

Alcatel-Lucent OmniAccess Stellar AP1320 series

Indoor 802.11 ax (Wi-Fi 6) wireless access point

The Alcatel-Lucent OmniAccess® Stellar Indoor AP1320 access point (AP) series with 802.11 ax technology enables faster speeds, more capacity, and efficient airtime allocation for clients on both 2.4 GHz and 5 GHz Wi-Fi bands. This enables access points to better service higher density clients and deliver more capacity for bandwidth hungry and latency sensitive voice and video clients. These features provide a dependable, secure network for IoT devices while increasing their battery powered lifespan. The OmniAccess Stellar WLAN brings unparalleled experience for connectivity, coverage and performance for the modern IoT connected enterprise.



The 802.11 ax high performance AP1320 series models are designed to accommodate the diverse growing capacity needs of next generation Mobility and IoT enabled networks. These access points are powered with three built-in Wi-Fi radios; two radios 2.4 GHz/5 GHz band serving high density Wi-Fi clients, and a full band radio dedicated for scanning, delivering highly predictable WIPS/WIDS services inherently improving network security and Wi-Fi quality. It also has an integrated Bluetooth/Zigbee radio enabling location and building automation services. The AP1320 series supports maximum aggregate data rate of approximately 3 Gb/s (2.4 Gb/s in 5 GHz and 573 Mb/s in 2.4 GHz), and to support this higher capacity the access point is powered by multi-gig Ethernet uplink.

OmniAccess Stellar AP1320 series supports all mandatory and several optional 802.11 ax features, which includes UL-DL-OFDMA with up to 37 RUs, UL-DL-MU-MIMO with up to four spatial streams, 1024-QAM modulation and more, making tomorrow's diverse digital workspaces highly reliable and efficient.

It is ideal for enterprises of all sizes who demand a simple, secure and scalable wireless solution featuring enhanced WLAN technology with RF Radio Dynamic Adjustment, a distributed control Wi-Fi architecture, secure network admission control with Unified Access, built in application intelligence and analytics.

Datasheet

Alcatel-Lucent OmniAccess Stellar AP1320 series

802.11 ax (Wi-Fi 6) high efficiency features

IEEE 802.11 ax allows enterprises to deliver high performance wireless LAN services with increased throughput, enabling more clients in dense environments while providing power efficiency to Internet of Things (IoT) devices. It also remains fully backward compatible with existing 802.11 a/b/g/n/ac deployments. The 802.11 ax standard is a large step forward in wireless LAN technology for all organizations. Some of the key 802.11 ax features enabled on the OmniAccess Stellar AP1320 series are:

- Orthogonal frequency division multiple access (OFDMA), which enables more clients to simultaneously operate in the same channel thereby improving efficiency, latency, and throughput. OFDMA can concurrently address multiple clients in both directions—downlink (DL) and uplink (UL)—including full 37 OFDMA resource units (RUs). OFDMA is very effective in environments where there are many devices with short frames demanding lower latency.
- Multi-user multiple input, multiple output (MU-MIMO) allows more data to be transferred at once, enabling an access point to handle a larger number of concurrent clients. This capability was introduced with 802.11 ac, but now with 802.11 ax the multi-user performance can be concurrently delivered in both directions downlink (DL) and uplink (UL).
- 1024 quadrature amplitude modulation mode (1024-QAM) boosts peak data-rates by as much as 25 percent.
- Basic service set (BSS) coloring improves spatial reuse in dense environments by providing a mechanism for color coding different overlapping BSS's, allowing more simultaneous transmissions.
- Extended range (ER) provides increased coverage in scenarios where the receiving side encounters high path loss and channel delay spread, especially in outdoor environments.
- Target wake time (TWT) makes Wi-Fi CERTIFIED 6 devices more power efficient. This capability lets client devices to sleep much longer, and wake up to less contention, extending the battery life of smart phones, IoT sensors, and other devices.
- Transmit beamforming improves signal power resulting in significantly higher rates at a given range.

Deliver enterprise grade security and scale with simplicity

OmniAccess Stellar enables a visionary distributed Wi-Fi architecture with centralized management and policy control. Security is enforced at every step starting at the network edge allowing unparalleled scale in network capacity. This architecture is vital for enabling the next generation digital enterprises that demand business agility, seamless mobility and secure IoT enabled infrastructure empowering business transformation through continuous innovation.

The access points can be deployed in three different modes using a single software version, simplifying IT operations.

The Alcatel-Lucent OmniVista® Network Management System provides secure plug and play of access points for large scale deployments with user friendly workflows for wireless services and unified access for end-to-end security. OmniVista comes with integrated unified policy authentication manager (UPAM) which helps define an authentication strategy and policy enforcement for employees, guest management and BYOD devices.

The AP1320 series has built-in DPI technology providing real-time application monitoring and enforcement capabilities. The network administrator can obtain a comprehensive view of applications running in the network and apply adequate controls to optimize the performance of the network for business-critical applications. OmniVista provides advanced options for RF management, WIDS/WIPS for intrusion detection and prevention, and heatmap for WLAN site planning. To further simplify IT, the access points can be managed as one or more access point groups, which is a logical grouping of one or more access points.

Cloud enabled with OmniVista Cirrus

The OmniAccess Stellar AP1320 series can be managed by the Alcatel-Lucent OmniVista Cirrus cloud platform. OmniVista Cirrus powers a secure, resilient and scalable cloud-based network management platform. It delivers hassle free network deployment and easy service rollout with advanced analytics for smarter decision making. IT friendly Unified Access provides users and devices with secure authentication and policy enforcement.

On premises deployment with OmniVista 2500

The OmniAccess Stellar AP1320 series can be managed from the Alcatel-Lucent OmniVista® 2500 on premises Network Management System. By default, the OmniAccess Stellar AP1320 series operates in a cluster architecture to provide simplified plug-and-play deployment. The secure web managed (HTTPS) access point cluster deployment for small to medium-sized enterprises is provided by Wi-Fi Express. This is an autonomous system that consists of a group of OmniAccess Stellar APs which are managed by one AP elected as a primary virtual manager. One AP cluster supports up to 256 APs.

The access point cluster architecture ensures simplified and quick deployment. Once the first AP is configured using the configuration wizard, the remaining APs in the network will come up automatically with an updated configuration. This ensures the whole network is up and functional within a few minutes.

The OmniAccess Stellar AP1320 series also supports secure zero-touch provisioning with Alcatel-Lucent OXO Connect R2, a mechanism by which all access points in a cluster will obtain bootstrap data securely from an on premises OXO Connect.

W-Fi Express mode supports role based management access to the AP cluster which includes Admin, Viewer and GuestOperator access. GuestOperator access simplifies guest account creation and management, and can be used by any non-IT person such as a front desk worker or receptionist. The OmniAccess Stellar AP1320 series also supports a built-in customizable captive portal which enables customers to offer secure and seamless guest access experience.

Quality of service for unified communication apps

The OmniAccess Stellar AP1320 series supports finely tuned, quality of service (QoS) parameters to differentiate and provide appropriate QoS for each application such as voice, video and desktop sharing. Application aware RF scanning avoids interruption of real-time applications.

RF management

Radio Dynamic Adjustment (RDA) technology automatically assigns channels and power settings, provides DFS/TPC, and ensures that access points stay clear of all radio frequency interference (RFI) sources to deliver reliable, high-performance WLAN. The OmniAccess Stellar AP1320 series can be configured to provide part-time or dedicated scanning for spectrum analysis and wireless intrusion protection.