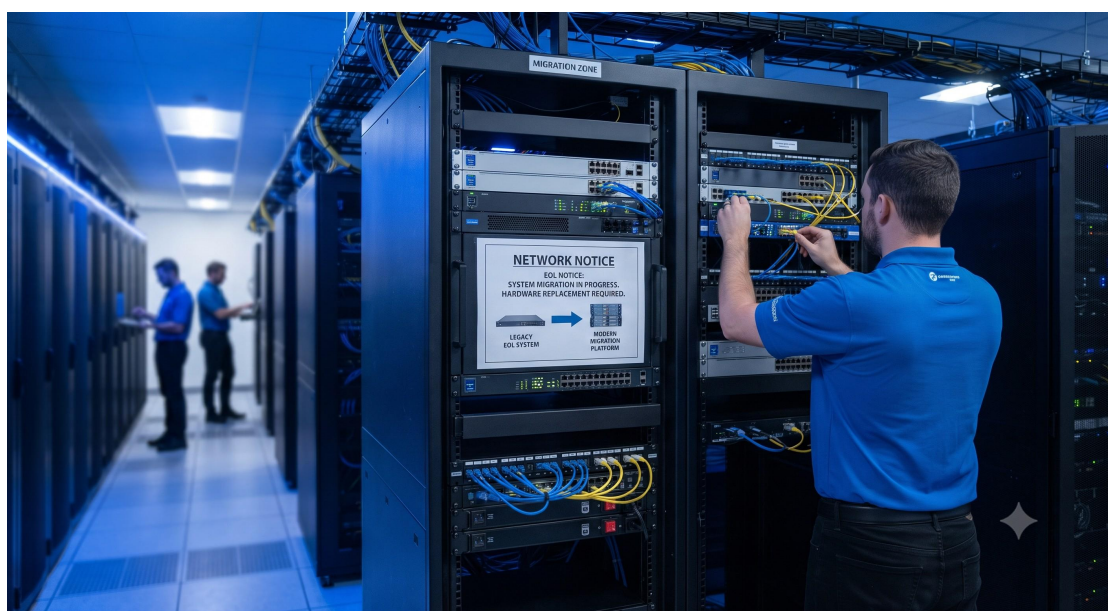


SmartAX MA5600T End-of-Life Notice and Migration - Strategic Asset

Procurement Evaluation Report

STRATEGIC HARDWARE POSITIONING

This document serves as the official End-of-Life (EOL) and Migration Technical Overview for the Huawei SmartAX MA5600T Multi-Service Access Platform. It is intended for network architects, procurement specialists, and operations teams responsible for the lifecycle management of carrier-grade access infrastructure. The MA5600T has been a cornerstone of global broadband networks, delivering high-density GPON, GE, and 10GE aggregation. This report provides a comprehensive technical and strategic framework for decommissioning the platform and executing a seamless, risk-mitigated migration to next-generation solutions.



HIGH-AVAILABILITY REDUNDANCY & LEGACY SYSTEM ARCHITECTURE

The SmartAX MA5600T is engineered with a distributed architecture that separates the control and switching planes. The system is built around a high-reliability backplane capable of supporting up to 16 service slots within a 5RU chassis (or 19-inch standard rack). While this design has delivered superior uptime through features like 1+1 routing board redundancy and dual power feed, the platform's lifecycle conclusion necessitates a thorough understanding of its legacy components to ensure a smooth transition. The migration strategy must account for the decommissioning of the system's core switching fabric, which operates at a maximum switching capacity of 480 Gbps, and the replacement of its aging NPUs (Network Processing Units) and upstream interface boards. We recommend a phased migration approach that prioritizes the preservation of existing subscriber data and service configurations.

TCO EFFICIENCIES & MIGRATION RATIONALIZATION

From a total cost of ownership (TCO) perspective, the migration from the MA5600T to the contemporary SmartAX EA5800 series (or similar next-generation OLT) is driven by several key factors. Operating an EOL platform incurs significant hidden costs including escalating maintenance premiums, scarcity of spare parts, and diminishing technical support resources.

The new generation equipment offers a superior power efficiency ratio, reducing operational expenditure (OPEX). Specifically, the advanced 7nm chipsets in newer platforms deliver up to 50% more throughput per watt compared to the legacy 40nm technology in the MA5600T. This section outlines the economic imperative for migration, detailing how the consolidation of multiple legacy chassis into a single high-density modern chassis can reduce rack space by up to 70% and lower cooling costs. Our migration kits are designed to provide a clear CapEx/OpEx comparison, validating the investment.

SCALABILITY ADVANTAGES OF TARGET PLATFORMS

The target migration platforms offer quantum leaps in scalability, critical for meeting the bandwidth demands of 5G backhaul and 10G PON. Unlike the MA5600T, which is capped at 480G switching capacity, modern OLTs like the SmartAX EA5800 are built upon a distributed 4.8 Tbps switch fabric. This capacity enables support for 16 ports of 10GE and 100GE uplinks, providing immense headroom for future services. We have designed a standardized migration template that allows for the seamless porting of legacy VLAN configurations, QoS policies, and DBA (Dynamic Bandwidth Assignment) parameters to the new hardware. The migration path ensures that existing GPON and XG-PON ONTs can be inherited by the new OLT, minimizing on-site reconfiguration. This document outlines the protocol translation mechanisms

and the phased cut-over plan to maintain service continuity, utilizing features like ISSU (In-Service Software Upgrade) to eliminate downtime during the transition.

SPECIFICATION REPORT: MA5600T END-OF-LIFE PARAMETERS

The following comprehensive specifications detail the hardware parameters of the MA5600T, which are essential for matching and verifying compatibility with replacement hardware. This registry includes the physical attributes, environmental tolerances, and power consumption benchmarks. Note that the line cards listed in the parameter table will be phased out by their Next-Generation equivalents (e.g., the H901GICF series will map to the H902/EA5800 line cards).

Parameter	Specification
Form Factor	5RU (Standard 19-inch Rack Mount)
Switching Capacity	480 Gbps (Non-Blocking)
Power Supply	1+1 Redundant AC (100-240V) / DC (-48V)
Max Slots	16 Service Slots + 2 Control/Route Slots
Operating Temperature	-5°C to +65°C

Humidity	5% to 95% (Non-Condensing)
Typical Power Consumption	800W - 1200W (Fully Loaded)
Thermal Dissipation	Approx. 3500 BTU/hr
Max GPON Ports	128 (GPON) / 64 (XG-PON)
Upstream Interfaces	10GE / GE (SFP/SFP+)

SAFETY CERTIFICATIONS & ENVIRONMENTAL COMPLIANCE

The SmartAX MA5600T platform adheres to strict international safety and environmental standards, which serve as the baseline for the replacement equipment. The existing equipment holds certifications including CB, IEC 60950-1, EN 60825-1 for laser safety, and RoHS/REACH compliance for environmental sustainability. The migration process is designed to respect these standards. Additionally, the equipment supports advanced environmental monitoring with features for temperature-controlled fans and voltage regulation. It is certified to operate reliably under diverse conditions, with operational temperature ranges from -5°C to +65°C and humidity levels of 5% to 95%. These certifications ensure that the equipment can be safely handled during the decommissioning and disposal phases. Our migration services include comprehensive documentation and procedures to maintain these compliance standards throughout the hardware replacement process.

VISUAL DEPLOYMENT SUMMARY

The migration strategy recommended for the SmartAX MA5600T involves a three-stage visual deployment model: Preparation, Cut-over, and Optimization. The initial phase involves auditing the existing MA5600T configuration and logical inventory. The cut-over phase employs a 'new-build' parallel deployment where the new OLT is racked, powered, and configured adjacent to the legacy unit. This is followed by a low-risk fiber optic cable transfer from the legacy PON ports to the new ports. The final stage focuses on traffic balancing and the graceful shutdown of the MA5600T. This visual summary encapsulates the entire process, highlighting the minimal service interruption window (projected at less than 5 minutes per service group). The final state of the deployment is a modernized, high-capacity network node ready for next-generation access services.

