

Telos DAWN: Deploy Anywhere Wireless Node

Telos provides the solution for go-anywhere Internet access in deployed or remote locations.

- Self-powered, self-contained wireless access point
- Wireless LAN access up to 600 Mbps
- Air monitoring and intrusion detection/prevention
- Power for a full shift of remote service

A significant challenge for military and first responder networking requirements is the ability to extend wireless coverage to deployed or remote locations. Specifically, service men and women often work on flightlines, in storage depots, and other isolated areas where wireless service is hard to provide using conventional technologies.

Telos DAWN™ (Deploy Anywhere Wireless Node)

from Telos Corporation fills this gap in wireless networking capabilities. Telos DAWN is a self-contained, self-powered, multi-band (802.11a/b/g/n and 802.11ac MIMO) wireless access point that extends the wireless network to hard to reach locations. The heart of the Telos DAWN unit is the Aruba Networks Access Point (AP), a high-performance, multi-function access point that provides wireless LAN access at data rates of up to 600 Mbps with its 2.4 GHz radio and 1.3 Gbps with its 5 GHz radio, air monitoring, and wireless intrusion detection and prevention over the 2.4 GHz and 5 GHz RF spectrums. Telos DAWN integrates a battery-powered AP and a dual-band 2.4 / 5 GHz Multiple In Multiple Out (MIMO) antenna into a ruggedized case. The antenna simplifies deployments by using only one antenna for both RF bands. The unit also provides an external 10/100/1000 Ethernet interface.

802.11ac makes wireless networking as fast and reliable as a wired LAN, a key consideration for connecting service personnel with resources served from a wired network. 802.11ac increases performance through techniques such as channel bonding, block acknowledgement, and MIMO. For flightline maintenance, Telos DAWN uses mesh technology to enable technicians to carry their wireless AP directly onto the aircraft to access online repair manuals and other network-based resources over tablet computers and other wireless devices. The battery will supply power to the AP for a full shift of service. Telos DAWN



works only in conjunction with an Aruba Mobility Controller and provides the following capabilities:

- IEEE 802.11a/b/g/n/ac operation as a network-connected mesh point
- IEEE 802.11a/b/g/n/ac operation as a network-connected access point
- IEEE 802.11a/b/g/n/ac operation as a wireless air monitor
- Central management configuration and upgrades with an Aruba controller



Telos DAWN System Requirements

Telos DAWN is a portable 802.11a/b/g/n/ac Access Point (AP) that can be operated in several modes.

- Mesh Point
- Wired AP
- Wired Remote AP (RAP)
- Wired Air Monitor

Mesh Point

When operating as a mesh point, Telos DAWN requires the following:

- A supporting Aruba Networks Wireless LAN using an Aruba Mobility Controller running ArubaOS™ version 6.4.3.x or above.
- A minimum of one Aruba Access Point installed on the wired network, configured as a mesh portal, and able to communicate directly with the unit to provide RF backhaul. This backhaul link should normally use the 5 GHz wireless band.
- Prior to being placed into service as a mesh node, the unit must be provisioned by a WLAN system administrator from the controller using the wired network (or a direct network connection on the controller if available).

A production implementation of Telos DAWN systems in a stationary installation typically involves a site survey of areas of operation of the unit(s) and design or verification of mesh portal coverage to support

operation in these areas. Consideration is to be made for portal redundancy and obstacles to backhaul RF.

Wired AP

When operating as a wired AP, the Telos DAWN external LAN connection is used to connect the unit to the wired network.

Wired Remote AP (RAP)

When operating as a remote AP, the connection between Telos DAWN and its controller may be through an untrusted wired network, such as the public internet.

Wired Air Monitor

When operating as a wired Air Monitor, Telos DAWN works with an Aruba Controller to provide wireless intrusion detection. All three wired configurations require the following:

- A supporting Aruba Networks Wireless LAN using an Aruba Mobility Controller running ArubaOS™ version 6.3.0.0 or above.
- A connection to the wired network that can be configured to reach the Aruba Mobility Controller. In Wired RAP mode, the connection may be through an untrusted wired link.
- The unit must be provisioned by a WLAN system administrator from the controller.

