cnMatrix

Ethernet Switching Portfolio Overview

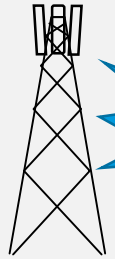
John Mead - December 2018

Purpose Built for Target Deployment Use Cases

2018

Enterprise Indoor Access Switch

- 4 Models Available
  - 8 & 24 1GE Access ports
  - PoE+ and nonPoE
- 24 Port – 4 SFP+(10GE) Uplinks
- 8 Port – 2 SFP(1GE) Uplinks
- USB & RJ45 console port
- OOB management ports



2019

WISP Tower

- 8, 16, and 24 port models
- AC & DC versions
- Integrated Cambium Sync
- High and Low PoE budget options
- Intelligent PoE
  - Active and Passive PoE
- Extended Temperature Range

2019

Video Surveillance & Smart City Deployments

- Provides connectivity for
  - SM, Outdoor AP
  - Video cameras
  - etc
- IP67 - Attaches directly to pole
- AC powered
- 4 1GE ports
- PoE+ & 30V Passive

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cnMatrix EX 2K

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cnMatrix – Enterprise Switches (EX 2K) – Product overview

- cnMatrix | EX2028-P
- cnMatrix | EX2028
- cnMatrix | EX2010-P
- cnMatrix | EX2010

Understanding the Model Name

EX ABCDY-P

- EX – Enterprise Switch
- A – Market Segment
- B – Generation of switch
- CD - # of physical ports
- Y – Port type identifier
- '-P' – PoE capable

Examples

- EX 2028 – 24x1G + 4xSFP+
- EX2010 – 8x1G + 2xSFP
- EX 2052 – 48x1G + 4xSFP+
- EX2022M – 4x2.5G + 16x1G + 2xSFP+
- EX3028 – High End Enterprise
- TX2028 – WISP switch
- VX2004 – 4x1GE Outdoor switch

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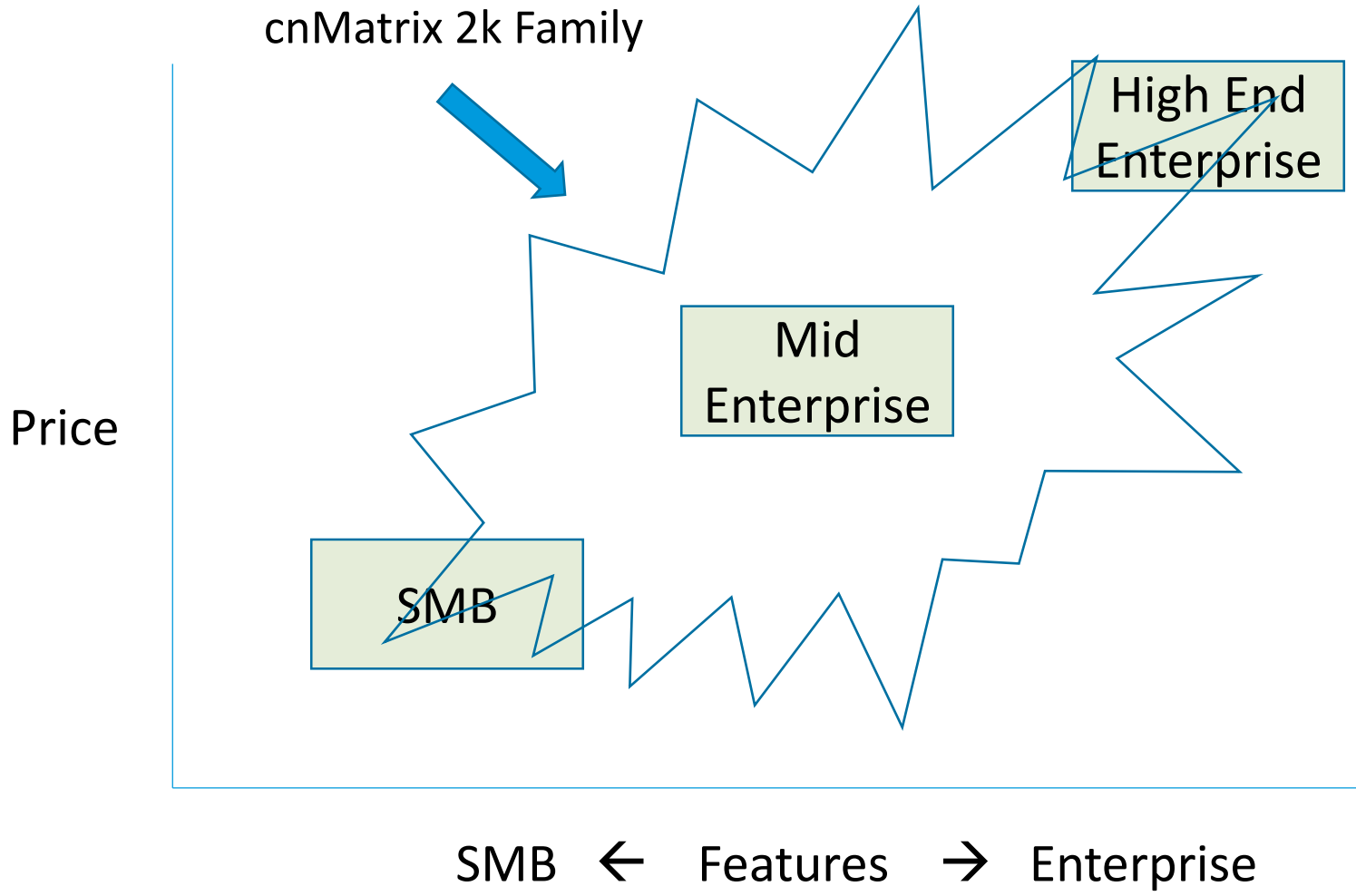
Enterprise Access Switching Market – $8 Billion



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cnMatrix – Enterprise Switches (EX 2K) – HW Overview

- HW Overview
  - Cambium designed switch - NOT an OEM switch
  - Silicon based Switching Solution
    - Dedicated HW data plane- L2 & L3 line rate processing
    - Rich L2 & L3 functionality - Extensive QoS, ACL, & Filtering
  - 4 Models Available
    - 8 Port & 24 port models with and without PoE+
      - 24 Port – 4 SFP+(10GE) Uplinks
      - 8 Port – 2 SFP(1GE) Uplinks
  - USB, OOB/MGMT, & RJ45 console port
  - Fan-less: All models except the 24 port PoE SKU

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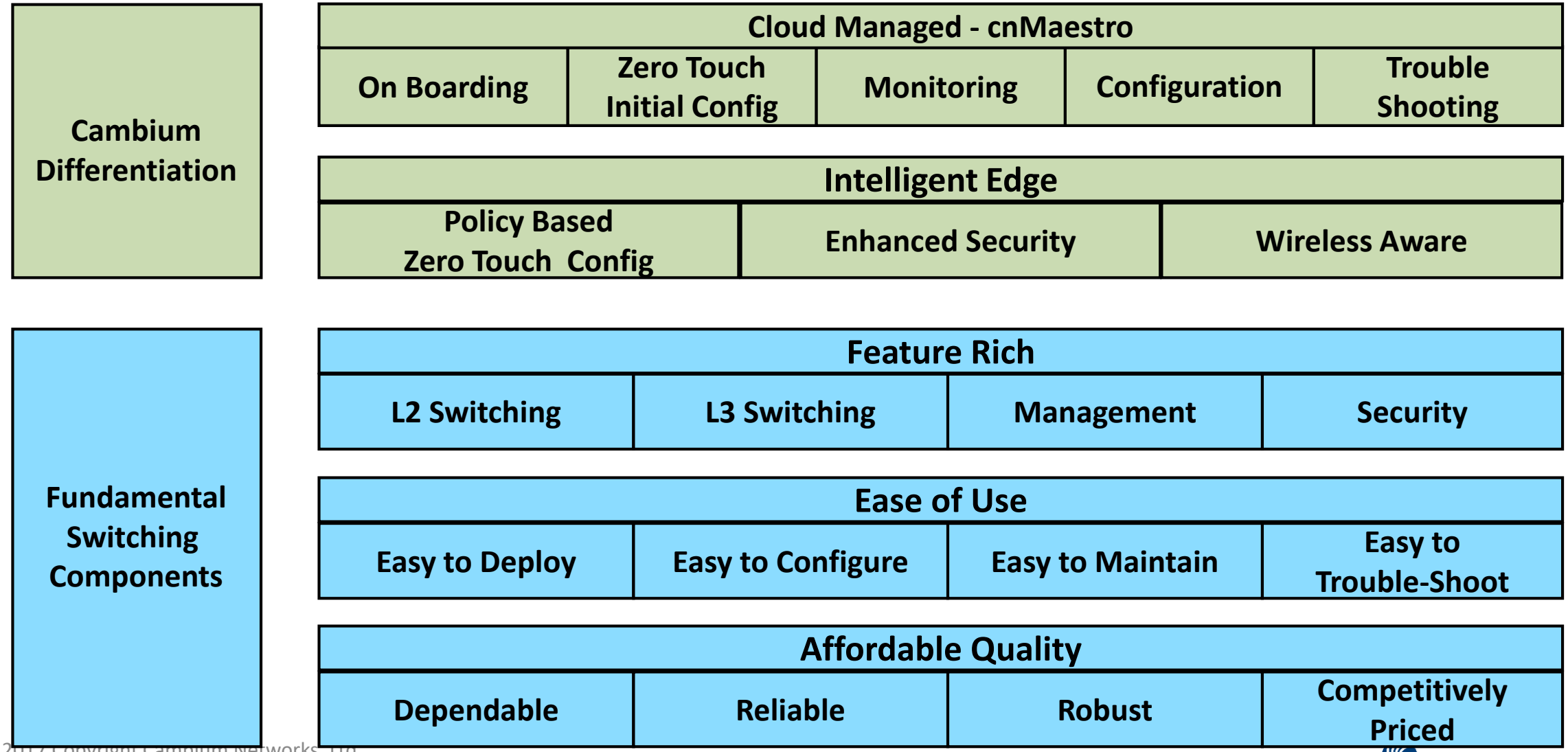
cnMatrix – Cambium Differentiation



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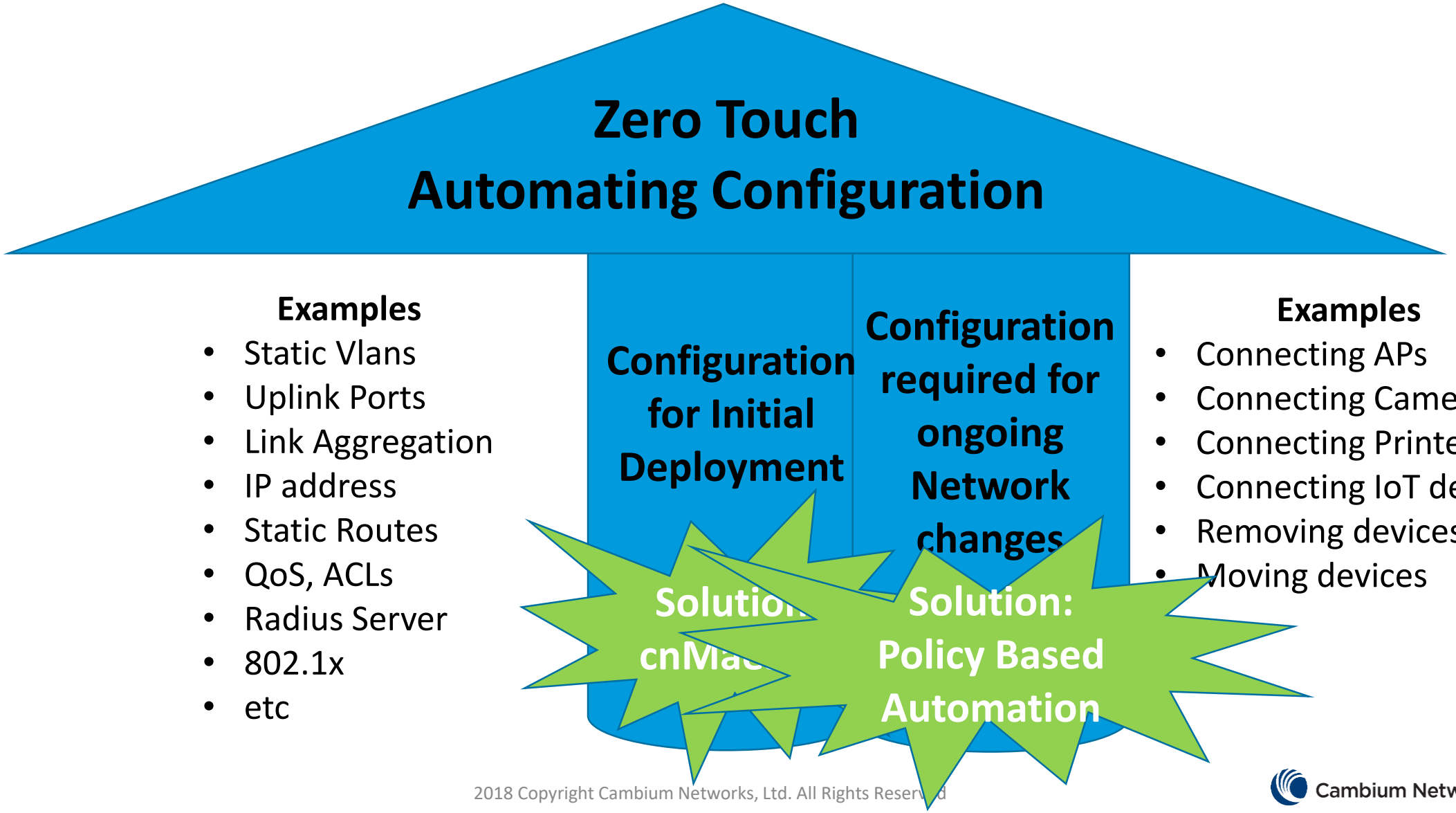
Zero Touch Experience

Ease of Use

cnMatrix – A True Zero Touch Experience



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cnMatrix – Policy Based Automation

- Automates ‘Adds’, ‘Moves’, and ‘Changes’
- Eliminates Error prone manual configuration
- Every Port is treated equally
- Enhances Security by auto segmenting devices
- Little or No IT needed
- Reduce expenses required to deploy and manage
- Simplifies and reduces trouble shooting

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Example: Required Switch Configuration when connecting an AP

Example: Needed Switch Configuration - VLANs, 40, 50, 60: PVID 40: port 5 – Hybrid Mode

```
cnMatrix(config)# interface gigabitethernet 0/5
cnMatrix(config-if)# switchport mode hybrid
cnMatrix(config-if)# switchport acceptable-frame-type all
cnMatrix(config-vlan)# exit
cnMatrix(config)# vlan 50
cnMatrix(config-vlan)# port add gigabitethernet 0/5
cnMatrix(config-vlan)# exit
cnMatrix(config)# vlan 60
cnMatrix(config-vlan)#port add gigabitethernet 0/5
cnMatrix(config-vlan)#exit
cnMatrix(config)# vlan 40
cnMatrix(config-vlan)# port add gigabitethernet 0/5
cnMatrix(config-vlan)#exit
cnMatrix(config)# interface gigabitethernet 0/5
cnMatrix(config-if)# switchport pvid 40
cnMatrix(config-if)# end
```

cnMatrix(config)# auto-attach policy E430 match LLDP-ANY 430 set vlan 40,50,60 pvid 40

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Deployment Use Cases

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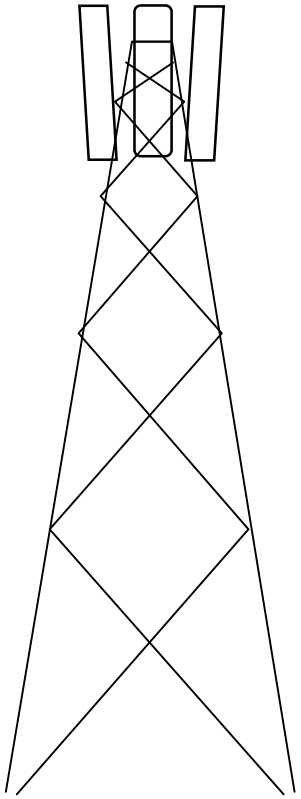
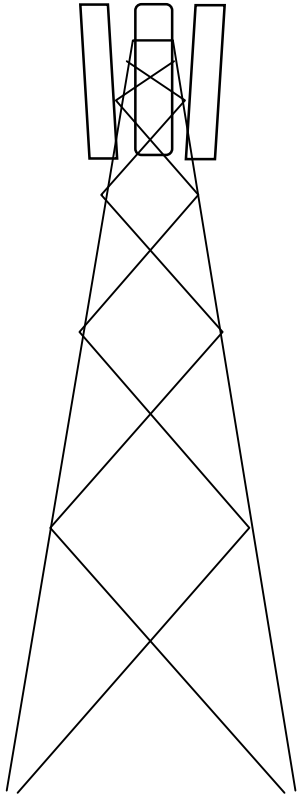
cnMatrix – WISP Deployments



ePMP WISP Tower



WISP Tower
CMM5 + cnMatrix EX 2k

<u>cnMatrix EX 2K Family</u>

- No integrated GPS Sync
- No Passive High Power (cnMedusa)
- No DC power

<u>ePMP & CMM5 Deployments</u>

- Integrated GPS Sync – Not Needed
- Passive High Power – Not Needed

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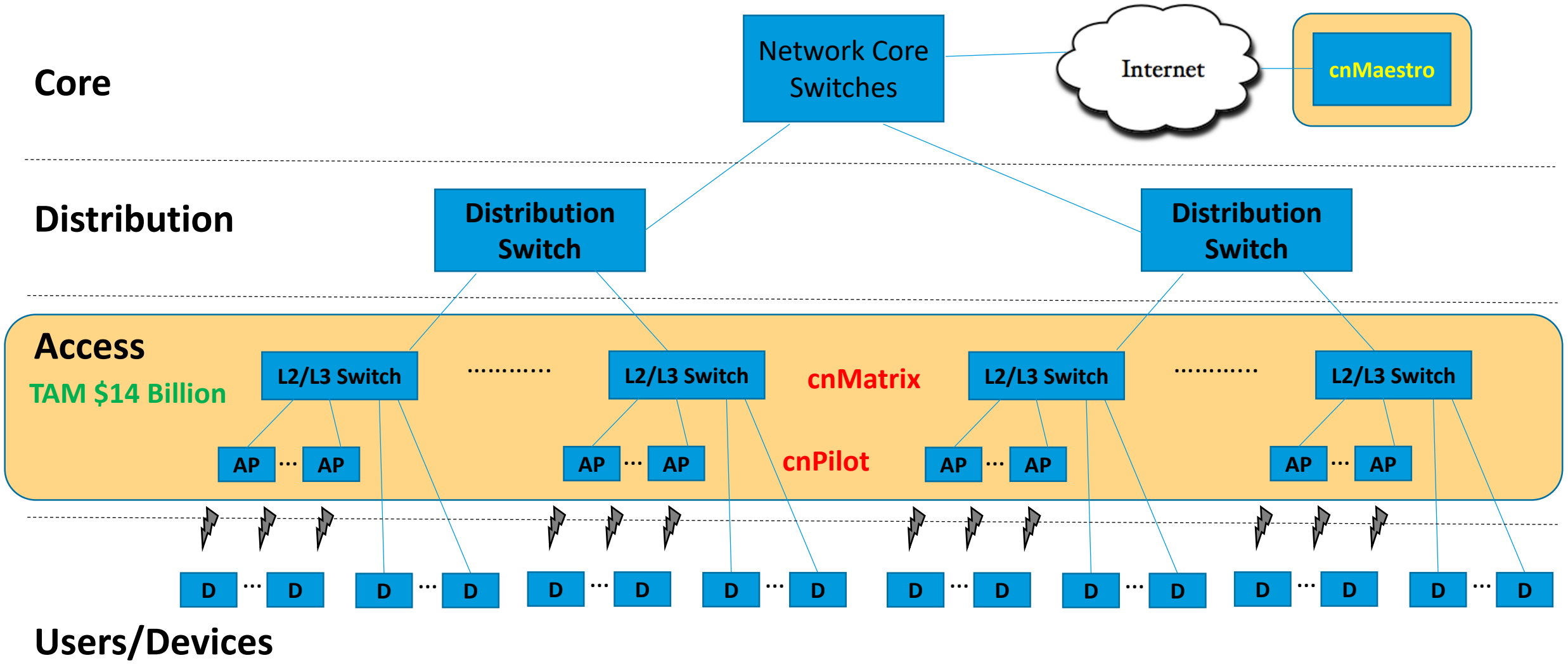
cnMatrix - Enterprise Campus – 3 Tier Network Architecture



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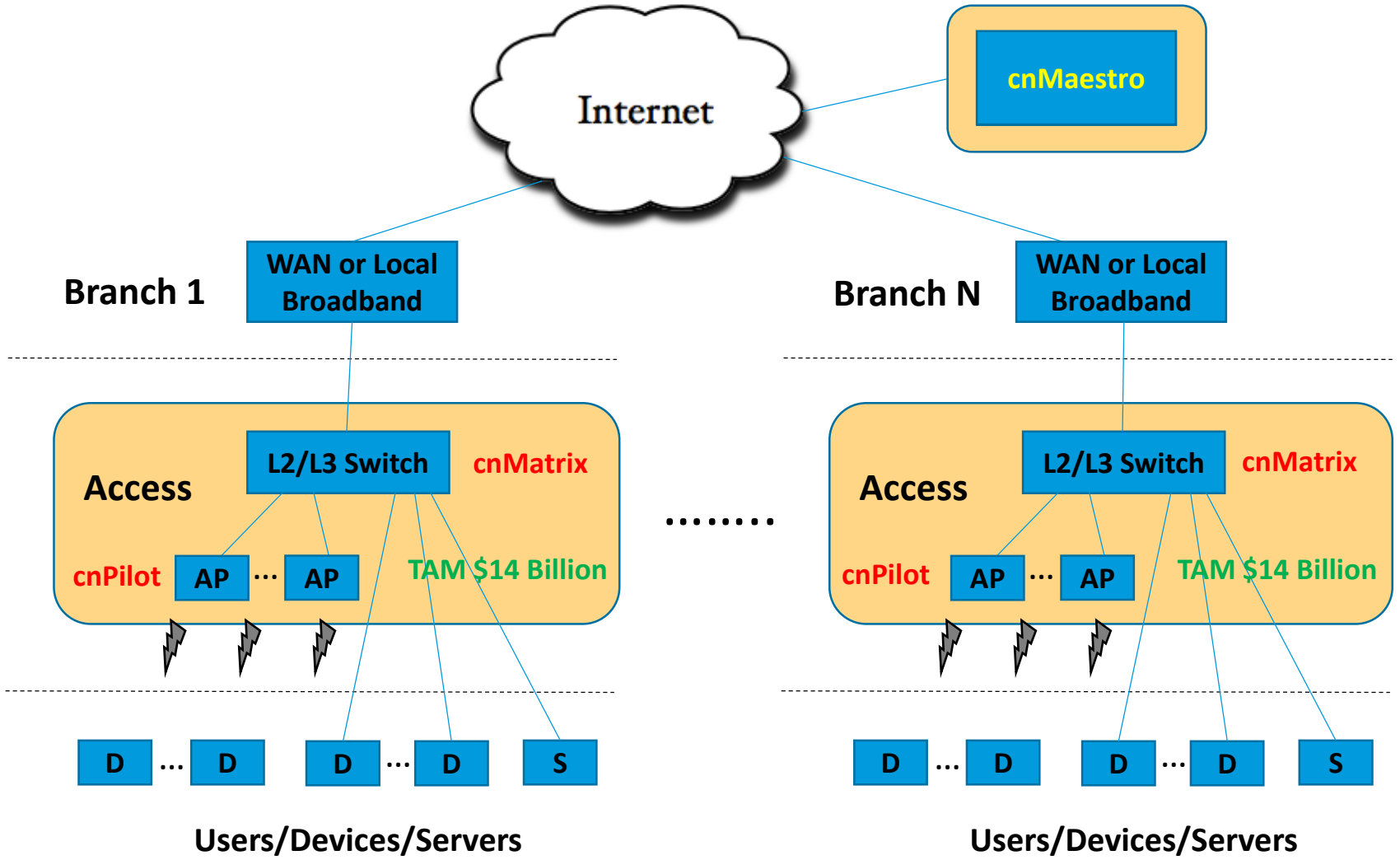
cnMatrix - Enterprise Branch Office



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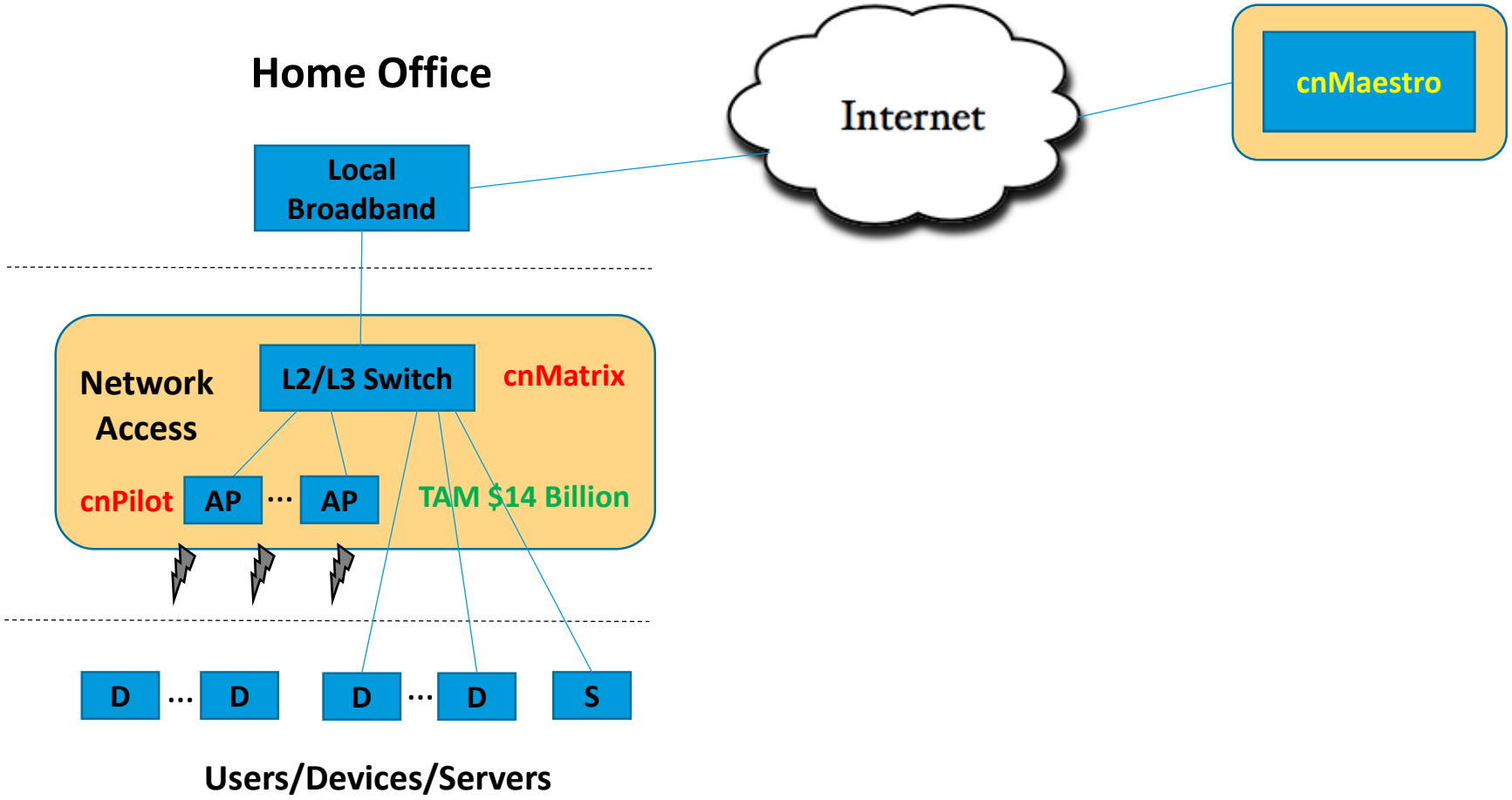
cnMatrix - Home Office



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Cambium Networks Cloud Managed Enterprise Access Networking
Evolving from Cloud Managed Wireless LAN to Cloud Managed Access

cnMatrix NEW
Ethernet Switching

cnMaestro
Cloud Management

cnPilot
Enterprise Wi-Fi

Introducing Cambium CnMatrix Ethernet Switching Portfolio

Cloud Managed | Enterprise Grade | Complete Layer 2, Layer 3 Functionality

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cnMaestro + cnPilot + cnMatrix

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Q&A

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