ZYXEL

NAP353

802.11ac Dual-Radio External Antenna 3x3 Outdoor Nebula Cloud Managed Access Point

The Zyxel Nebula NAP353 802.11ac Dual-Radio External Antenna 3x3 Nebula Cloud Managed Access Point is a high-performance outdoor 3x3 802.11ac AP capable of delivering combined data rates of up to 1.75 Gbps. Featuring dual-concurrent, dual-band operation and advanced technologies such as Dynamic Channel Selection, Load Balancing and Smart Client Steering as well as with IP66-rated weather protection, the NAP353 delivers high throughput and reliable coverage for a superb Wi-Fi experience even in harsh outdoor environments.

Every Nebula AP has been engineered for cloud management. Based on the NETCONF standard, all data traffics between the cloud and access points are exchanged using secure transports to ensure transaction-safe configuration on all Nebula devices. Furthermore, with the intuitive management interface, administrators are able to manage all the access points quickly even without training.

- Cloud-managed, dual-radio 3x3 MIMO 802.11ac access point
- Supports combined data rates of up to 1.75 Gbps
- IP66-rated weather protection for harsh outdoor environments
- Self-configuration and zero-touch deployment
- Enterprise-class security and RF optimization
- Dynamic Channel Selection, Load Balancing and Smart Client Steering
- Industry-leading receive sensitivity at as low as -102 dBm

Benefits

Zero-touch deployments

The Zyxel Nebula NAP353 auto-configures itself after installation and then automatically connects to the Nebula cloud to join the network; so auto-configuration, provision, monitoring and diagnostics can be performed anytime, anywhere. This simplifies network setup and enables deployment of Nebula APs to a remotely located network even by non-IT professionals.

nebula

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Best-in-class coverage and performance

Different from other 802.11ac APs, the Zyxel Nebula NAP353 stands out with its best-in-class coverage and performance thanks to its unique RF design. The AP's three-stream hardware configuration provides power of up to 29 dBm and unparalleled receive sensitivity of as low as -102 dBm.

Optimized wireless experience

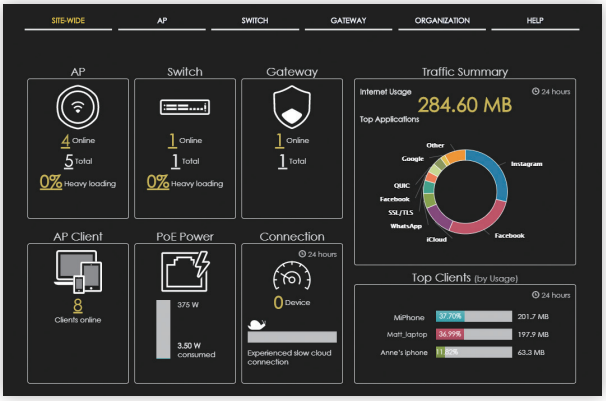
The Zyxel Nebula NAP353 delivers optimized wireless experience for users with comprehensive wireless features such as Dynamic Channel Selection (DCS), Load Balancing, and Smart Client Steering, etc. DCS avoids interference from co-channeling and overlapping channels continuously, while Load Balancing and Smart Client Steering that features Band Select and Balance for more spectrum to provide more stable, reliable wireless connections.

Enterprise-class security

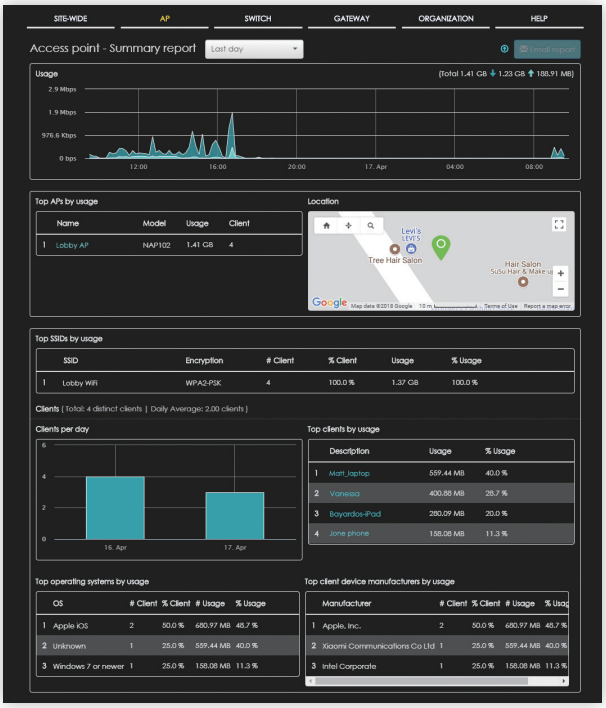
The Zyxel Nebula NAP353 inherits the NETCONF protocol for secure configuration changes. In terms of authentication and data encryption, it supports WPA2 enterprise protection and a wide range of Extensible Authentication Protocol (EAP) types, including EAP SIM for smartphones. Besides, the NAP353 also features access control and Layer-2 isolation for privacy protection. The comprehensive security features ensure NAP353 to deliver enterprise-grade protection to the entire network.

Hardened enclosure for harsh outdoor environments

The Zyxel Nebula NAP353 operates well under harsh outdoor environments with its industrial-grade IP66 water- and dust-proof enclosure that is completely resistant to dusts and even powerful water jets; and the embedded heater automatically activates to allow NAP353 to operate in the freezing below-zero temperatures. With these features, the Zyxel Nebula NAP353 is proven ideal for hotels, resorts, schools and other locations in need of high throughput, high capacity outdoor coverages.



Get real-time control and monitoring of all the devices through a single pane of glass



Monitor AP usage and client report by different time intervals and view historical status record via the intuitive management interface

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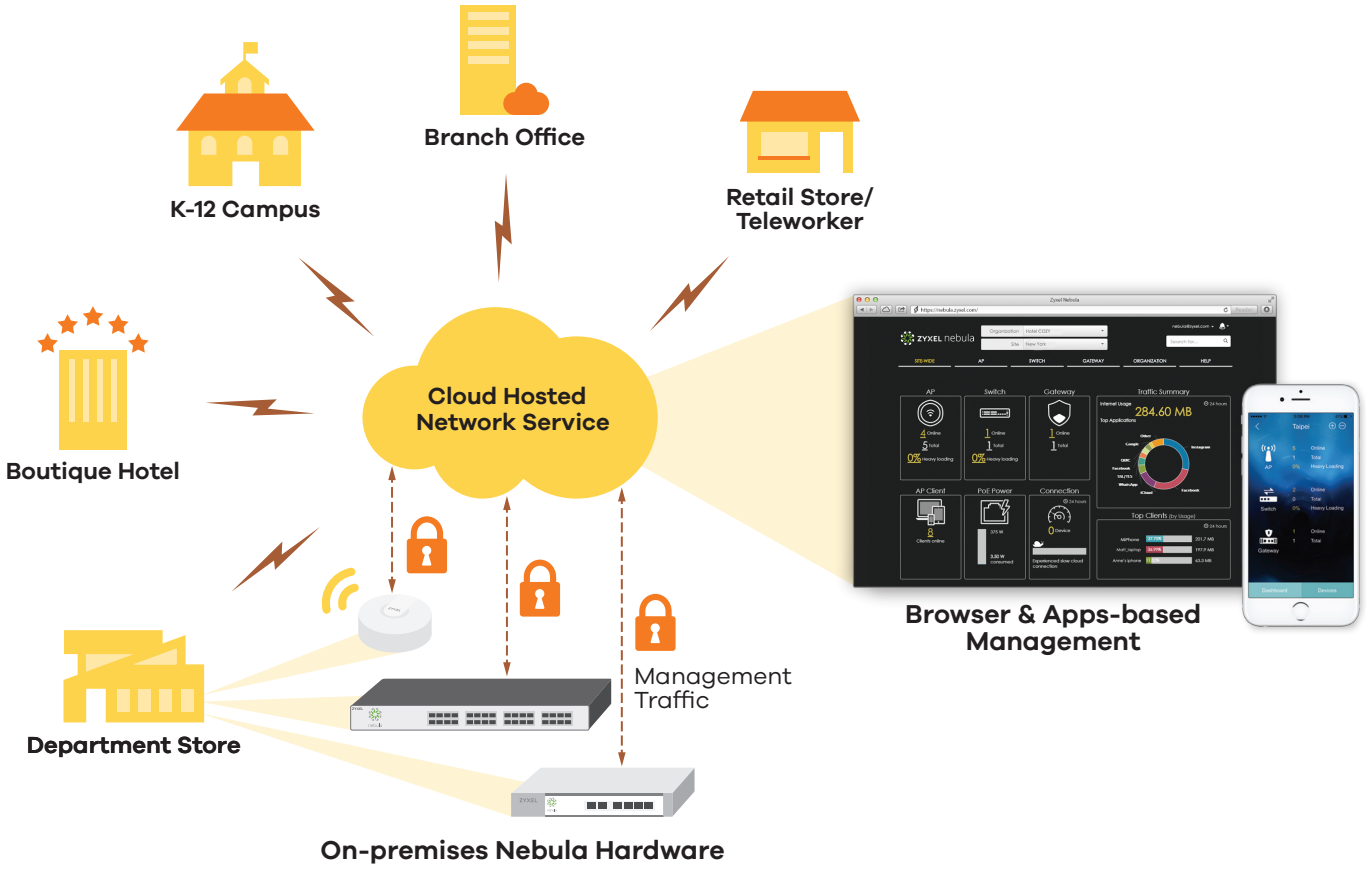
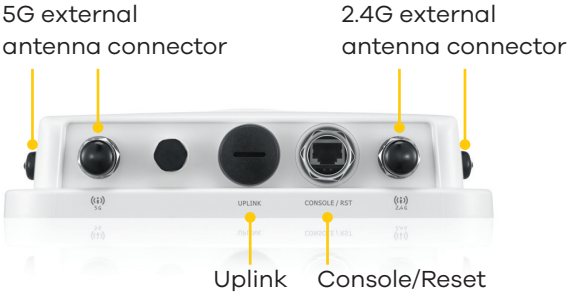
Applications Diagram

Nebula cloud management architecture

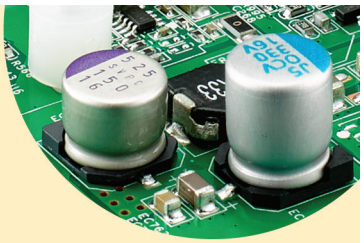


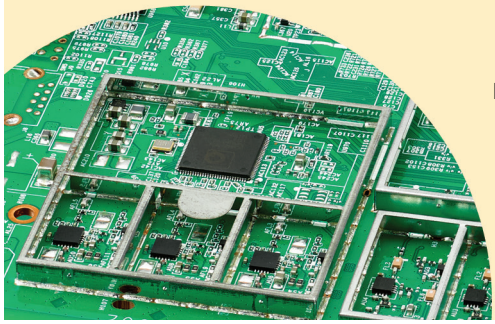
Robust Hardware



Robust, reliable hardware

Ordered shielding frames prevent electromagnetic interference, while covers manage heat through thermal pads to mitigate overheating.





Solid capacitor for longevity

Industry-leading durability from the beginning of design process through manufacturing with the highest-quality components ensures product reliability.

Specifications

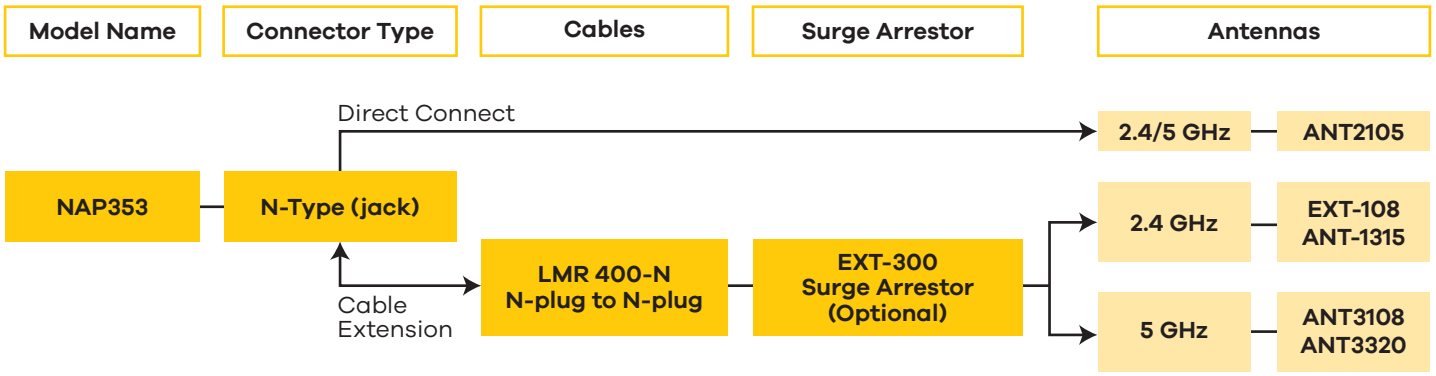
Model		NAP353	
Product name		802.11ac Dual-Radio External Antenna 3x3 Outdoor Access Point	
			
RF Specifications			
Frequency band		2.4 GHz (IEEE 802.11 b/g/n) • USA (FCC): 2.412 to 2.462 GHz • Europe (ETSI): 2.412 to 2.472 GHz • Taiwan (TW): 2.412 to 2.462 GHz	5 GHz (IEEE 802.11 a/n) • USA (FCC): 5.15 to 5.35 GHz; 5.725 to 5.850 GHz • European (ETSI): 5.15 to 5.35 GHz; 5.470 to 5.725 GHz • Taiwan (TW): 5.15 to 5.35 GHz; 5.725 to 5.850 GHz
802.11n/ac premium features		• 3x3 Multiple-Input Multiple-Output (MIMO) with three spatial streams • Maximal Ratio Combining (MRC) • 20-, 40- and 80-MHz channels • Packet aggregation: A-MPDU (Tx/Rx), A-MSDU (Tx/Rx)	• Cyclic Delay Diversity (CSD) support • Maximum Likelihood Demodulation (MLD) support • Low Density Parity Check (LDPC) support
Conducted typical transmit output power (dBm)	**FCC 11b/g**	29	
	FCC 11g/n	29	
	FCC 11a	29	
	FCC 11n/a (ac)	29	
	EU 11b/g	15	
	EU 11g/n	15	
	EU 11a	23	
	EU 11n/a (ac)	23	
Number of antenna		6 N-type connectors*	
Support data rate		• 802.11a/g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, and 54 Mbps • 802.11n: up to 450 Mbps in MCS15 (40 MHz) • 802.11ac: up to 1300 Mbps in MCS9 (80 MHz)	
Receive sensitivity		Min. Rx sensitivity up to to -102 dBm	
Interfaces			
Number of 10/100/1000M LAN		1	
Console port		RJ-45 serial	
PoE		Yes	
PoE power draw		25 W	
WLAN Features			
WLAN maximum throughput		Up to 900 Mbps	
Wireless Security			
WPA2-PSK		Yes	
WPA2-Enterprise		Yes	
EAP types		EAP-TLS, EAP-TTLS, EAP-PEAP, EAP-FAST, EAP-AKA and EAP-SIM	
IEEE 802.1X		Yes	
Number of SSID		8 (per radio)	
MAC filtering		Yes	

* The antenna is not embedded and external antennas are separately sold.

Wireless Security		
Layer-2 isolation		Yes
RADIUS authentication		Yes
Captive portal		Yes
Network		
VLANs		Yes
DHCP client		Yes
QoS (PG)		
WMM		Yes
WMM power save		Yes
DiffServ marking		Yes
Management		
Cloud managed		Yes
ZON utility		Support
Smart connect		Neighbor device discovery
Others		
Plenum rating		Yes
Input power		PoE: 802.3at compliant
MTBF (hr)		562,413
Standard Compliance		
Ethernet		IEEE 802.3, IEEE 802.3u, IEEE 802.11ab IEEE 802.3au, IEEE 802.3az, IEEE 802.3at
PoE		IEEE 802.3at
WLAN		• 802.11b: DBPSK, DQPSK, CCK • 802.11g: BPSK, QPSK, 16-QAM, 64-QAM • 802.11a: BPSK, QPSK, 16-QAM, 64-QAM • 802.11n: BPSK, QPSK, 16-QAM, 64-QAM • 802.11ac: BPSK, QPSK, 64-QAM, 256-QAM
Certifications		
Radio		FCC Part 15C, FCC Part 15E; ETSI EN 300 328, EN 301 893; LP0002
EMC		FCC Part 15B, EN 301 489-1, EN 301 489-17, EN55022, EN55024, EN61000-3-2/-3, EN 60601-1-2, BSMI CNS13438
Safety		EN 60950-1, IEC 60950-1; BSMI CNS14336-1
Physical Specifications		
Item	**Dimensions (WxDxH)(mm/in.)**	255 x 256 x 62/10.04 x 10.08 x 2.44
	Weight (g/lb.)	1,708/3.77
Packing	**Dimensions (WxDxH)(mm/in.)**	393 x 158 x 430/15.47 x 6.22 x 16.93
	Weight (g/lb.)	3,904/8.63
Included accessories		Pole/wall mounting kits
Environmental Specifications		
Weather protection		IP66 (Embedded heater for harsh weather)
Operating	**Temperature**	-40°C to 60°C/-40°F to 140°F
	Humidity	10% to 95% (non-condensing)
Storage	**Temperature**	-40°C to 70°C/-40°F to 158°F
	Humidity	10% to 95% (non-condensing)

Optional Accessories

Antenna & Cable Compatibility



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