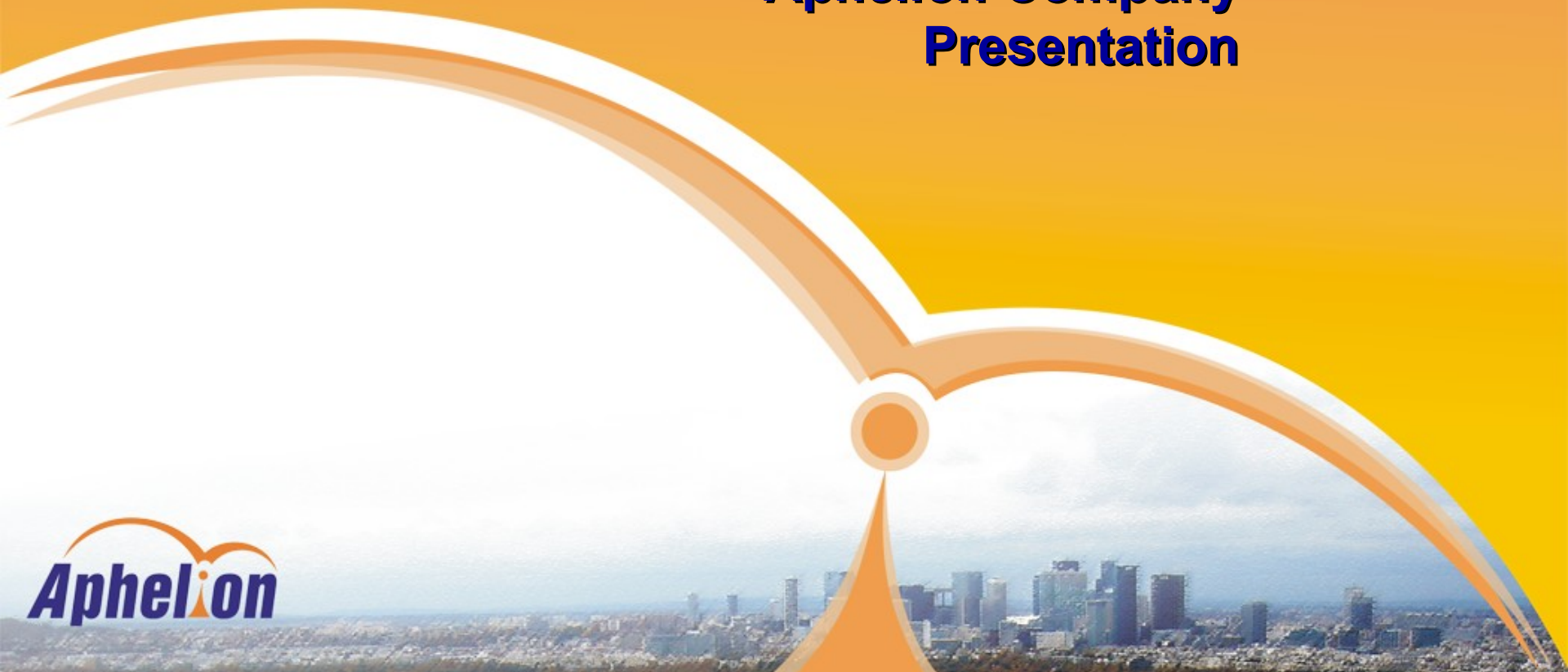
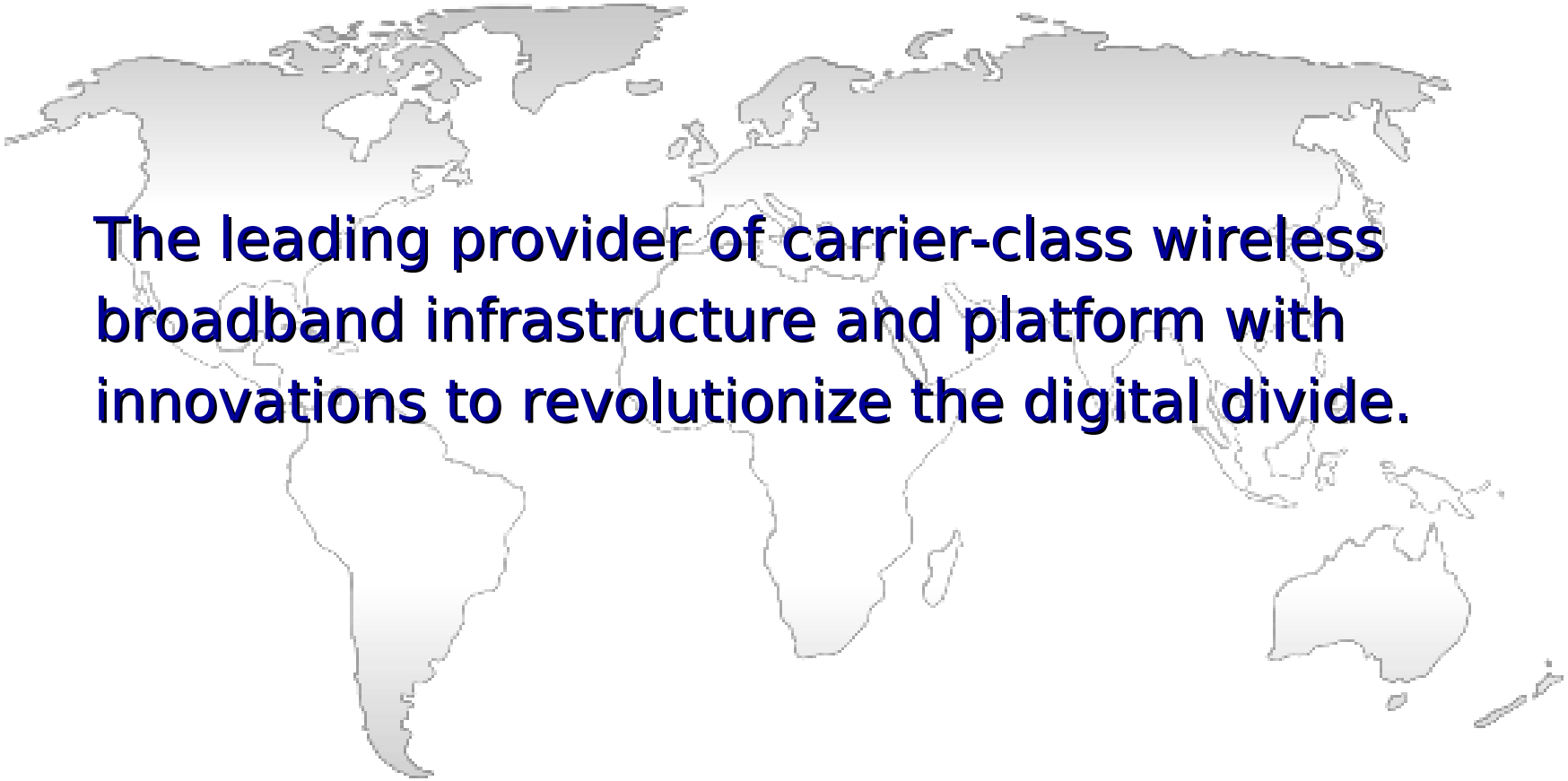
Aphelion

"Unleashing Wireless Connectivity"®

Aphelion Company Presentation



Aphelion – Unleashing Wireless Connectivity



The leading provider of carrier-class wireless broadband infrastructure and platform with innovations to revolutionize the digital divide.

Company Products and Roadmap

- Outdoor wi-fi broadband solutions – Intelli-series
- High power series
- Surveillance intelligent access series
- Wi-fi / Wimax gateway
- Wimax 16d products – 5.8Ghz
- Wimax 16e TBD

Aphelion Current Outdoor Wireless Solution

- **Aphelion Series**
  - 500 AG/ 505AG - AP or client bridge/ router (54Mbps)
    - PTP, Hotspot, PTMP
  - 600 AG/ 605AG - 2x high capacity gateway/mesh nodes (108Mbps)
    - PTP (Trunking/Intelli-Hop), Hotzone, 2 APs
  - 3300 AG - 3x high capacity gateway/mesh backhaul (162Mbps)
    - PTP (Trunking/Intelli-hop), Hotzone, 3 APs
  - M3300 AG – High mobility (140 Km/hr) mesh gateway





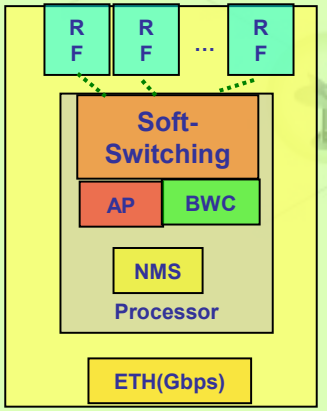


Aphelion 8000 GW – **Aphelion Management System (AMS) Gateway**

Aphelion Core Competency I

Switching between multiple RF modules

- GigaBits Interface
- Bandwidth Control Module
- ≧ 3 x IEEE802.11a/b/g Wireless Modules
- Sector Antenna Technology
- Wireless Soft-Switching Module

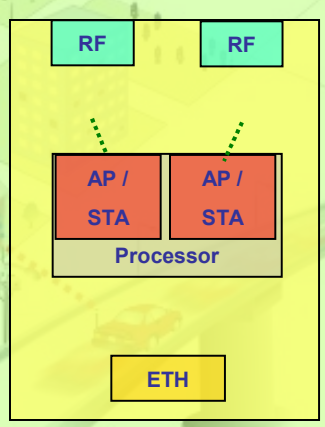


- *High Capacity AP*
- *Range Extension*
- *Easy deployment*
- *Applications :*
  - *Hotspot*
  - *Last Mile Solution*



Dynamic LAN/WAN configuration

- Embedded Linux RTOS Platform
- Ethernet Interface, TCP/IP Networking Stack
- IEEE802.11a/b/g Wireless Interface & AP
- Dual Wireless Modules Integration
- Wireless Authentication & Security
- Dynamic Interface Configuration

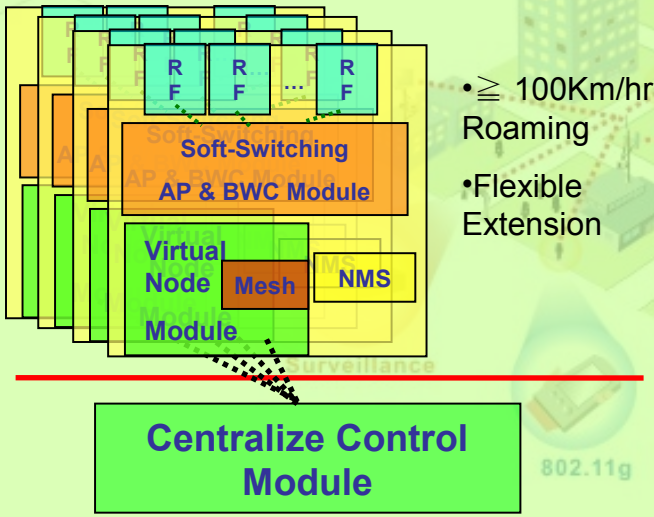


- *Two Access Points*
- *Access Point + Station*
- *Two Stations*
- *Dynamic WAN / LAN Assignment*
- *Applications :*
  - *Hotspot*
  - *PTP*
  - *PTMP*

Aphelion Core Competency II

Multiple Gateway & High Speed Roaming

- Indoor IPC-based Control Platform
- Virtual Nodes Control Mechanism
  - IP Mapping Control
  - High Mobility Roaming Control
- Multiple Gateway Control Mechanism
- Wireless Location

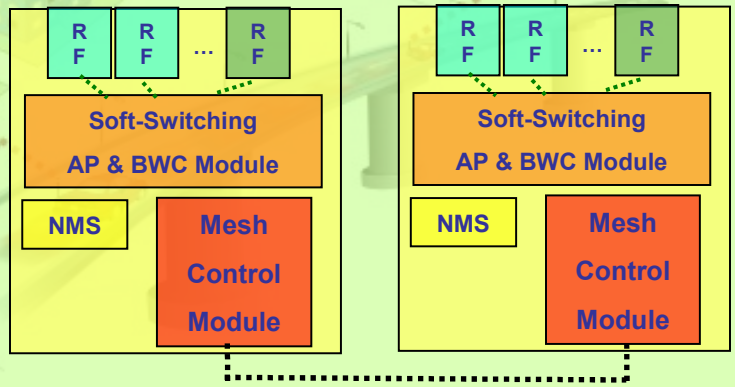


- ≧ 100Km/hr Roaming
- Flexible Extension



Mesh Network

- IEEE802.11a Wireless Interface
- 2.4GHz / 5GHz Dual Band Integration
- IEEE802.11a Wireless Backbone
- ≧3 x IEEE802.11a Wireless Modules
- Wireless Soft-Switching
- Dynamic Data Channel Selection
- Mesh Control Mechanism
  - ≧ Layer 2 Node Information Exchange
  - Low Mobility Dynamic Routing Discover
  - Wireless Routing Control
  - Wireless Relay / Hopping



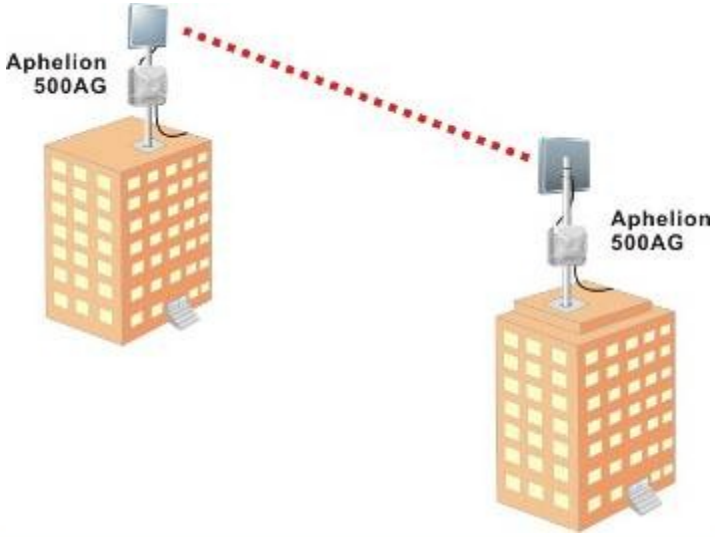
Aphelion 500AG/505AG Features (one radio)

- Point to Point/Multipoint/Hotspot
- Can act as Client Mode
- Wireless Router
- SNMP V1/V2
- NAT - DHCP Client / Server / Relay
- Easy configure and access wireless network instantly without platform boundaries
- Customer profiling and segmentation

- Quick and higher ROI
- Easier Billing and Accounting with built in Radius Client
- **Up to 24-26dBm output power for 11b/g, 20dBm for 11a (505AG)**

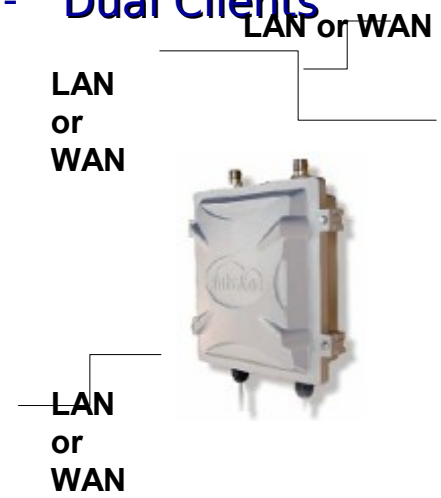


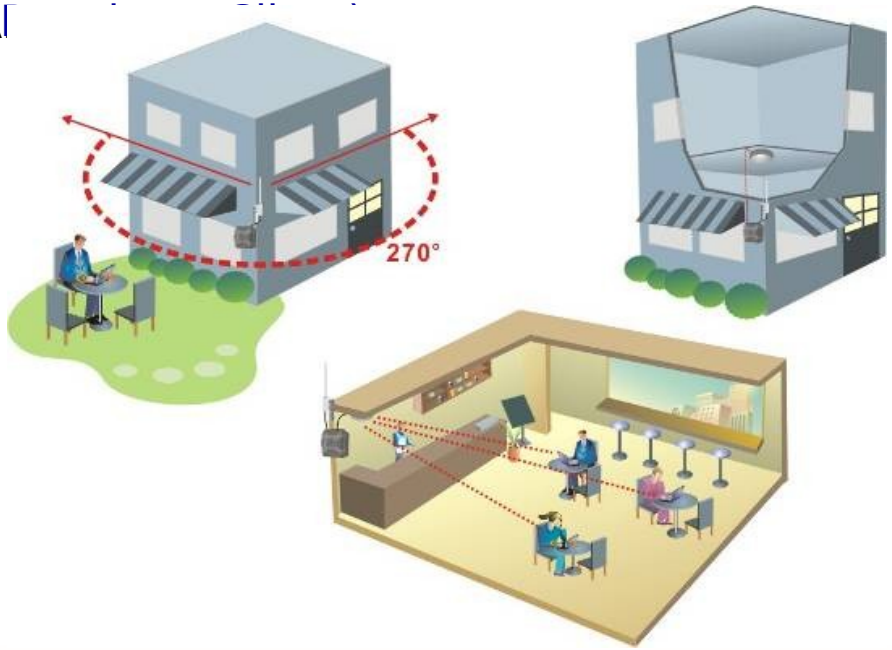




Aphelion 600AG/605AG Features (1)

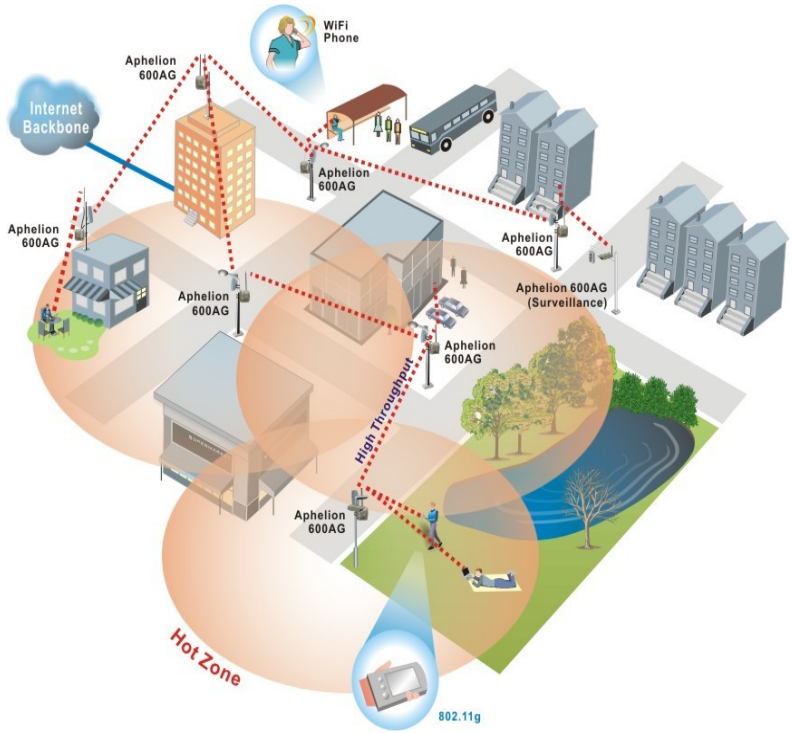
- Hotspots/ Hotzones
  - Universities, Scenic Spot, Industrial parks
- Provide High bandwidth requirement (Up to 108Mbps)
- Up to 24-26dBm output power for 11b/g, 19-20dBm for 11a (605AG)
- Dynamic WAN
  - Dual AP Mode (one AP for outdoor coverage, the other for indoor wireless coverage)
  - Cell Extension mode (one A
  - Dual Clients



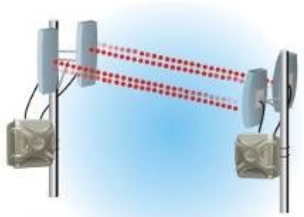


Aphelion 600AG/605AG Features (2)

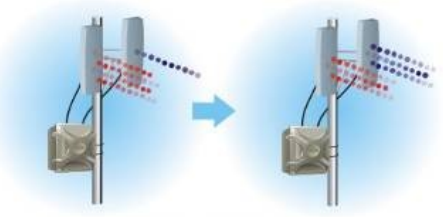
- **Dynamic Multi-Hop RF Switching**



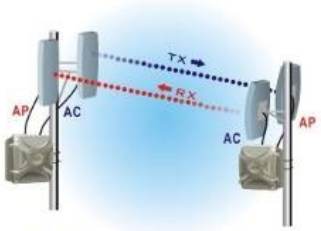
- **Trunking**
  - Bandwidth aggregation
  - Smart Traffic load Balance
  - One way transmit
  - Failover



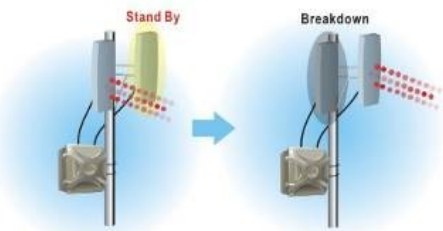
■ Trunking



■ Smart Traffic Load Balance



■ One Way Transmit

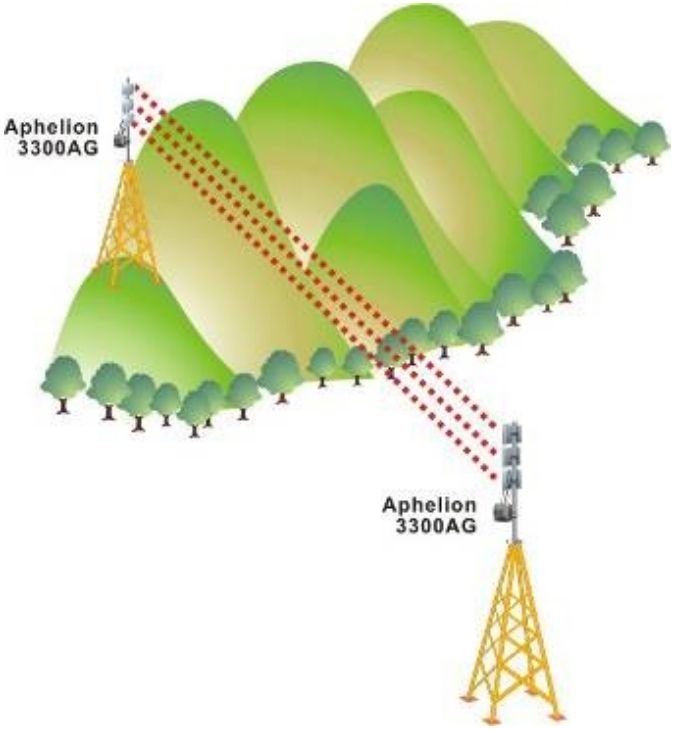


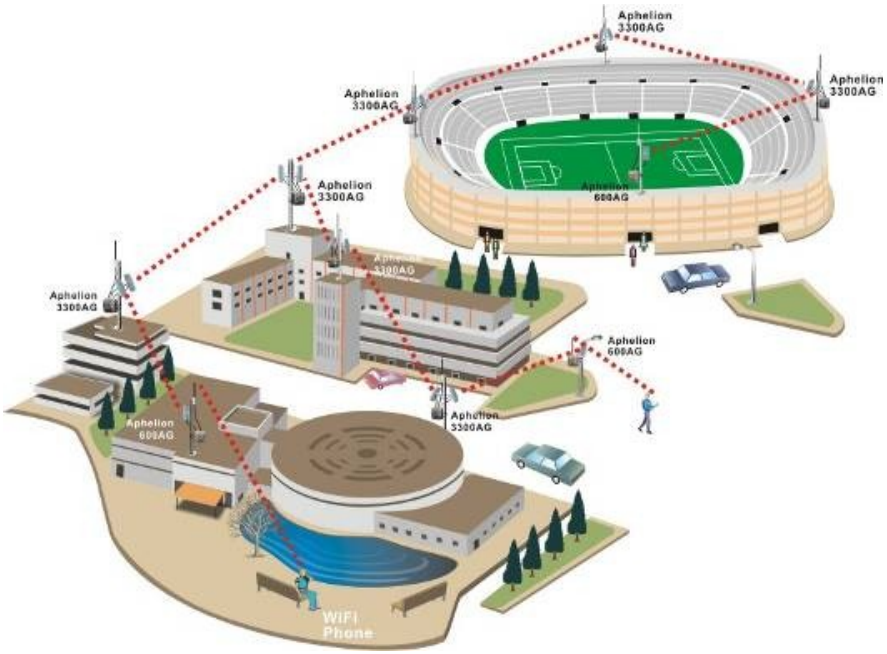
■ Failover

Aphelion 3300AG Features

- Hotspots/Hotzones
- Low latency and high throughput over Multiple hops
- Dynamic WAN (Dynamic Multi-Hop RF Switching)
- Trunking

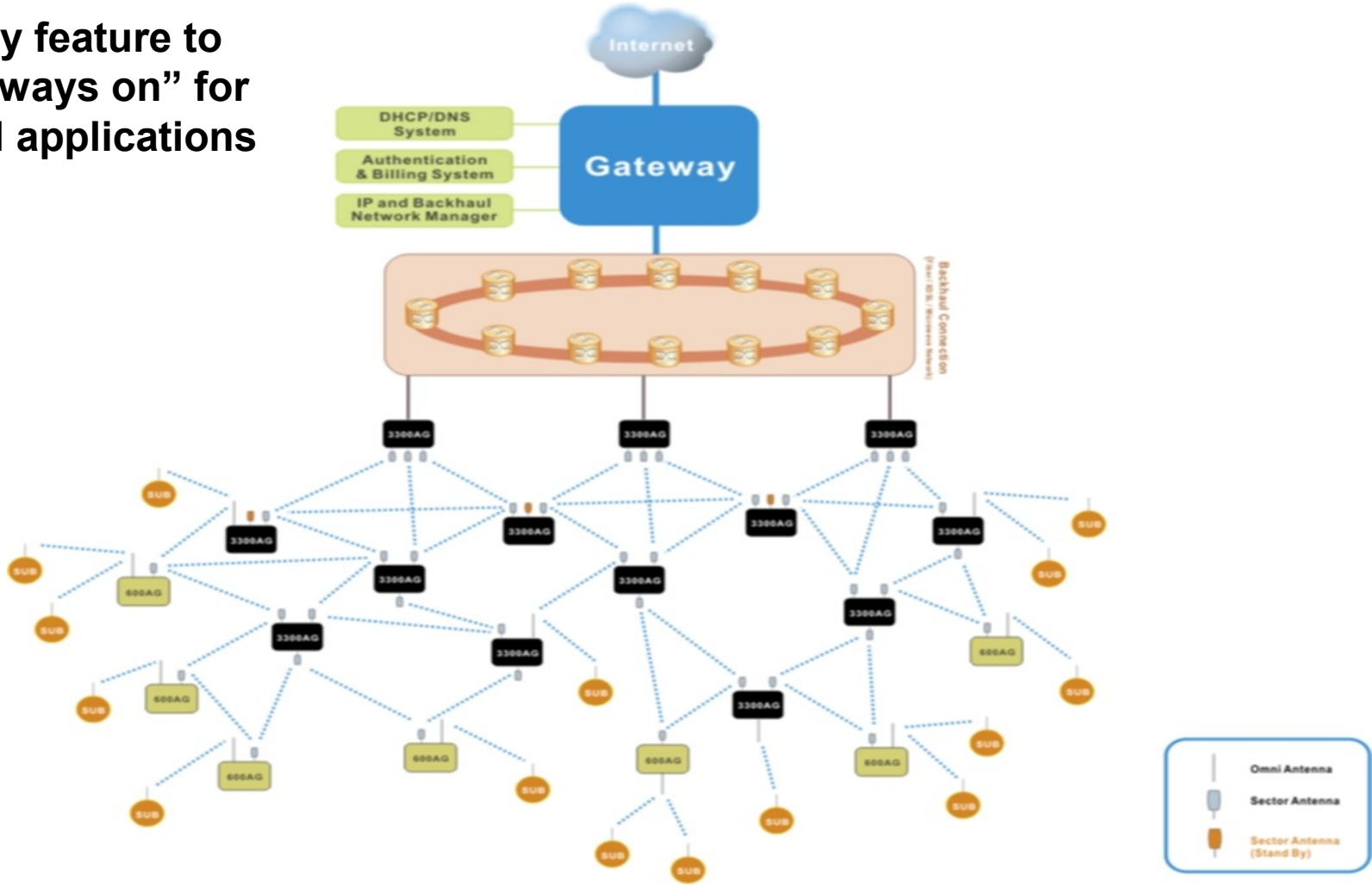






Aphelion DC Mesh

Redundancy feature to achieve "Always on" for time critical applications

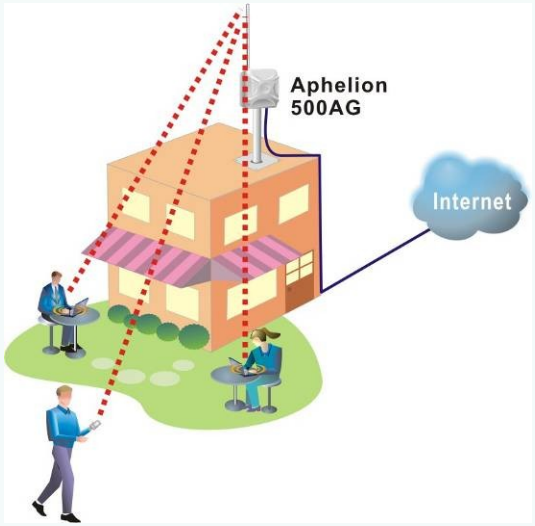


Aphelion High Throughput connectivity

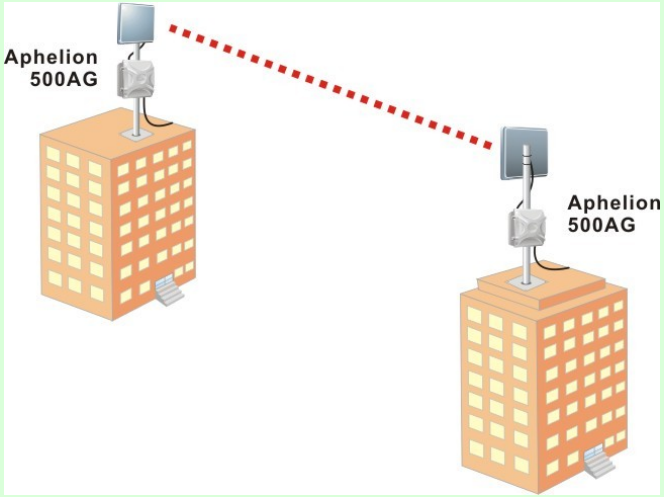
Real Testing 3km achieve 25 Mbps of throughput both 802.11a or 802.11g; 10 km achieve 12 Mbps of throughput



Applications

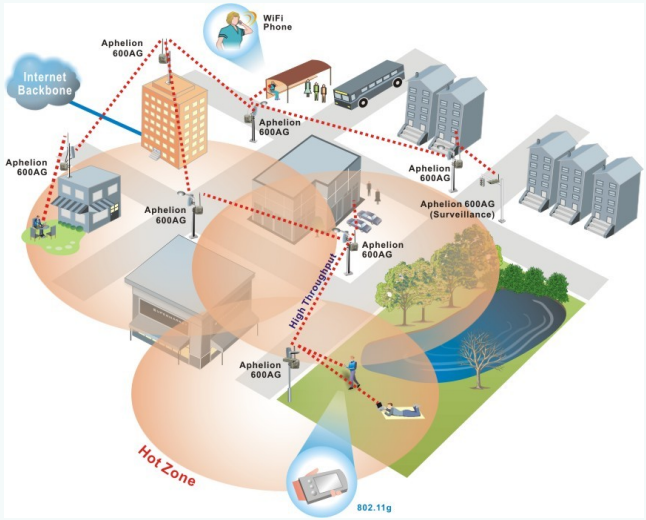


- Hotspot Services
  - Internet
  - VoIP Phone

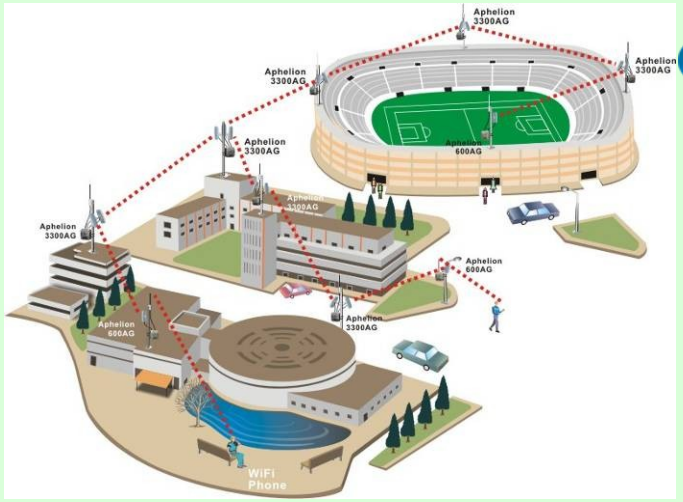


- Point-to-Point / Point-to-MultiPoint
  - Long distance link
  - Headquarter and Branchs

Applications

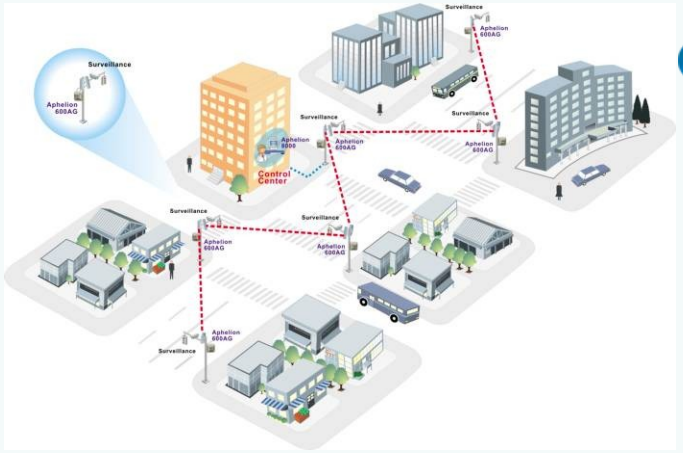


- Last-mile
  - Residential area



- Hotzone Service
  - Internet
  - VoIP Phone
  - Surveillance

Applications

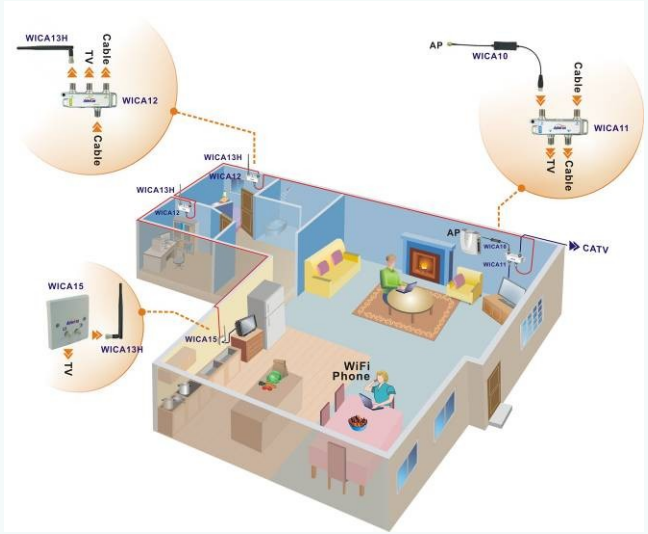


- Traffic Light
  - Emergency Control
  - Data/Voice/Vedio

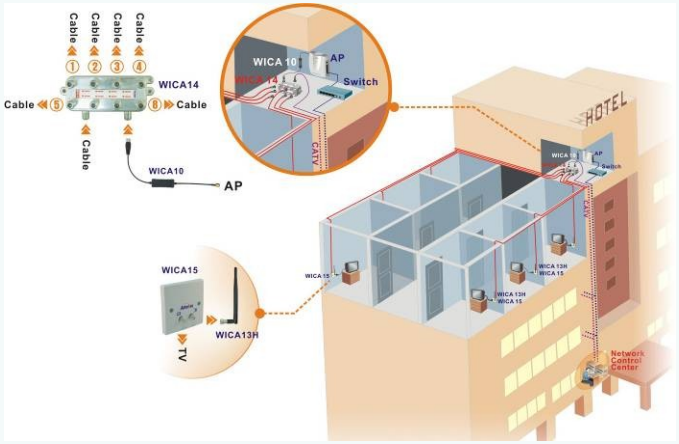


- Dockarea
  - Data service
  - VoIP Phone
  - Surveillance

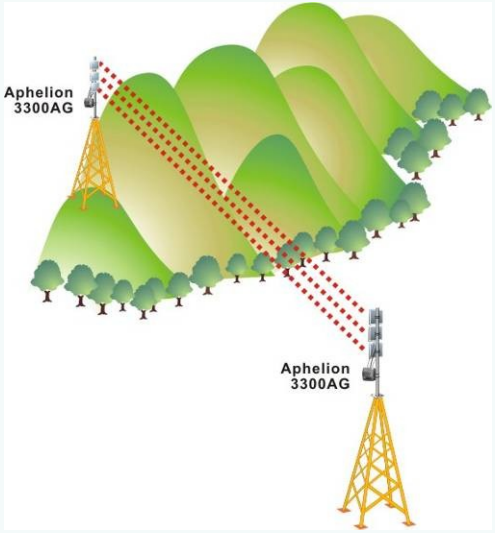
Applications



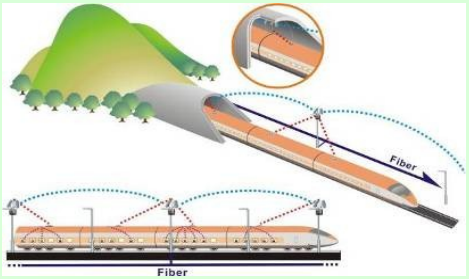
- Indoor WiFi Extension
  - CATV and WiFi
  - Hotel solution

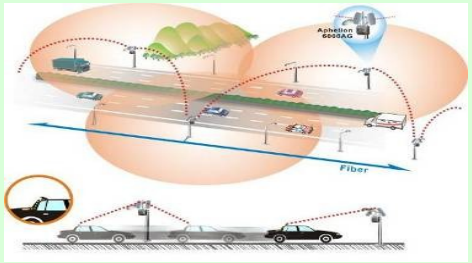


Applications



- Trunking
  - Large Bandwidth
  - Wireless Link Backup



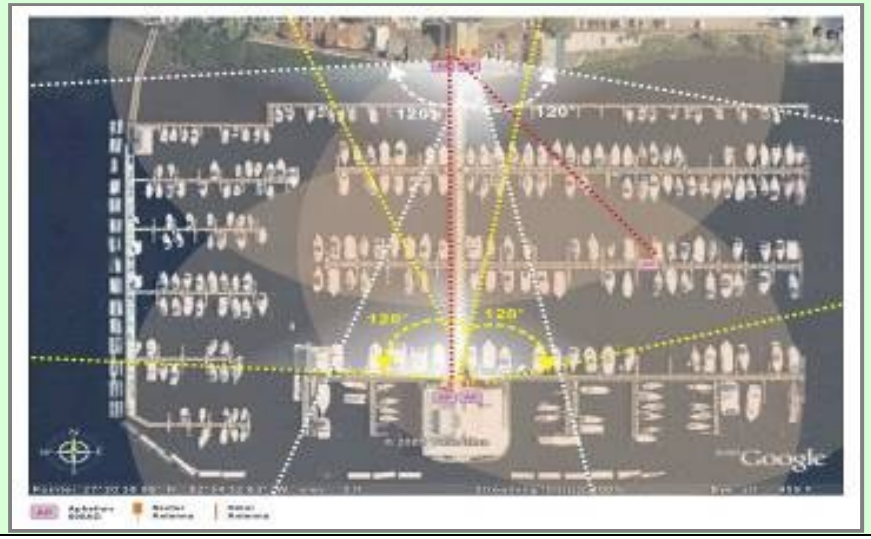


- Hi-Speed Mobility
  - Data/Voice/Video
  - Location Service Integration
  - Media/Advertisement

Real Deployments



- Surveillance for police force in China



- Internet service for boating in USA

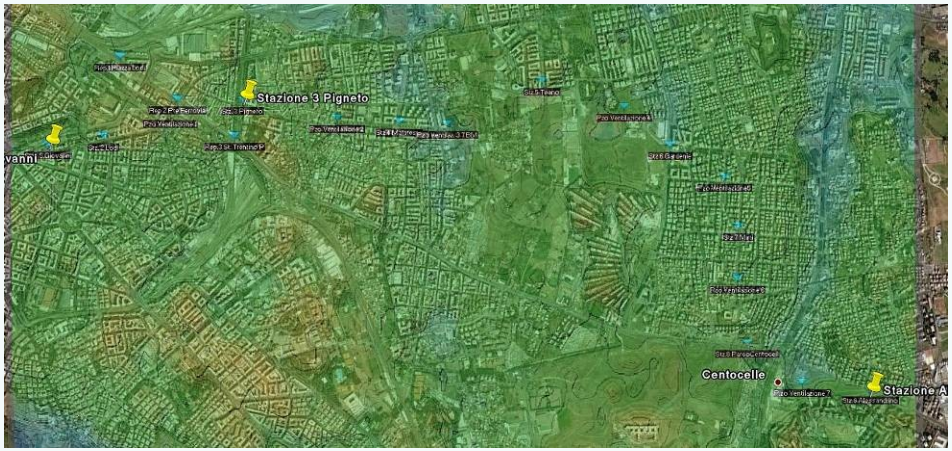
Real Deployments



- Surveillance in Netherlands and Italy







Sprint Campus



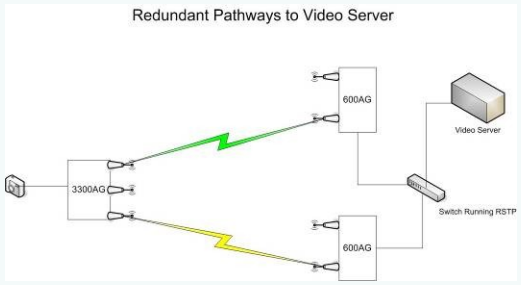


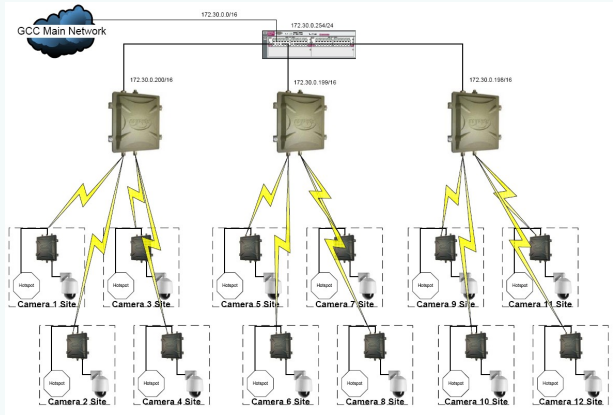


Real Deployments



- Surveillance in Australia







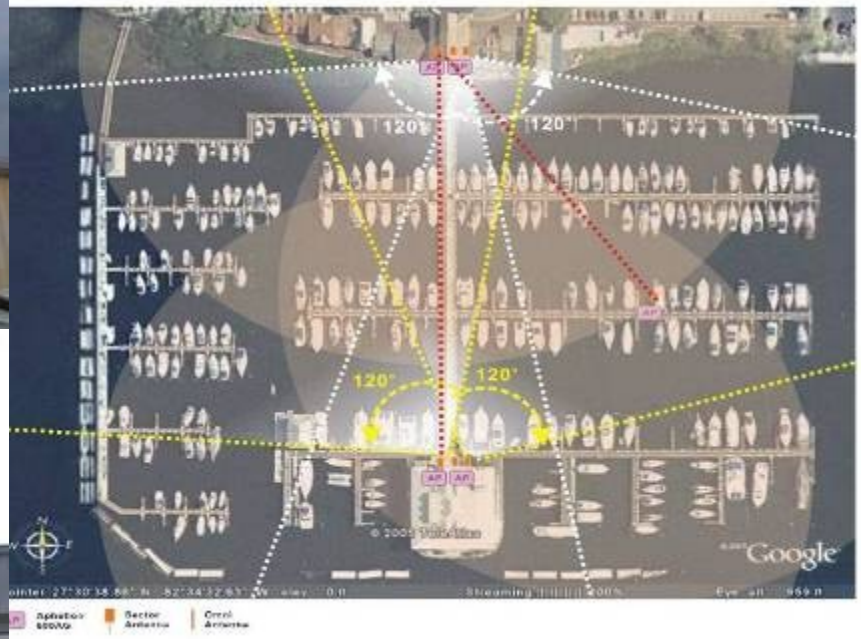
Demonstration



Reference Sites from Brighthouse (Florida, USA)







Shopping mall from Time Warner







Wireless surveillance system in the Netherlands’

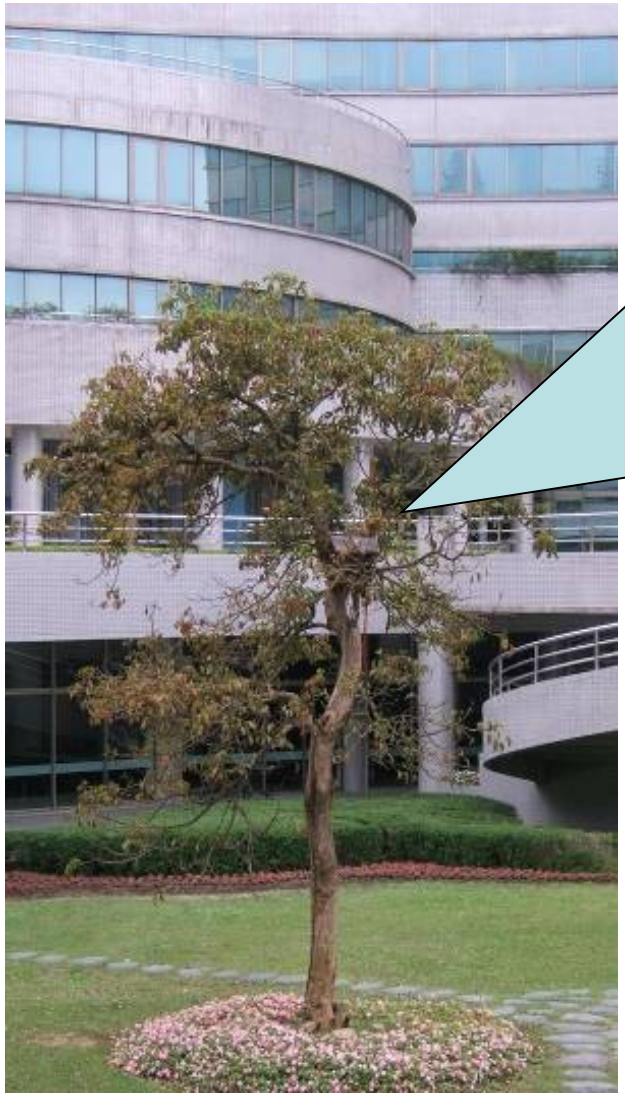








ITRI (工研院) Hotzone Internet service



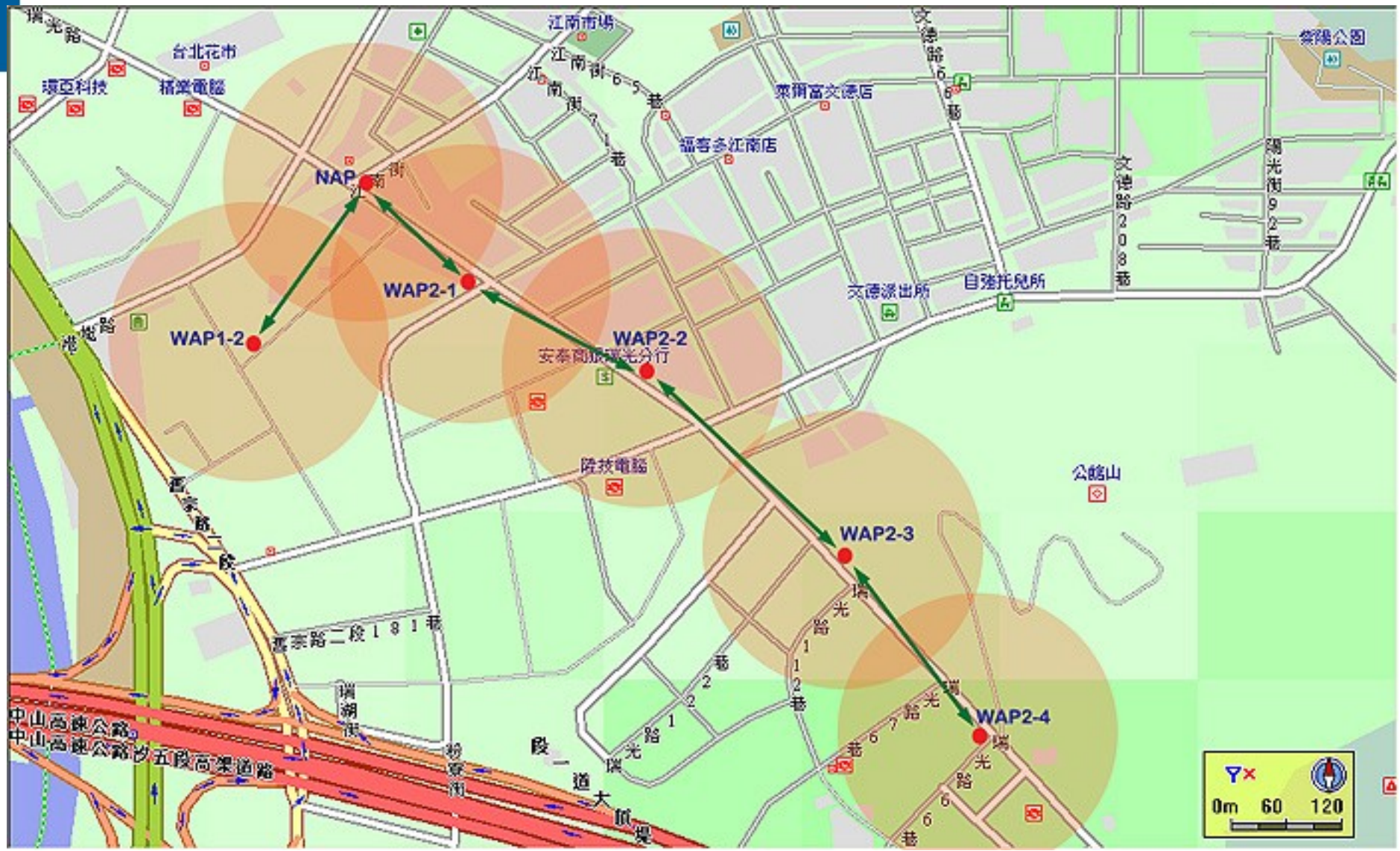


1F Wireless service

11a backhaul connection

Basement Wireless service

Example of current deployment in Taipei



Deployment Picture

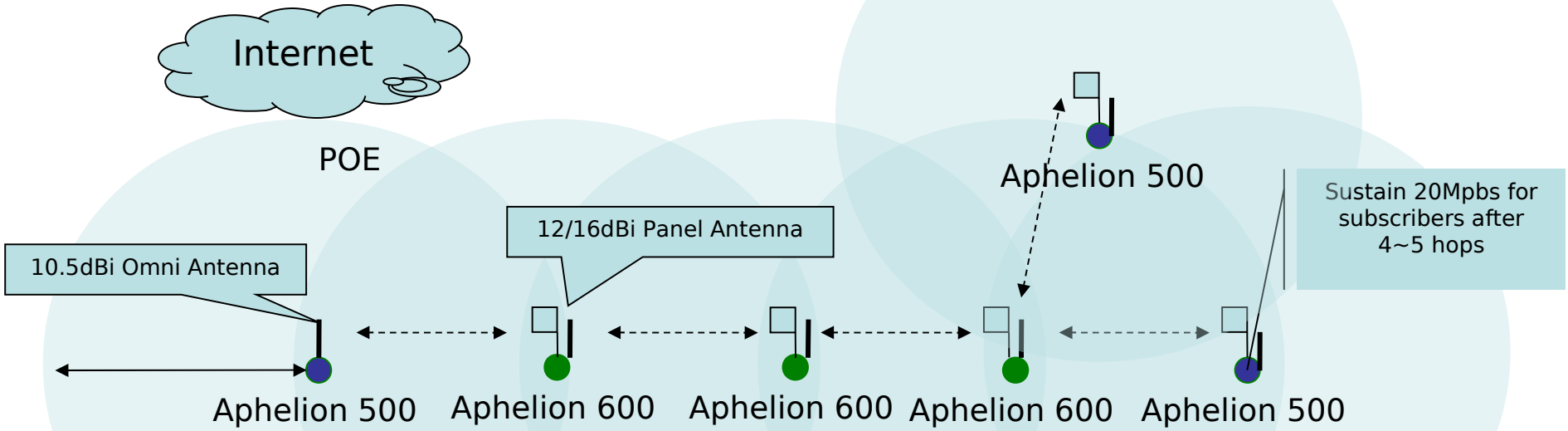


Deployment picture II

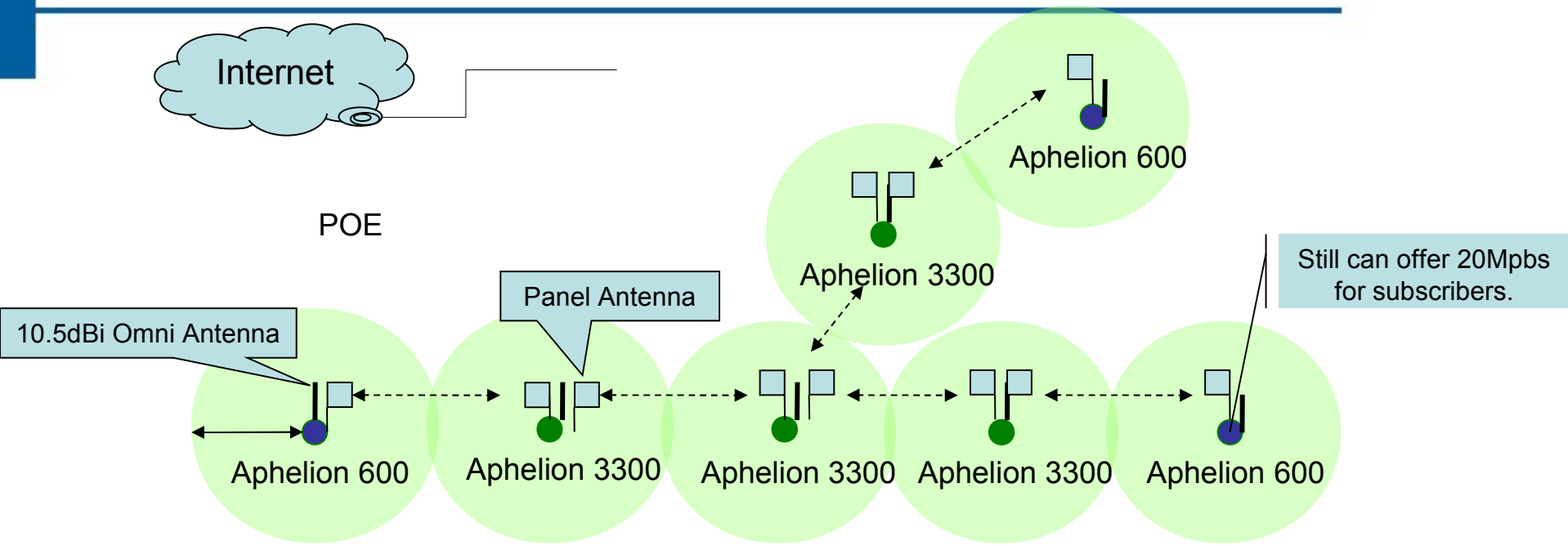


Aphelion series Unique Innovations (1)

Based on patented technology, **Dynamic Multi-Hop RF Switching**, Aphelion *600 (2RF, one for local wireless services and the other one a client to connect to AP)* can easily form several hotspot to become a Hotzone. In actual deployment, the data throughput exceeds 20Mpbs even after 4-5 hops.



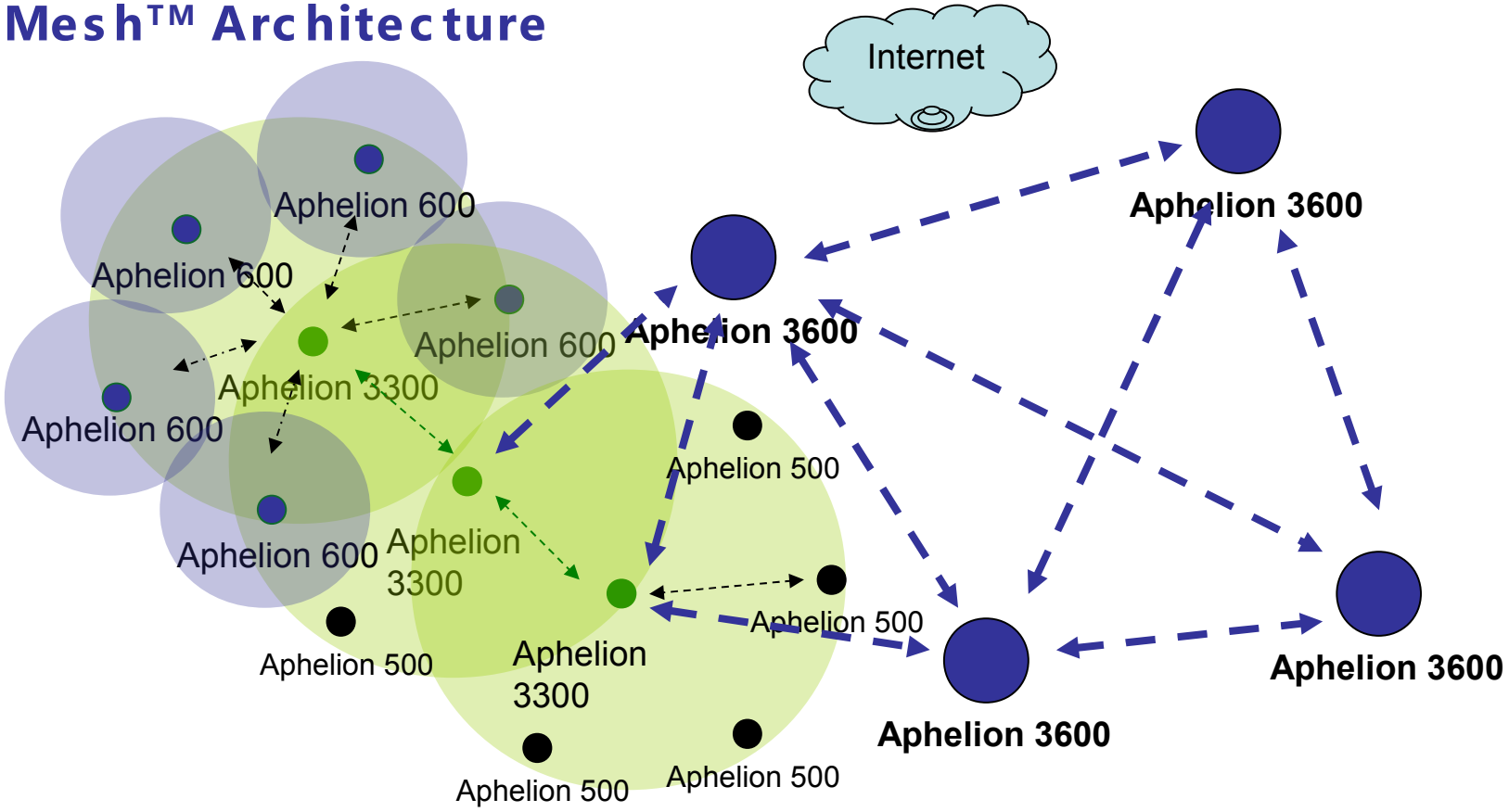
Aphelion 600AG/3300AG Unique Innovations (1)



Based on built-in 3 RFs, Aphelion 3300 can be more flexible to form a bigger Hotzone with very high throughput (using 11a for backhaul connection and 11b/g for local service

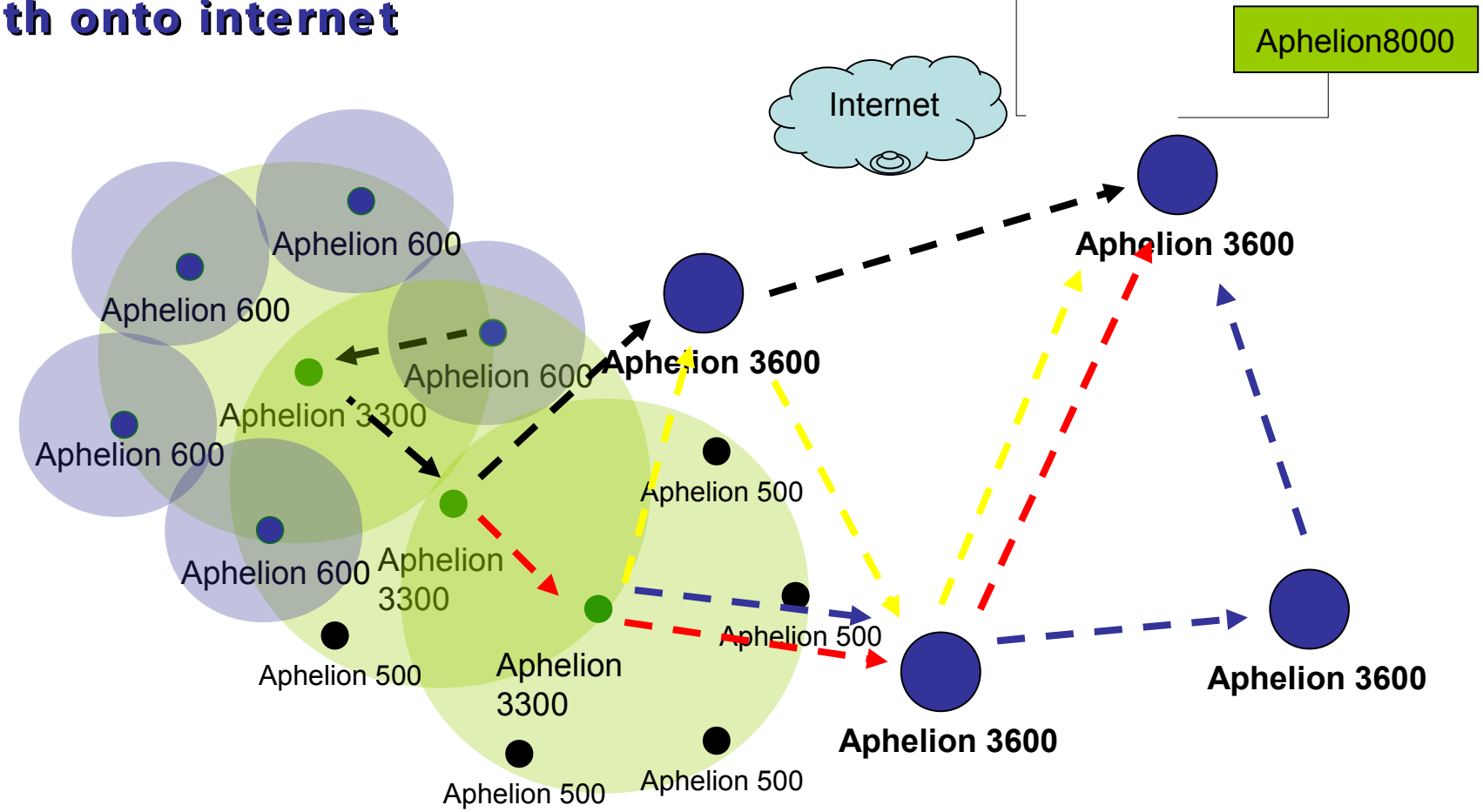
Aphelion's Unique Innovations (2)

IntelliMesh™ Architecture



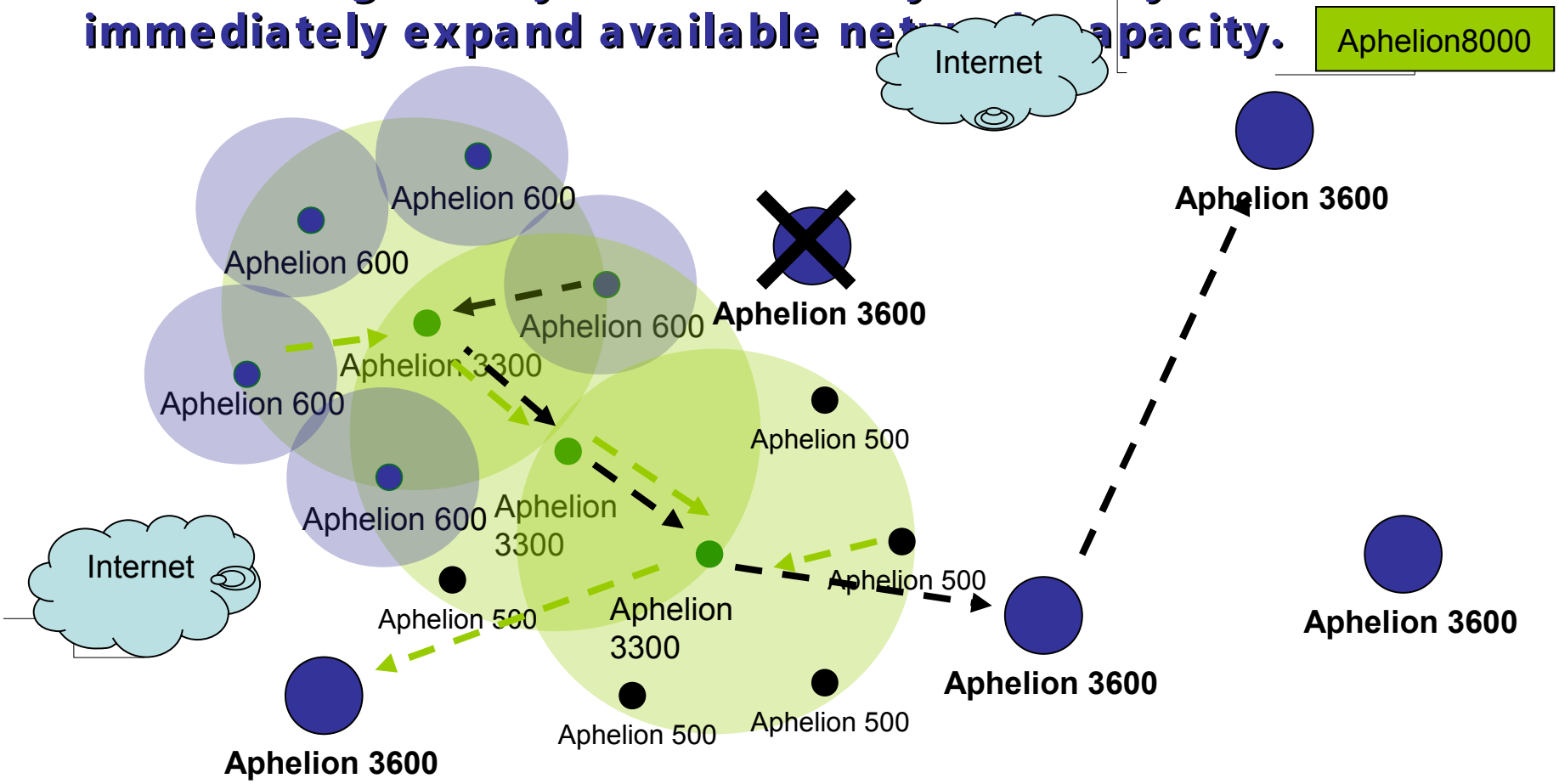
Aphelion's Unique Innovations (2)

Each data packet will be intelligently routed for best path onto internet



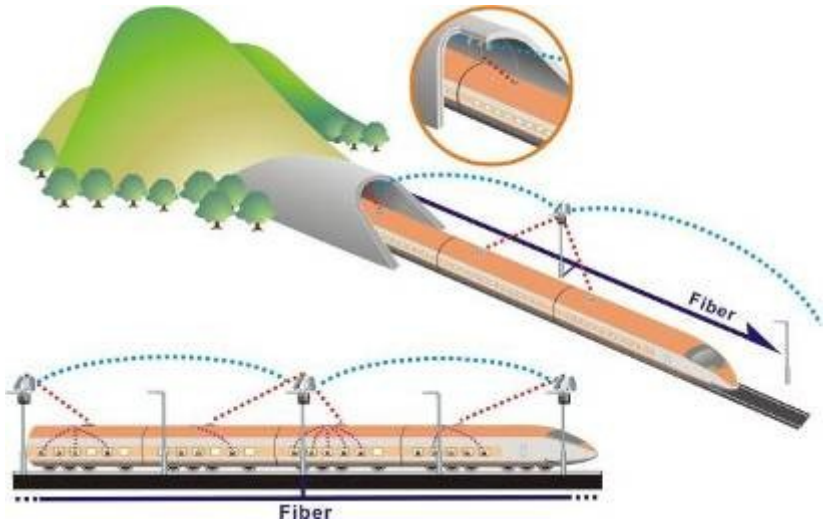
Aphelion's Unique Innovations (2)

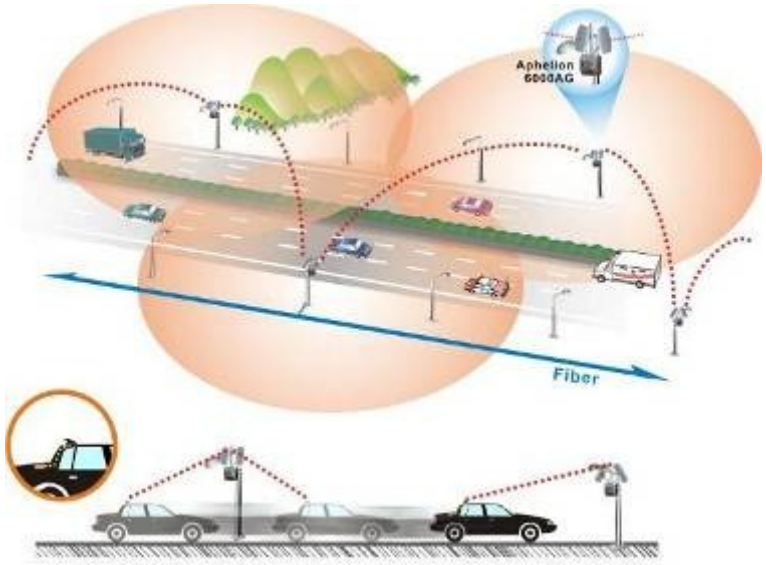
Additional gateway can be also dynamically added to immediately expand available network capacity.



Aphelion's Unique Innovations (3)

IntelliMobile™ (High Speed Mobility) – Aphelion's solution is further validated for high speed seamless mobility access, for application such as railway mobility and highway mobility at <200 km/hour.

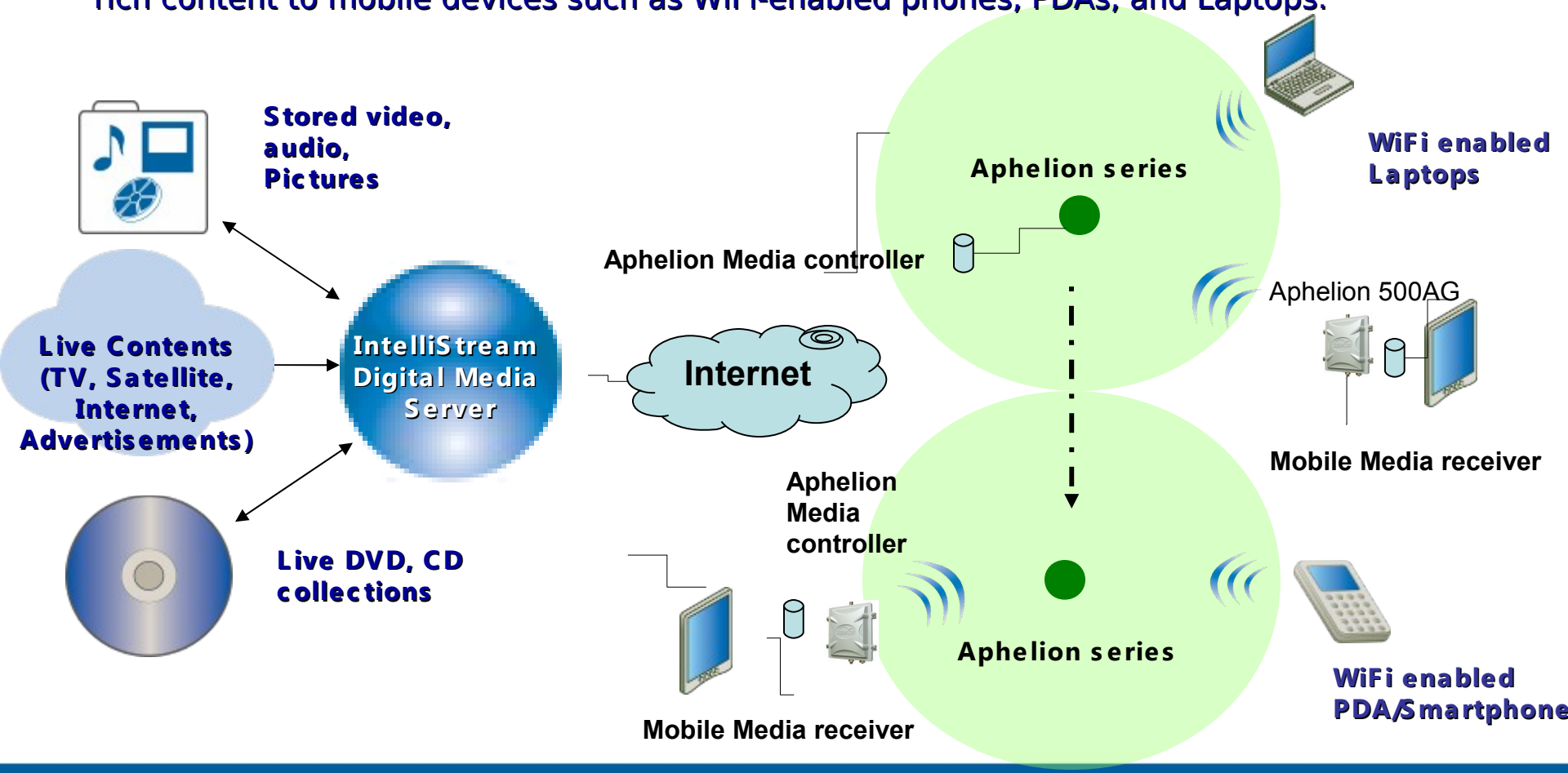




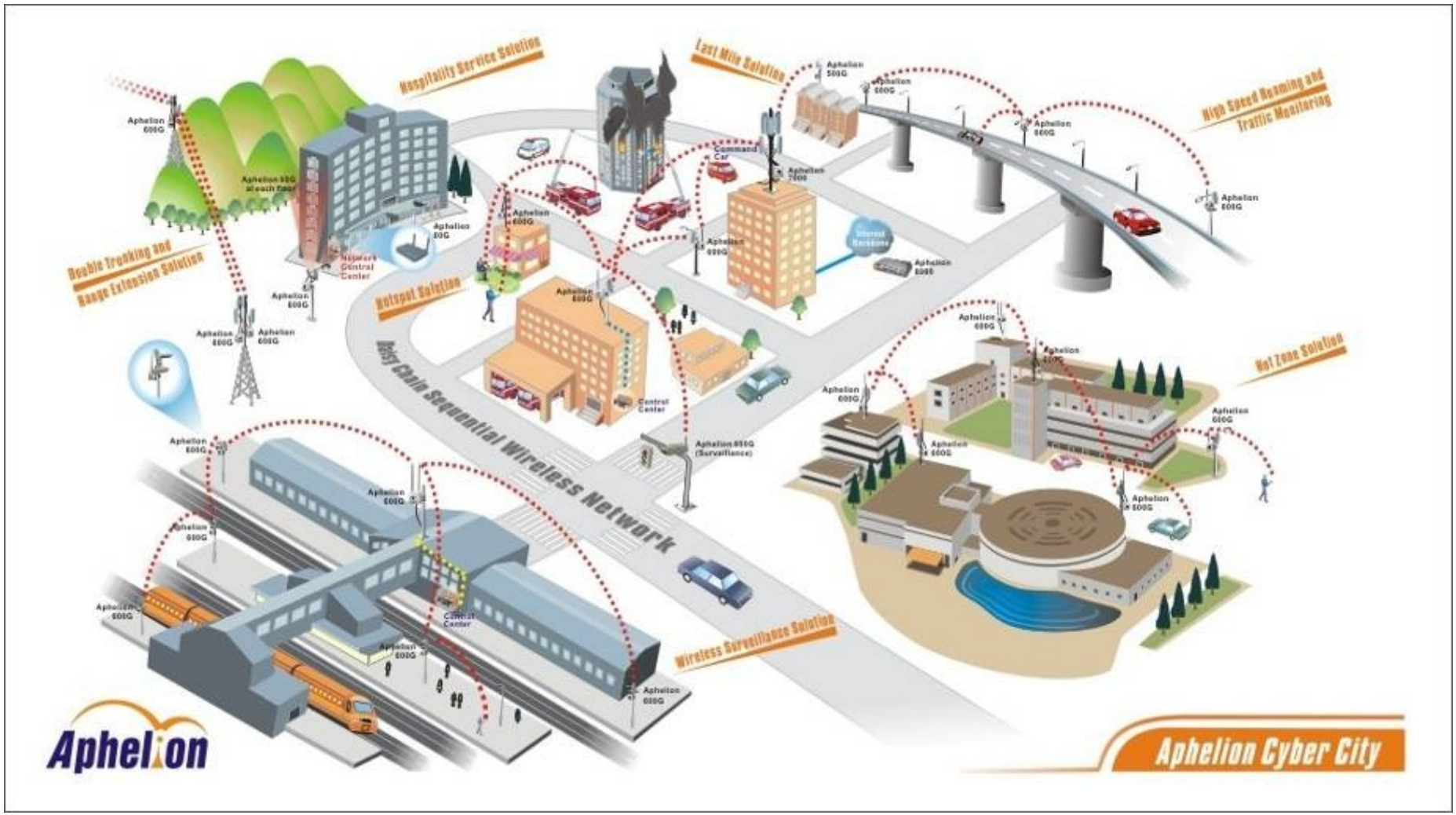
Aphelion's Unique Innovations (4)

IntelliCast™ - Unique patent pending digital access and retrieval method that optimizes VoD/AoD over wireless networks with QoS traffic prioritization and radio interference mitigation technologies.

- Designed to provide the intelligent media casting and interactive retrieval of media rich content to mobile devices such as WiFi-enabled phones, PDAs, and Laptops.



Aphelion Cyber City



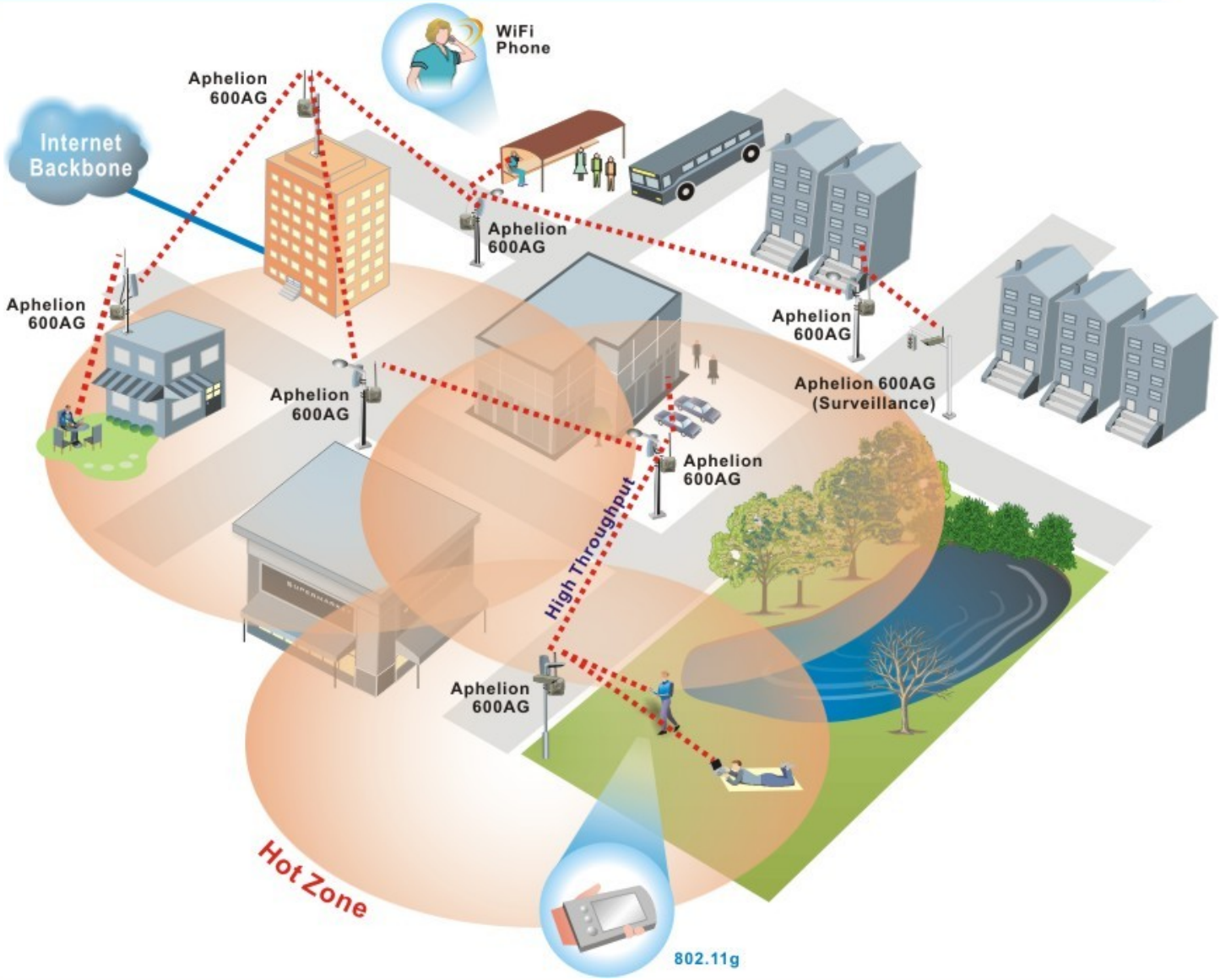
Aphelion in Hotspot

Hotspot Application:

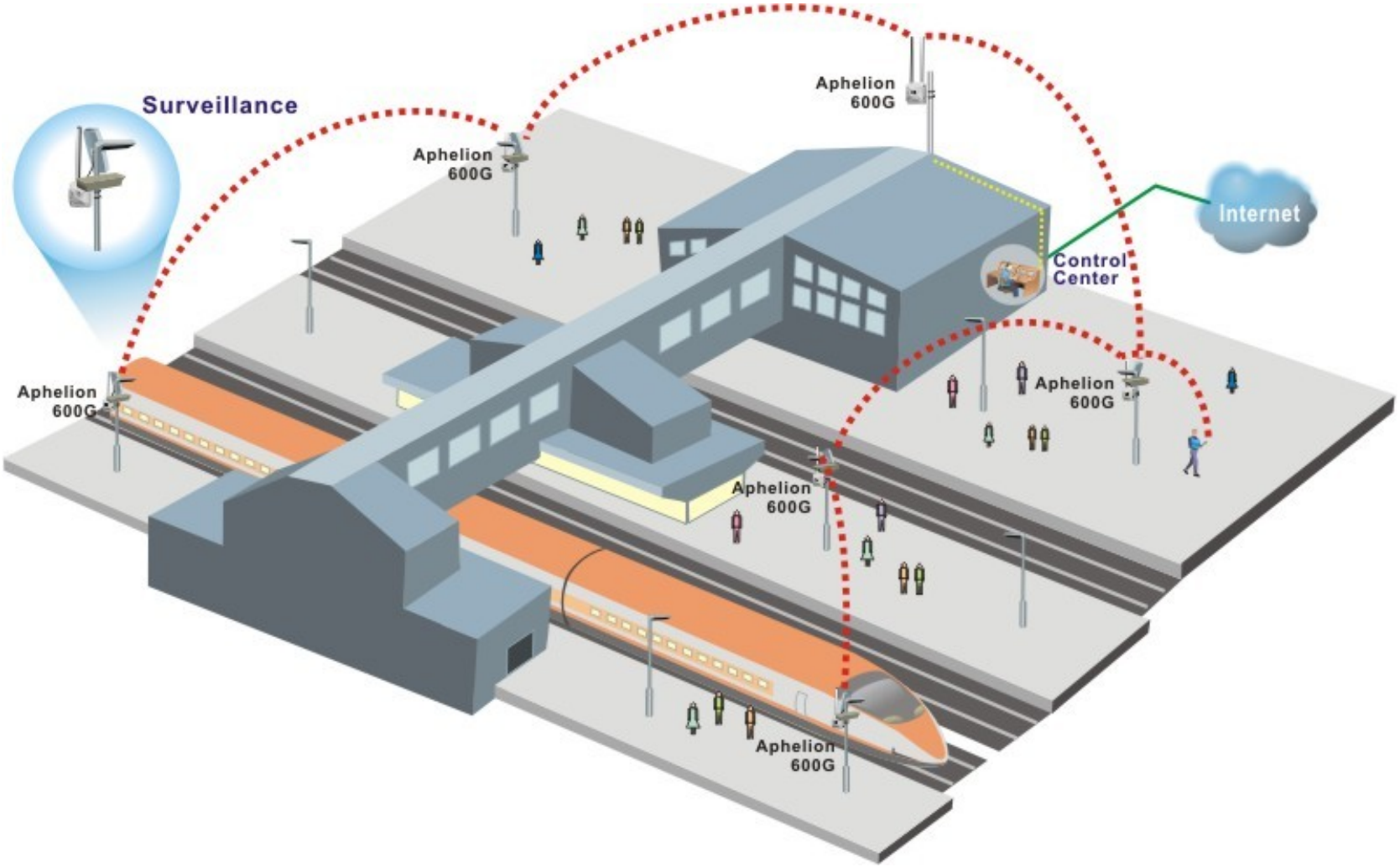
1. Campus
2. Government
3. Hospitalization
4. Factory
5. Warehouse
6. Hotel



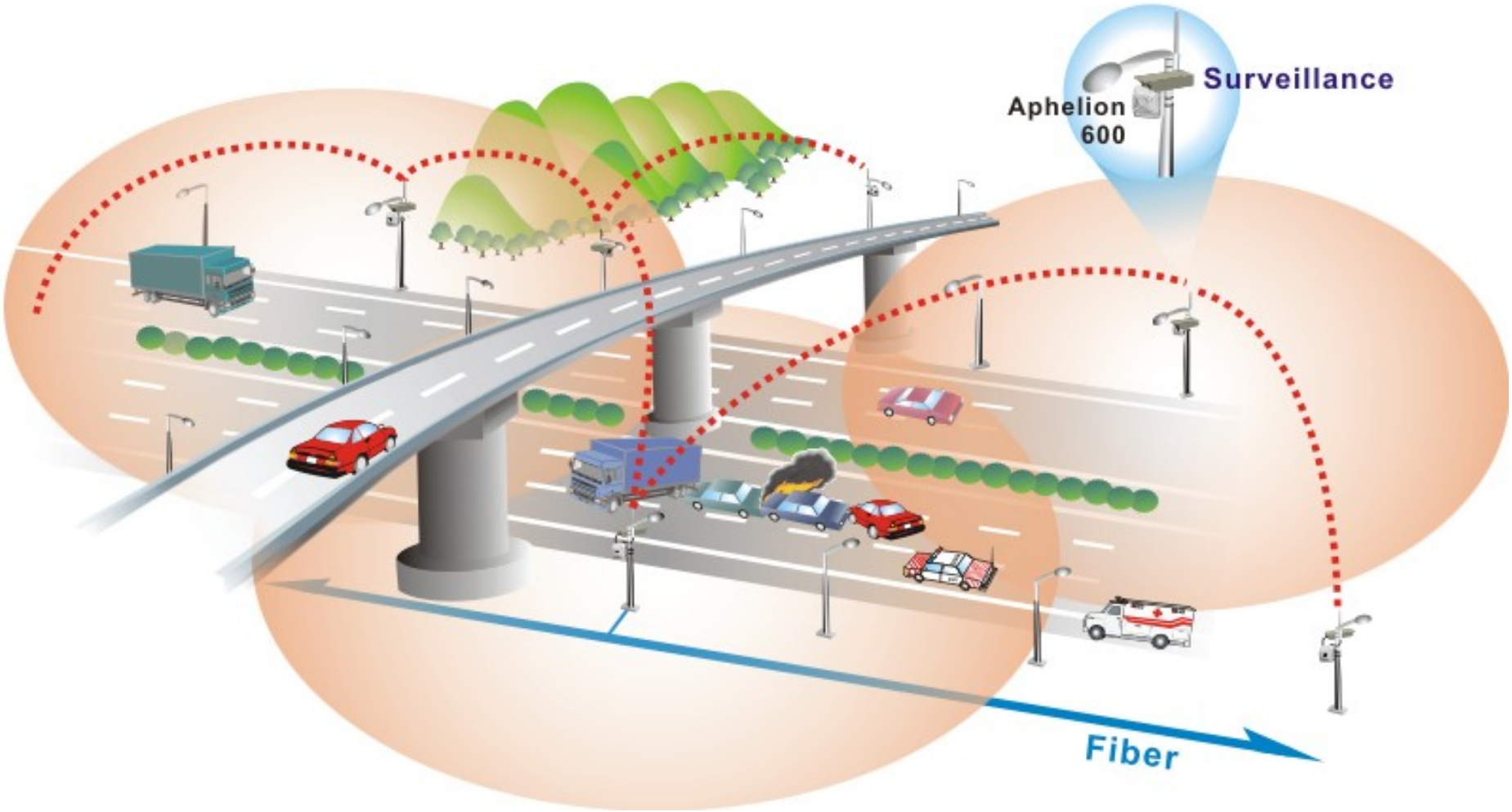
Aphelion in Campus



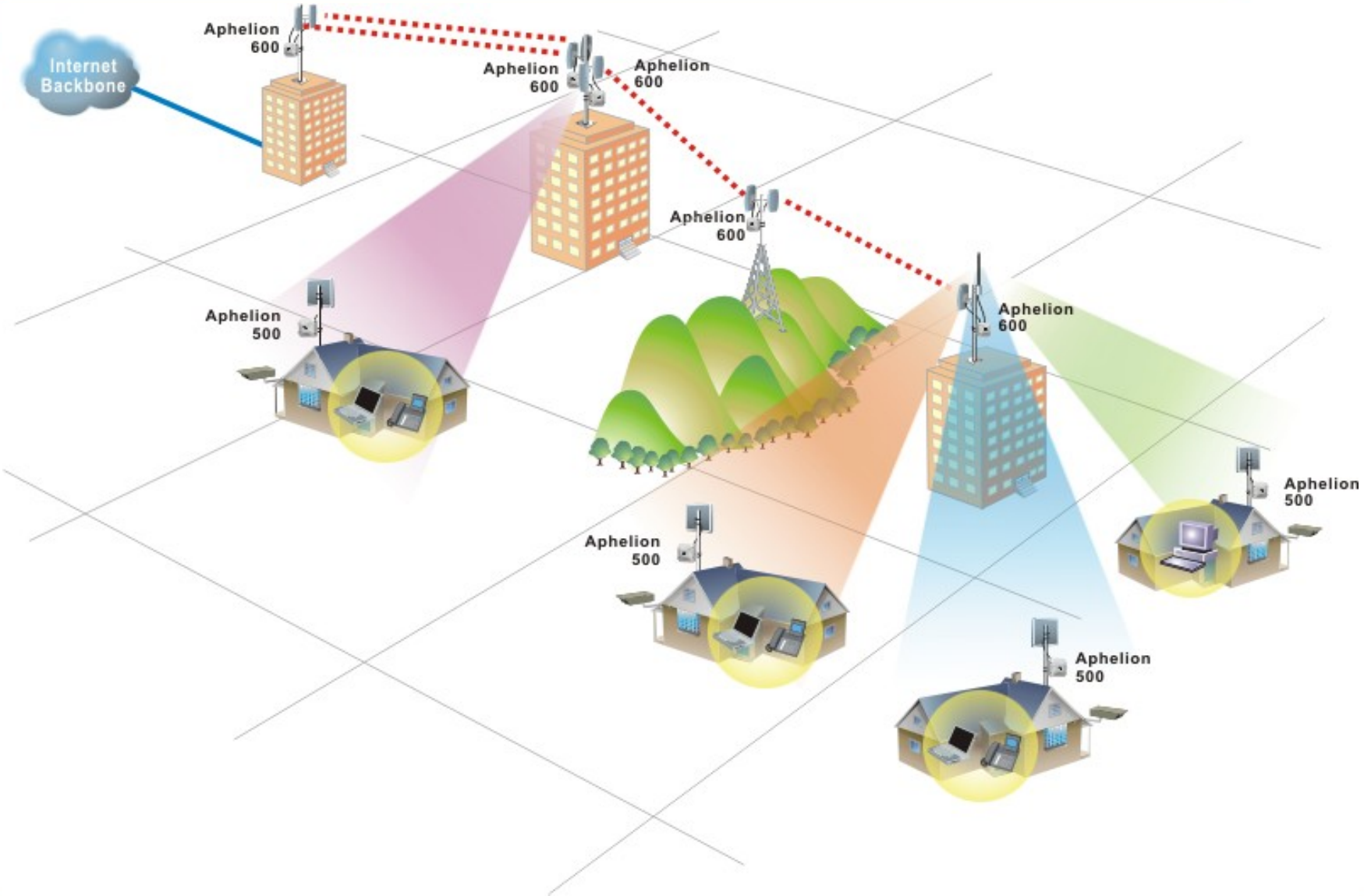
Aphelion in Train Station



Aphelion in Highway Monitoring



Aphelion in Last Mile I



Aphelion's Applications

