Protect your business and its financial data with the HP Network Security Processor (NSP). This secure, tamper-resistant hardware security module (HSM) for cryptographic processing solutions on Automatic Teller Machine (ATM), Electronic Funds Transfer (EFT), and Point-of-Sale (POS) networks delivers high-performing cryptography and key management capabilities for card payment authorization and real-time fraud prevention. And it meets critical financial services industry, PCI-DSS, and NIST standards for security and compliance.

HP Atalla Ax160 Network Security Processors (NSPs) provide unrivaled protection for Triple Data Encryption Standard (3DES) and other cryptographic keys when safeguarding value-based transactions. They are designed as the hardware complement to the Atalla Key Block, an industry-leading advanced key management solution.

The Ax160 NSPs consist of three models. Each model offers identical security functionality, with different performance levels:

- **HP Atalla A10160 NSP**
  At 1060 PIN translates per second, when used with the Atalla Key Block, the A10160 NSP efficiently handles high-volume environments.

- **HP Atalla A9160 NSP**
  At 280 PIN translates per second, the A9160 NSP is a cost-effective solution for mid-level transaction environments.

- **HP Atalla A8160 NSP**
  At 80 PIN translates per second, the A8160 NSP works well in low-volume transaction environments while still encompassing the same security and functionality of high-performing NSP models.

Institutions like yours can match security processors to current throughput demands and expand capacity as needed.

From a hardened, rack-mountable, 2U perimeter to a state-of-the-art tamper-resistant architecture, the Atalla Ax160 NSP raises the bar for physical and logical security, flexibility, and ease of use. Atalla NSPs also interoperate transparently with non-Atalla hardware security modules. As an efficient platform for the industry-standard Atalla Key Block, the Atalla Ax160 NSPs derive the full security value of two and three key triple DES and public key encryption—alone or in a mixed encryption environment—while providing you a cost-effective migration path to even stronger future algorithms.

The new-generation Atalla Ax160 NSPs incorporate more than three decades of standards-based cryptographic expertise coupled with the latest open systems technologies from HP—making the Atalla Ax160 NSPs a fast and safe security processor solution for your Automated Teller Machine (ATM)/Electronic Funds Transfer (EFT)/Point of Sale (POS) networks.

**Advanced key management solution using Atalla Key Block**
Atalla Key Block is the advanced key management complement to the Atalla Ax160 NSPs and other Atalla NSP models. Leading financial industry independent software vendors (ISVs) have embraced Atalla Key Block. It has also been adopted as
The Atalla Key Block and Atalla Ax160 NSPs offer benefits, such as:

- A single solution with simultaneous support of single-length DES, two and three key triple DES, and RSA public or private keys
- Support for future algorithms, key types, and key lengths
- Full support for mixed encryption environments with masking of vulnerable keys and strong control over the usage of shorter cryptographic keys


Physical security

- FIPS 140–2 Level 3 certification for physical security
- Rack-mountable (2U), physically fortified form factor
- Double-locking bezel with Medeco locks
- Penetration detection (protective grid)
- Out-of-range temperature and voltage detection
- Low-battery voltage detection
- PIN security and key management implemented within a tamper-resistant, tamper-responsive hardware perimeter for protection against manipulation

Logical security

- Industry-standard Atalla Key Block key management technology
- Advanced security architecture that prevents retrieval of PINs, keys, and other sensitive data in cleartext form
- Automated and manual key management options
- Encrypted, convenient configuration, management, and key loading via HP Atalla Secure Configuration Assistant (no cleartext passing of keys or key components)
- Remote ATM key initialization and rekeying via the optional Atalla Remote Key feature
- Payment Card Industry (PCI) Security Standards Council PIN Transaction Security (PTS) approved device

Performance

- Rated at 1060, 280, and 80 triple DES PIN translates per second using the Atalla Key Block
- Tailored to entry-level, mid-level, or high-volume environments to meet processing performance needs and demanding security requirements
- Linear performance scaling with additional units

Fast host connectivity

- Auto-sensing 10/100/1000BASE-T Ethernet interface for point-to-point TCP/IP
- Integrated high-performance TCP/IP stack and communications processor
- Asynchronous connection for legacy applications

Flexibility and extensibility

- Broad application support (ATM/EFT/POS, stored value, loyalty cards, and corporate funds transfer)
- Customer-defined security policies enforced
- Easy command set customization
- Seamless interoperability with non-Atalla environments
- Remote rekey support for NCR, Diebold, and other ATM vendor devices
- Command set compatibility with earlier models of Atalla NSPs

Easy to use and manage

- Encrypted, convenient key loading via the Atalla Secure Configuration Assistant
- Simple-to-use GUI for key loading and configuration
- Fast, convenient software upgrades
- No need to replace components (for example, EPROM) when upgrading

Global support

HP provides worldwide support and services to help you maintain the security and availability of your business environment.
**Standard support**

**Cryptographic support**
- Data encryption algorithm (DEA) standard (ANSI X3.92-1987, ISO 10126-2), DES, and two- and three-key triple DES
- Banking procedures for message encipherment, general principles (ISO 10126-2)
- PIN management and security, part 1 and 2 (ANSI X9.8, ISO 9564–1 and 2)
- MasterCard CVC, Visa CVV, and American Express CSC
- MasterCard CVC3, Visa dCVV, and Discover dCVV
- Unique key per transaction (ANSI X9.24-2004)
- EMV-based smart card support

**PIN block formats**
- ISO 9564; PIN pad; IBM 3624 ATM PIN format; IBM 4731 PIN block;
- IBM Encrypting PIN pad; Unisys (Burroughs); Diebold; Docutel/Olivetti

**PIN verification methods**
- IBM 3624; Visa PVV; Atalla Bi-Level DES; Diebold; NCR

**Key management standards**
- ANSI X9.24 Parts 1 & 2; ANSI X9.52; Triple DES derived unique key per transaction

**Note:** Card validation code: (CVC), card verification value (CVV), card security code (CSC), card validation code 3 (CVC3), dynamic card verification value (dCVV), and PIN verification value (PVV)

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**HP Atalla Ax160 Network Security Processors**

**Technical specifications**

**Physical dimensions**
- Height 8.75 cm (3.45 in.)
- Width 48.26 cm (19.00 in.)
- Depth 82.57 cm (32.51 in.)
- Weight 20.13 kg (43.0 lb)

**Controls**
- Power on/off switch, unit ID switch

**Electrical**
- Dual input voltage, auto-sensing 90–132 VAC; 180–260 VAC
- Rated input current 7.1 A at 120 VAC; 3.5 A at 240 VAC
- Rated input frequency 50 Hz to 60 Hz
- Power consumption 460 W at 100 VAC; 460 W at 200 VAC

**Operating environment**
- Temperature 10°–35° C (50° to 95° F)
- Relative humidity 10% to 90% (non-condensing 28° C)

**Certification/compliance**
- Safety ULC, CE, TUV approved
- Emissions FCC, C-Tick, GOST
- Environmental RoHS

**Connectivity**
- Communications Ethernet running TCP/IP
- Connection 10/100/1000BASE-T (RJ45) auto-sensing
HP Atalla A160 Network Security Processors (continued)

Ordering information

<table>
<thead>
<tr>
<th>Product ID</th>
<th>Description</th>
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<tbody>
<tr>
<td>AJ560B</td>
<td>HP Atalla A10160 Network Security Processor with Atalla Key Block</td>
</tr>
<tr>
<td>AJ561B</td>
<td>HP Atalla A10160 Network Security Processor with variant key management</td>
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<tr>
<td>AJ558B</td>
<td>HP Atalla A9160 Network Security Processor with Atalla Key Block</td>
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<td>Atalla Remote Key feature (optional)</td>
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<td>AADDFUNC</td>
<td>Premium Value Commands (optional)</td>
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<td>AJ592A</td>
<td>Chain of Trust—notification for tracking of serial number of NSPs attached to order for on-site delivery authentication (Optional)</td>
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<td>HP NSP A160 Enhanced AKB SW 1 per Appl. LTU</td>
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<td>C8Z37AA</td>
<td>HP NSP A160 Enhanced VAR SW 1 per Appl. LTU</td>
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About HP Enterprise Security

HP is a leading provider of security and compliance solutions for the modern enterprise that wants to mitigate risk in their hybrid environment and defend against advanced threats. Based on market-leading products from HP ArcSight, HP Fortify, HP Atalla, and HP TippingPoint, the HP Security Intelligence Platform uniquely delivers the advanced correlation, application protection, and network defenses to protect today’s hybrid IT infrastructure from sophisticated cyber threats.

HP Services

HP ESP Global Services take a holistic approach to building and operating cyber security and response solutions and capabilities that support the cyber threat management and regulatory compliance needs of the world’s largest enterprises. We use a combination of operational expertise—yours and ours—and proven methodologies to deliver fast, effective results, and demonstrate ROI. Our proven, use-case driven solutions combine market-leading technology together with sustainable business and technical process executed by trained and organized people.

Learn more about HP ESP Global Services at hpenterprisesecurity.com.