Cisco Transaction Encryption Device Model 3.0

The Cisco® Transaction Encryption Device Model 3.0 (TED 3.0) server provides Encrypted Broadcast Sessions, which allow selective access to secured services like impulse pay-per-view (IPPV), reservation pay-per-view (RPPV), and video-on-demand (VOD). This security feature, known as encryption, allows only authorized home communications terminals (HCTs) access to secured services.

The TED 3.0 is built from a Sun Netra X4200 M2 Sun server that meets the following standards requirements to help ensure reliable operation in severe environmental conditions:

- Telcordia Network Equipment Building Standard (NEBS) level-3 certification
- European Telecommunications Standards Institute (ETSI) compliance

Figure 1.   TED Model 3.0 (image may vary from actual product and specification)

Features

- *Faster transactions* are supported by TED 3.0, which is built from a NEBS level-3 certified Netra X4200 M2 Sun server that accelerates the RSA calculation
- *PowerKEY® Conditional Access* enhances the encryption and decryption techniques that secure the transmission of applications such as electronic shopping (e-commerce) applications, Internet, and VOD
- *Secure Architecture* is provided by installing the TED 3.0 as a peripheral device to the Digital Network Control System (DNCS) or the IPTV Service Delivery System (ISDS)

Faster Transactions

- *TED 3.0 servers* run on Red Hat Enterprise Linux operating system version 5.1, and include the Sun Crypto Accelerator 6000 PCI card, which increases the transaction encryption rate of the TED 3.0 server
- *Entitlement management messages* (EMMs) are encrypted messages addressed to specific HCTs to allow delivery of secure authorizations. The TED 3.0 server encrypts approximately 150 EMMs per second and then sends those EMMs to the DNCS/ISDS for transporting throughout the Digital or IPTV Broadband Delivery System (DBDS/IBDS)

PowerKEY Conditional Access

- *Only authorized subscribers* can access the secured service in the DBDS/IBDS by encrypting or protecting the service. When requesting a pay-per-view (PPV) service or ordering premium services like HBO, the service is encrypted to secure the transmission of the content throughout the DBDS/IBDS

- *Initializes PowerKEY CA* on the DNCS/ISDS and the TED 3.0 server to validate access to secured services. TED 3.0 is a required network element for NEBS-compliant sites using PowerKEY CA

Secure Architecture

- *An RJ-45 Ethernet cable* connects the TED 3.0 to the DNCS/ISDS workstation

- *Access control* issues are deterred by the absence of a video monitor or keyboard. At power-up, the TED 3.0 will boot and run its application without user intervention

Figure 2. TED Model 3.0 Front Panel with Closed Bezel (image may vary from actual product and specification)

Table 1. Front and Top Panel Features with Closed Bezel

Feature	Description
Drives	DVD-ROM
Indicators	Power/OK, network connectivity, alarms

Figure 3. TED Model 3.0 Front Panel with Open Bezel (image may vary from actual product and specification)

Table 2. Front Panel Features with Open Bezel

Feature	Description
Controls	Power
Drives	DVD-ROM
Indicators	Power/OK, network connectivity, alarms

Figure 4.   Model TED 3.0 Back Panel (image may vary from actual product and specification)

Table 3.   Back Panel Features

Feature	Description
Connections-Interactive	Four 10/100/1000 Mbps Ethernet ports, one TIA/EIA-232-F asynchronous RJ-45 serial management port (SP SERIAL MGT), one 10/100 Mbps network management Ethernet port (SP NET MGT), two USB 2.0 ports, one VGA Video port (HD-15), one dry contact alarm port (DB-15)
Power Supplies	Two AC redundant and hot-swappable power supplies (DC implementation not supported)

Product Specifications

Table 4.   Product Specifications

Specification	Value
Memory/Storage	
RAM	2 GB DIMMs
Hard Drive	146 GB, Internal SAS disks, 10 K RPM, DVD/RW
Processors	
Application/CPU	Two AMD Opteron Model 2214HE (2.2 GHz/1 MB) dual-core processors. RoHS-Compliant
Dimensions	
Product (HxWxD)	3.5 in. x 17.4 in. x 20 in. (89 mm x 442 mm x 508 mm)
Product Weight	35 lbs (15.88 kg)
Environment Specifications	
Placement	Locate with at least 2 inches of open space above and on each side
Room Temperature	32° to 105°F (0° to 40°C) during operation
Power Dissipation	50 W maximum

Ordering Information

Table 5.   Ordering Information

Model	Description	Part Number
TED 3.0	Transaction Encryption Device 3.0 server	4027481

Note: Compatible with DNCS and ISDS environments. Requires software of SR 2.7/3.7/4.2 or later for Digital Broadcast Delivery Systems. Requires ISDS 2.3 or later for IPTV Service Delivery Platform or IPTV Broadband Delivery System environments.

Note: Initialization of a new or replacement TED 3.0 server requires that a Cisco employee must be on site to complete initialization procedures. Contact your account representative for charges or fees associated with this service.

Part Number 7016137 Rev A
March 2009