Monetizing your Wi-Fi Networks with cnMaestro

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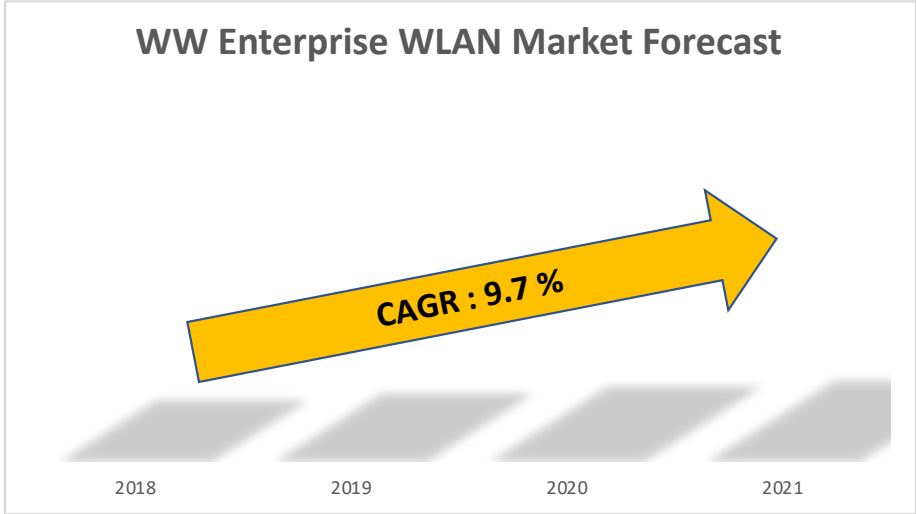
Cambium Networks™

Future is bright for Enterprise-Grade Wi-Fi

- **Enterprise Wi-Fi market is robust: 6.5B in 2018, CAGR of ~10% – EMEA: 29% of total TAM**
  - Explosion in number of client devices, IoT, and video traffic making high Density Wi-Fi deployments common place
  - Explosive growth in Cloud Managed Wi-Fi (47% CAGR)
  - 802.11ax will be a key driver in 2019 & beyond
- **Wi-Fi is mission critical for enterprises of all sizes – small sized businesses upgrading to enterprise class Wi-Fi**
  - Fueling strong growth in lower-end of the enterprise market
  - Simplicity, ease of management & TCO trump feeds & speeds
  - Driving demand for Managed Wi-Fi (MSP)
- **National Broadband initiatives driving growth in public Wi-Fi deployments**



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Wi-Fi Market Opportunity

Cloud Managed WLAN a fast growing segment of the market

REV

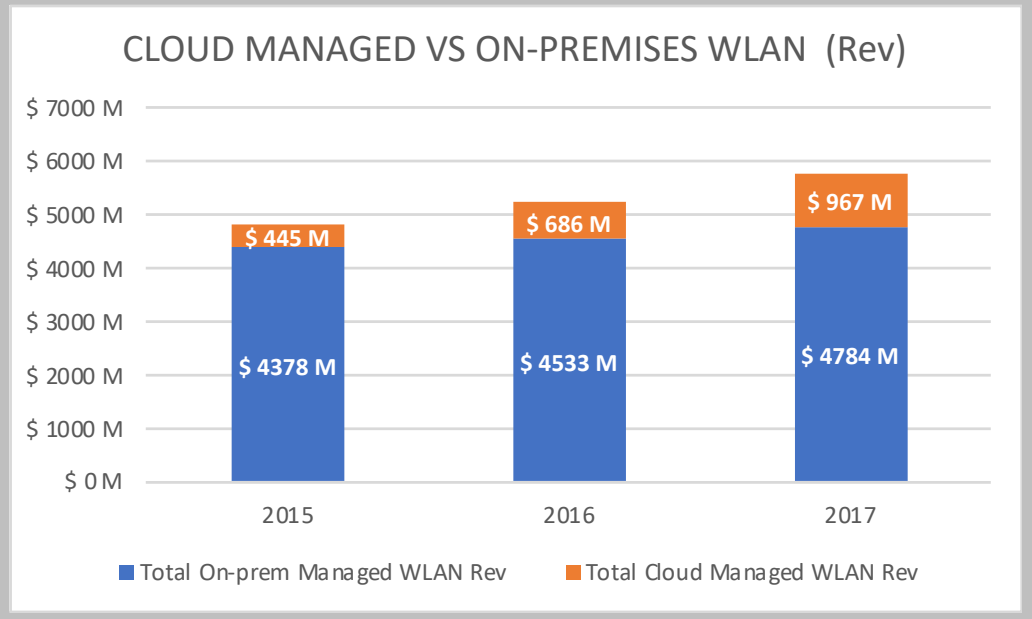
- Total WLAN market (2017): 5.7B; CAGR: 9%
- On-premises: 4.8B; CAGR: 4%
- Cloud Managed: **~ 1B; CAGR: *47%***

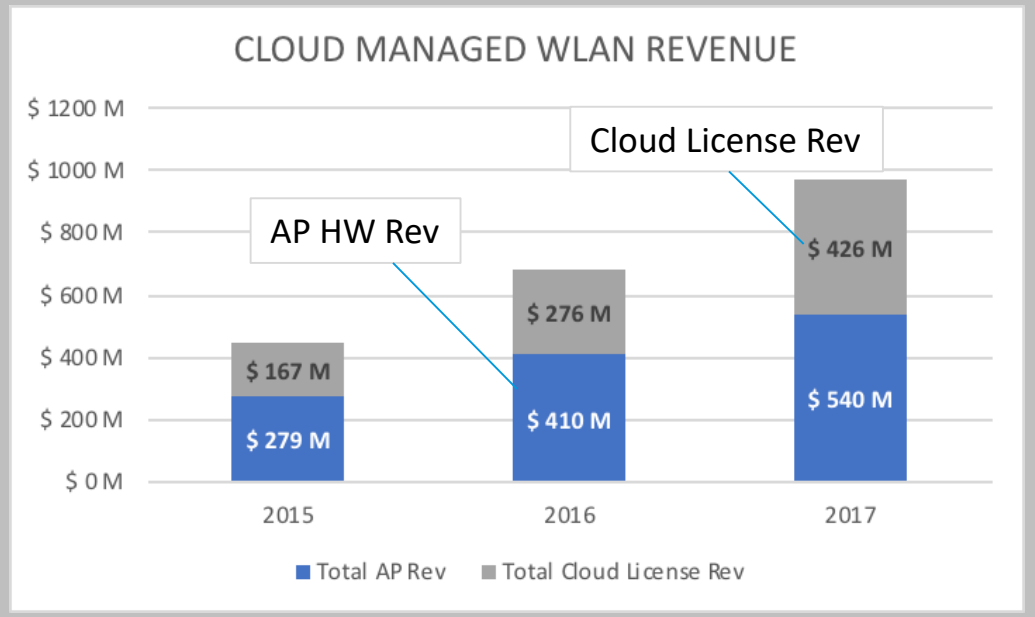
UNITS

	2015	2016	2017
Total Enterprise AP Units	13.8M	15.8M	18.4M
Cloud Managed AP Units	**1 M**	**1.7M**	**2.5M**
Cloud Managed as a % of total	8%	11%	14%

- Cloud Managed AP units growth CAGR: 58%

Cloud Managed License Rev rose to 44% of Total Cloud Managed Revenue in 2017 from 37% in 2015





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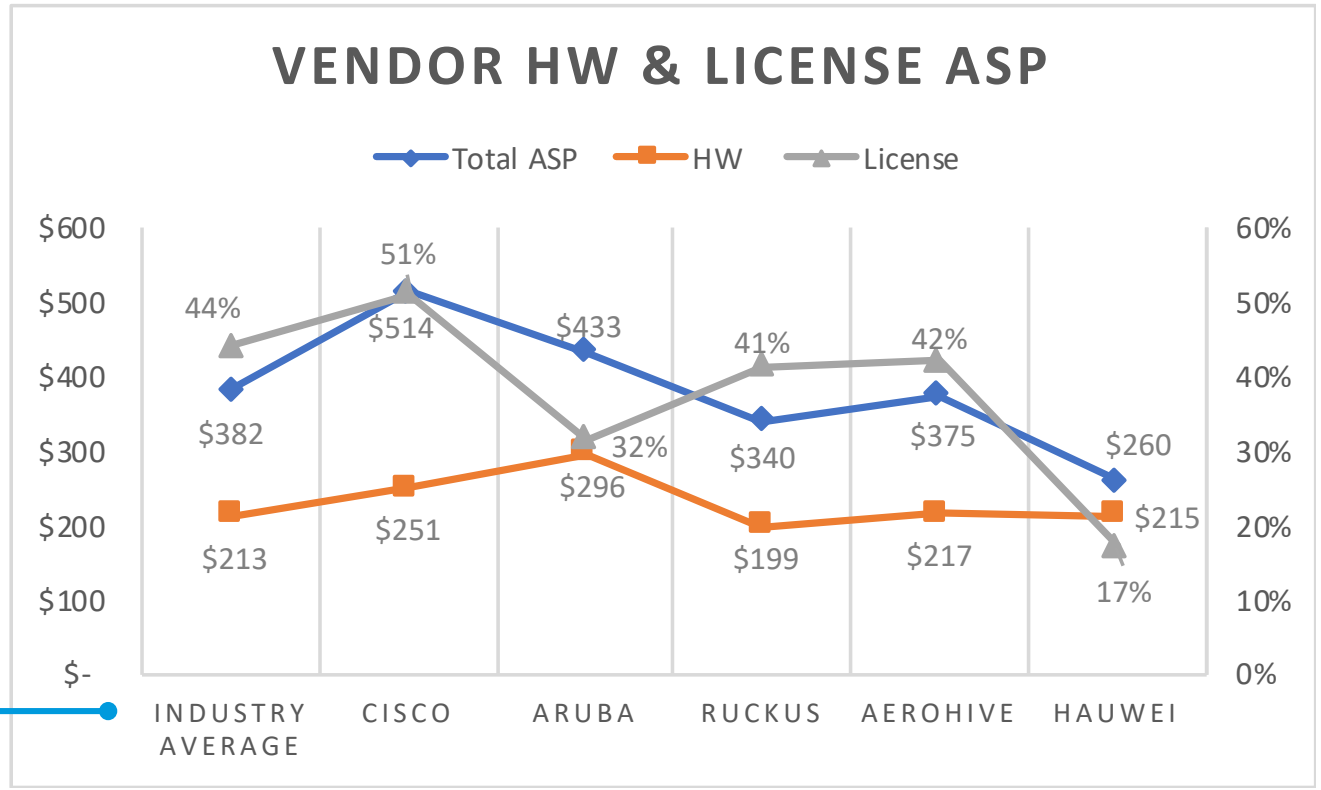
Industry Average and Competitive ASP's on Cloud Managed AP's

Reality Check on "True" AP costs

- Industry tendency is to compare HW prices
- Important to compare "true" AP price (AP Hardware + Cloud License)

- Industry Average
  - Total AP ASP: $382
  - Cloud license is 44% of the total ASP

- **Cambium Cloud License fee today: $0**



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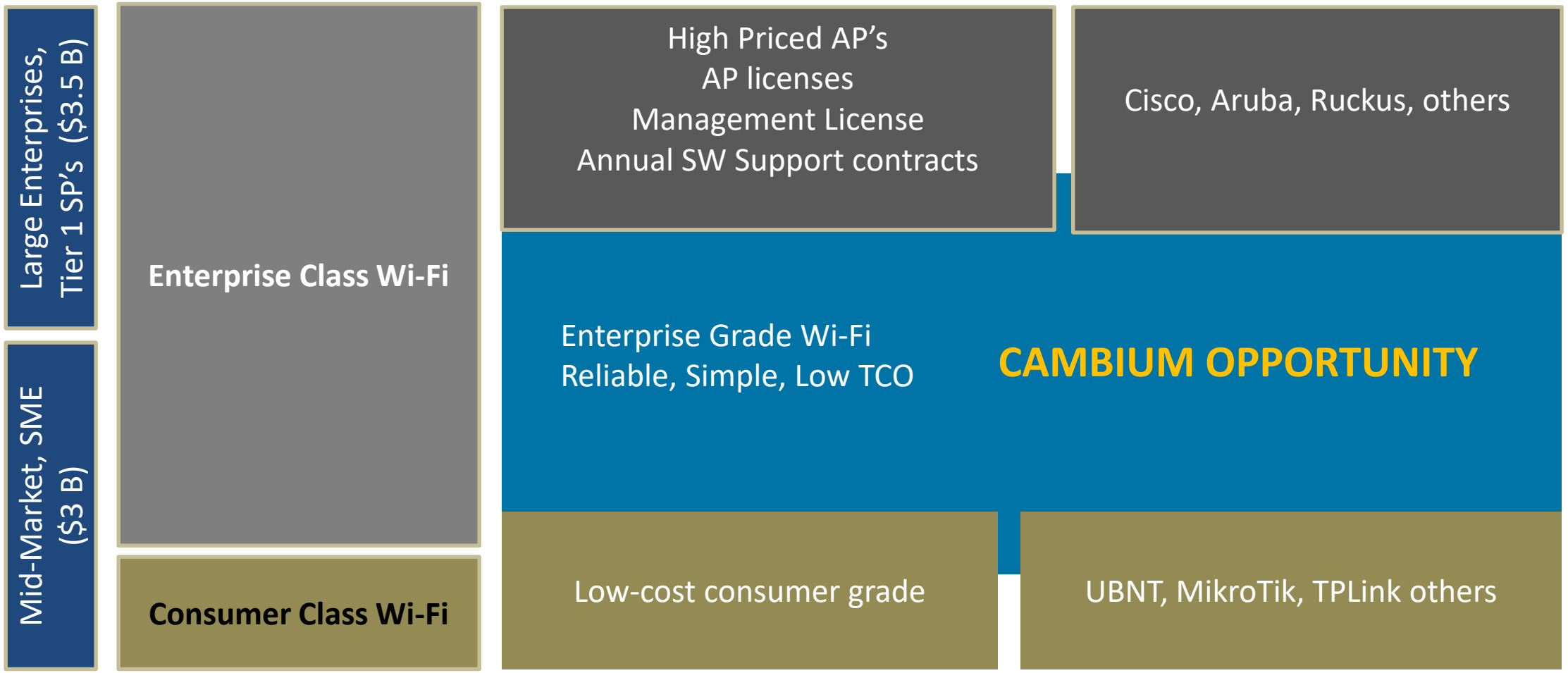
A sizeable market opportunity for affordable enterprise class Wi-Fi



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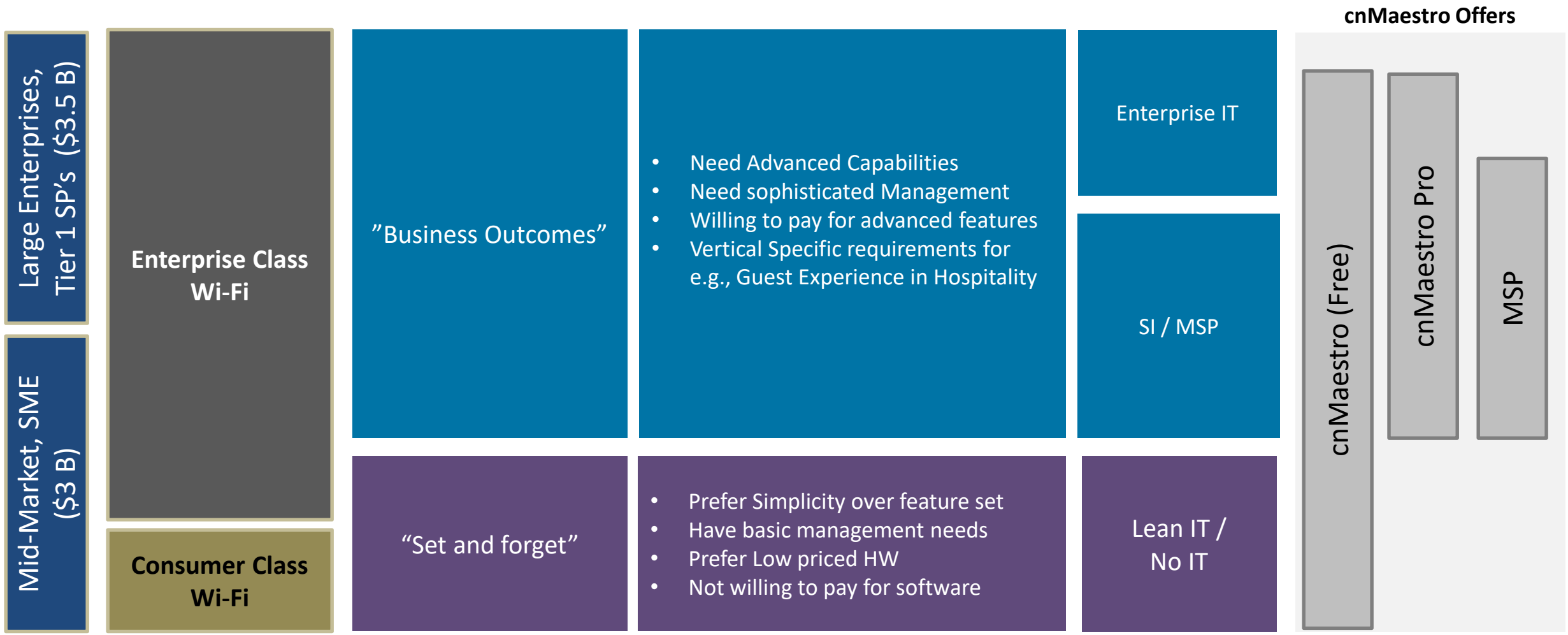
Strategy to target the unique needs of the target segments



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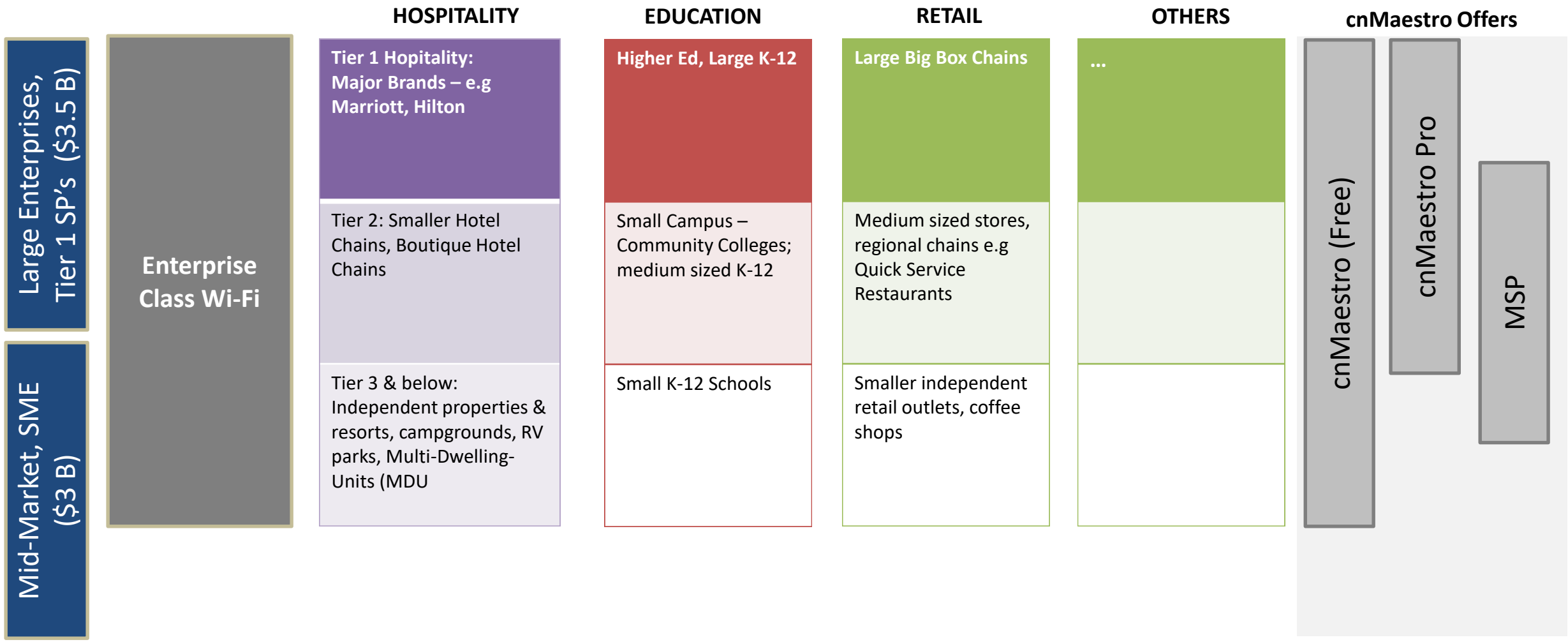
Penetrating deeper into the enterprise segment with a verticals focused approach



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cnMaestro Evolution: Cloud Management to Services

cnMaestro Advanced (Subscription)

- Client Dashboard
- Advanced Mgmt.
- Graphical Reports
- API
- 13-month Data Retention
- MSP

Future Evolution

- Network Analytics
- Location
- IoT Gateway
- Policy / Security
- Predictive Support
- 3rd Party Ecosystem

cnMaestro Essentials (Free)

- Zero Touch Provisioning
- Management / Monitoring
- 7-day Data Retention
- Troubleshooting Tools
- WLAN Controller
- Guest Access

Gartner Feedback - "… a bulk of the functionality you are building in cnMaestro are capabilities that customers are **willing** to pay for and **expect** to do so…"

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cnMaestro Pro Offers

cnMaestro Advanced (Subscription)

Wi-Fi Pro

Draft Subscription Pricing (MSRP)

- 1 Year: $30/AP ($2.50/AP/month)
- 3 Years: $60/AP ($1.67/AP/month)
- 5 Years: $90/AP ($1.50/AP/month)

Fixed Wireless Pro

Draft Subscription Pricing (MSRP)

- 1 Year: $20/device ($1.67/dev/month)
- 3 Years: $40/device ($1.11/dev/month)
- 5 Years: $60/device ($1.00/dev/month)

Managed Services Provider

Draft Subscription Pricing (MSRP)

- 1 Year: $10/AP ($0.83/dev/month)
- 3 Years: $20/AP ($0.56/dev/month)
- 5 Years: $30/AP ($0.50/dev/month)

cnMaestro Essentials (Free)

CnMaestro Offer as it stands today

DRAFT
Subject to change

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Competitive Comparison – Wi-Fi Pro

Per AP Subscription →	I Year	3 Year	5 Year
Aruba			
Device Mgmt	$100	$300	$500
Per service (Guest, Policy etc)	$50	$50	$50
Cisco Meraki	$150	$300	$450
Ruckus	$95	$190	$285
Mojo	$180	$360	$540
Cambium Networks*	**$30**	**$60**	**$90**

*Draft Pricing, subject to change

Interesting comment on the UBNT Community Page-

New UniFi cloud pricing- seriously?
04-07-2018 12:21 PM
"Does anyone else think the new cloud controller pricing is astronomically high compared to what we're getting?
I have 12 devices on my controller and instead of $200/yr it's going up to $500/yr when I renew in July..."

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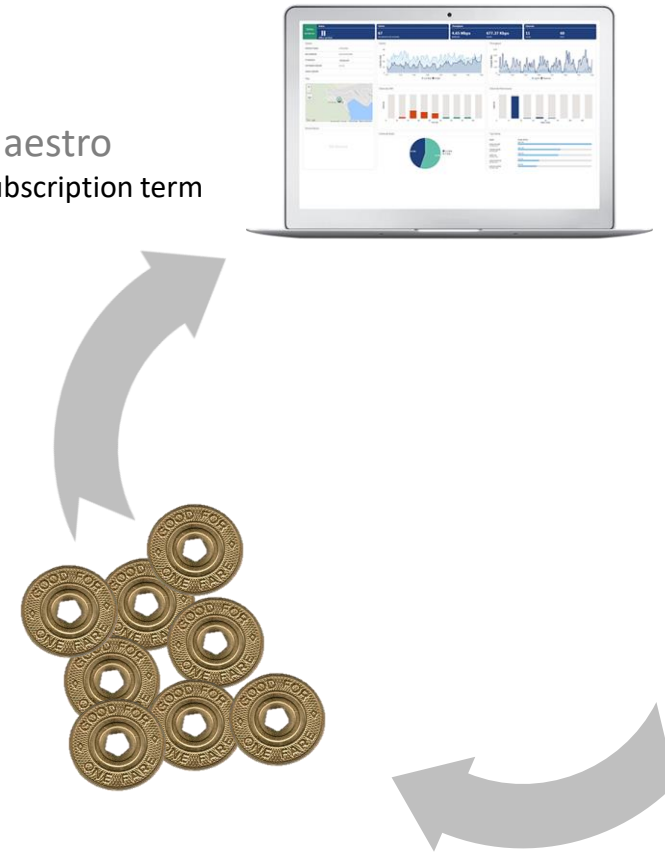
cnMaestro Subscription Model

Guiding Principle : Keep it Simple

A token based approach



Deposit Tokens in cnMaestro

- Apply to device count or subscription term
- Subscription renewal

cnMaestro Subscription Manager

Subscription tokens and pricing based on

- Type of Service
- Number of Devices
- Subscription Term

Customer / Partner

Evaluate new offers
Estimate token needs
Manage token usage

Buy Tokens

- A single SKU on the price list - $1 per Token
- Apply to device count or subscription term
- Subscription renewal

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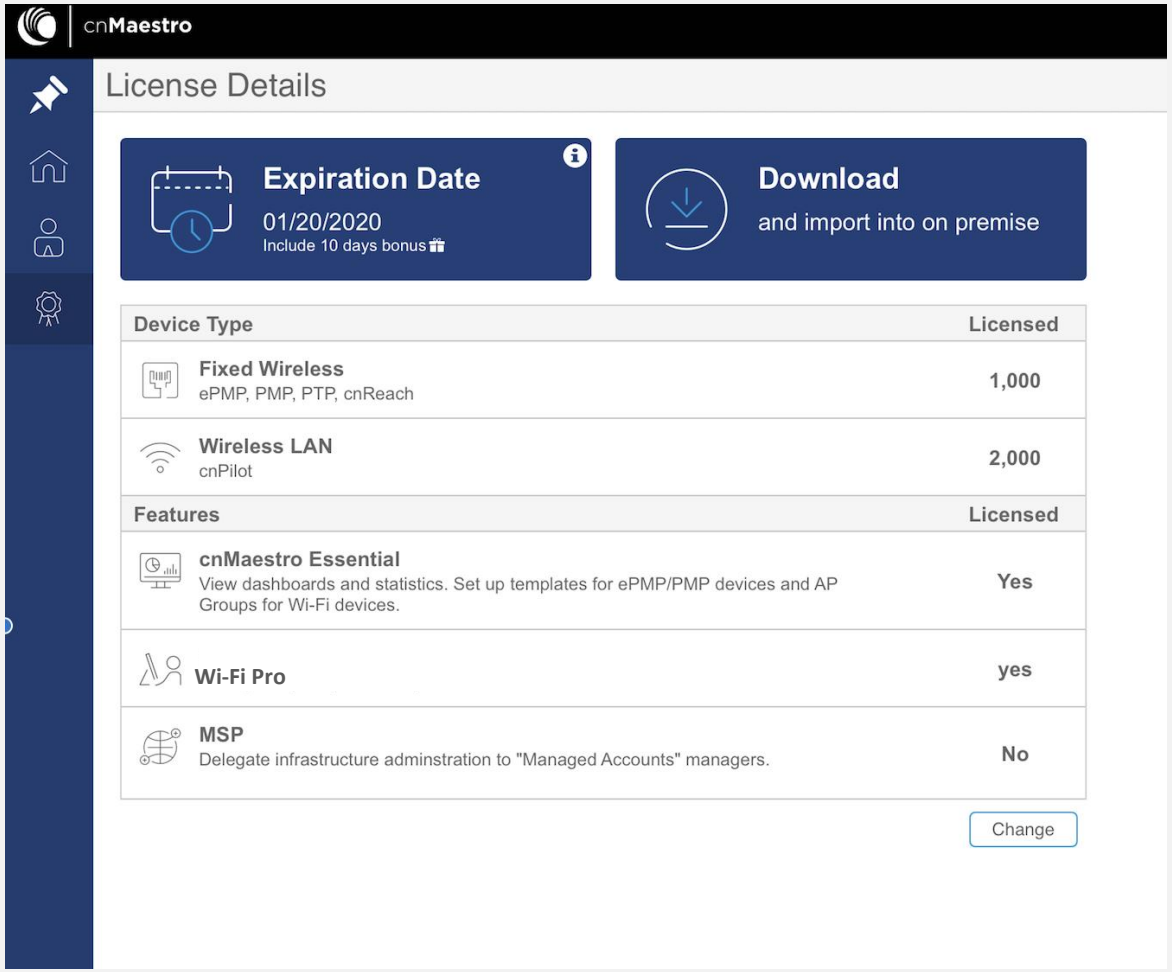
cnMaestro Pro Subscription

- cnMaestro Subscription Manager in cnMaestro Cloud
- Details
  - Devices under subscription
  - Which Services consumed
- For on-premises deployment, download license to deploy



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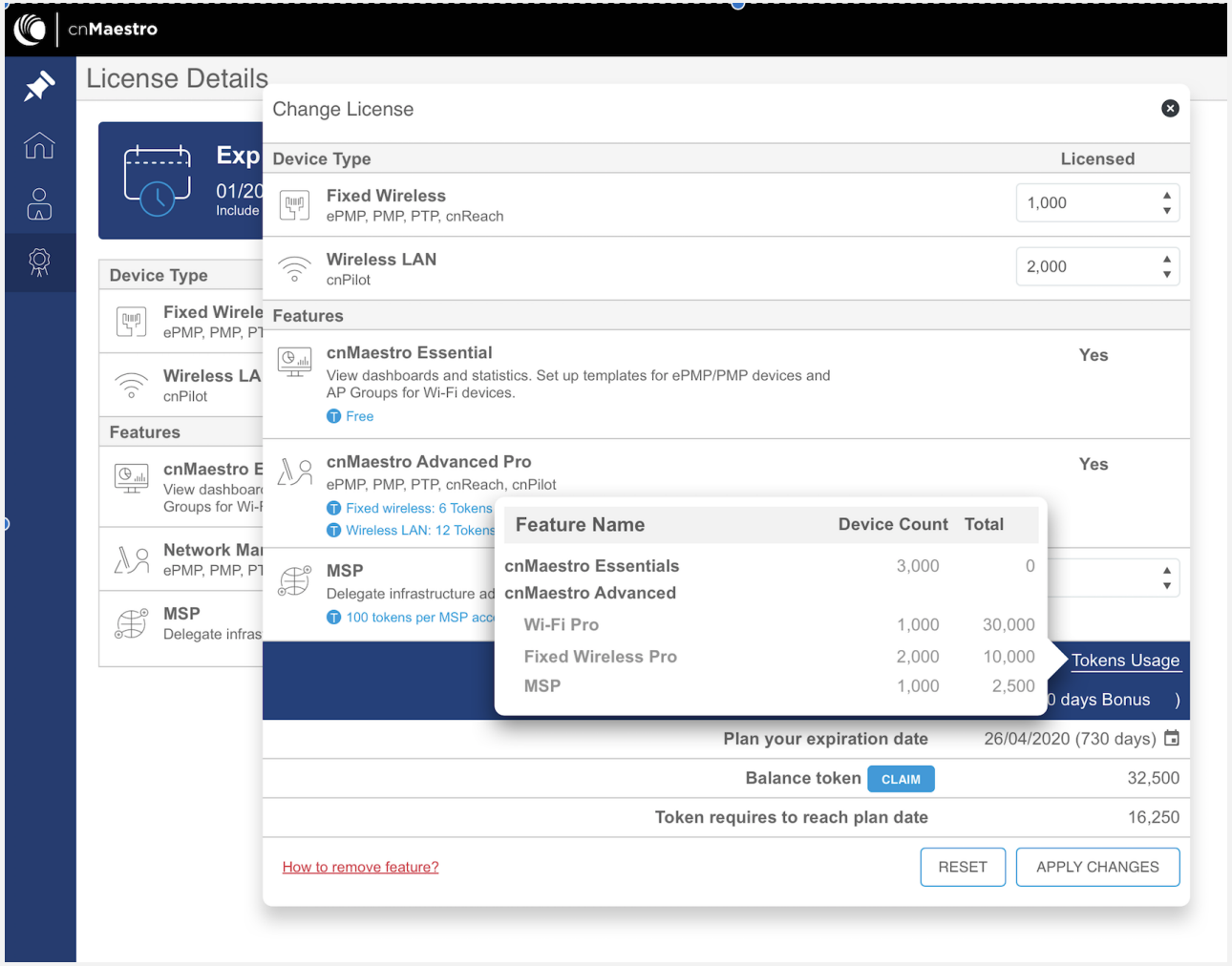
cnMaestro Pro Subscription

- Track token usage
- How many tokens are used?
- How many available?



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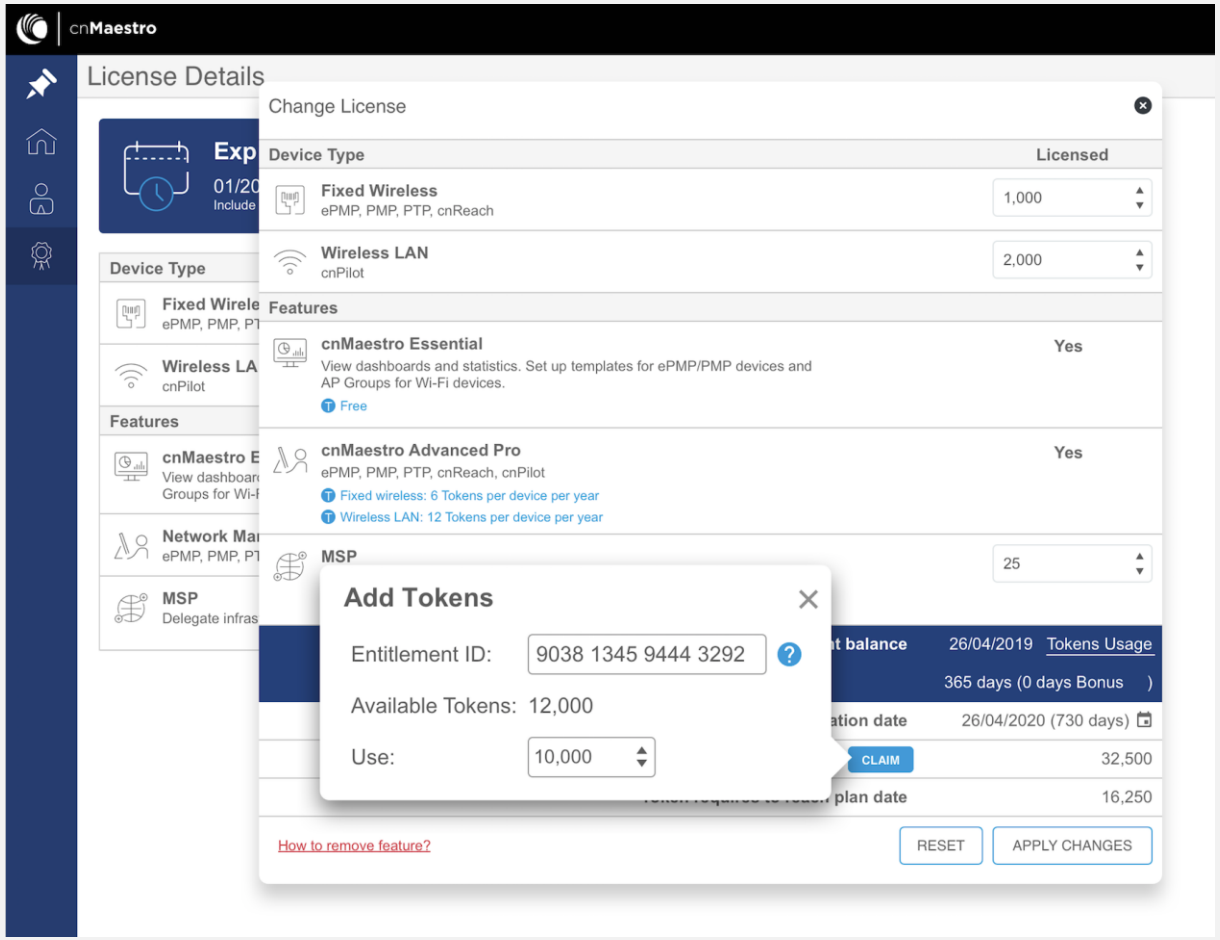
cnMaestro Pro Subscription

- Purchase – get an entitlement ID for the number of tokens bought
- Enter entitlement ID in the *Add Tokens page*
- Tokens are uploaded to the cnMaestro account and can be applied to add new devices or extend the subscription



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cnMaestro Wi-Fi Pro - Example

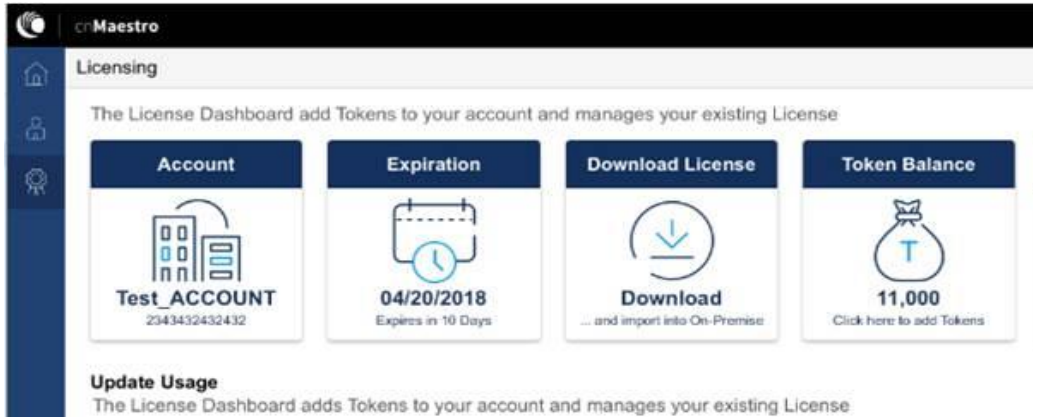
Customer has a 500 AP Wi-Fi network and interested in a 3-year subscription for cnMaestro Wi-Fi Pro

Greenfield Customer

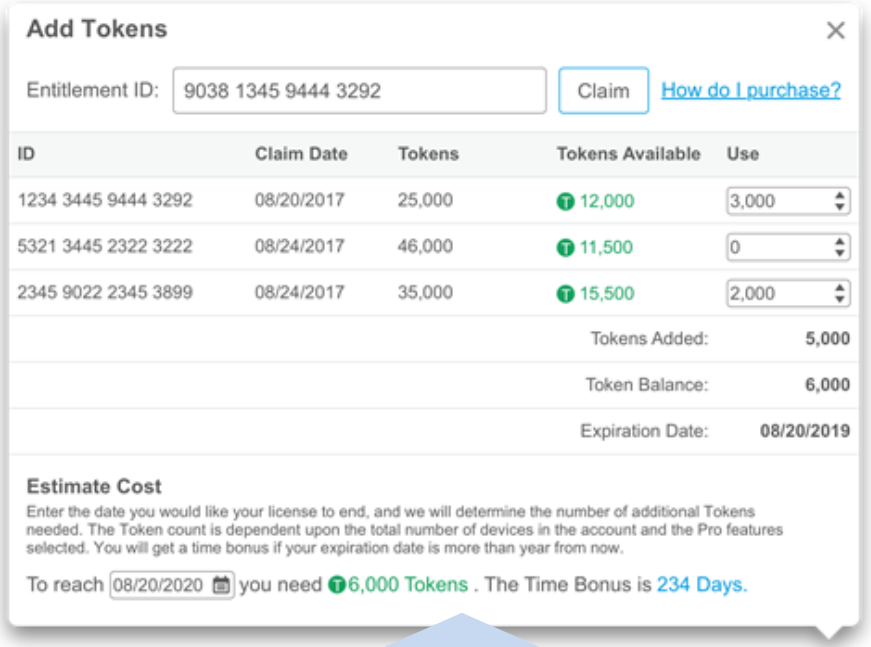
- cnMaestro can compute the number of tokens needed
- 30 tokens per AP * 500 = 1500 tokens

Brownfield Customer

- 500 AP's in addition to their network
- 30 tokens per AP * 500 = 1500 tokens
- cnMaestro will adjust term appropriately so that all AP subscriptions will expire together



Upload Tokens to cnMaestro



Customer procures tokens – same process as any other product. Single SKU for 1 token priced at $1 each

A Selection of cnMaestro Wi-Fi Pro Features

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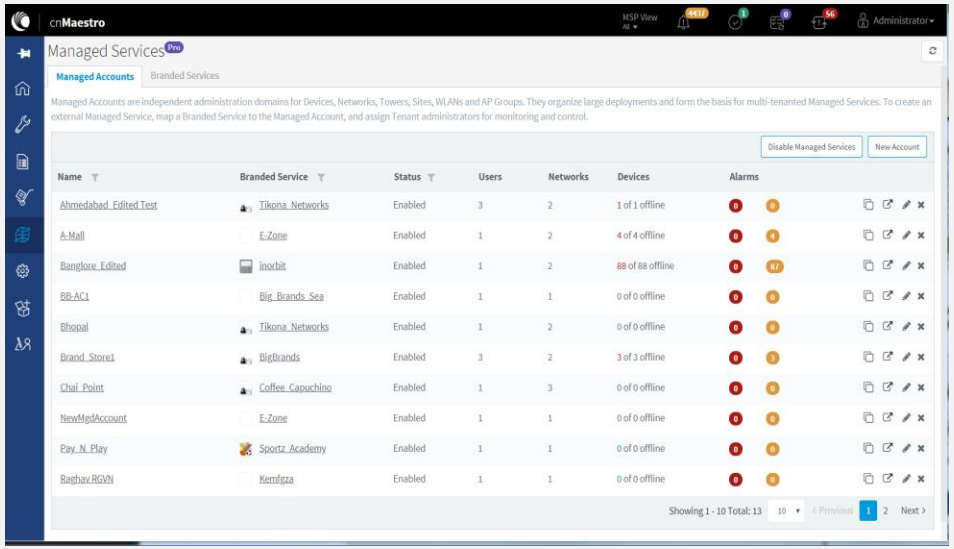
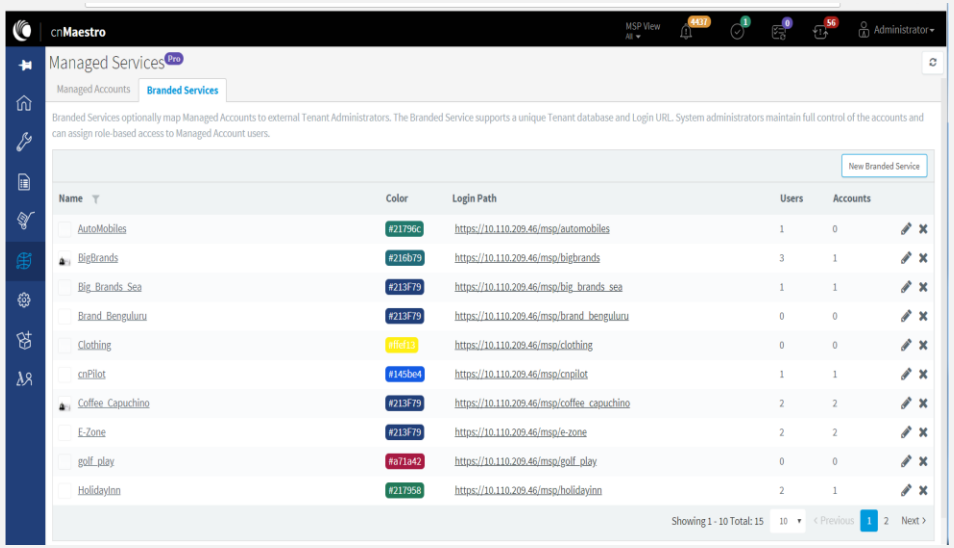
Enabling Managed Service Providers

- Allows a MSP to create a separate managed account for each one of their customer networks that can be independently configured and administered
- The MSP capability has the following two components
  - **Managed Accounts**: groups cnMaestro devices and configuration objects (such as AP Groups, WLANs, Templates, Networks, and Sites) into independent administration domains within a single cnMaestro Company Account
  - **Branded Service**: Allows the service provider to create a customized version of the cnMaestro UI that will be used by their Managed Account customers. Each Branded Service can be shared between different Managed Accounts
- Use Cases
  - Enables MSP to create their own branded service with their branding
  - An enterprise that has departments that are managed independently





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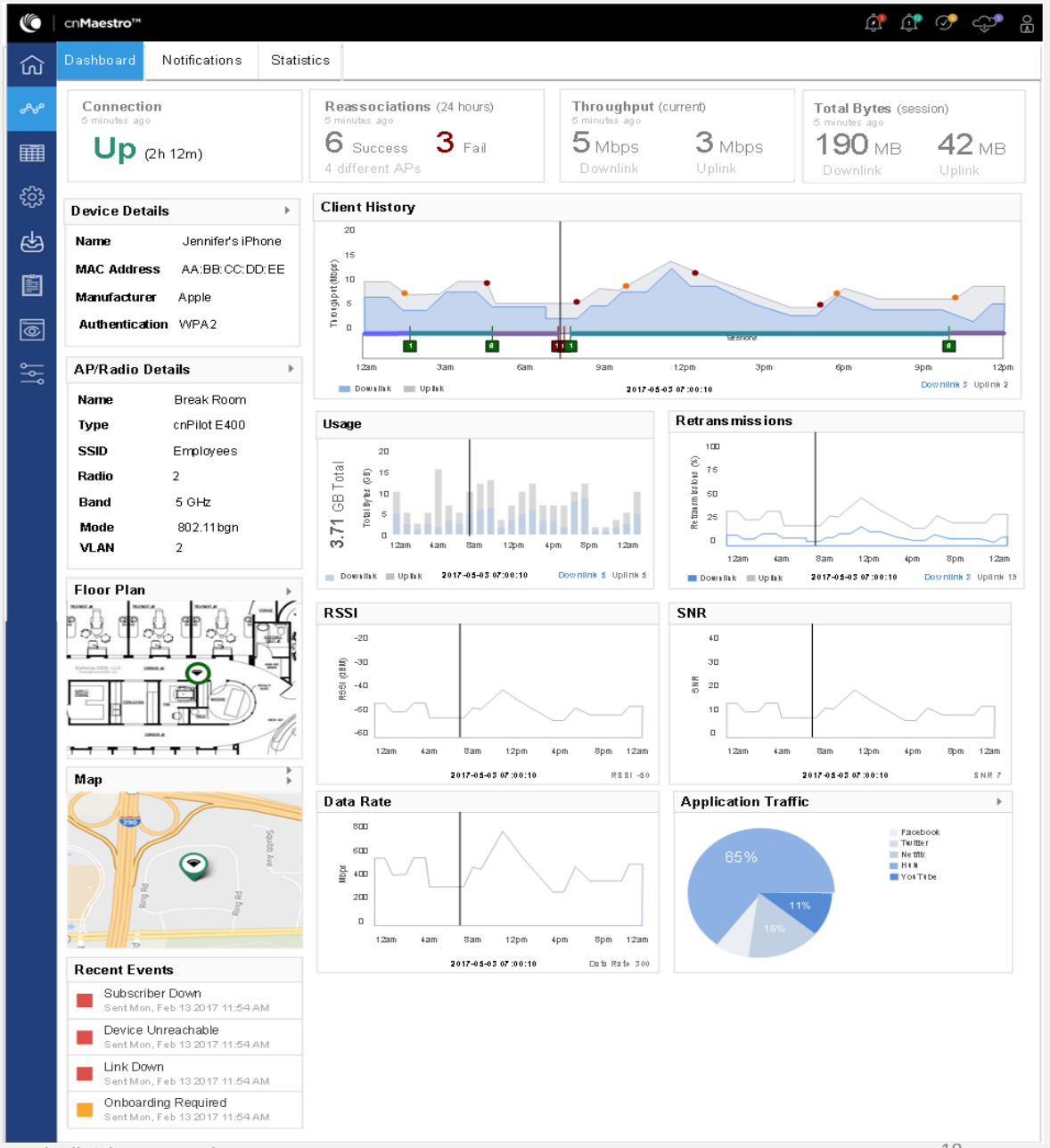
Client Dashboard

Provides deep down details on a specific client on the network

- Search capability to search for specific client by client name
- Some of the detail delivered
  - Client History
  - Client Experience Indicators over time: RSSI, SNR, Data Rate, Re-transmissions
  - Data Usage
  - Application Traffic



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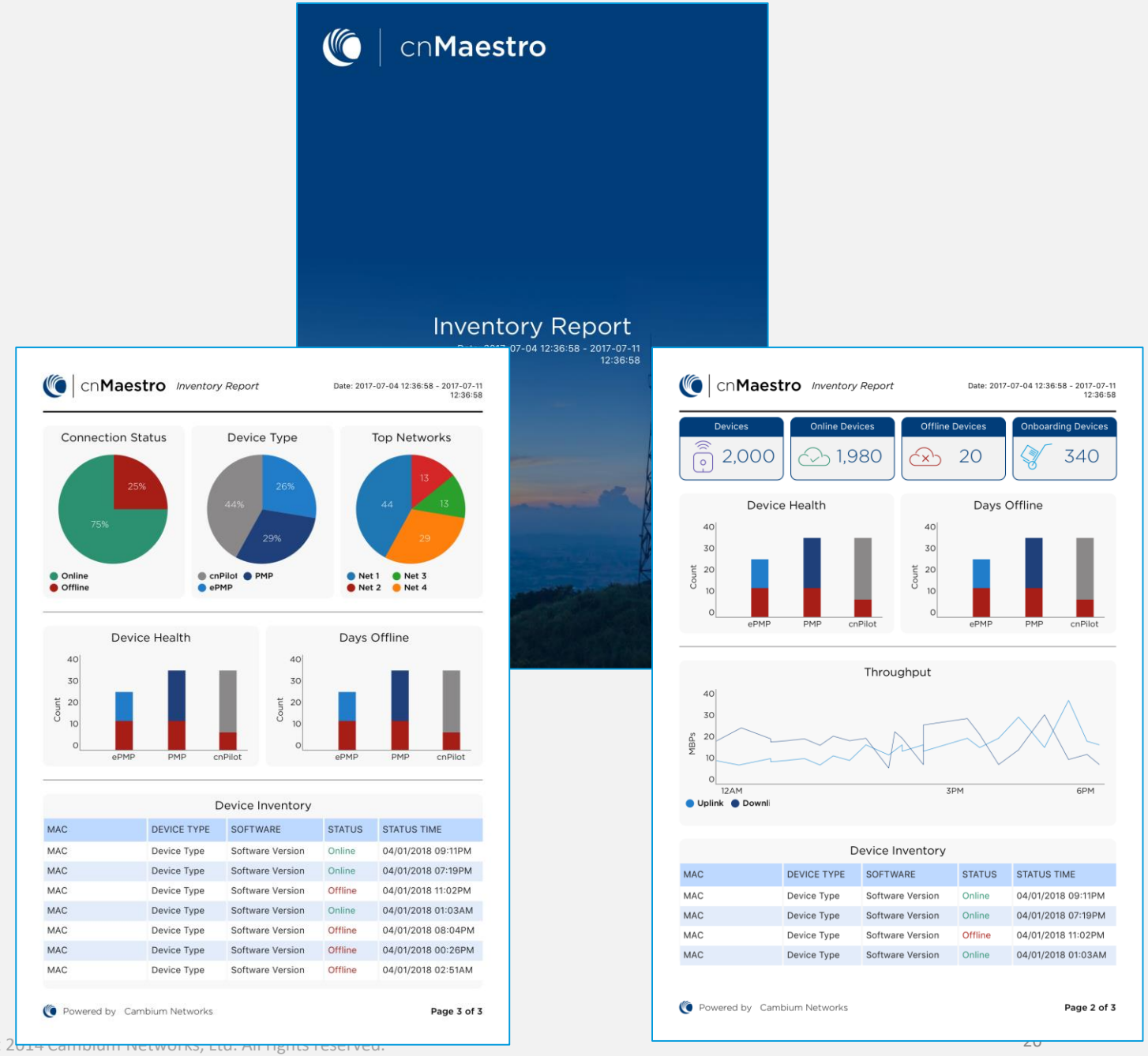
Inventory Reports

- What's on my network?
- Device Analytics
  - Type and health of devices
  - Connection statistics



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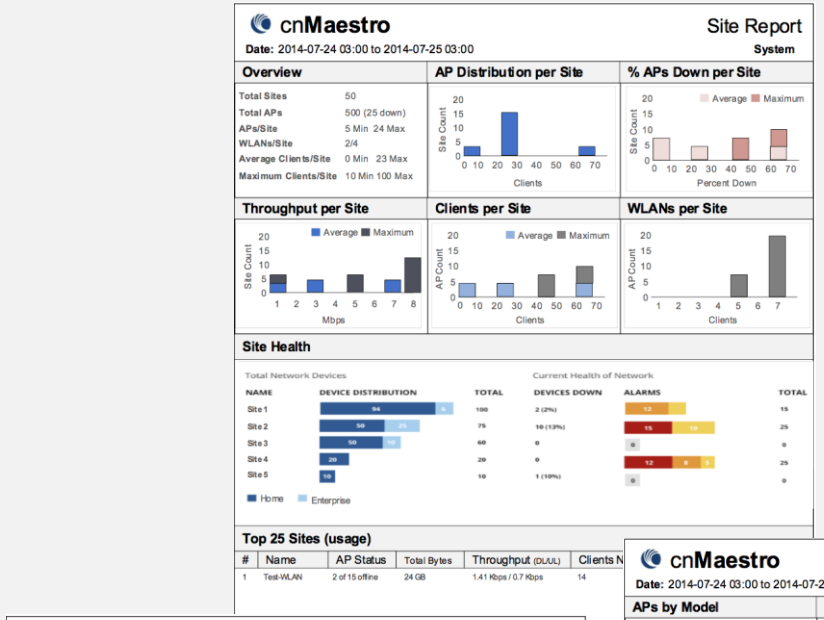
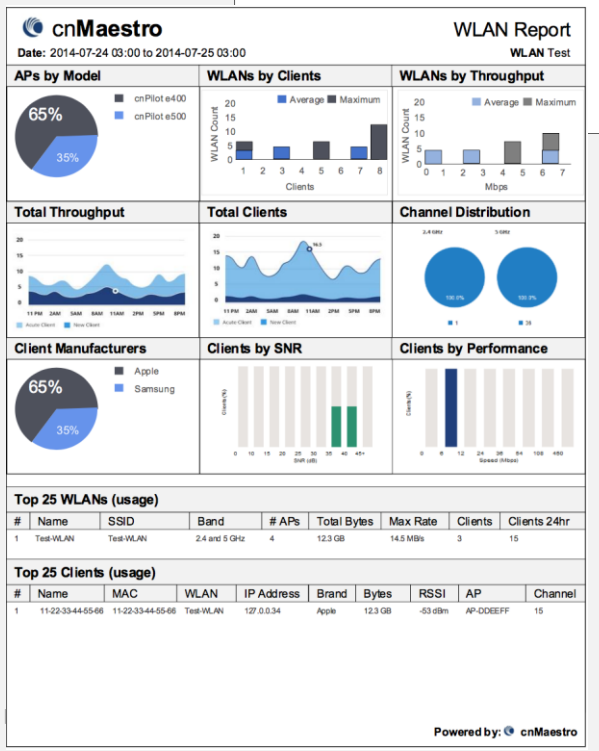
Graphical Reports

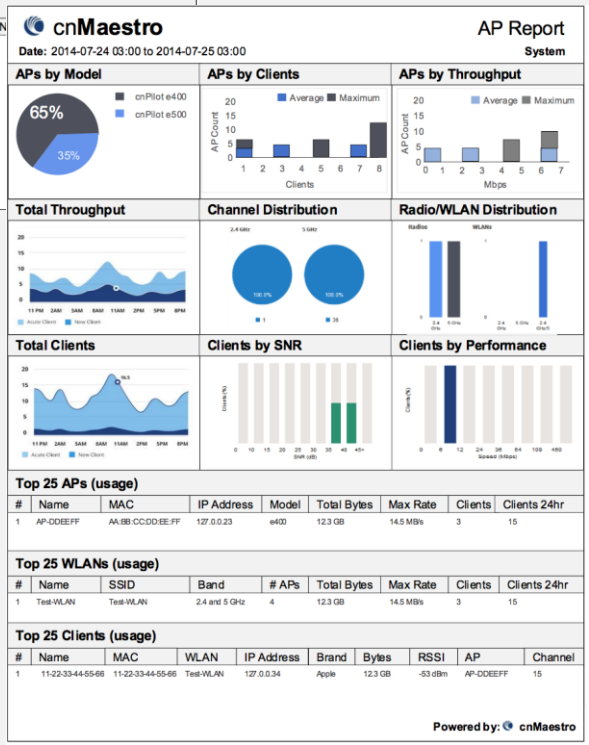
- Inventory: Wi-Fi AP's & Sites
- Filter based on device groups such as System, Network, Site, AP Group, and WLAN)
- Select Timeframe - "Last Day", "Last week" etc
- Reports generated and can be downloaded from the UI

Sample Use Case

A managed service provider maintains the Wi-Fi network for a local auto dealership. The provider generates a weekly graphical report summarizing the health, traffic and client count to provide visual feedback of the services rendered.







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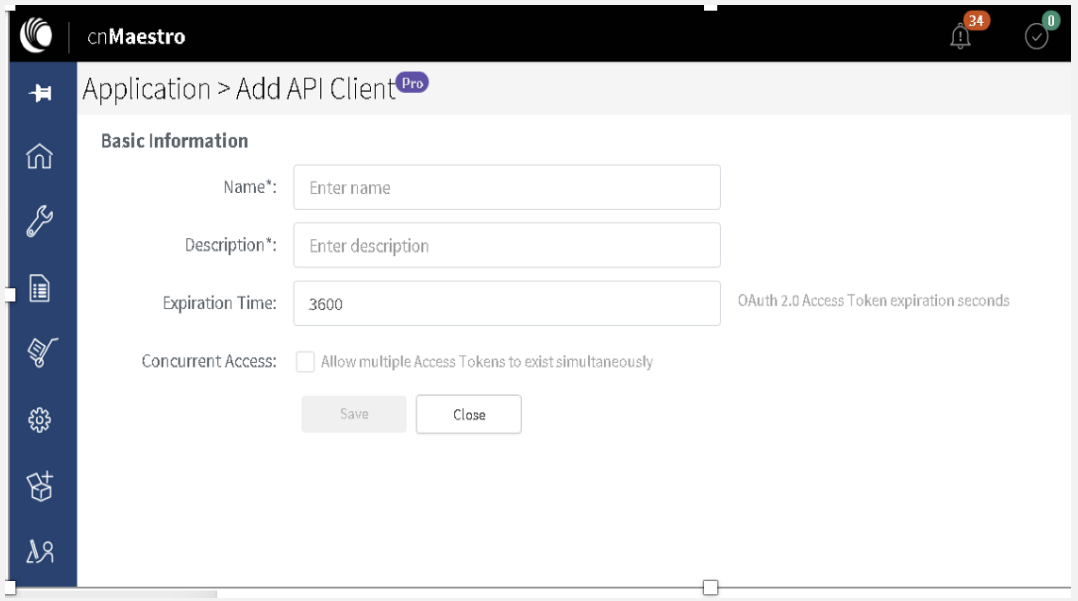
Modern API

- RESTful API's for Monitoring – available now
- Configuration API for basic configuration tasks
  - Onboarding
- Secure (standard) method for applications to communicate with cnMaestro
- WebHooks API
  - Stream cnMaestro alarms and notifications to 3rd party applications
  - Leverage applications such as Splunk to mine notifications and alarm data
  - Receive SMS notifications through integration with PagerDuty



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cnMaestro Advantage

- Modern Cloud Architecture: Scalable & Flexible
- Enterprise Wi-Fi Feature Set
- Solutions to drive business outcomes
- Modern API to integrate with the ecosystem
- Right Sized Economics: Freemium model

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