



Introduction to Mimosa Networks

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October 2018

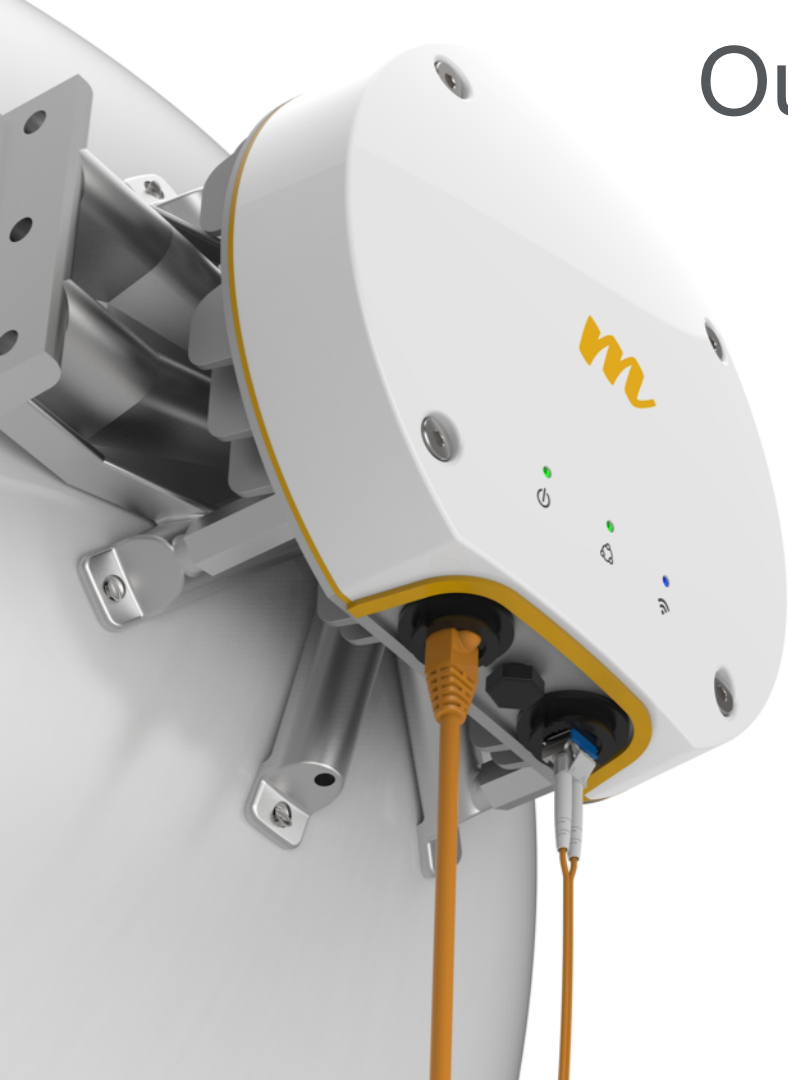


@GoMimosa



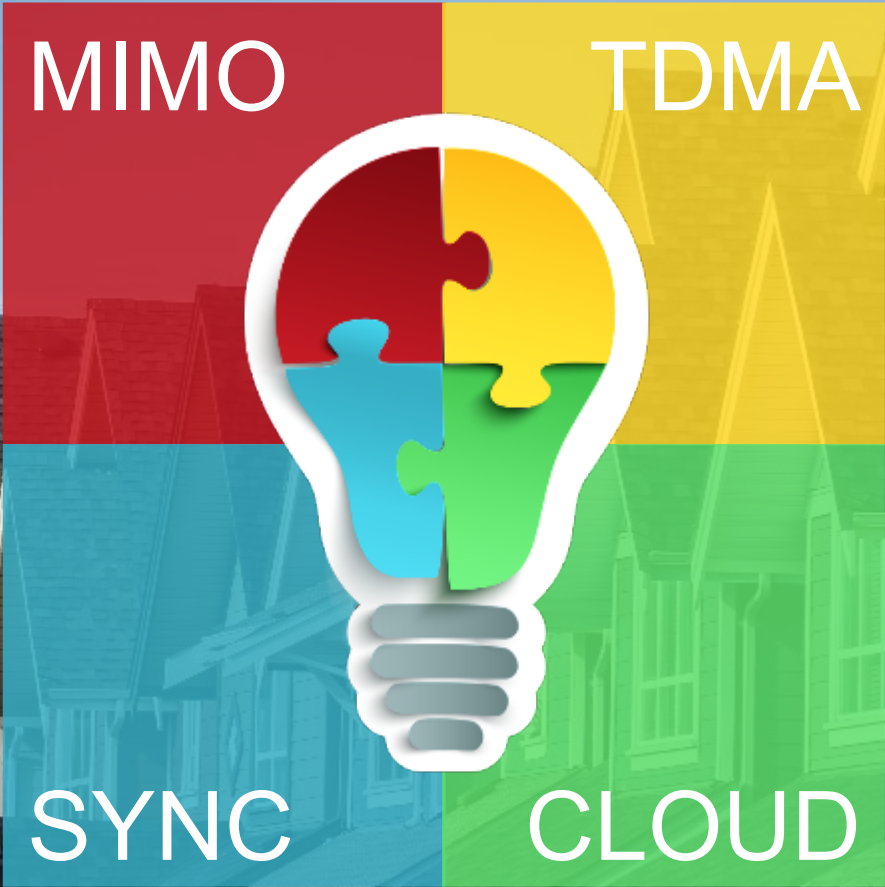
Mimosa Networks

Our Journey



- Founded in 2012
- 8000+ ISP & Enterprise Customers
- Deployed in over 180 Countries
- Global Operations
 - Santa Clara Headquarters
 - Istanbul Development Office
 - China Manufacturing

Modern Fixed Wireless Architecture



Massive Capacity

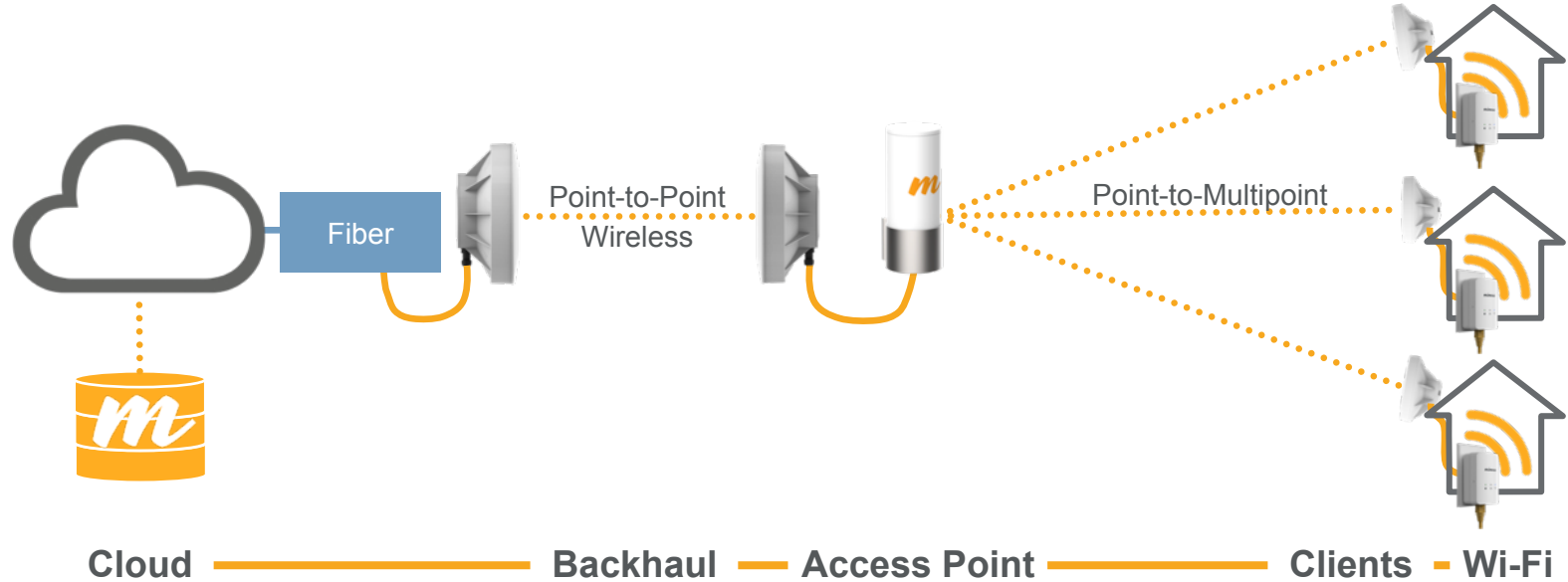
Spectral Efficiency

Spectrum Reuse

Network Orchestration

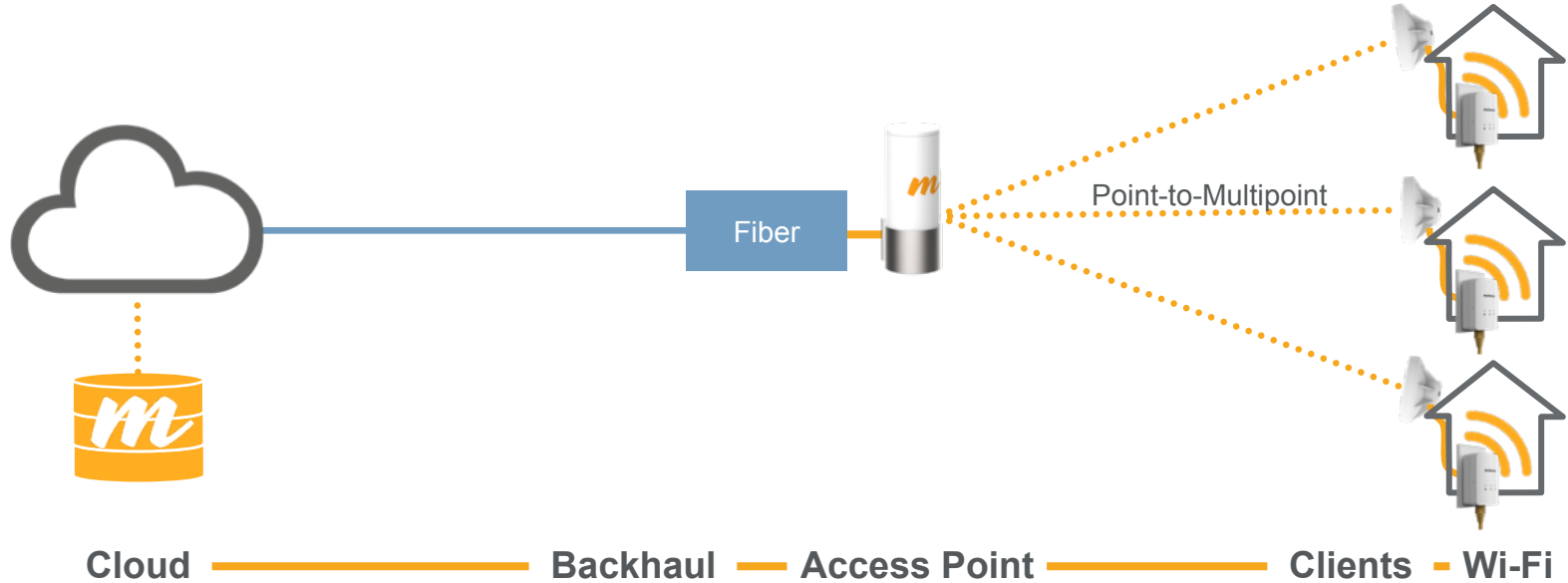


Our **HFW solutions** connect dense urban and hard-to-reach rural homes with the fastest deploy time and ROI.



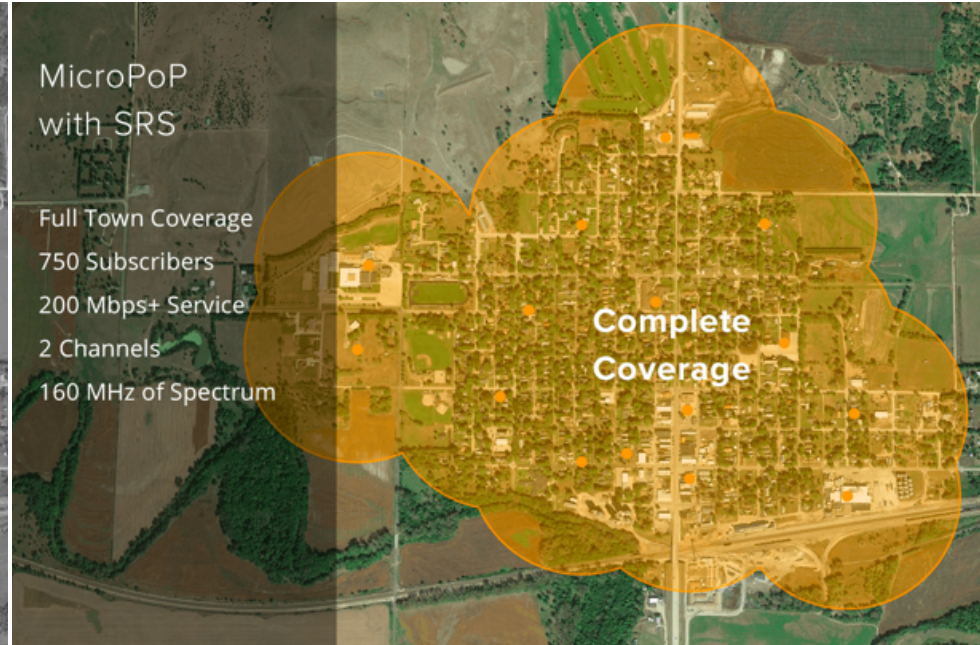
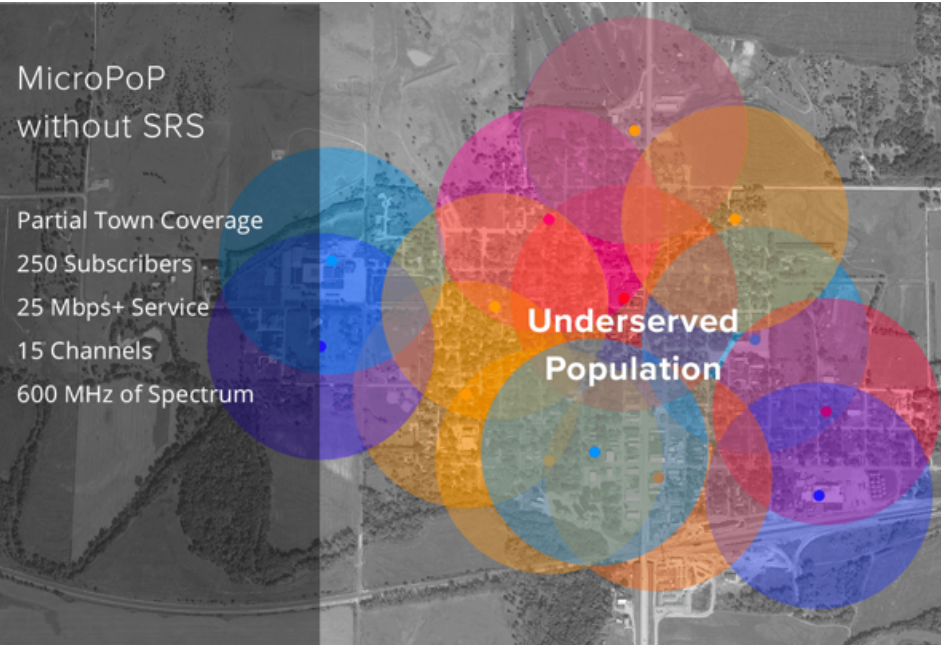


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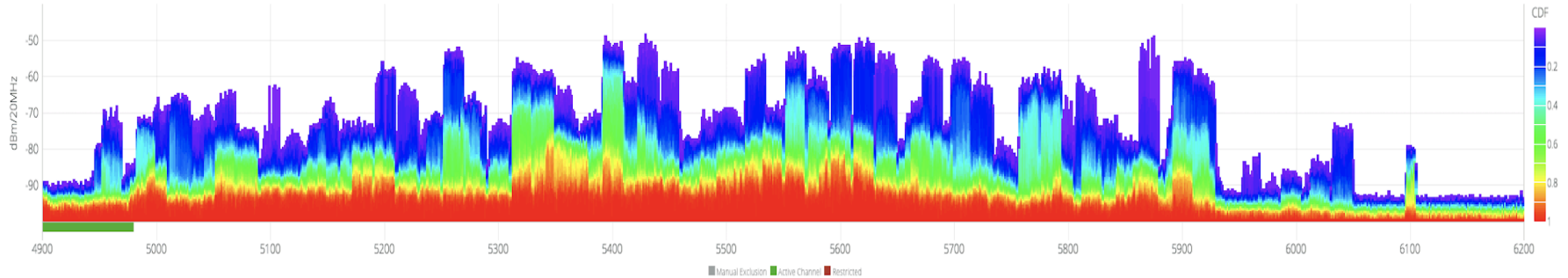
The Power of Spectrum Reuse

Prairie Hills, NE



Superior RF Features

- Extended Frequency Support
- GPS Sync for Channel Reuse
- Built in Spectrum Tool



- Auto Channel Selection
- Dynamic download/upload Traffic shaping.



Mimosa 2018 Solutions



- A = Access | A5, A5c
- B = Backhaul | B5, B5c, B24, C5c, C5x, B11
- C = Client C5c, C5x
- G = Gateway | G2
- N = Antenna | N5-360, N5-45x2, N5-45x4
- NMS = Cloud Management System
- NDT = Network Design Tool



High Reliability Backhaul – 1 Gbps+

B5

DualLink Integrated



Mid-Haul

- Up to 10 km

Collocation

- Integrated RF shroud + GPS sync

Resilient

Dual Link for stability in noise
5150-5850 MHz

B5c

DualLink Connectorized



Long-Haul

- Tower sector deployments

Customize

- Flexible panel/shield options

Collocation

- AP channel reuse via GPS sync

4950-6200 MHz

B11

Licensed Reliability



Licensed Long Haul

- 50 km+

Flexible Bandwidth

- Dynamic up/down traffic

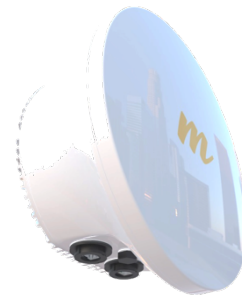
Low Latency

- 1 ms round trip

10.0-11.7 GHz

B24

Unlicensed Integrated



Short-Haul

- Up to 3 km

Compact

- Small form factor (250 mm, 6 lbs)

Resilient

- Auto Interference Mitigation

24.05-24.25 GHz

1+

Gbps



IP67



SRS



DualLink



Cost-Effective PTP

C5c

Connectorized PTP



700+
Mbps

J
IP55

1 ms
latency

Long-Haul

- Customizable antennas
- 50km and beyond

Low Latency

- 1 ms round-trip

Affordable

- Industry best price performance

4900 -6400 MHz

C5x Family

Simple PTP Link



Short-Haul

- Short to Medium PTP

Flexible

- Single Radio support multiple Antenna

Affordable

- Best integrated price performance

4900 – 6400 MHz



PTMP Clients

C5x Family PTMP Client



Short/mid-haul

- Flexible antenna choices

Design

- Integrated and compact

Affordable

- Best integrated price performance

Mimosa Sync compatible

- A5 GPS sync client

4900 -6400 MHz

C5c Connectorized Client



Long-range client

- Antenna gain defines distance

Bring your own antenna

- Dual RP-SMA

Mimosa Sync compatible

- A5 GPS sync client

4900 – 6400 MHz

Blazing fast, rugged clients

- Fiber speeds to the home
- TDMA GPS sync client
- Rugged and affordable
- Mounting options galore
- Compact and powerful
- Flexible antenna options

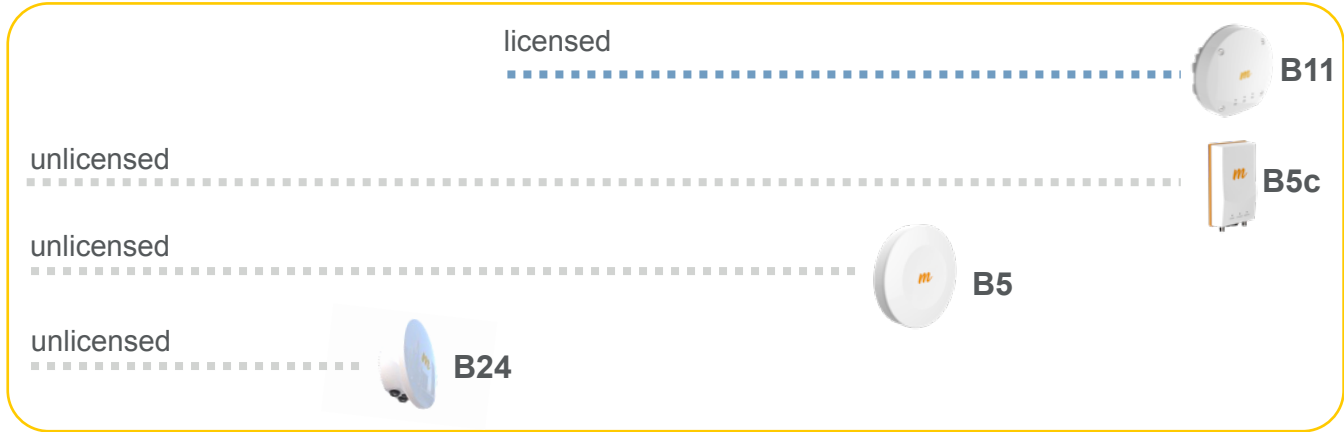


PTP Portfolio

HIGH RELIABILITY



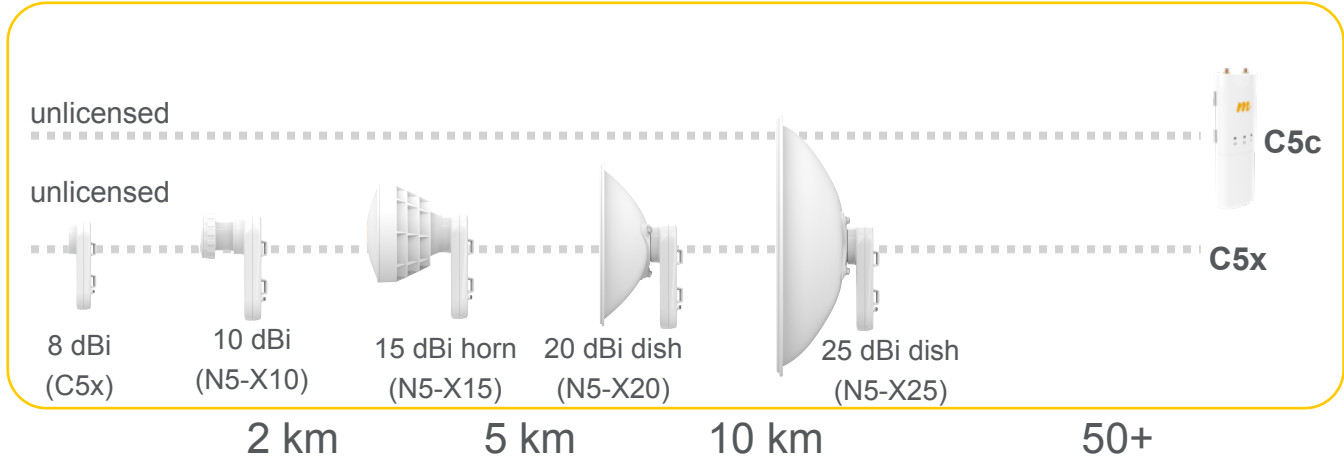
- 1.7 Gbps (PHY)
- 1.5 Gbps (IP)
- GPS Sync
- IP 67



COST EFFECTIVE



- 866 Mbps (PHY)
- 700 Mbps (IP)
- Low Power Draw
- IP 55



Access Points

A5

Quad Sector Access Point



Short-Range GPS-Sync

- Suburban applications at 300m*
- Collocation and network-wide sync enabling channel reuse

A5c

Connectorized 4x4



Long-Range GPS-Sync

- Rural, tower long distance
- Collocation and network-wide sync enabling channel reuse

Scalable, Unlicensed Multipoint Solutions

- Increased capacity at each site
- Ultra-high client capacity
- Network scalability perfected
- Fiber-fast speeds
- Add subscribers with ease

4900-6200 MHz with Spectrum Reuse Synchronization (SRS)

* For best performance





Sector

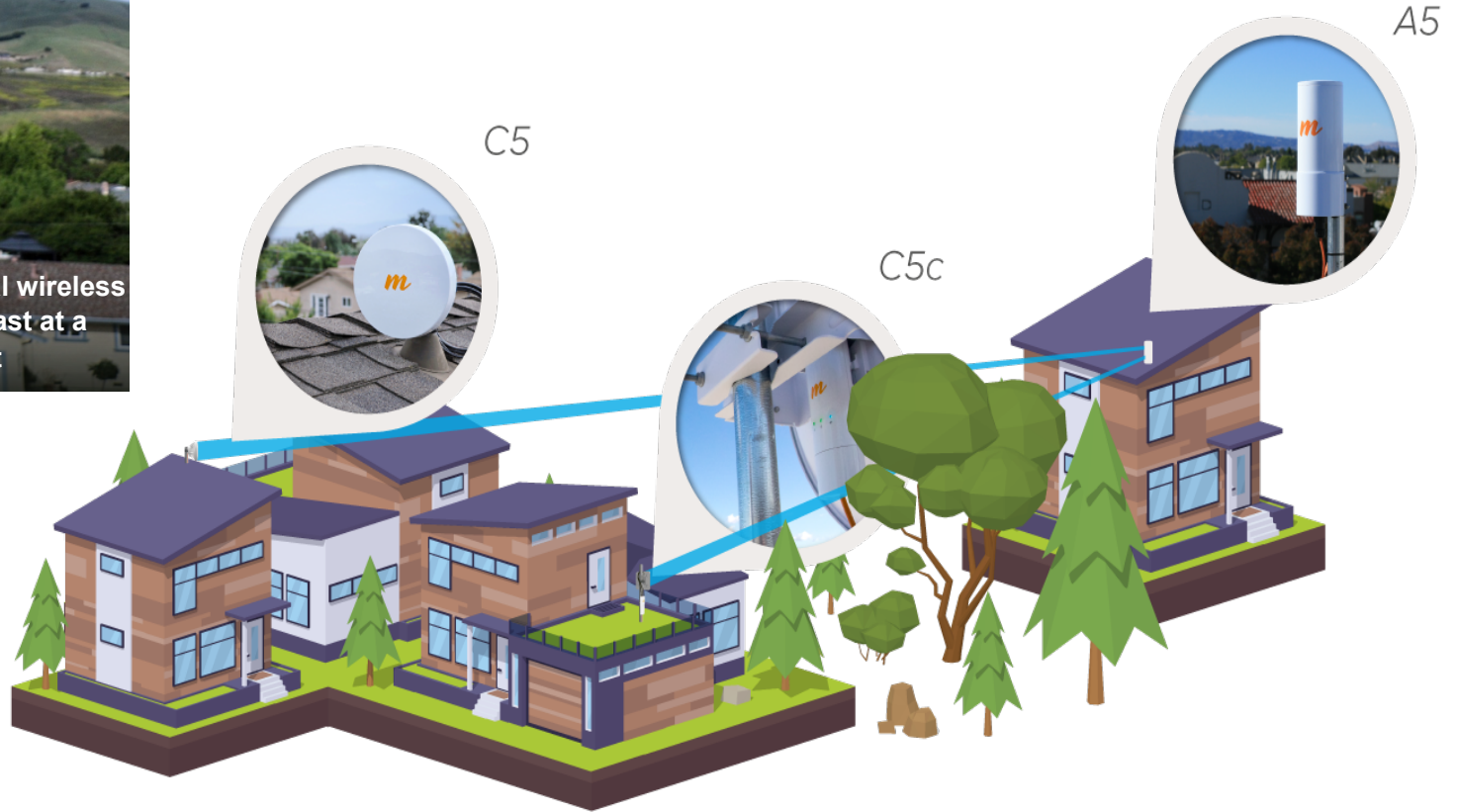
Highest industry tower scalability maximizes user subscriber capacity and speed



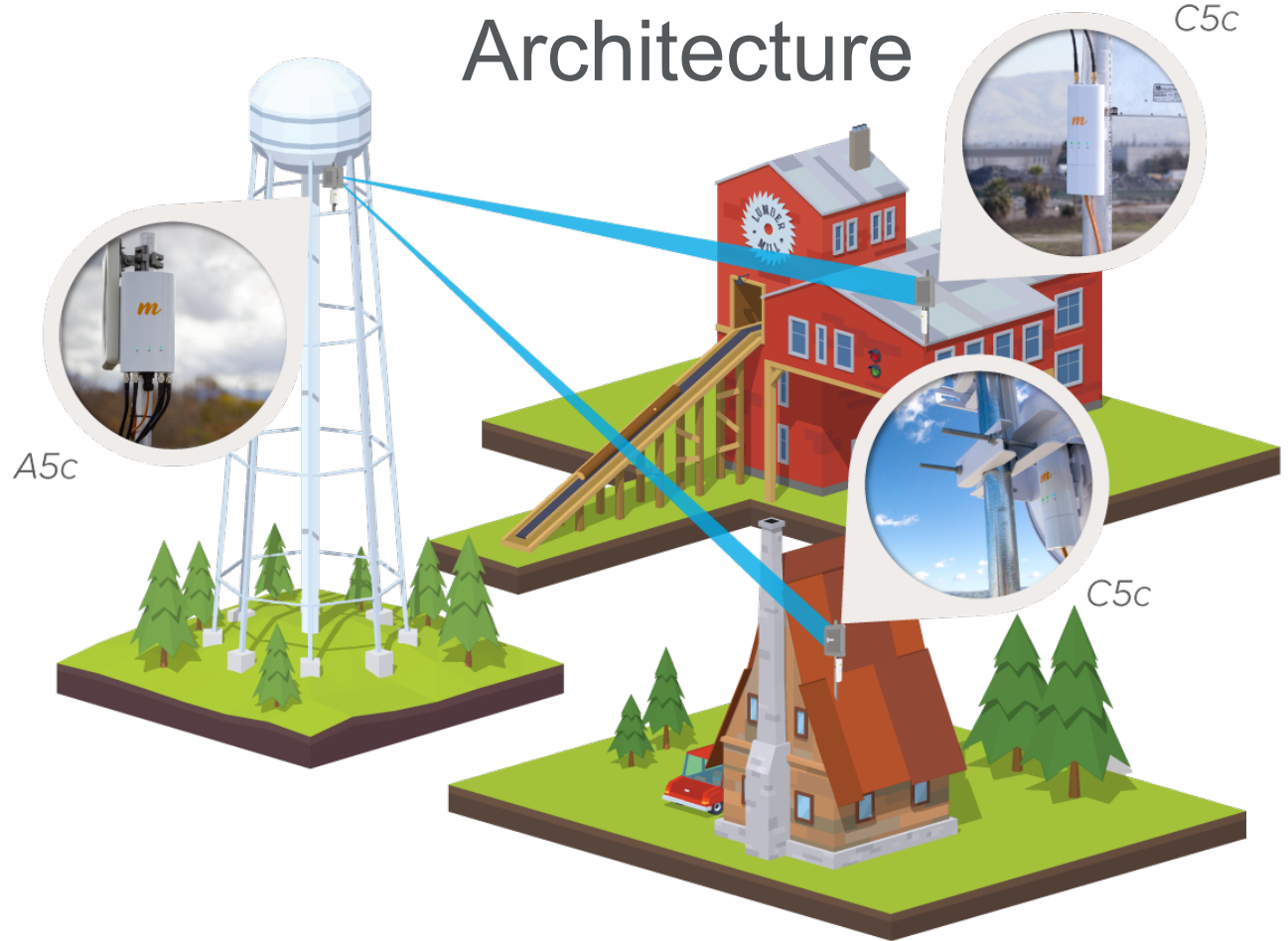
MicroPoP

Only high-density residential wireless solution to deliver fiber-fast at a fraction of the cost

Short Range PTP Architecture



Long Range PTMP Architecture



Highest industry tower scalability
maximizes user subscriber capacity
and speed



N5-45x2 and N5-45x4



- Side lobe suppression like a horn
- Gain and ground coverage of a sector
- World's best front to back ratio in a sector
- Enables 2x spectrum reuse



N5-45x2

Frequency 4.9 – 6.4 GHz

Gain	19 dBi
Azimuth	42° (HPBW)
Elevation	9° (HPBW)
F/B	43 dB
Downtilt	2°
Polarization	Dual Slant 45°

For use with Mimosa or any 2x2 radio



m

m

N5-45x4

Frequency 4.9 – 6.4 GHz

Gain	22 dBi (with 3 dB BF gain)
Azimuth	42° (HPBW)
Elevation	9° (HPBW)
F/B	43 dB
Downtilt	2°
Polarization	Dual Slant 45°

Designed for beamforming with Mimosa 4x4 A5c
or two 2x2 radios on separate channels



Unique Antenna Pattern

Coverage like a sector

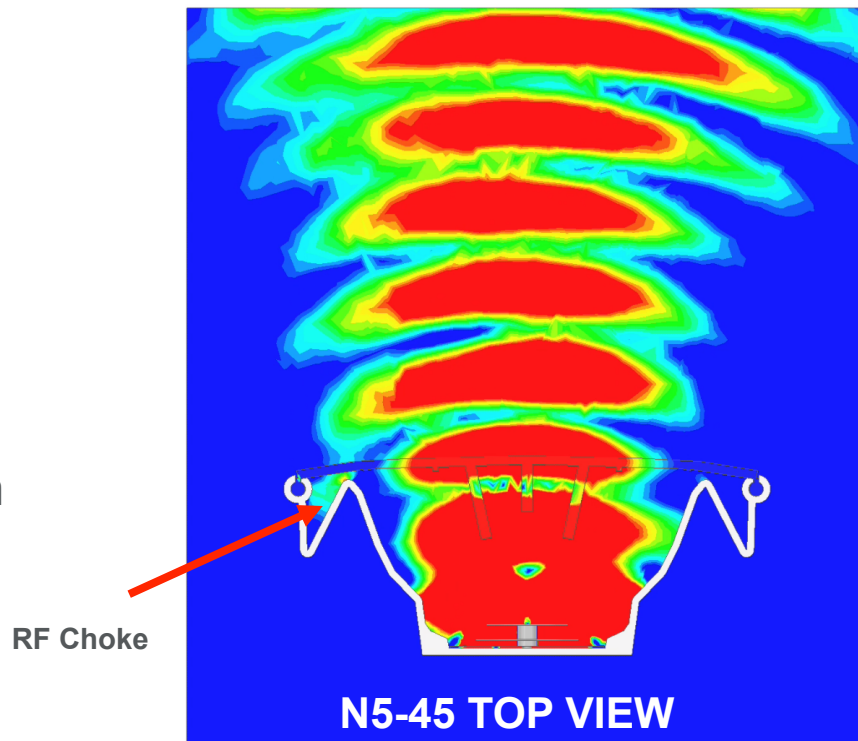
- High Gain
- 42° Azimuth
- 9° Elevation

Noise fighting like a horn

- Massive side lobe rejection

Industry Leading F/B ratio

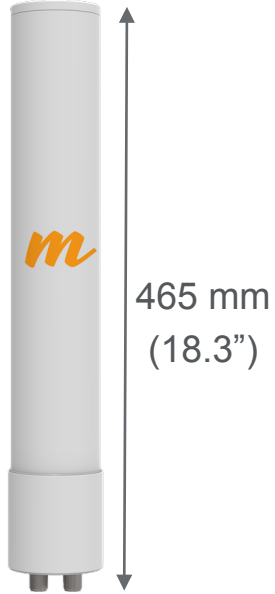
- 43 dB



N5-360° 15 dBi MicroPoP Antenna

4900-6400 MHz with GPS-Sync

- 4 stream beamforming 360° antenna
- Ensures 2 equal MCS streams/client
- Beamforming via even patterns across antenna polarizations
- 500m – 1km coverage



Designed for Mimoso's A5c Access Point



PTMP Clients

C5x Family PTMP Client



Short/mid-haul

- Flexible antenna choices

Design

- Integrated and compact

Affordable

- Best integrated price performance

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4900 -6400 MHz

C5c Connectorized Client



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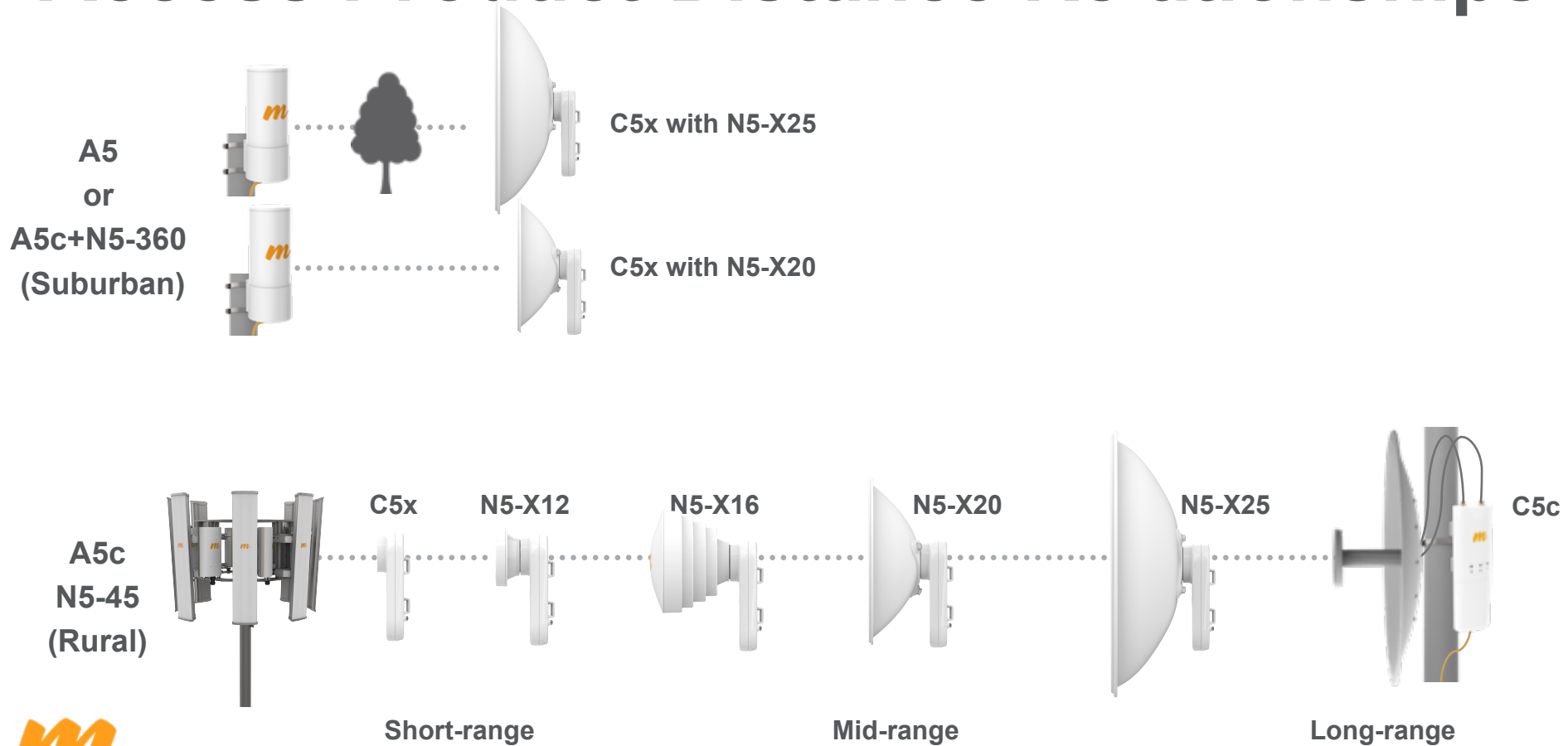
4900 – 6400 MHz

Blazing fast, rugged clients

- Fiber speeds to the home
- TDMA GPS sync client
- Rugged and affordable
- Compact and powerful
- Flexible antenna options



Access Product-Distance Relationships



Subscriber Install Best Practices

Client Radio

C5x

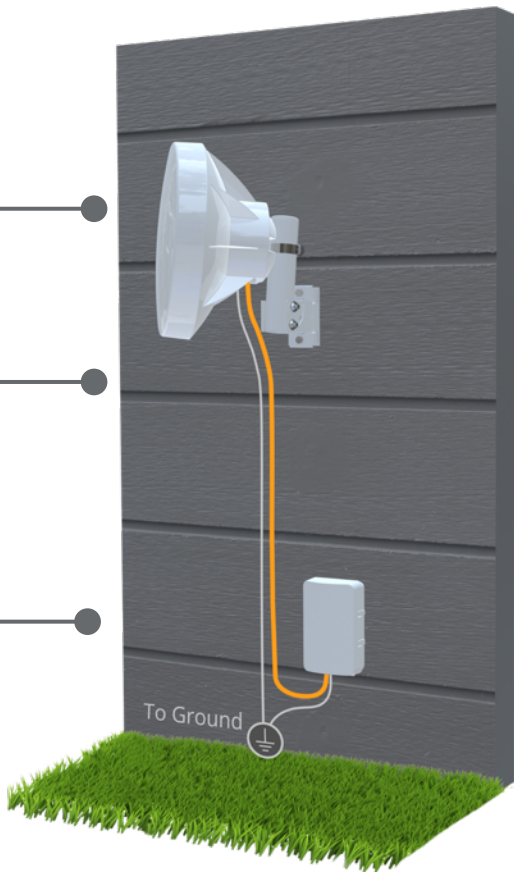
Mounting

FlexiMount

J-Mount

Gigabit NID

ESD Protection



Power & Wi-Fi

G2 PoE Gateway

Mimosa PoE



G2 2.4 GHz Wi-Fi PoE Gateway

Simple Integrated PoE + Great Wi-Fi
Add Multiple G2 Devices to Expand Coverage
Cloud Monitoring for In-Home Wi-Fi Support
Totally Integrated Experience with Mimosa C5

100+
Mbps

2.4
GHz

PoE
48V

GigE

Router

2x2 11n

Repeater

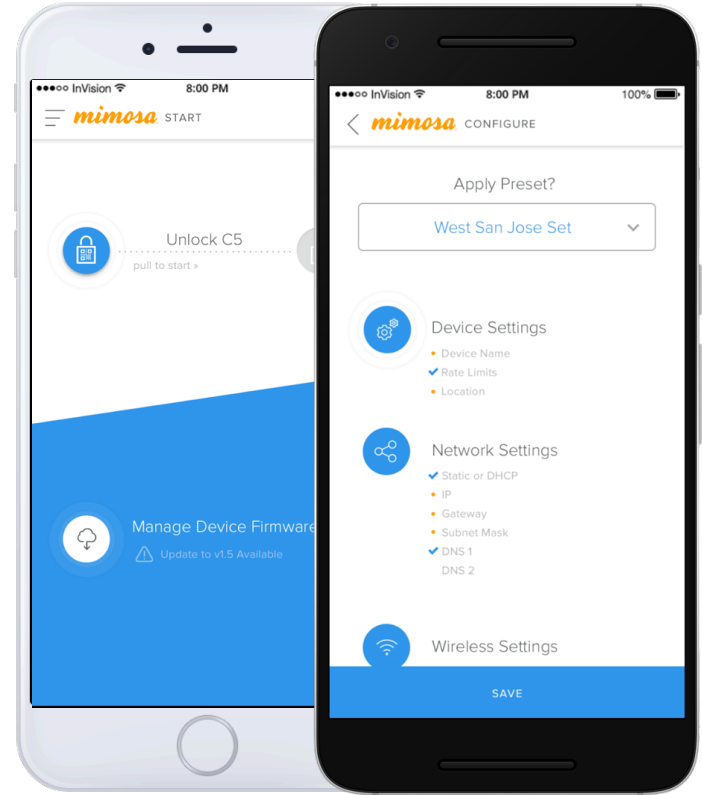


Installation Streamlining



Install App

1. Guided install process
2. Manage and auto update C5x firmware
3. Automates device configuration
4. Audible Aim and connect
5. Tie-in to subscriber provisioning



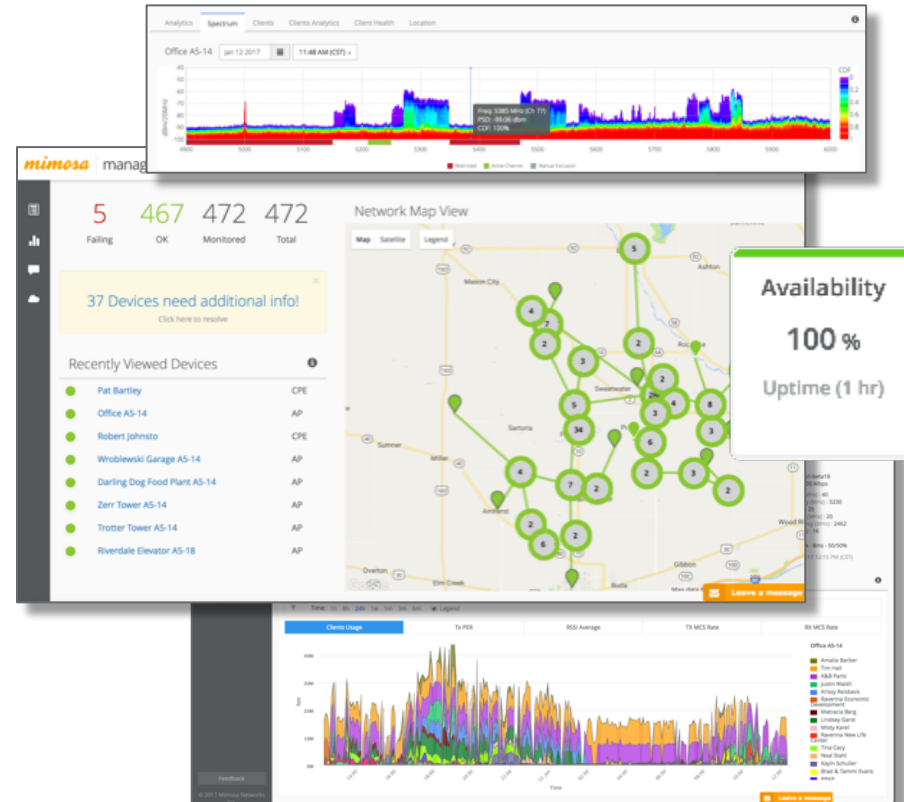
iOS

Android



Cloud Management

- Historical performance and RF data
- Network wide advanced spectrum and wireless maintenance
- Advanced Firmware management automation
- Device status monitoring
- In home Wi-Fi monitoring and Client Health statistics



A person wearing a headset is shown from the back, working at a computer in a call center. The background is slightly blurred, showing a computer monitor and a whiteboard with some text. The overall scene is dimly lit, with the person's shirt and the headset being the most prominent elements.

Award-Winning Support Team

- Direct chat/email/phone support
 - RF experts
 - Networking experts
 - Most answers in 2 minutes
- Regional Field Engineers
 - Product qualification, training, etc.
- Extensive knowledge base
- 500+ technical design/support articles

Thank You

For more information: www.mimosa.co

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