



LEADING NEW ICT

Building a Better Connected Hotel

Theodore Drimalas
Datacom Solution Manager

Challenges for Hospitality

Wireless access experience



Complex structures

The hotel scenarios are of great variety, including guest rooms, halls and conference rooms.



Poor signals in guest rooms

Signal coverage for the guest rooms is a big challenge, and coverage holes likely occur

Good customer experience is the cornerstone of Wi-Fi access success in hotels.

Cost-effective network construction



Low construction cost

How can a network provide consistent experience at a lower cost?



Low O&M cost

How can unified O&M be implemented at a lower cost?

Network construction capability is a prerequisite for Wi-Fi access in hotels.

Simplified O&M



Deployment and acceptance

How can the IT system of a chain hotel be deployed rapidly and how is the network acceptance implemented?



Fault location

Scattered AP deployment makes it difficult to assess the network running status.

High-quality network O&M helps improve Wi-Fi access efficiency in hotels.

Challenges for Hospitality in Greece

Slow Adoption of Digital Transformation

Network = Commodity

Network ≠ Commodity
Proper Design is crucial
Specialized Integrator is required

But it works, doesn't it?

SOHO vs Enterprise-class gear



VS



What about O&M?

Network O&M has equal importance to all other Hotel's Operations and Maintenance

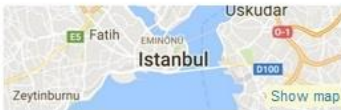
Guests' Opinion is Public and Loud

The screenshot displays the 'hotelwifitest' website interface. On the left, a 'Reviews' section lists media mentions from The New York Times, TIME, Forbes, Bloomberg, BUSINESS INSIDER, TechCrunch, FOX NEWS, YAHOO!, The Telegraph, Mashable, and GIZMODO. On the right, a table provides detailed WiFi performance metrics for several hotels in Athens, including expected speed and confidence scores.

Hotel	Free WiFi expected speed	Confidence
Peristéri	14.8 Mbps	4.3%
Athens	12.7 Mbps	4.3%
Kallithea	10.9 Mbps	29.7%
	8.5 Mbps	4.3%
	7.7 Mbps	35.5%

Values explanation

- ❑ **WiFi Rating** ranking answers a simple question: how happy would you be with the WiFi at a given hotel? It incorporates key quality metrics such as download and upload speed, latency, and stability along with a confidence score.
- ❑ **Expected speed** indicates the speed you would likely get at a randomly chosen time of the day.
- ❑ **Confidence** value shows how thoroughly the WiFi has been tested at this hotel. The confidence value depends on several factors, including the number of speed tests taken, how recently the tests occurred, and the diversity of tests in terms of the time of day, day of the week, and point within the travel season.



Sort by: WiFi Rating

Sort by: WiFi Rating

Sort by: WiFi Rating

Sort by: WiFi Rating

Sort by: WiFi Rating

Sort by: WiFi Rating

 **Hotel**
5 stars
640 reviews
Nightly rate from \$120

Free WiFi expected speed:
10.9 Mbps
Confidence: 29.7%

Free WiFi expected speed:
89.1 Mbps
Confidence: 60.0%

Free WiFi expected speed:
83.5 Mbps
Confidence: 54.8%

Free WiFi expected speed:
118 Mbps
Confidence: 59.0%

WiFi expected speed:
19.0 Mbps
Confidence: 58.3%

Free WiFi expected speed:
22.8 Mbps
Confidence: 57.5%

 **Hotel**
5 stars
1325 reviews
Nightly rate from \$140

Paid WiFi expected speed:
3.7 Mbps
Confidence: 45.8%

Paid WiFi expected speed:
115 Mbps
Confidence: 58.9%

Free WiFi expected speed:
40.0 Mbps
Confidence: 56.2%

Paid WiFi expected speed:
65.7 Mbps
Confidence: 54.9%

Free WiFi expected speed:
25.7 Mbps
Confidence: 49.7%

Paid WiFi expected speed:
17.9 Mbps
Confidence: 47.4%

 **Hotel**
5 stars
677 reviews
Nightly rate from \$130

Free WiFi expected speed:
3.6 Mbps
Confidence: 40.4%

Free WiFi expected speed:
51.1 Mbps
Confidence: 58.8%

Free WiFi expected speed:
40.4 Mbps
Confidence: 52.2%

Free WiFi expected speed:
27.3 Mbps
Confidence: 56.9%

Free WiFi expected speed:
12.2 Mbps
Confidence: 60.0%

Free WiFi expected speed:
13.1 Mbps
Confidence: 78.5%

 **Hotel**
5 stars
2056 reviews
Nightly rate from \$161

Free WiFi expected speed:
1.9 Mbps
Confidence: 31.5%

Free WiFi expected speed:
170 Mbps
Confidence: 58.7%

Paid WiFi expected speed:
27.9 Mbps
Confidence: 52.7%

Free WiFi expected speed:
79.7 Mbps
Confidence: 39.3%

WiFi expected speed:
28.4 Mbps
Confidence: 41.7%

Paid WiFi expected speed:
14.5 Mbps
Confidence: 48.5%

 **Hotel**
5 stars
143 reviews
Nightly rate from \$49

Free WiFi expected speed:
5.5 Mbps
Confidence: 28.8%

Paid WiFi expected speed:
89.9 Mbps
Confidence: 58.0%

Free WiFi expected speed:
40.8 Mbps
Confidence: 48.0%

Free WiFi expected speed:
34.0 Mbps
Confidence: 48.0%

Free WiFi expected speed:
16.7 Mbps
Confidence: 41.8%

Free WiFi expected speed:
23.3 Mbps
Confidence: 37.7%

Guests' Opinion is Public and Loud



"Nice place but Free Wifi not in room"

★★★★★ Reviewed 4 August 2016 via mobile

...This hotel offers a good and free Wifi system but only in the lobby. My room was very nice and cleaned. Breakfast was international but could be better. The hotel is near to subway but is possible to have a walk to visit the city centre. Nice for accomodation but I think free wifi in the room is needed for...

"Good hotel but no free wifi in the rooms."

★★★★★ Reviewed 20 June 2016

...The hotel offers free wifi in the public areas. My big beef with many hotels these days is that they do not offer free wifi in the rooms. I am sure the majority of guests only want to use wifi to contact family, check on arrangements, google places to go.

"Great hospitality"

★★★★★ Reviewed 3 November 2016 via mobile

I recommend the hotel but it is bad to sell internet connection, no free wifi option even low bandwidth.

★★★★★ Reviewed 8 September 2016

...Free wifi in the lobby but expensive if you wanted to use it anywhere else - ridiculous for a 5 star hotel in 2016.

★★★★★ Reviewed 20 May 2016 via mobile

As a five star hotel, you expect more accomodations like free wifi or at least high speed internet. Wifi was not free in rooms and it was very very slow in the lobby.

7 September 2016

8.8 "Great hotel Shame about the wifi"

Leisure trip Couple Superior Room Stayed 2 nights

Submitted via mobile

Wifi terrible- very disappointing for such a great hotel!

22 August 2016

9.6 Exceptional

Solo traveller Superior Room Stayed 3 nights

Submitted via mobile

Just the speed of Internet

Booking.com

24 July 2016

8.8 Fabulous

Business trip Solo traveller Superior Room Stayed 1 night

Internet is a real pain, I understand for mail purpose it's ok, but for an IT architect, having important meetings in Athens, it was a real burden. To slow, unstable connection...

Leisure trip Group Superior Room Stayed 2 nights

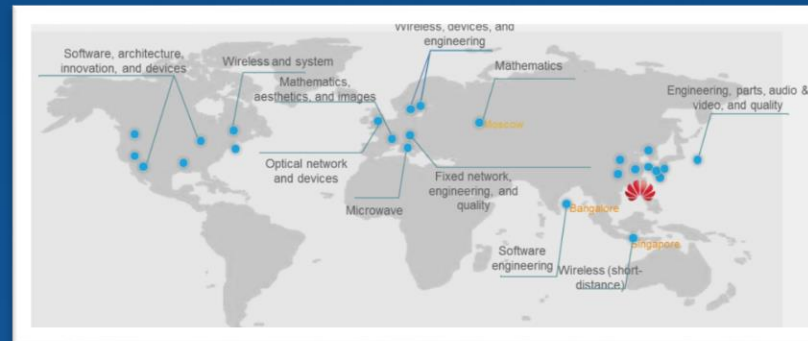
Submitted via mobile

The Internet was bad, too slow for downloading and watching,

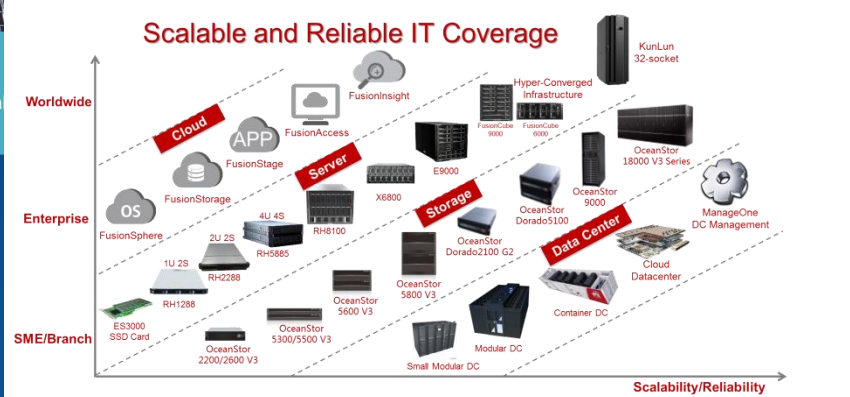
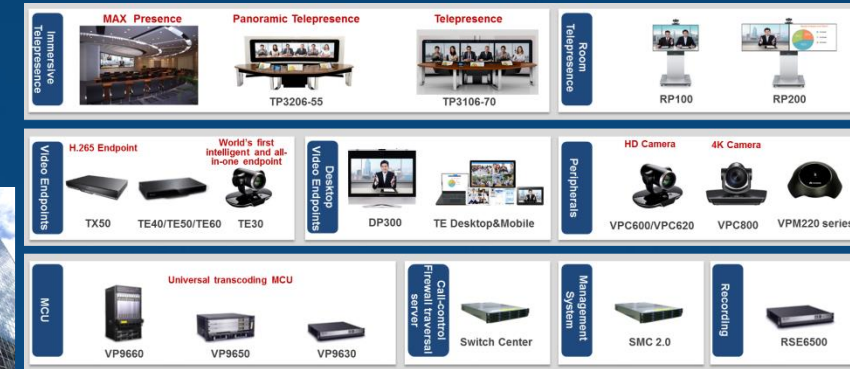
What Huawei has to offer.....

- ✓ Local office
- ✓ Focus on Hospitality Sector
- ✓ Open Platform, Open Collaboration

✓ A Global Leader of ICT Solutions

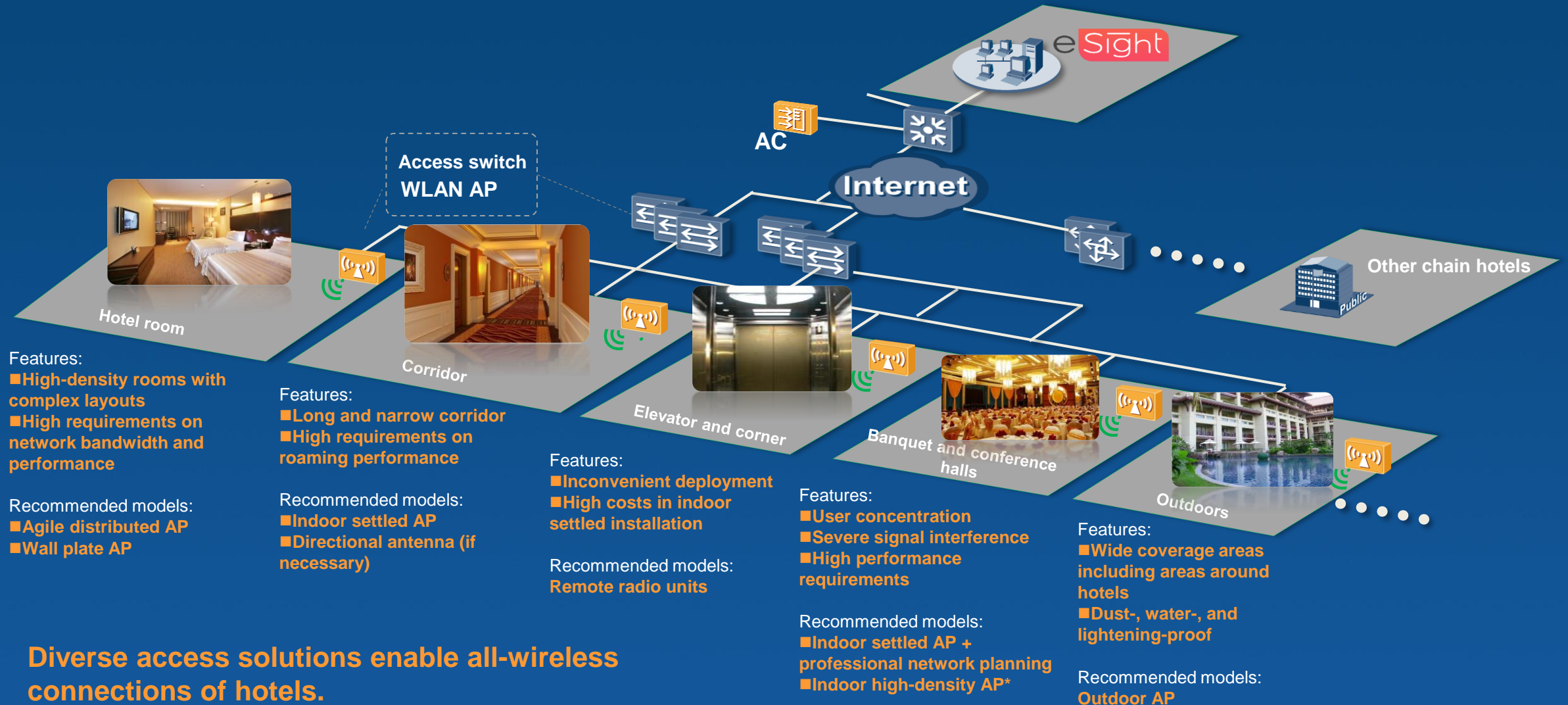


✓ Innovative Products & Solutions



✓ The most complete ICT product portfolio

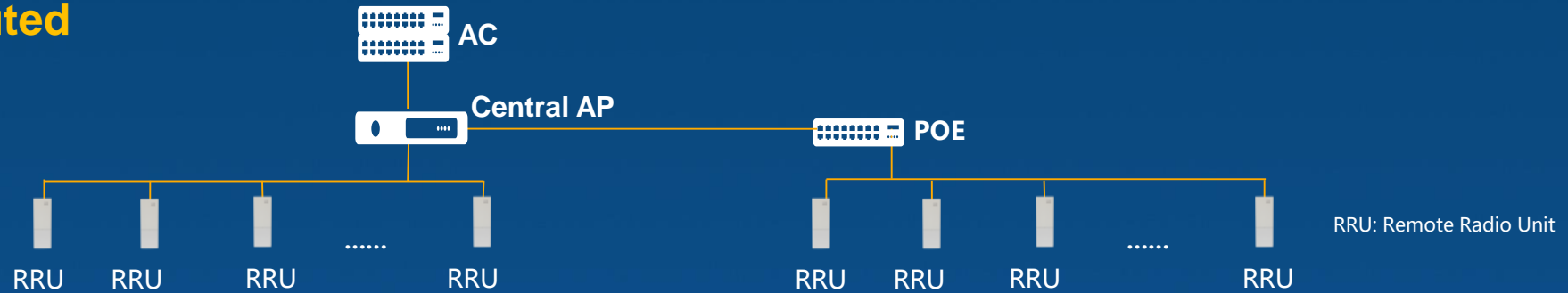
Innovative Solutions Perfectly Match All Hospitality Scenarios



Diverse access solutions enable all-wireless connections of hotels.

Agile Distributed Architecture, Upgraded Experience

Agile Distributed Architecture



RRU: Remote Radio Unit

20% higher performance

Traditional AP

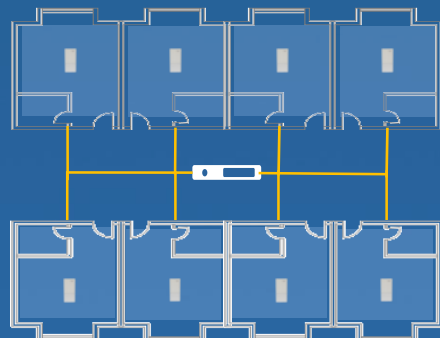
Airport management	Roaming switchover	Load balancing
Radio management	Spectrum analysis	Association control

RRU

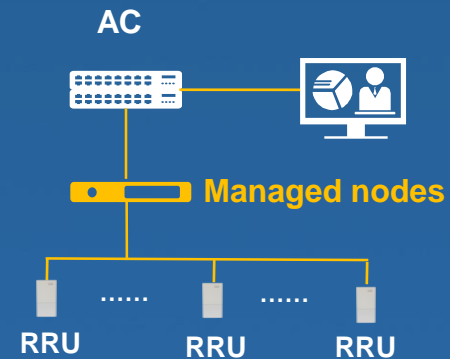
Airport management
Radio management

Processing resources saved by 20%

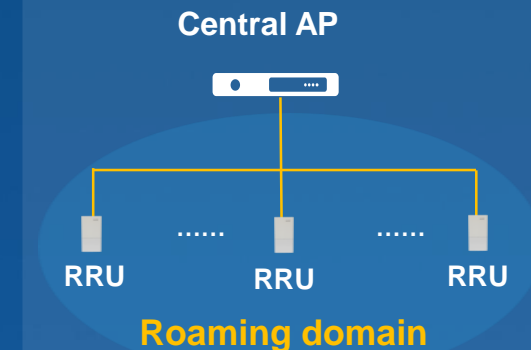
Full coverage



Reduces 90% + nodes



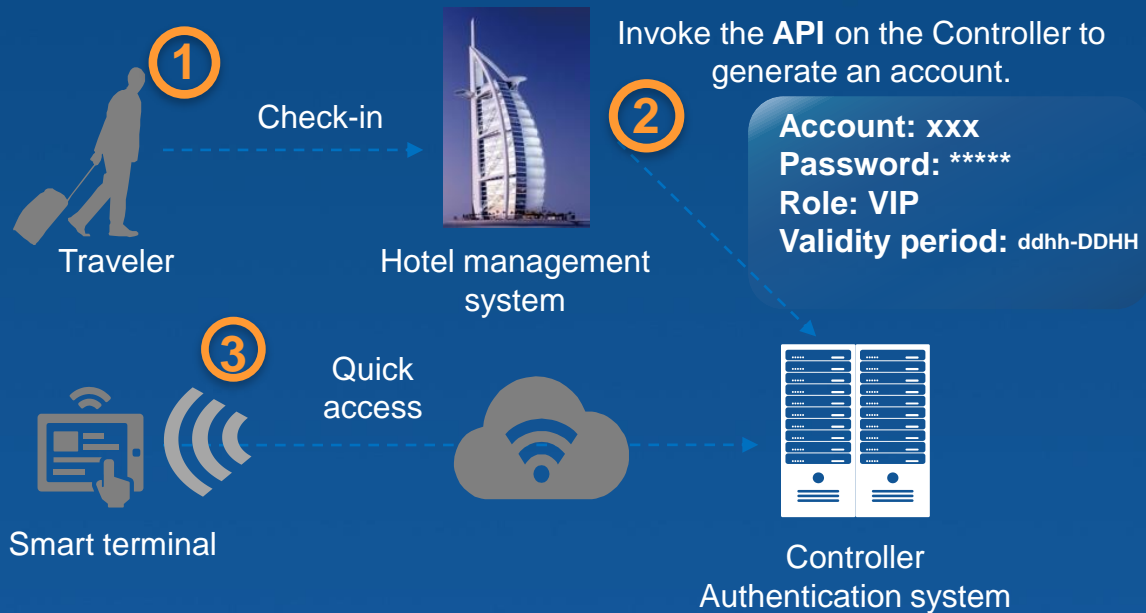
Zero roaming



Optimized Experience: Automatic User Access Management and Differentiated Traffic Management

Automatic creation and de-registration of user accounts

- **Check-in** The system automatically creates Internet access accounts for guests.
- **Second access** MAC address authentication is preferentially implemented to prevent guests from repeatedly entering accounts and passwords.
- **Check-out** The system automatically de-registers guests' accounts.



Differentiated management of user bandwidth and quota

- **Bandwidth management** Limit access bandwidth based on users.
- **Quota management** Allocate daily/monthly quotas based on users.
- **Quota exhaustion** Restrict actions based on users.

	Bandwidth	Daily quota	Quota exhaustion
VIP	3 Mbps	5 GB/24 h	Max 100 kbps
Common guest	50 kbps	50 MB/12 h	Max 10 kbps

Note: NGFW is used.

eSight: A Professional Tool for Unified Network O&M



Visualized **planning**
 Three-step **deployment**
 360-degree **monitoring**
 One-click **diagnosis**
 Mobile **O&M**
 Open **operation**

eSight Mobile: Control Your Network Anytime at Anywhere



Compact and portable



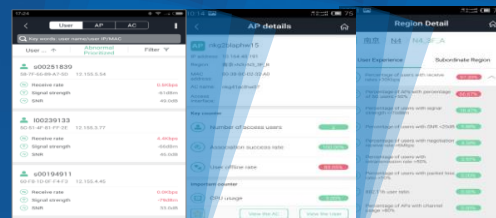
Agile and open



Remote troubleshooting



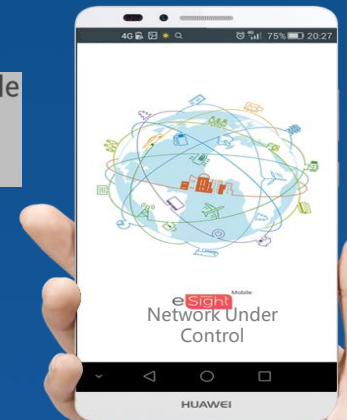
On-site diagnosis



360-degree
monitoring

Terminal
diagnosis

Regional
monitoring



Miraggio Thermal Spa Resort, Halkidiki



Free WiFi 30 reviews 10



Miraggio Resort

100% Coverage

- ✓ 300 Rooms in 13.000m²
- ✓ Indoor Common Area 3.000m²
- ✓ Convention Room 1000m²
- ✓ Outside Area 330.000m²



WAN: External Connectivity through Internet and MPLS Service

High Throughput, Integrated Security, VoIP Enabled (2x AR2220E routers)
VPN services for Hotel's Suppliers.

LAN: Access – Distribution – Core architecture

1G Access – 10G uplinks

iStack and CSS2 cluster for access and core nodes respectively

Full hardware and link redundancy for all nodes

Core: 2x S9700 Series, Access: 60+ S5720 PoE Series

11ac Wireless: Redundant WLAN Controller cards on Core Switches

215x AP4030DN for common rooms

140x AP5030DN for luxury rooms

13x AP7030DE for high-density indoor areas

20x AP8130DN for outdoor areas

Security: Malicious Attacks Protection, Service/user Traffic Filtering

High Performance FW cluster in Active-Active mode (2x USG6370)

NMS: eSight Unified Management System

Planning, operating and maintaining both Wired and Wireless Network



Electra Metropolis Athens



Free WiFi 584 reviews 9.3



Electra Metropolis

- ✓ Europe's 1st Hotel with Agile Distributed Solution
- ✓ Urban Environment



WAN: External Connectivity through Internet and MPLS Service

High Throughput, Integrated Security (AR2220E router)

LAN: Access – Distribution – Core architecture

High-speed switching

iStack for access and core nodes

Full hardware and link redundancy

Core: 2x S6720-54C-EI-48S (10G), Access: 26x S5720 PoE Series

11ac Wireless: 1st Hotel in Europe with WLAN Agile Distributed Solution

300x RRU's R230D/R240D for the rooms and corridors/elevators

15x Central AP9430DN-24

25x AP7030DE/AP4030DN for high-density indoor areas

2x Large Capacity WLAN Controllers AC6605

NMS: eSight Unified Management System

Planning, operating and maintaining both Wired and Wireless Network





Together We Can Enrich Guest's Experience
Through a Better Connected Hotel