PRODUCT DATA SHEET

Nile Zero Trust Fabric

NSE 1000 Wireless Sensor

Overview

The Nile NSE 1000 is a dedicated wireless sensor that captures RF and connectivity telemetry across Nile-managed Wi-Fi environments. Working alongside embedded virtual sensors, it validates end-to-end access to core services—including DHCP, RADIUS, DNS, internet, and applications—by continuously sending telemetry to the Nile AI-Powered Services Cloud for analysis and issue detection.

As part of Nile's Zero Trust Fabric, the NSE 1000 runs within a secure, cloud-delivered network-as-a-service (NaaS) architecture that provides continuous wireless assurance and service validation across the network. Simple plug-in installation and mobile app activation enable rapid, error-free deployment without manual setup.

Features

Distributed Wireless Telemetry

Sensors are strategically deployed throughout the environment to capture location-aware RF and connectivity data, providing independent visibility that complements telemetry from Nile infrastructure.

Zero Touch Deployment

Direct plug-in installation and mobile app activation enable fast, error-free deployment with no configuration, tuning, or ongoing management required.

Autonomous Network Association

Sensors automatically identify and associate with the correct Nile access points, maintaining accurate measurements even in environments with overlapping RF from multiple Nile-managed networks.

Zero Trust Security

Secure Device Identity

Each NSE 1000 is provisioned with a Trusted Platform Module (TPM) certificate to establish a unique, verifiable device identity.

802.1X Authentication

Sensors authenticate to the network using 802.1X, ensuring that only trusted, authorized devices participate in monitoring and data collection.

Tamper-Resistant Operation

A locked-down hardware and software design helps prevent unauthorized access or manipulation of the sensor.

Cloud-Controlled Management

All sensor operations, data collection, and management are handled through the Nile AI-Powered Services Cloud, eliminating local configuration interfaces and reducing the attack surface.

Specifications

Hardware Model	
	NSE 1000

Wi-Fi Radio Specifications	
	Indoor, Dual-radio; - 5 GHz radio, 802.11ac 2×2 - 2.4 GHz radio 802.11ac 2×2 - Station-mode capable

WLAN Radios	
5GHz Radio	2×2 MU-MIMO Capable; DL-MU-MIMO, UL-MU-MIMO, DL-OFDMA, UL-OFDMA capable
2.4GHz Radio	2×2 MU-MIMO Capable; DL-MU-MIMO, UL-MU-MIMO, DL-OFDMA, UL-OFDMA capable
Supported Frequency Bands, Channels, DFS (country-specific restrictions apply)	2.400-2.4835 GHz 5.150-5.250 GHz 5.250-5.350 GHz 5.470-5.725 GHz 5.725-5.850 GHz
Transmit power	2.4 GHz radio – Max 18 dBm (18 dBm EIRP), Min 0 dBm 5 GHz radio – Max 18 dBm (18 dBm EIRP), Min 0 dBm

Power Sources, Power Consumption

	AC Power: 100-240VAC Direct Plug-in Operating Power – 7W at full load

Mechanical Specifications, Enclosure, LEDs, BT/BLT

	Direct insertion mounting into an AC wall power outlet, Indoor Mechanical design Shock and vibration-resistant Plenum rated for use in air-handling specs Dimensions: 4.7" x 3.9" x 2.1 (120mm x 98mm x 54mm)
Mounting	Direct insertion mounting into an AC wall power outlet

Environment/Operation Conditions

Operating Temperature	0°C to 45°C
Operating Humidity	5 to 95% Relative Humidity, non-condensing ETS 300 019 class 3.2 Environments
Storage and Transportation Conditions	-40C to +70C; Humidity 5% to 93% non-condensing ETS 300 019 classes 1.2 and 2.3 environments
MTBF	1,077,401 hrs at 77°F (25°C)

Regulatory Compliance

	Meets required Regulatory Compliance standards applicable to similar products: FCC/IC/CE UL/IEC/EN 60950 UL2043 plenum rating Bluetooth SIG

Warranty & Support

All Nile access points include 24×7 AI-driven cloud monitoring and lifecycle automation delivered through the Nile autonomous AI Command Center. Performance-based service options include a financially backed Performance Guarantee with service credits. Hardware replacement options include expedited RMAs aligned to the selected tier and region.

Ready to Get Started? Request a Demo