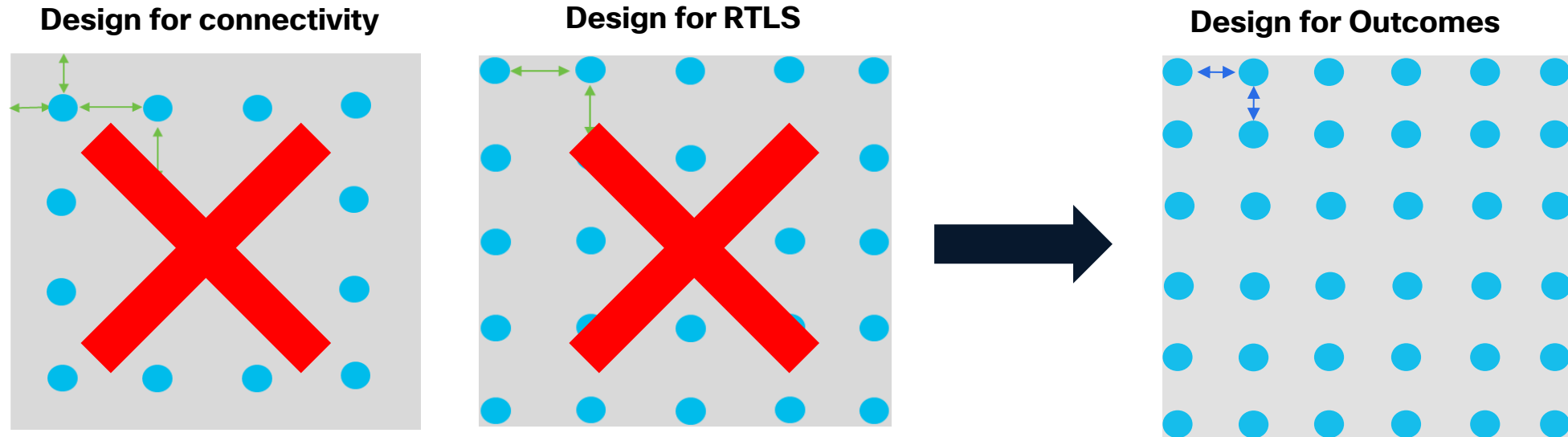
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Design for RTLS



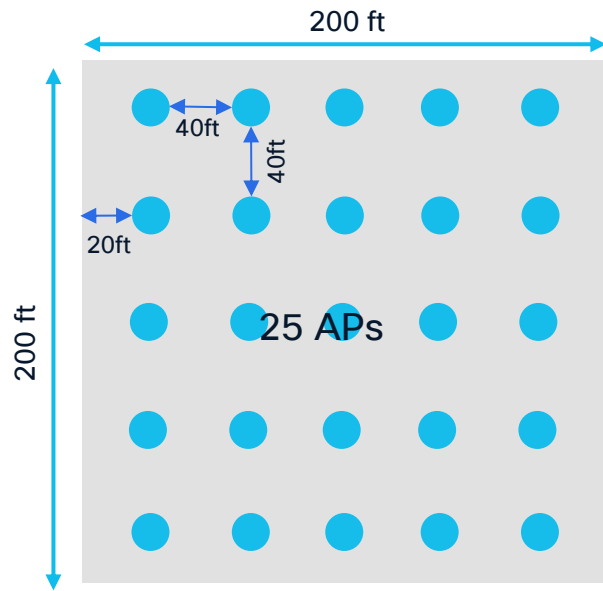
- With perimeter APs
- Good for capacity & basic location
- X,Y based Bldg./Floor level occupancy
- Wi-Fi/BLE location

Workplace of tomorrow needs the infrastructure to do more.



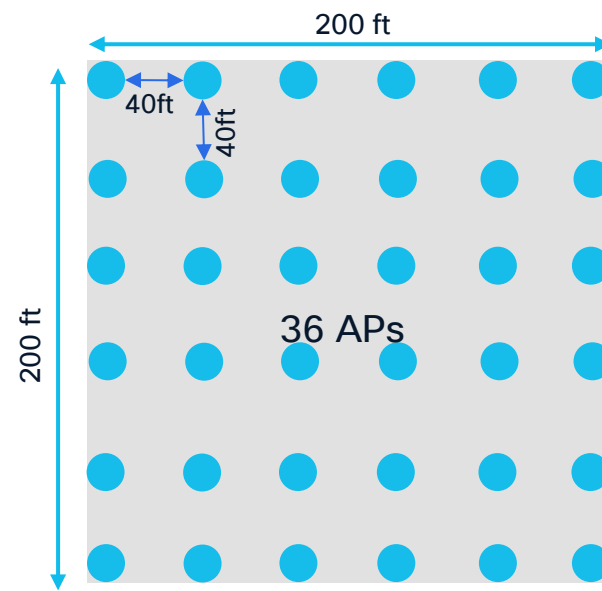
Driving a shift from Connectivity to Outcome first design

Why does network design for location matter. An example...



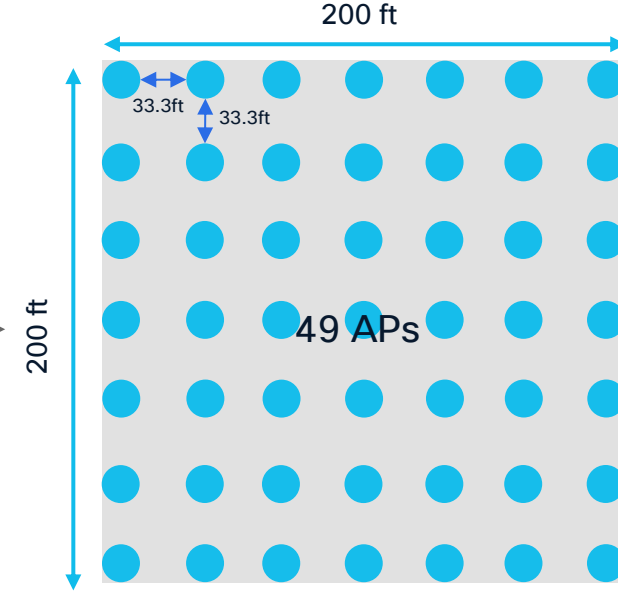
Network Design for Connectivity

- ~ 40 ft AP to AP
- No perimeter APs
- Density ~1500 sq ft / AP
- Good Data Connectivity



Network Design for RTLS

- ~ 40 ft AP to AP
- Perimeter APs
- ~1.4x vs Data Only
- Density ~1500 sq ft / AP in middle
- $200 \times 200 / 36 = \sim 1111$ sq ft / AP overall
- Good Wi-Fi/BLE location
- Building / Floor level occupancy

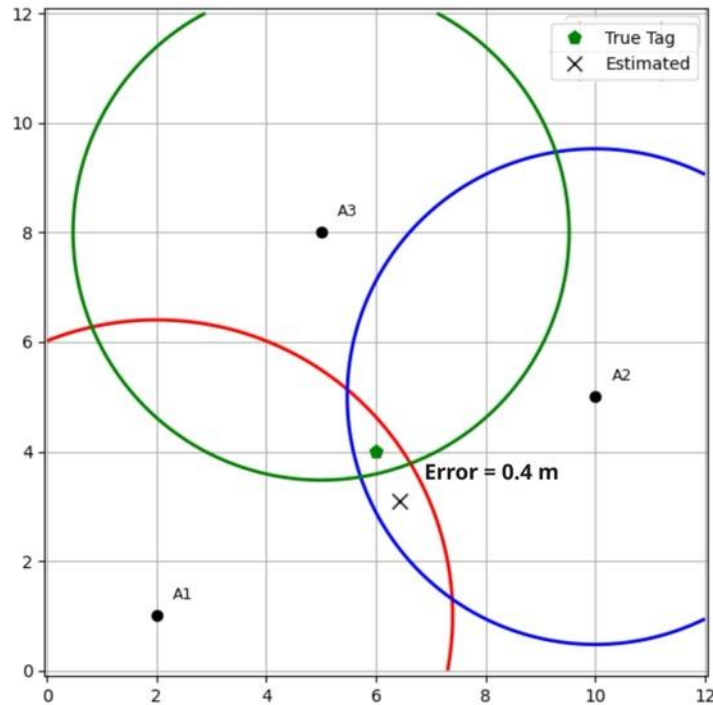


Network Design for Advanced Location Outcomes

- ~ 33 ft AP to AP for more complex environments
- Perimeter APs – Convex Hull
- ~1.3x vs RTLS
- ~1.9x vs Data Only
- Density ~1000 sq ft / AP in middle
- $200 \times 200 / 49 = \sim 816$ sq ft / AP overall
- AP Only BLE Wayfinding (no additional beacons)
- High precision Asset tracking
- Zone level occupancy

Let's understand the why taking UWB example.

Trilateration (TOA) vs Time Difference of Arrival (TDOA)



ToA Locationing

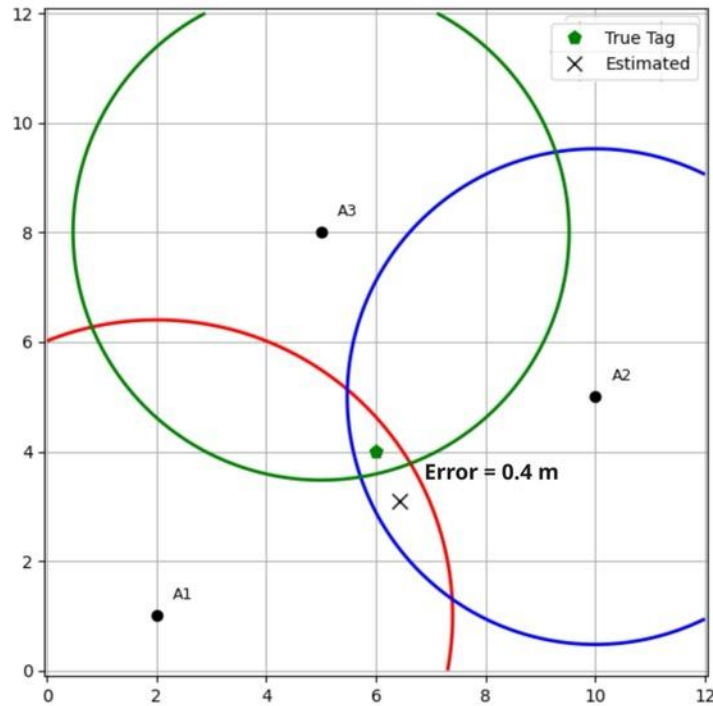
- Requires 3 anchors
- Smallest error

- Determine the location of tag by measuring the distance from at least three known points (AP)
- Requires precise coordination with tag to know it's exact time of blink sent, limiting the real-world scale of number of usable tags for asset tracking
- Difficult to separate the tag and infra vendor

* Estimated location is based on Least Square Optimization

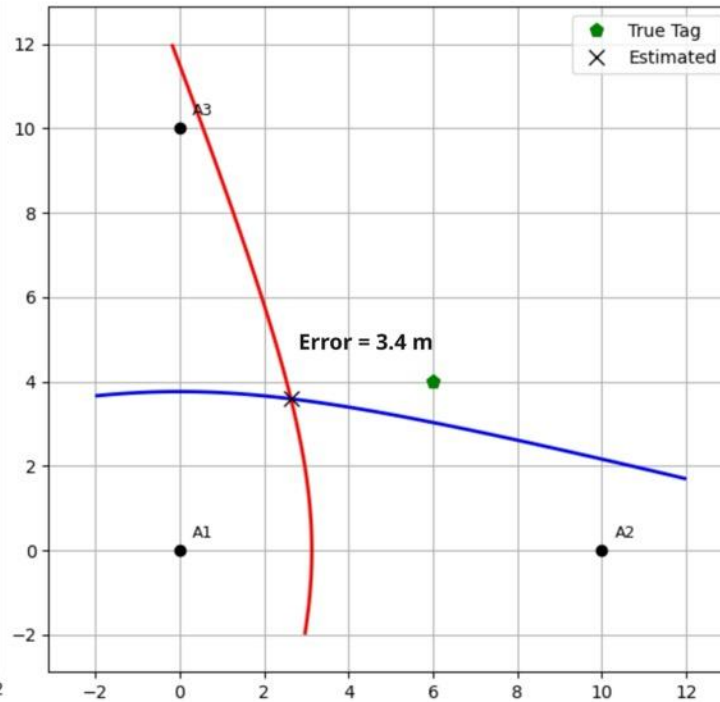
Let's understand the why taking UWB example.

Trilateration (TOA) vs Time Difference of Arrival (TDOA)



ToA Locationing

- Requires 3 anchors
- Smallest error



UWB UL-TDoA Locationing

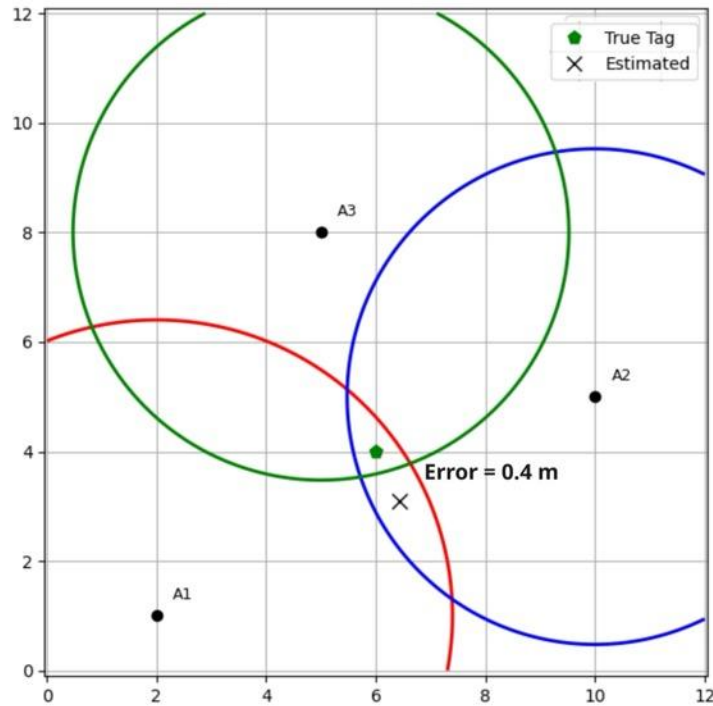
- 3 anchors may lead to high error

- Move to using the difference of arrival – moving away from circles to parabolas
- 3 APs only give 2 independent TDOA equations
- Requires precise coordination between APs but not the tag's time of blink – way more scalable and allow for easier ecosystem development

* Estimated location is based on Least Square Optimization

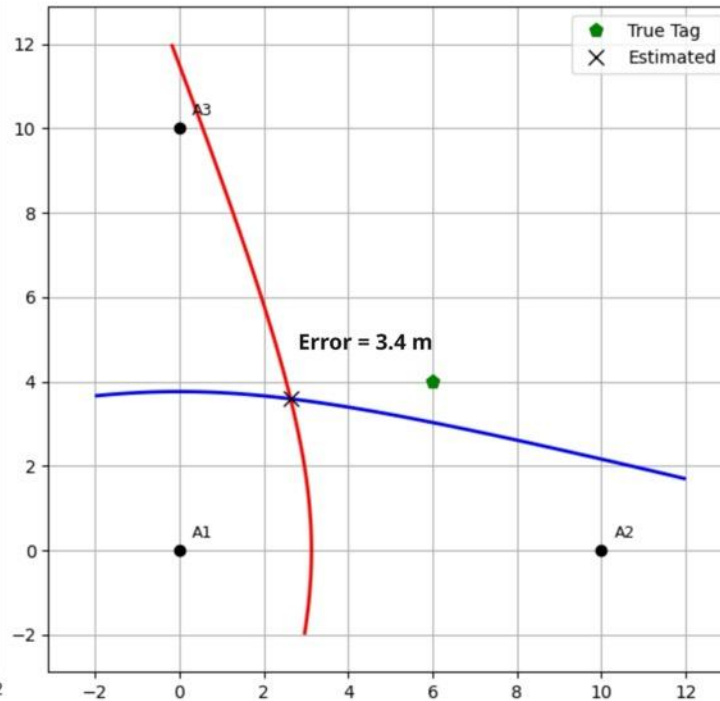
Let's understand the why taking UWB example.

Trilateration (TOA) vs Time Difference of Arrival (TDOA)



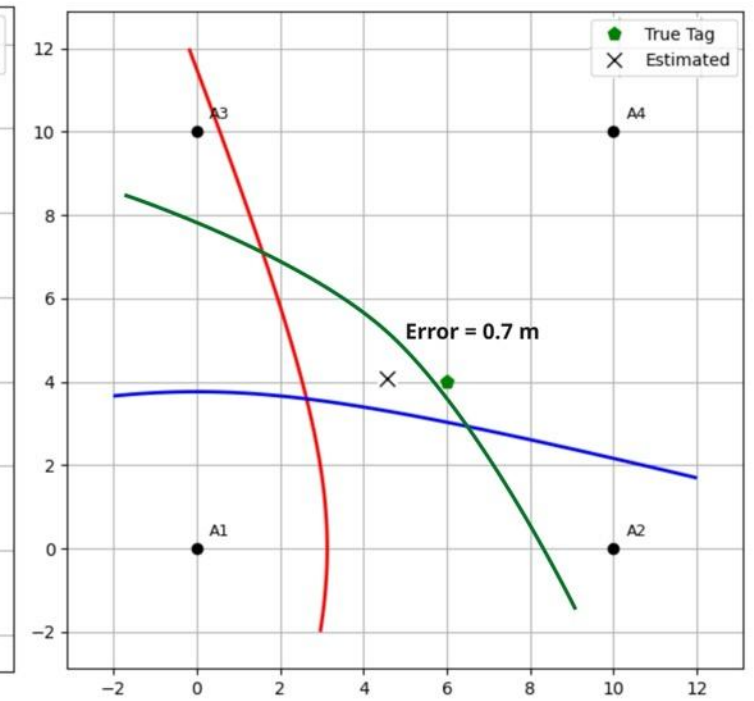
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- Requires 3 anchors
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UWB UL-TDoA Locationing

- 3 anchors may lead to high error



UWB UL-TDoA Locationing

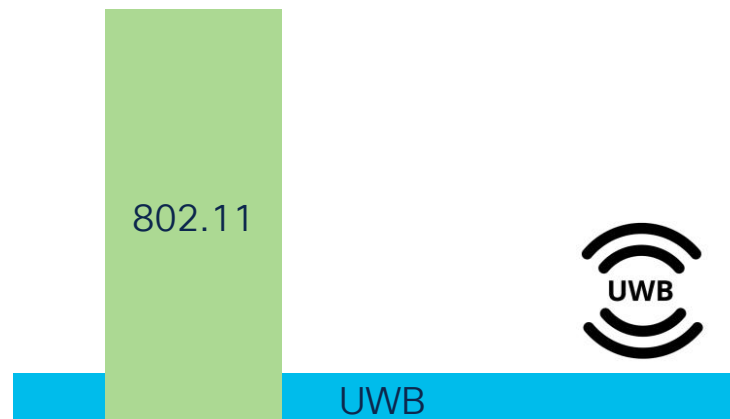
- 4 anchors increases the accuracy
- With more anchors the system removes parabolic ambiguities into a very small uncertainty zone increasing accuracy

* Estimated location is based on Least Square Optimization

Ultra Wide Band (UWB)

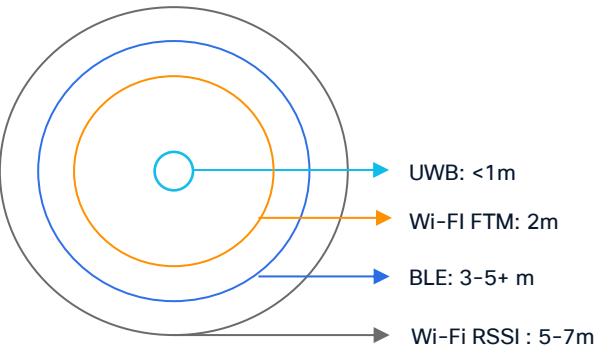
UWB is a next gen RF (radio) technology that enables distance and location calculation with extremely high precision (sub-meter aka centimeter level accuracy)

- An IEEE 802.15.4a/z standard
- High bandwidth, low power consumption, low latency real time technology
- Works on a very wide spectrum 3.1 – 10.6 GHz and 500MHz wide signal, which can enable extremely precise ranging calculation
- Time of flight measurement:
 - Two Way Ranging (TWR)
 - Time Difference of Arrival (TDoA) - needs time synchronization
- Better Accuracy and reliability in many different environments, especially in harsh RF conditions
- Apple, Samsung, Google Pixel have UWB capabilities already. QCA added UWB in all next-gen chips, so more and more devices will have this. A market shift underway.



Key Benefits of Cisco Ultra Wide Band

- Unmatched accuracy: Achieve better than 1 meter precision in optimized environments, 3-5x better than BLE
- Consistent results: Reliable performance that surpasses BLE and FTM
- Scalable solutions for large number of devices
- Optimize access point density for maximum impact
- Optimized for Innovation: Supports seamless asset tracking, spatial awareness



Location calculation via infrastructure	UWB	Wi-Fi FTM	BLE
Typical office space (in ideal conditions)	≤1 meter**	2 meters	3-5+ meters*

UWB with Cisco: The *ultimate* choice for high-precision location services.

* = In ideal conditions. Typical variation of BLE measurements is substantially worse than FTM or UWB.

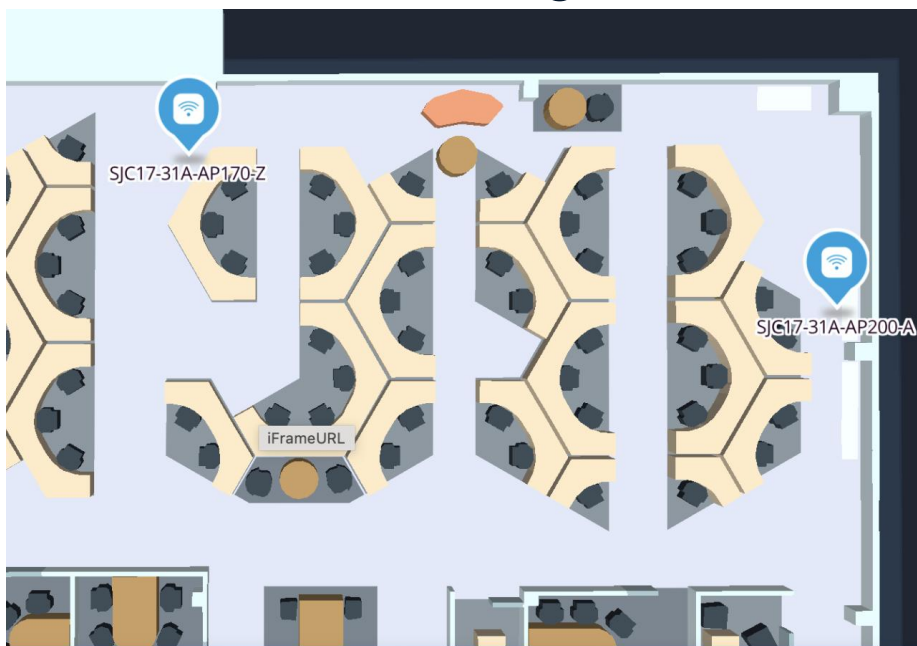
** = To achieve 1m accuracy with UWB, the AP placement must be exact.

Real World Examples – Inter AP distance measurement

Non-Line of Sight



Line of Sight



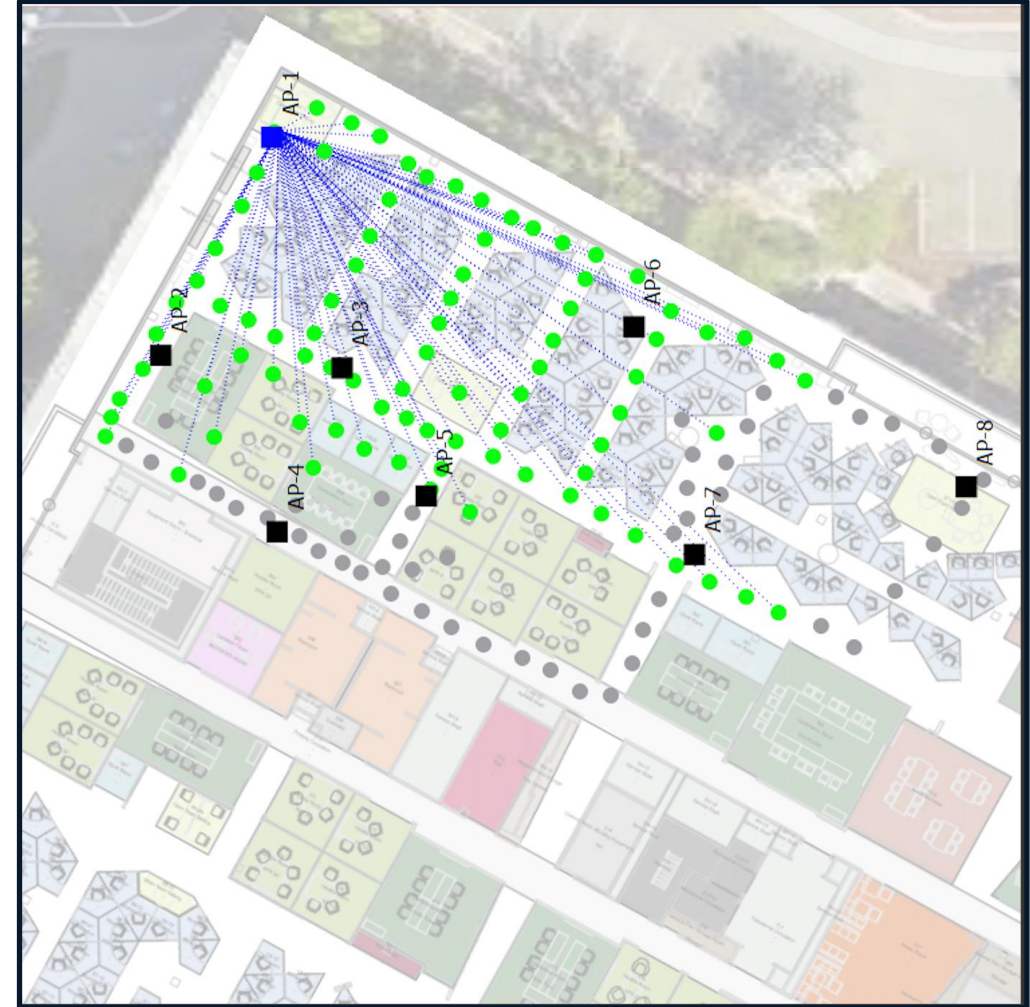
	Actual distance	FTM Distance	FTM Error	UWB Distance	UWB Error
Non-LoS	9.38m	12.61m	3.23m	10.02m	0.64m
LoS	22.17m	27.2m	5.03m	22.67m	0.5m

* Test environment with worst case FTM results. FTM can typically produce results with 2-3m accuracy.

How to design for UWB today

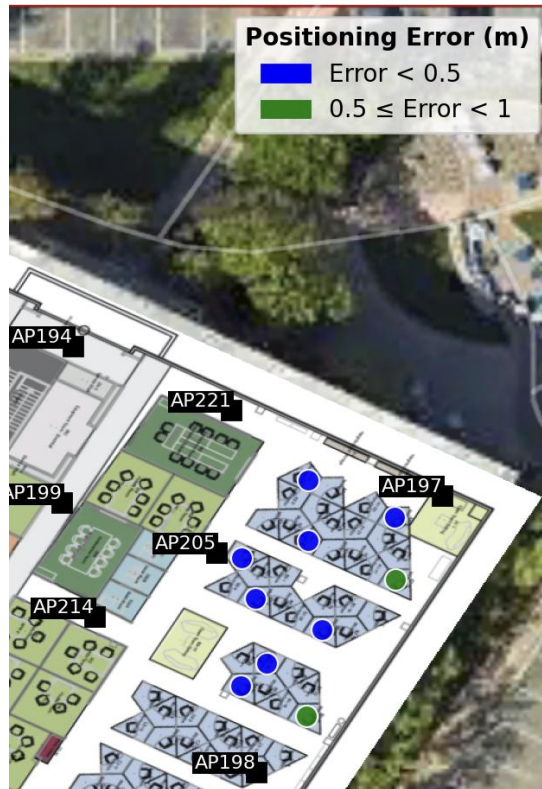
- There are no UWB design tools today, but you have Wi-Fi design tools and APs. Leverage the same tools, but you need to make sure you understand how to do predictive design. If not, do you physically. You got to know what you're doing.
- Cisco has calculated the Wi-Fi RSSI which equates to the edge of the UWB coverage zone from the same AP. The values below can be used to estimate UWB coverage from existing Wi-Fi coverage, or by using existing Wi-Fi design tools:
 - Wi-Fi RSSI equivalent of UWB cell edge [Measured with Wi-Fi 5GHz Ch 161 @ 23dBm Tx Power]
 - Ekahau Sidekick in Ekahau: -60dBm
 - Oscium Nomad in Hamina: -62dBm
- Using the above guidance can be used to understand how UWB will propagate in your environment and then you can scale that design.
- Note: This is based on the testing Cisco has done, with the UWB tags that Cisco will support.

UWB Coverage and Wi-Fi RSSI Correlation Example

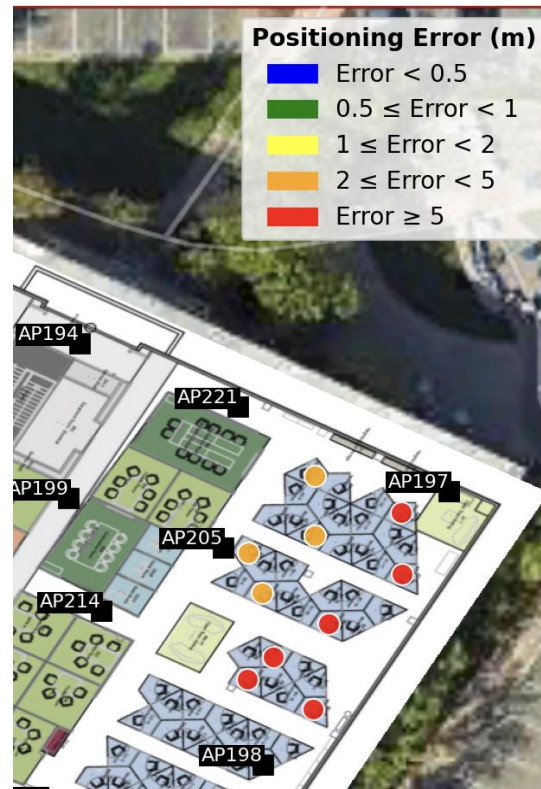


UWB vs BLE Asset Tracking (Open Space)

UWB



BLE



*The results are for open space office environment without any obstructions, e.g., office partitions.

*UWB results are based on 1 min tests while BLE results are based on 2 min tests.

UWB vs BLE Asset Tracking (Rooms)



*UWB results are based on 1 min tests while BLE results are based on 2 min tests.

High Density Design – Best Practices for Wireless

- High AP density deployment is not a new concept
- Leverage AI-RRM enhancements to mitigate co-channel interference due to high AP density
- Optimize power levels to reduce the overlaps & co-channel interference
- Consider smaller channel width to prevent overlaps & maximize efficient channel re-use
- Use higher minimum data rates to require higher SNR for clients to connect & improve airtime fairness
- Limit 2.4GHz use, prioritize 5GHz & 6GHz(if available) and use band steering for capable clients
- Verify & monitor channel utilization and co-channel interference post deployment
- Use AP Auto Location to automatically determine AP location & place them accurately on the map
- Placement of APs in areas to allow for good coverage in corridors, at the intersection & around floor transition points (stairs, escalators, elevator banks)

Deploy Advanced Location Outcomes with Cisco Spaces

(Navigation & UWB Asset Tracking)

Minimum requirements to deploy Navigation & UWB Asset Tracking (With Cisco Smart Spaces Stack)



1. Predictive Wireless Design for Advance Location Outcomes



2. Synch WLAN to Cisco Spaces



3. Maps & AP's on the Map (AP Auto Location)



4. Configure Location & IOT



1. Predictive Wireless Design for Advance Location Outcomes



2. Synch WLAN to Cisco Spaces

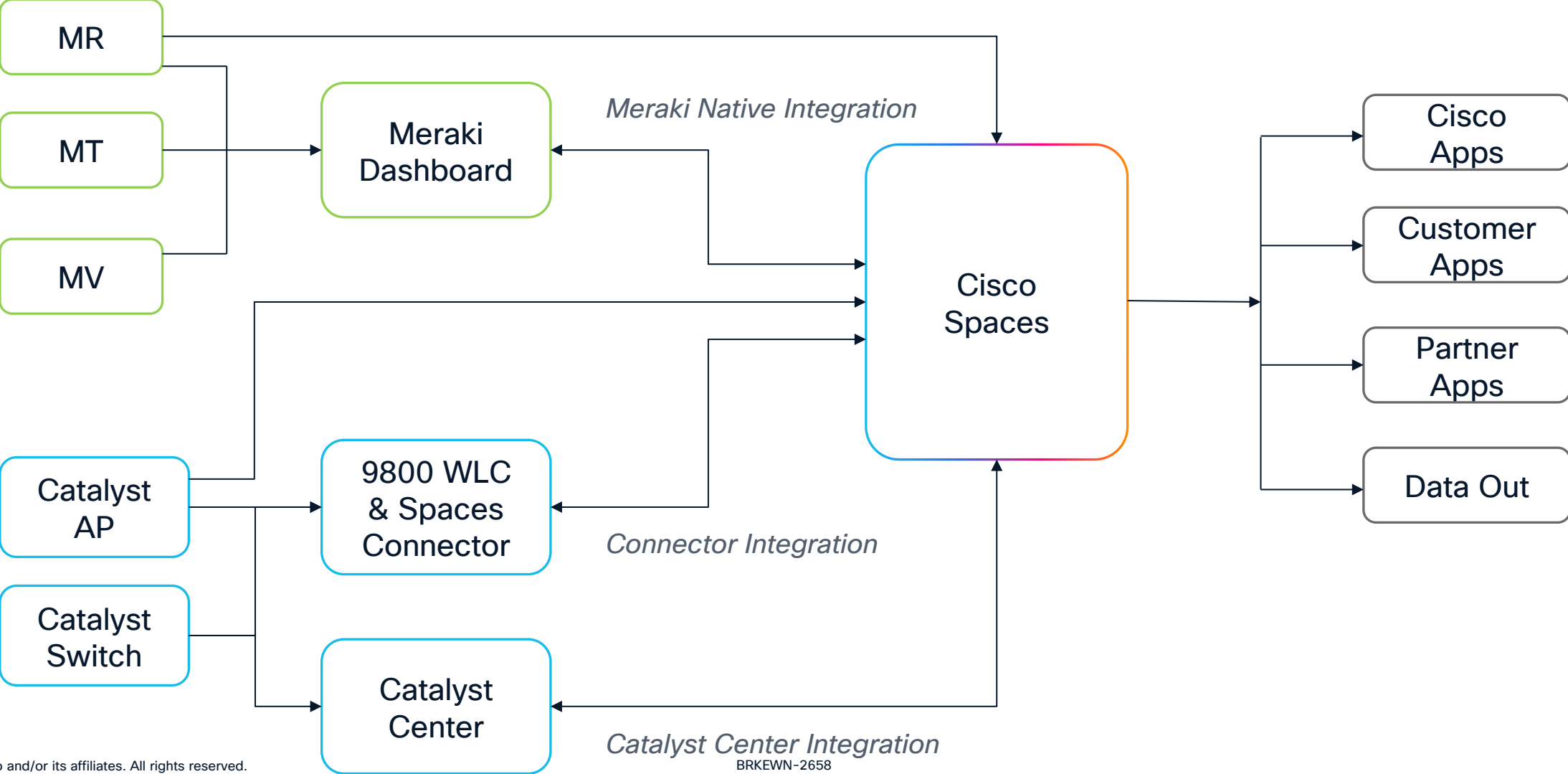


3. Maps & AP's on the Map (AP Auto Location)



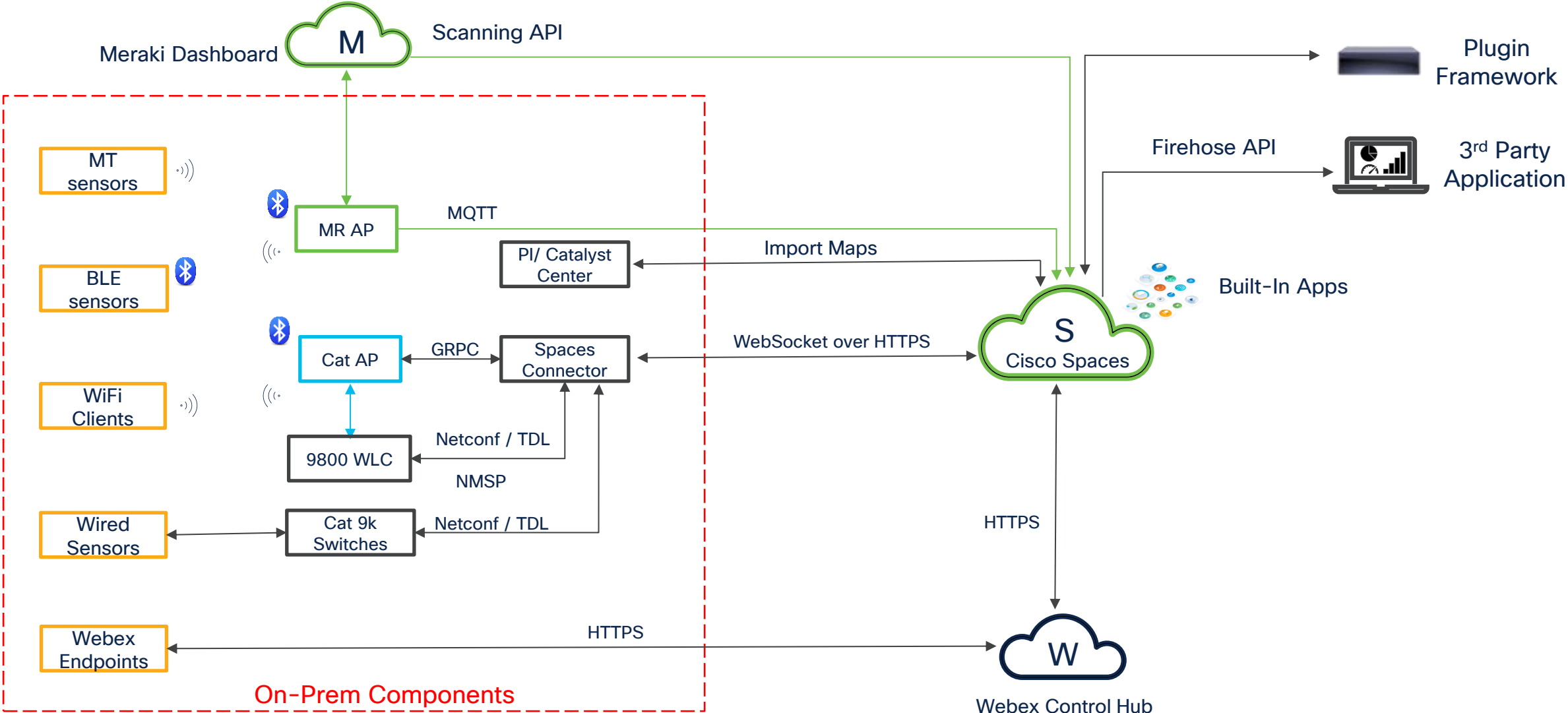
4. Configure Location & IOT

High Level: How Spaces and Wireless Infrastructure Interacts



Cisco Spaces Cloud Architecture

For Your Reference



Spaces Connector – Key Component of architecture for Catalyst customers

Benefits:

- Most customers prefer that their controllers do not have direct access outside their firewall. Connector acts as a proxy ensuring data can be sent to the cloud without exposing controllers directly to external networks. Centralized communication point between Cisco Spaces Cloud services and On-prem infrastructure (Wireless Controllers, Switches & Access Points)
- Aggregates data from multiple sources & securely send data to Spaces cloud using TLS & Tokens. Additionally, Connector provides a way to protect Personal Identity Information (PII) of a user & maintain privacy by using hashing algorithm to mask PII fields such as MAC addresses, IP addresses, and usernames, ensuring that actual user information remains protected when sent to Cisco Spaces
- Abstracts away the complexities of ingesting data from network devices & supporting various services (location, IoT & Hotspot)
- Single connector can support multiple Wireless Controllers, Services & High availability at scale. Very efficient, support huge numbers of messages/sec (refer scale info)
- Connector allows cloud-based location compute resources to scale horizontally; it can handle much larger volumes of data than on-premises CMX. This scalability improves system's ability to manage growing workloads efficiently
- Dual interface options for easy firewall configurations and DMZ deployments. Primary interface serves as a default for all outgoing traffic, with all incoming ports to prevent unsolicited ingress'
- Supported on EXSi, Hyper-V, Nutanix, Azure VMware, Azure and AWS

Spaces Connector – Scale and Size Guidance

Best practices

- Keep an eye on the KPIs and scale accordingly
- Start with Advanced 2 and scale down as needed
- Don't let CPU , memory go above 75%
- Adding new services will add additional load
- Keep an eye on the message rate – add filtering as a best practice

Lab/PoC Only

Standard Connector(2vCPU, 4GB RAM)

Location only

- Location:
 - AP count: 9k
 - Client count: 90k
 - Msg rate: 21k NMSP mgs/sec

○ IoT services:

- **Recommend Adv 2 or Adv 1**

Advanced1 Connector(4vCPU, 8GB RAM)

Location & IoT combined

- Location:
 - AP count: 10k
 - Client count: 100k
 - Msg rate: 17k NMSP mgs/sec

○ IoT services:

- GRPC (AP count): 2k
- BLE tags count: 20k
- Msg rate: 120k BLE msg/sec

Recommended

Advanced2 Connector(8vCPU, 16GB RAM)

Location & IoT combined

- Location:
 - AP count: 15k
 - Client count: 150k
 - Msg rate: 38k NMSP mgs/sec

○ IoT services:

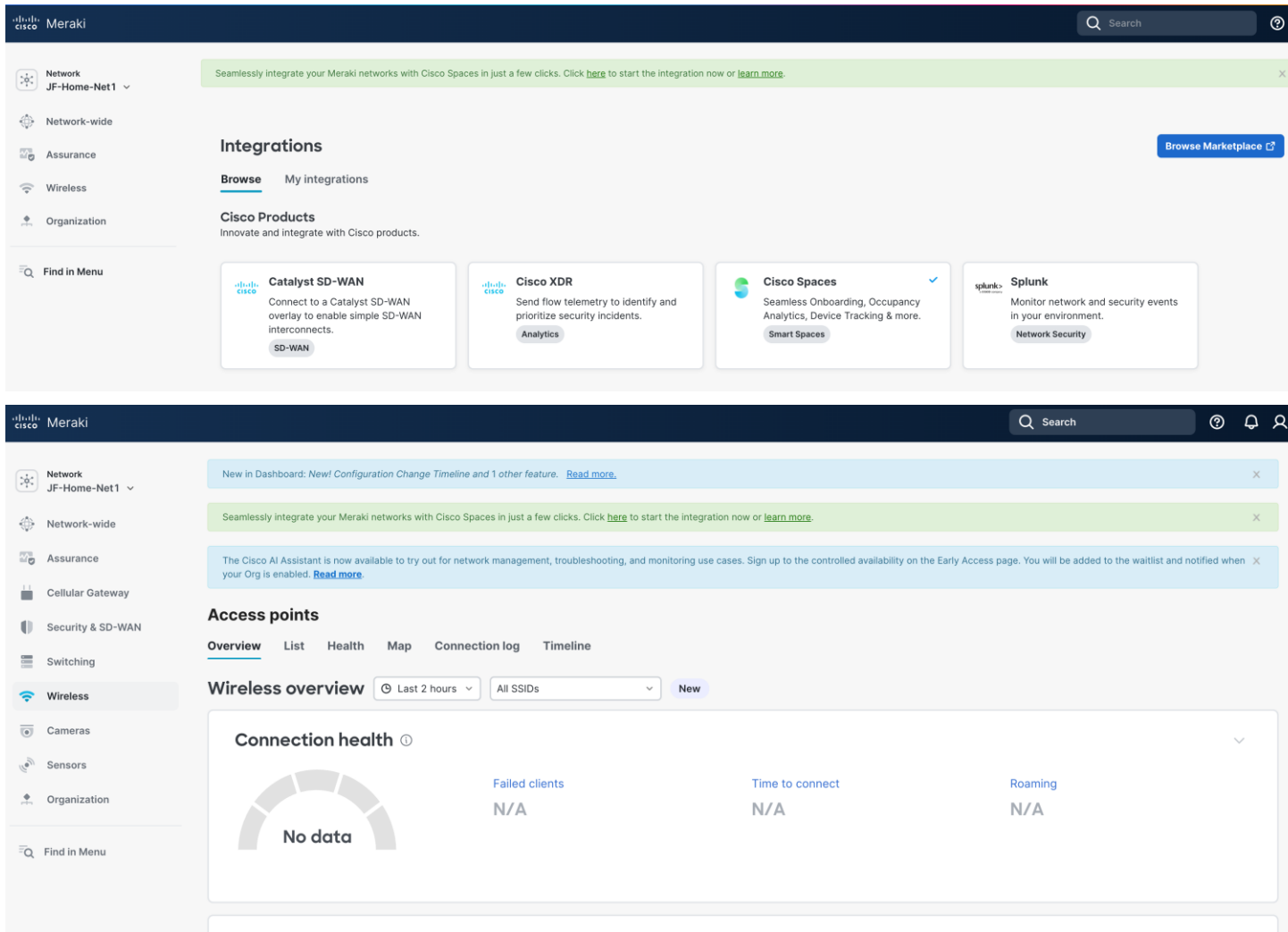
- GRPC (AP count): 3k
- BLE tags count: 30k
- Msg rate: 170k BLE msg/sec

Important note:

- Connector performance could vary depending on the ESXi CPU Type
- Numbers published above were tested on **32 CPUs x Intel(R) Xeon(R) Platinum 8362 CPU @ 2.80GHz**

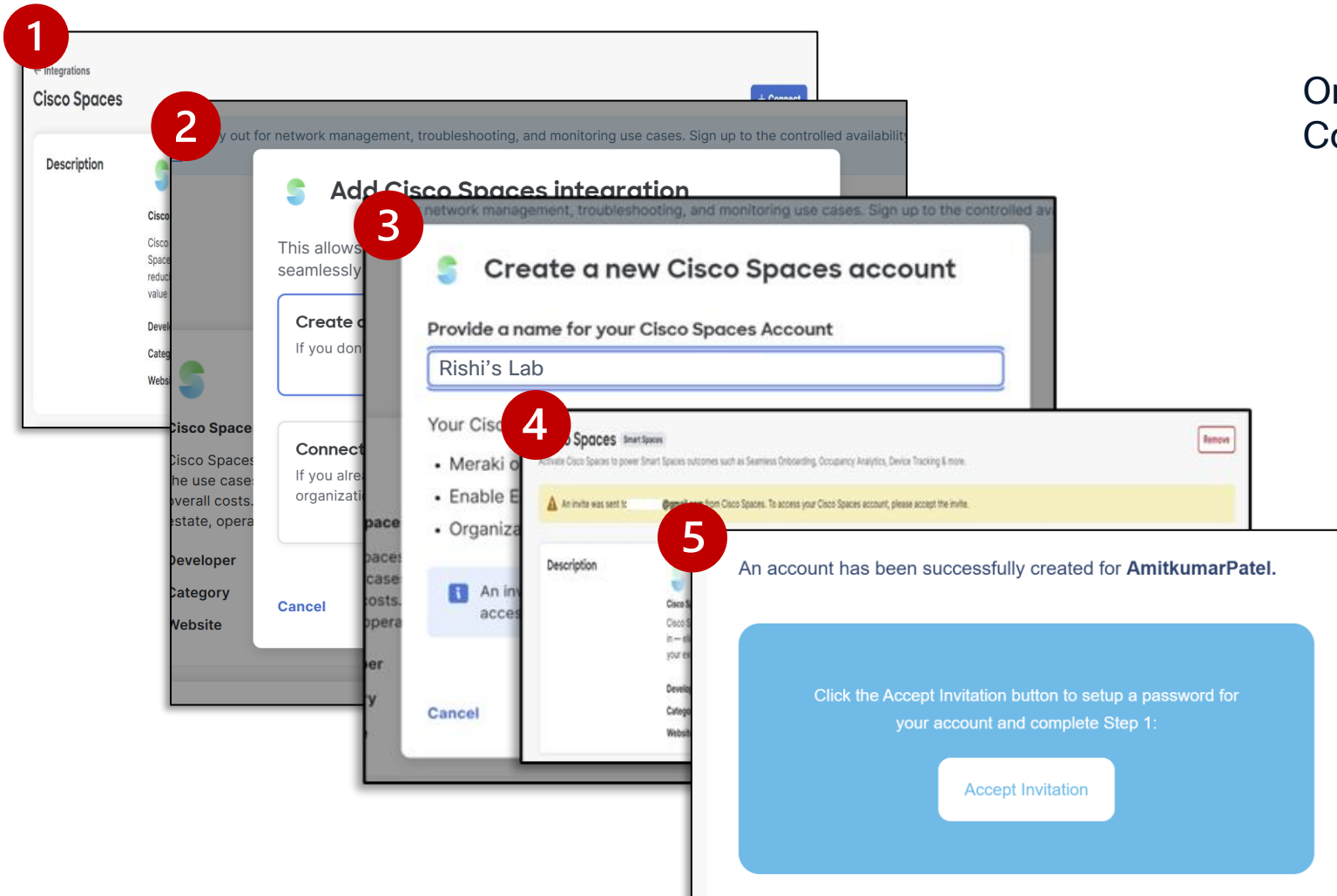
Cisco Spaces – Meraki Integration

Integration enables connecting Meraki Account to Cisco Spaces via Meraki Dashboard



- Native integration (No need to manually copy paste API key & post URLs from one platform to another)
- Easy integration with few clicks
- Allows Meraki users to connect Meraki organization with a Spaces tenant. Can be done by either creating a new Spaces tenant account or mapping it with their existing Spaces tenant account
- Simplified licensing by bundling Spaces into MR Enterprise, Advanced & UL licenses (Details in licensing section)

Cisco Spaces – Meraki Integration



On Meraki dashboard, go to Organization > Configure > Integration

- ✓ Click on Cisco Spaces tile and Click on “+Connect”
- ✓ Choose either existing Spaces account or create a new one
- ✓ Click “Add Integration” to complete the setup
- ✓ You will receive an email to Accept invitation (if you chose to create a new account)

Best Practices and Highlights for Meraki Integration

- Ensure your MR's are on latest firmware
- API rate limit is set per Org & per Source IP
- By default, all Meraki networks sync, but applying the tag "CiscoSpaces" restricts syncing only to those tagged
 - **Following data is shared as part of integration:** Org admins, floor plans/maps, network devices, SSID details, Scanning API subscriptions, MQTT brokers, Wi-Fi/BLE device location info & device details
 - May take up to 24 hours for applications in Cisco Spaces to show meaningful analytics data
 - Maps with APs placed are not mandatory to function, however, having maps with APs positioned is preferred for optimal performance and full access to Spaces capabilities



1. Predictive Wireless Design for Advance Location Outcomes



2. Configuring your WLAN and Synching to Cisco Spaces



3. Maps & AP's on the Map (AP Auto Location)



4. Configure Location & IOT

Why Maps matter

Unlocking value

With Maps

AI Maps **CAD File*

Maps SDK

Spaces API (Firehose)

Indoor Location Compute on Spaces (WiFi, BLE)

CMX On-premise

UWB Location Compute on Spaces

Space Utilization Analytics (historical occupancy with heatmaps)

AP Auto Location on Spaces

Detect & Locate (with history)

Interferer, Rogue AP Detection on Spaces

Indoor navigation

Smart Desking (find and book desks)

IoT services

Smart Rooms

Space Manager (occupancy heatmaps)

Plugin framework

Environmental Analytics (indoor air quality trends)

Without Maps

Open Roaming, Carrier Offload, SDK

Captive Portals on Spaces

Engagements

Location Personas

Behavior Metrics (building occupancy trends)

Location Analytics (for Presence)

Right Now (real-time occupancy)

Maps Are Important for Accurate Location Compute and Outcomes

Network map geo alignment is crucial to ensure access points (APs) and other network elements are accurately positioned relative to the physical environment.

Accurate AP placement and geo alignment enables:

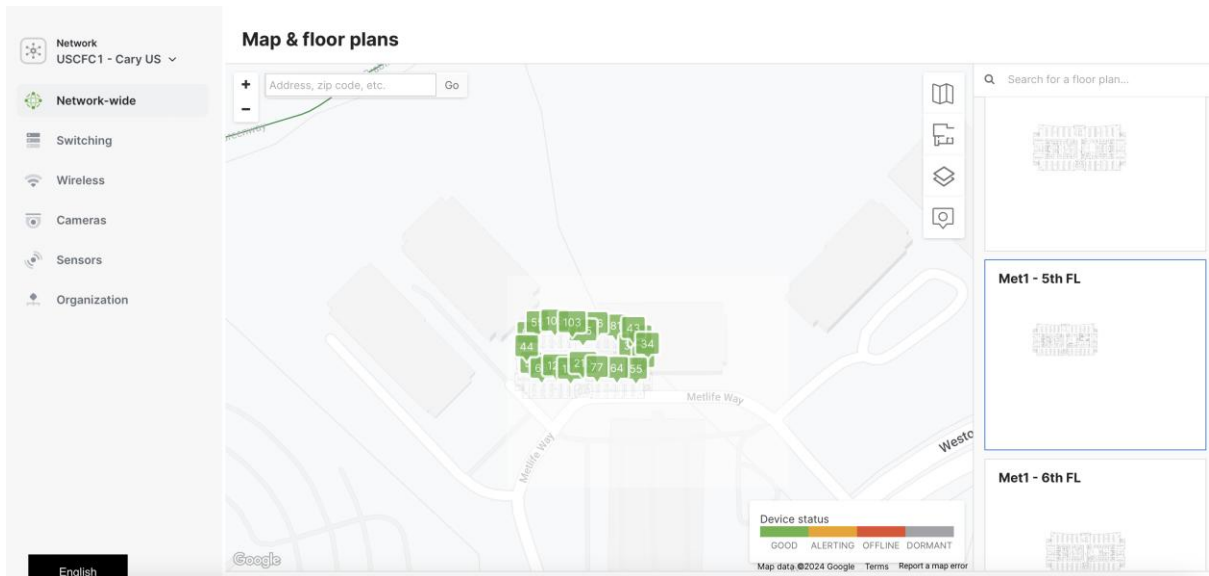
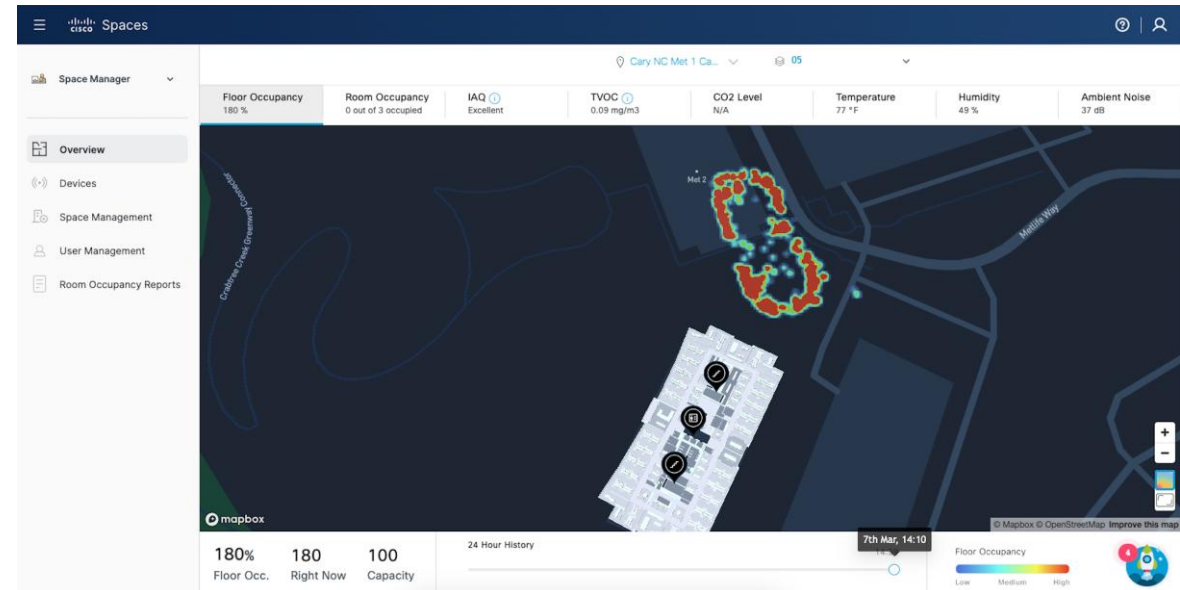
- Reliable client proximity detection and asset tracking.
- Effective location-based services like visitor counting, foot traffic analysis, and customer engagement.
- Enhanced navigation and wayfinding within indoor spaces.
- Correct aggregation of client location data on heatmaps and analytics dashboards.

Common Errors

- Misplaced APs or Anchors
Impact: Client locations may be computed incorrectly, reducing location accuracy and reliability.
- CatC – Incorrect or Missing GPS Markers
Impact: Without correct GPS markers, the system cannot accurately translate floor map coordinates to real-world geographic locations. Leads to network map and digital map mis-alignment.
- Meraki – Incorrect map geo-alignment
Impact: the system cannot accurately translate floor map coordinates to real-world geographic locations. Leads to network map and digital map mis-alignment.
- Incorrect map image scale
Impact: This causes location computations to be skewed or invalid and leads to network map and digital map mis-alignment.

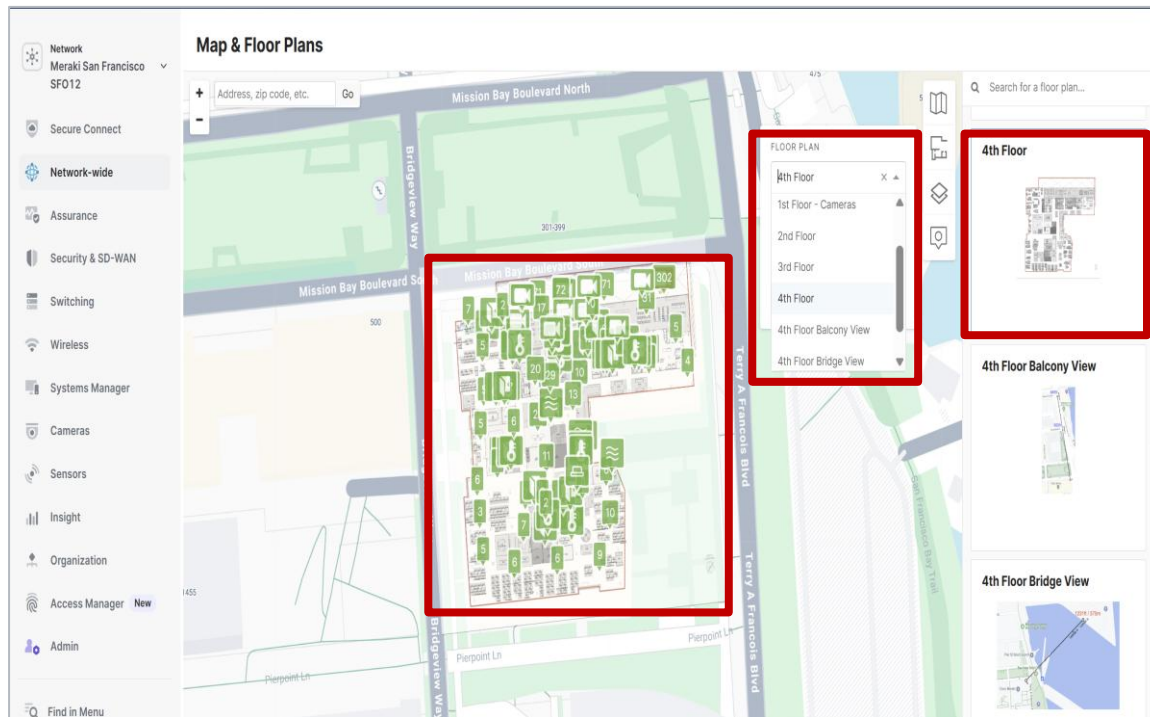
Network Map and Spaces Digital Map mis-alignment

- Network Map and Digital Map alignment is required for Smart Spaces outcomes like heatmap visualization
- Mismatch in maps leads to issues
- Basic network map (image file type) not scalable for LoB outcomes
- Resource overhead for troubleshooting and fixing

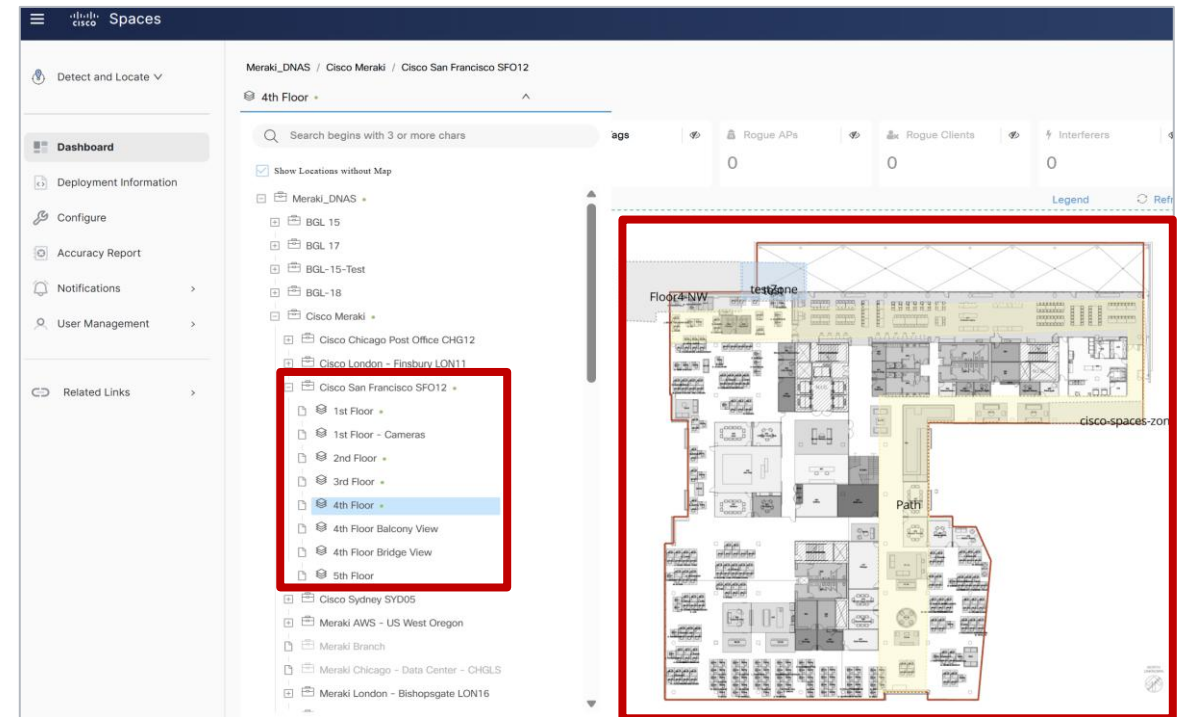


Maps and Location Hierarchy

Proper map scaling and alignment in Meraki is CRITICAL for Smart Spaces Outcomes



Maps & Location Hierarchy uploaded on Meraki Dashboard

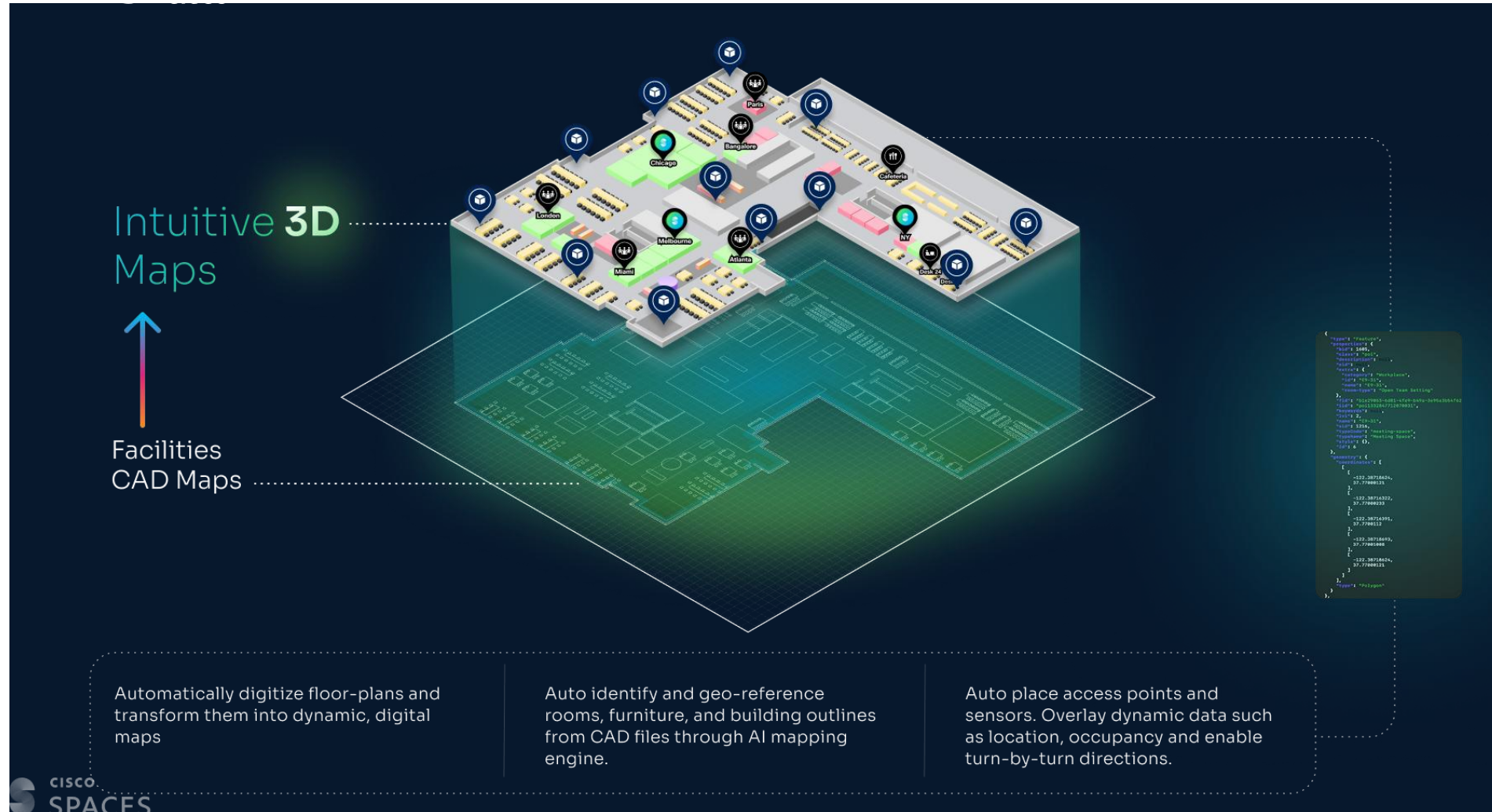


Maps & Location Hierarchy imported to Spaces Dashboard after integration is completed

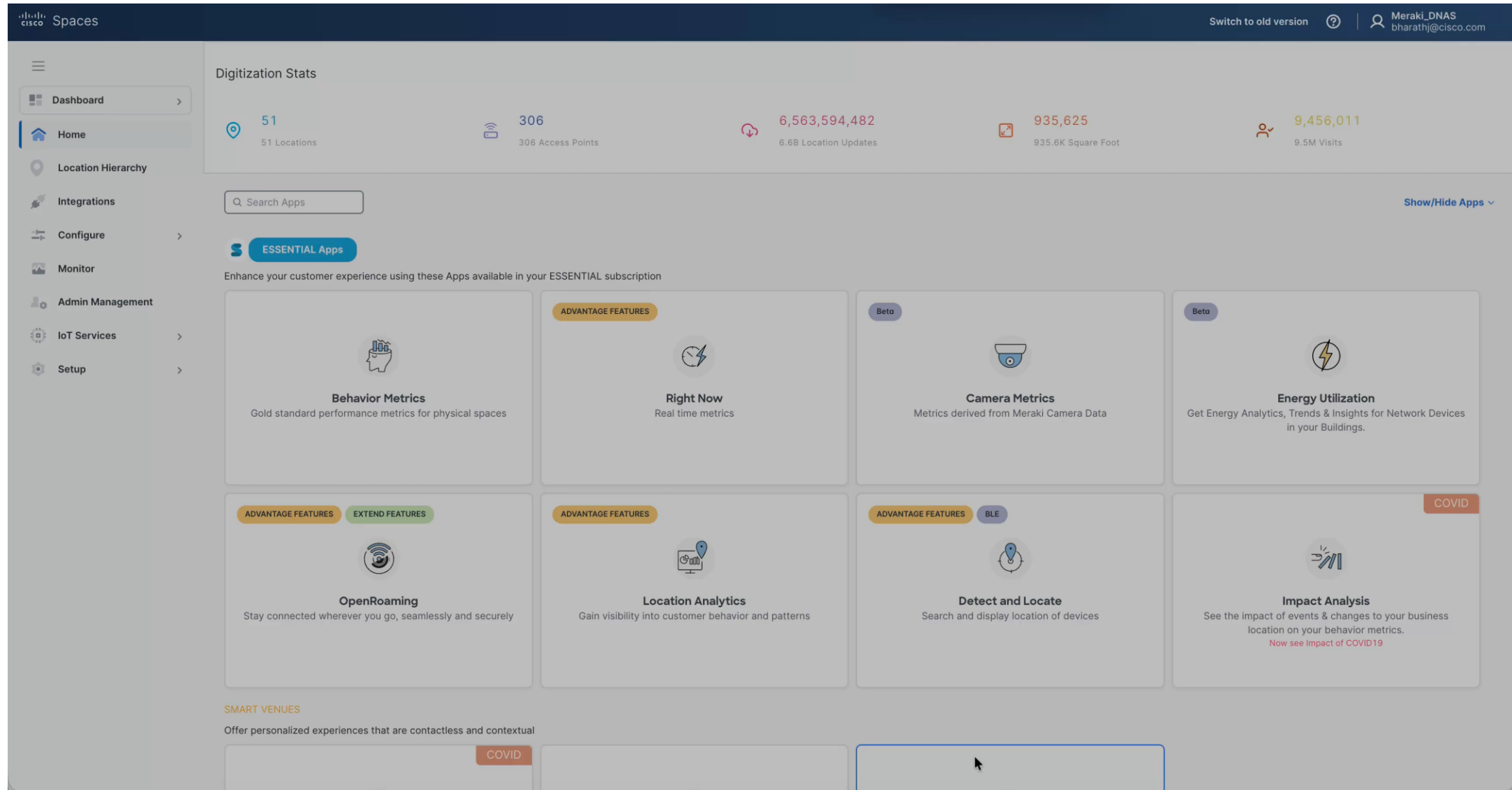
Catalyst Center – What do GPS Markers do?

- GPS Markers helps the cloud location engine translate x,y into lat long
- Lat Long is used by Cisco and Partner applications that leverage the AI Maps
- A minimum of 3 (ideally 4 or more depending on floor size) GPS Markers are required on each floor
- Place them at physically significant locations that can be seen by satellite
 - Corners of buildings, entrances etc are good
 - Sides of walls, stairwells, middle of floors are bad
- GPS Markers should be placed at least 20 meters apart from each other

Introducing Cisco AI Maps



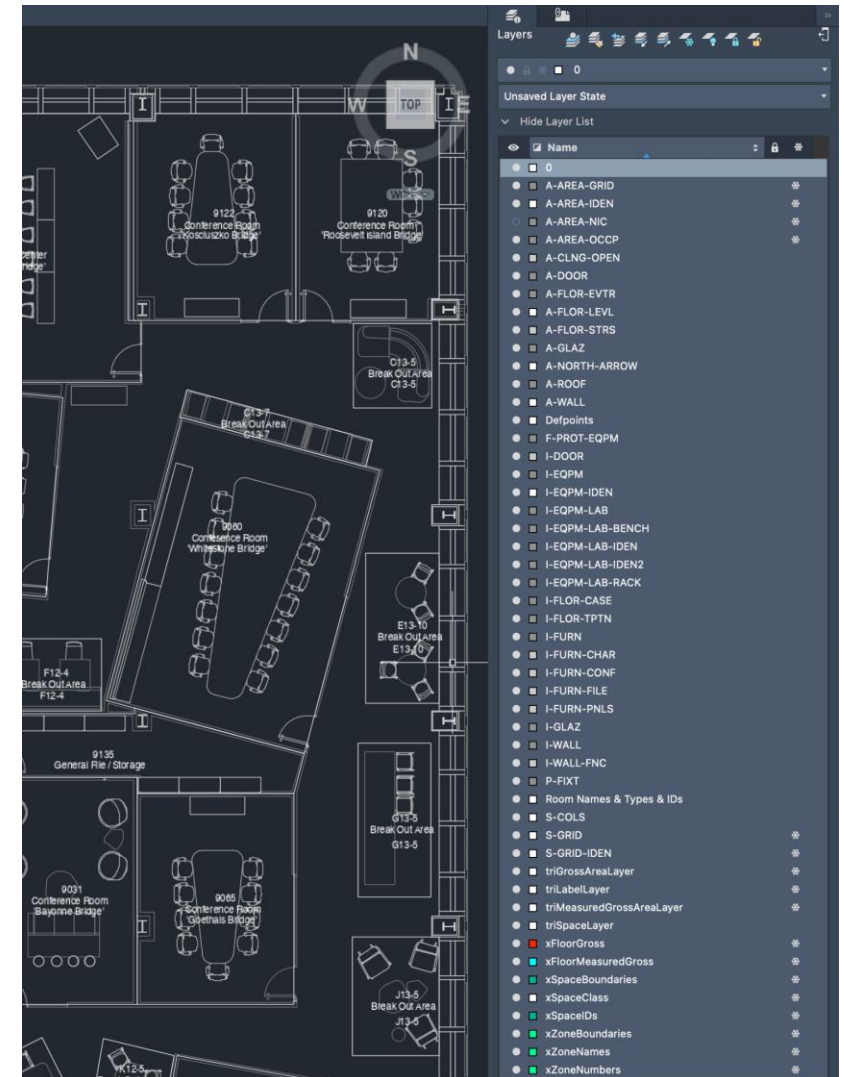
How to deploy AI Maps in Cisco Spaces



Please refer to the US National CAD Standard for guidance on layer details.

There are **3 main elements** for a great CAD file (.dwg) or Vector PDF:

1. **Architectural layers** (e.g. walls, doors, stairs, windows, etc.)
 2. **Furniture layer**
 3. **Space names / IDs / labels**
- **Spaces (Space Type) marked clearly, or detail provided.** For example, a space with a collaboration endpoint will need a room or desk to assign it to.
 - **Have clearly defined or marked POIs** like stairs, bathrooms, elevators etc.
 - **Provide room names in the CAD file** or give the right identifiers that you would like the rooms to be labeled. Sometimes, a CAD or Vector PDF file can have multiple such identifiers for the same room. In this case, please leave a comment in the upload workflow with which identifier should be used as a name for the spaces.
 - **Provide clear layer names in CAD.** For example: "A-Furn" (furniture), "Doors" (for doors), "Windows" (for windows), etc.
 - **Keep elements in separate layers.** Example: walls, doors, labels in their own layers.
 - **Cross Reference (XREF) layers** will not be processed. You must "Bind" them into a single .dwg when exporting from AutoCAD or another program.



3. Place APs on a Map

AP Auto Location

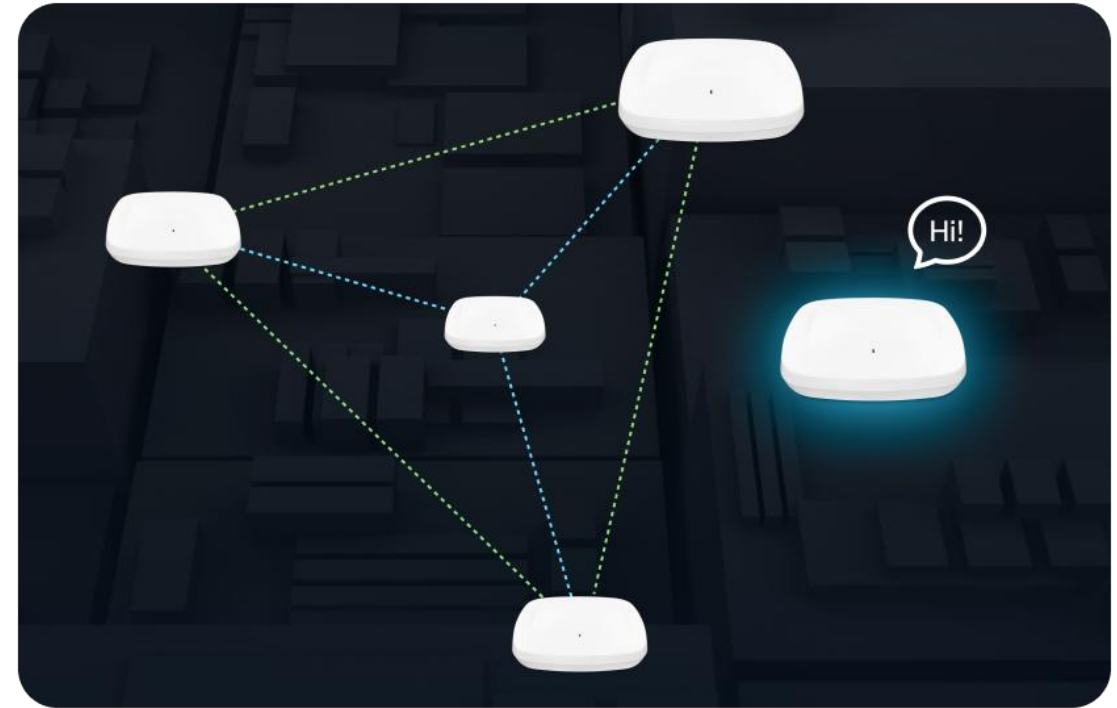
Eliminate the manual effort network IT administrators must go through to place Access Points

Automatically determine the location of Access Points in your buildings and place them on a digital floor map

Accuracy: Make location data more accurate and accessible. Simplify impact of location services & drive business outcomes faster

Automation: Automate AP placement on digital maps, reducing deployment time and complexity associated with manual mapping

...delivered on a common mapping framework



Enhanced with Wi-Fi 7 – UWB+GPS

How does this work?

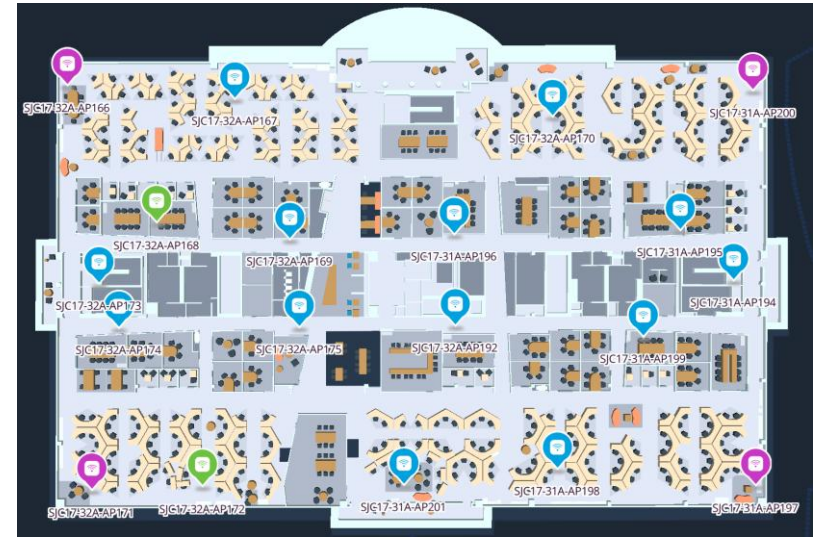


The Smarts Behind the Scenes:

***FTM + GPS + Spaces Digital Maps + Spaces Cloud Location**

If GPS capable APs are used, and the APs are located in an area that can acquire a good GPS signal, the placement may be completely automatic.

Otherwise, the feature will determine the position of the APs relative to one another, and an administrator will need to adjust the AP cluster on a Spaces digital map for the APs to be automatically placed.



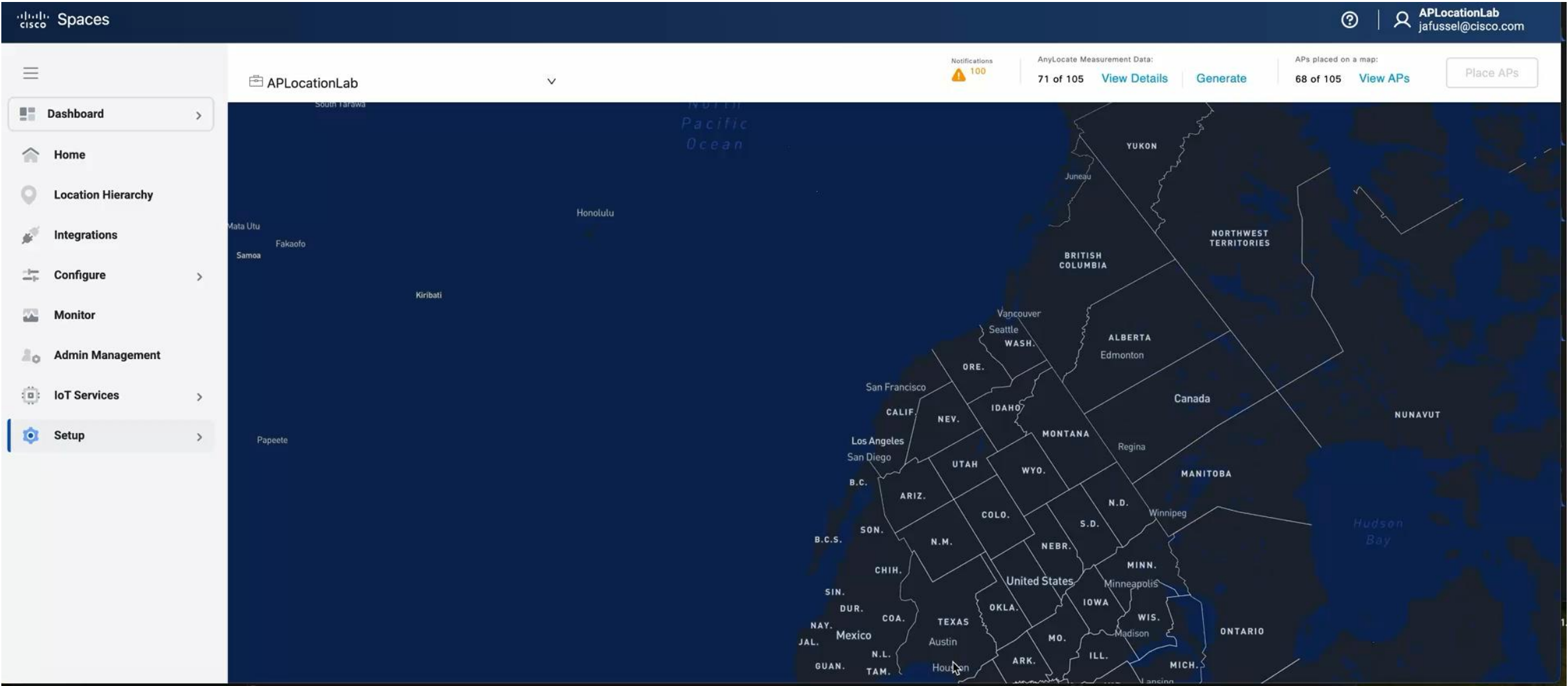
Example of AP Auto Locate Precision with FTM alone



Example of AP Auto Locate Precision with FTM *and* UWB



AP Auto Locate Demo



Options for APs on Maps (and Synch to Cisco Spaces)



Cisco Spaces

- Manual AP Placement and AP Auto Location
- Need CAD/vector pdf (Advantage license) and Cisco AI Maps
- Manual synch to CatC, use TAR.gz export from Spaces (in EFT)
- Auto sync to CatC (roadmap)



Meraki Dashboard

- Manual AP Placement and AP Auto Location
- Supports basic image types jpg/png/gif
- Proper geo-alignment on each floor recommended
- Map Auto sync to Spaces (bi-directional is in planning)



Catalyst Center

- Manual AP Placement and AP Auto Location
- Supports CAD/vector pdf and image maps
- Manual export and Map Auto sync to and from Spaces
- GPS markers on each floor recommended



Prime Infrastructure

- Manual AP Placement
- Manual Map export from PI > Import in Spaces



1. Predictive Wireless Design for Advance Location Outcomes



2. Configuring your WLAN and Synching to Cisco Spaces



3. Maps & AP's on the Map (AP Auto Location)



4. Configure Location & IOT



How to activate IoT services (BLE)

1

Spaces

Dashboard

Home

Location Hierarchy

Integrations

Configure

Monitor

Admin Management

IoT Services

Setup

IoT Services

About

IoT Gateways

Manage

Monitoring

2

About IoT Services

IoT Services are activated on either or all connectors, access points, or switches.

Activate IoT Services

IoT Services: Activation Status

Last Updated: {datetime} Nov 9th, 2025 09:17:44 PM [View Detailed Status](#)

Connectors

1/1

Wireless Services Activated

1/1

Wired Services Activated

Controllers

1/1

Activated

Gateways

8/8

Access Points

0/1

Switches Activated

IoT Services activation successful on 1 wireless services on connector, 1 wired services on connector, 1 controller and 8 Access Points.

[View Details](#)

IoT Services > About

How to activate IoT services (BLE)

3

Activate IoT Services

What would you like to activate first

If you want to enable IoT services on both wireless and wired devices, choose one option and complete the steps and come back later to activate the rest.

Wireless

You must have a connector installed and added compatible APs on the connectors before you proceed with this. The gateway can be deployed all the compatible APs.
Compatible devices: Catalyst 9800 series controllers and 9100 series APs

Wired

You must have a connector installed and added supported switches on the connectors before you proceed with this. The gateway can be deployed all the compatible switches. You need to configure certain parameters manually.
Compatible devices: Catalyst 9300 and 9400 series switches

Choose Wireless IOT for BLE

4

IoT services will be activated on

1 of 1 compatible connector

Takes upto 30 mins

1 of 1 compatible controller

Takes upto 10 mins

All Compatible APs on all locations

Takes upto 10 mins/AP

Activating IoT services on the supported APs may take upto **40 mins + 10 mins/AP**. You can initiate the activation and check the status in the "About IoT services" page.

Activate

Activate IoT services on selected?
[Click here for customization](#)

Pre-Req Check

5

Deploy Wireless Gateway

Choose the access points that you want to deploy gateway

SJC19-TME-Lab

Bharath Lab

CiscoWLAN

System Campus

TME-Setup2-SJC19

TME-Lab

WIN_KN

Select All Supported APs	Mac Address	Gateway Capability	Status	Last Heard	
☐	Wifi7_Setup2_AP-7	c4:18:fc:83:94:20	Advanced Gateway	Advanced Gateway Activated	Yes
☐	Wifi7_Setup2_AP-8	c4:18:fc:83:95:c0	Advanced Gateway	Advanced Gateway Activated	Yes
☐	Wifi7_Setup2_AP-2	c4:18:fc:83:a8:20	Advanced Gateway	Advanced Gateway Activated	Yes

Customize WLC and APs to deploy for BLE

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BRKEWN-2658

Now your Outcomes can go live!!!

3.

Outcomes

Spaces & Ecosystem Solutions, API



2.

Middleware

Spaces OS: common middleware

- | Lower TCO
- | Less complexity
- | Fully integrated
- | Enterprise scale
- | 24X7 Monitoring

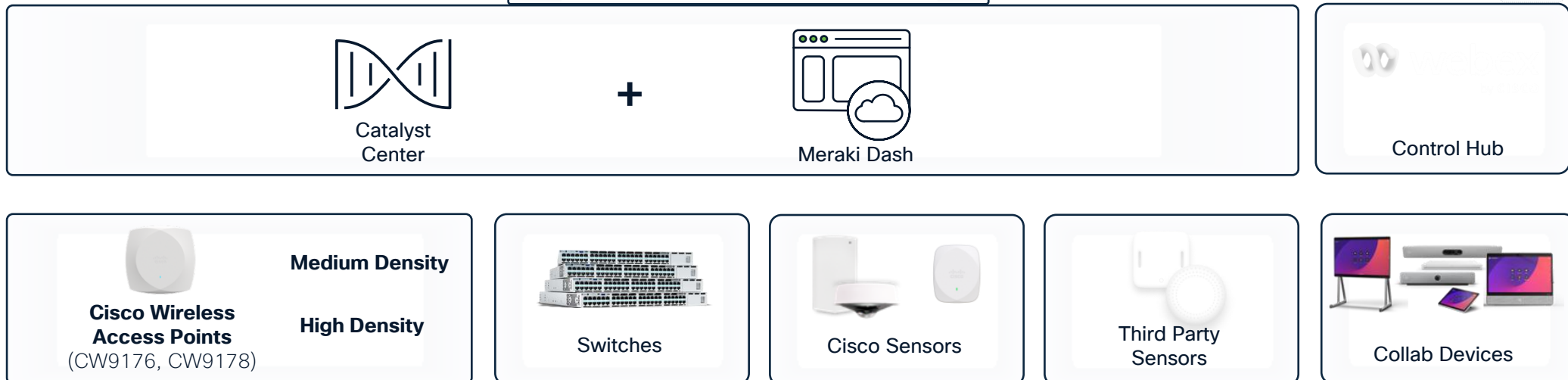


Smart Spaces Studio | Smart Spaces Co-Pilot

1.

Infrastructure

Design, Deploy & Validate at high density



How can Cisco help!!!

DDM: Helping you deploy use cases end to end



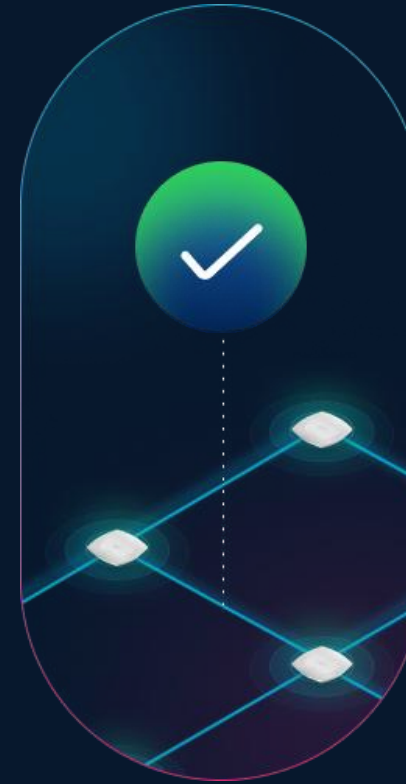
**Design &
Deployment
Module**



**Network Design
Validation**

of the high-density AP placement design
for smart spaces use cases

+



**Spaces OS
set-up**

to activate the Spaces OS (maps,
location metadata, telemetry, APIs..)

+

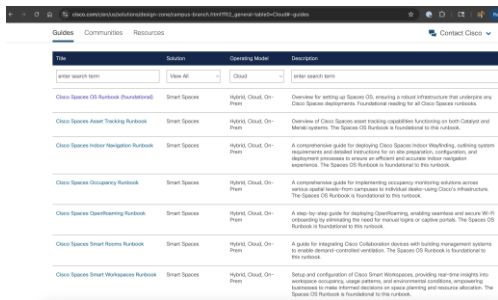


**Smart spaces
use cases deployment**

for Space Explorer, Indoor Navigation, Smart
Rooms, Smart Desking, & Space Utilization
Apps deployment

+ Single POC Technical project manager from the Spaces Business Unit to coordinate with specialist teams and provide guidance on the execution of the deployment

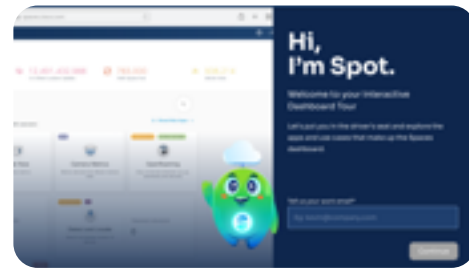
Resources



Guides			
Communities			
Resources			
Contact Cisco			
Filter			
Enter search term			
New All Cloud			
Enter search term			
Class Spaces OS Runbook (Foundational)	Smart Spaces	Hybrid, Cloud, On-Prem	Overview for setting up Spaces OS, ensuring critical information that underpins any Class Spaces deployment. Foundational reading for all Class Spaces runbooks.
Class Spaces Asset Tracking Runbook	Smart Spaces	Hybrid, Cloud, On-Prem	Overview of Class Spaces asset tracking capabilities functioning on both Catalyst and Meraki switches. The Spaces OS Runbook is foundational to this runbook.
Class Spaces Indoor Navigation Runbook	Smart Spaces	Hybrid, Cloud, On-Prem	A comprehensive guide for deploying Class Spaces Indoor Navigation, including system requirements and detailed instructions for on-site preparation, configuration, and deployment processes to ensure an efficient and accurate indoor navigation experience. The Spaces OS Runbook is foundational to this runbook.
Class Spaces Occupancy Runbook	Smart Spaces	Hybrid, Cloud, On-Prem	A comprehensive guide for implementing occupancy monitoring solutions across various space types from campuses to individual desks using Class Spaces infrastructure. The Spaces OS Runbook is foundational to this runbook.
Class Spaces User Learning Runbook	Smart Spaces	Hybrid, Cloud, On-Prem	A step-by-step guide for deploying User Learning, enabling seamless and secure Wi-Fi connectivity by extending the reach for virtual guests or visitors. The Spaces OS Runbook is foundational to this runbook.
Class Spaces Smart Rooms Runbook	Smart Spaces	Hybrid, Cloud, On-Prem	A guide for integrating Class Collaboration devices with building management systems to enable seamless control and automation. The Spaces OS Runbook is foundational to this runbook.
Class Spaces Smart Workspaces Runbook	Smart Spaces	Hybrid, Cloud, On-Prem	Setup and configuration of Class Smart Workspaces, providing near-zero insights into workspace occupancy, usage patterns, and environmental conditions, empowering businesses to make informed decisions on space planning and resource allocation. The Spaces OS Runbook is foundational to this runbook.

Spaces Runbooks

- Explore the Spaces runbooks [here](#) NEW!



Demo Tools:

- Smart Spaces Studio [here](#)
- Explore the Spaces Interactive Product Tour [here](#)
- Use cases & Journeys at Experience Center [here](#)
- Access the AI-maps demo [here](#)



Visit a Cisco Experience Center:

Visit one of our physical customer experience centers to experience the use cases live.

Access the global list of demo-enabled CXC's [here](#)



Try Spaces with a Proof of value (POV) :

Deploy Spaces at one of your buildings on a 90-day free trial to try advanced platform features & pre-defined outcomes

Complete your session evaluations



Complete a minimum of 4 session surveys and the Overall Event Survey to claim a Cisco Live T-Shirt.



Earn up to 800 points by completing all surveys and climb the Cisco Live Challenge leaderboard.



Level up and earn exclusive prizes!



Complete your surveys in the Cisco Live Events app.

Continue your education



Visit the Cisco Stand for related demos



Book your one-on-one Meet the Expert meeting



Attend the interactive education with Capture the Flag, and Walk-in Labs



Visit the On-Demand Library for more sessions at www.CiscoLive.com/on-demand

Thank you

CISCO Live !

