

Trusted Time™ StampServer™ SA200n

The Trusted Time StampServer (TSS) is a stand-alone network appliance that provides secure and auditable time stamp signing for any IT application, transaction, or log. Trusted Time provides traceable and secure links to official UTC time sources. The TSS is calibrated by a dedicated service via an authenticated, secure network connection. Once calibrated, the TSS is ready to provide time stamps to any PKIX compliant time stamp request.

A time stamp token includes the time, a hash of the digital information being time stamped, and a time certification/calibration pointer. The pointer provides the necessary information confirming that the time stamp is accurate, valid and traceable back to an official time authority.

All time operations are performed in a secure operating environment that can withstand physical and logical attacks and the Sovereign Time StampServer™ certification service ensures time stamps are accurate and auditable.

Trusted Time StampServer SA200n sets a new standard in secure and auditable time stamp issuance.

Highlights

- Services time stamp requests from applications, transactions or computer logs
- Integrated nCipher cryptographic module
 - All cryptographic functions are performed within the secure confines of the nCipher hardware security module (HSM)
 - SEE enabled FIPS 140-1 level 3 compliant* HSM protect both code & keys
 - Advanced key management functionality
- Regular time calibration periods
- Implements time stamping as specified by the IETF PKIX Time Stamp draft
- 125 time stamps per second, 1024-bit RSA signatures
- API/Software development kit for integrating into specific environments is available
- 1U, Rack-mounted network appliance
- VeriSign™ time stamp certificate compatible
- Secure web-based management
- Automatic error notification

*The latest firmware version of the HSM is pending FIPS validation



Services

SOVEREIGN TIME™

Sovereign Time™ is an independent, authorized Trusted Time calibration and audit service for StampServer generated time stamps. The service is fully automated and is closely integrated with the StampServer SA200n. It is a key component of the ongoing secure time management provided under the annual support and services agreement.

Sovereign Time ensures that the StampServers are consistently updated and traceable to an official UTC time source. As a secure and irrefutable time calibration service, Sovereign Time verifies the integrity of time stamps and provides validation and audit information should a time dispute arise.

Service includes:

- Calibration and certification of StampServer SA200n time
- Validation and warranty of time stamps issued
- Verification of digital signatures and format conformance
- Validation of the audit trail and certificate chain
- Signed documentation of audit information



Trusted Time™ StampServer™ SA200n Specifications



nCipher Hardware Security Module

- All cryptographic functions, including time, time stamping, and clock operations are secured inside nCipher's nShield™ FIPS 140-1, Level 3 hardware security module. Keys, cryptographic functions and software code are secured by the nCipher Secure Execution Engine™ (SEE) – preventing tampering with operations or internal functions.
- The nCipher cryptographic module meets internationally recognized standards for secure cryptographic modules (FIPS 140-1 level 3), providing a tamper-evident and tamper-resistant environment that assures the integrity of time stamping operations.

Technical Specifications

- Form Factor: 1U (1.75") x 17" W x 18" D (4.5cm x 43.2cm x 45.7cm)
- Processor: Intel
- Network: Dual 10/100Base-T
- Serial Port: (DB-9) Front
- Video Port: (DB-9) Front
- Input Voltage: AC version; 100-125/200-240VAC Nominal, Auto-switching 47-63Hz
- Mounting Systems: 19" rack mount (sliding rails optional)
- *Temperature/Humidity: (operating) 0°C to +45°C/5-95% @ 40°C (32°F to 113°F/5-95% @ 104°F); (storage) -40°C to +70°C/0-95% @ 40°C (-40°F to 158°F/0-95% @ 104°F)
- *Altitude: (operating) to 10,000 ft (3,048m); (storage) to 30,000 ft (9,144m)
- Shock: (operating) 15G, 11 ms duration (half-sinus)/6-axis; (storage) 30G, 11ms duration (half sinus)/6-axis
- Vibration: (operating) 1G, +/- .15 mm, 10-58Hz (sinus)/6-axis; (storage) 2G, +/- .3 mm, 10-500Hz (sinus)/6-axis
- Acoustic Noise: <50dB at 1m in front of the system at full load
- EMC: US, FCC 47 CFR Part 15, Class B level; Canada, ICES-003 Class B; Europe, CISPR22, CE Mark to EN55022 Class B/EN55082
- Safety: UL 1950, CSA C22.2 No. 950, CE Mark to EN60950; IEC950

Front Panel

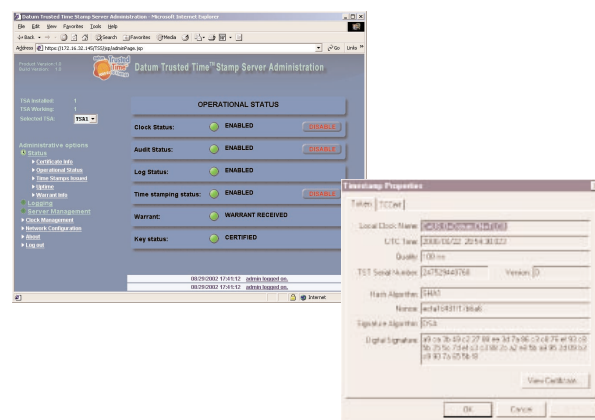
- Network: Dual 10/100 Base-T Ethernet
- Serial Port: RS-232/DB-9
- Video: VGA/DB-9
- LED Indicators: Power, HDD Activity, Ethernet Activity

Rear Panel

- Power: On/Off

Software

- Trusted Time secure time stamping application
- nCipher Secure Execution Engine (SEE) 
- Host: Microsoft Windows



Time Stamp Properties



Specifications are subject to change without notice.

* The StampServer SA200n uses sophisticated security mechanisms to ensure physical and logical integrity. IT MUST BE SHIPPED, STORED, AND OPERATED WITHIN THE STATED ENVIRONMENTAL SPECIFICATIONS OR TAMPER SENSORS WILL BE ACTIVATED AND RENDER THE SYSTEM PERMANENTLY INOPERABLE.

NOTE: The Trusted Time StampServer SA200n is a secure, dedicated appliance. It is sealed and cannot be serviced or modified except by certified personnel.

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