nFast Ultra™

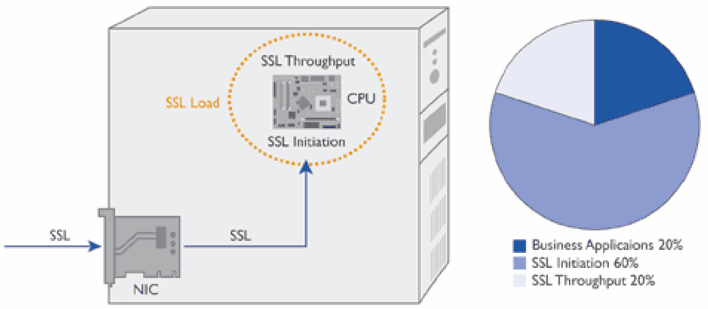
全球效能第一的SSL加速卡

SSL已經普遍建置於各行各業的伺服器了，它雖帶來了安全的連線基礎，但也帶給伺服器非常大的負擔。nCipher 的 nFast Ultar SSL 加速卡可以100%卸除伺服器處理負擔，降低SSL安全連線基礎建設的建置成本

傳統上,若不使用SSL加速卡，伺服器的CPU有80%花在處理SSL加解密，只剩下20%處理應用程式邏輯。如果沒有建置更多的伺服器來分擔這些負荷，就會造成「龜速」的網站，客戶的抱怨與商機的損失是可以預見的。

Traditional SSL:

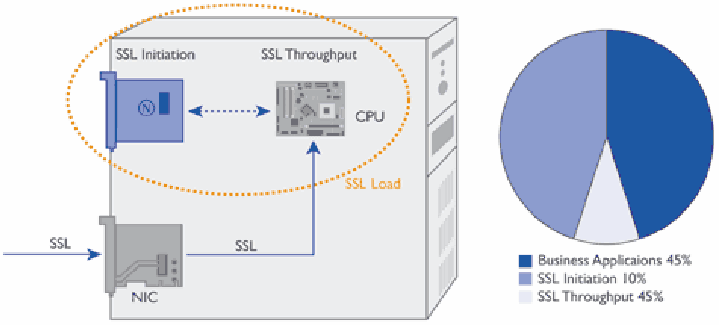
Server CPU handles all SSL processing, leaving only **20%** of CPU capacity available for business applications.



為了減低伺服器CPU的SSL運算負擔，可以為伺服器上加上SSL加速卡，它可以幫助伺服器處理SSL運算，提昇伺服器CPU處理應用程式邏輯的比例到45%。

nCipher Acceleration Products:

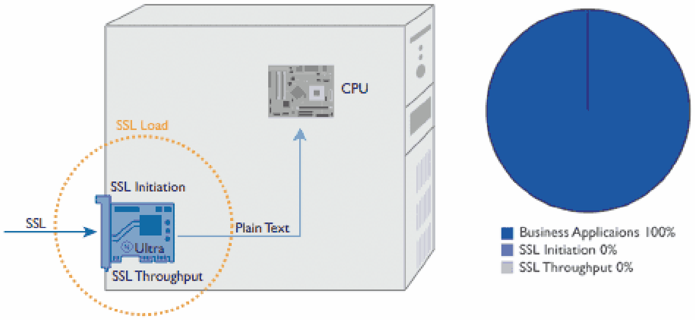
Dedicated SSL cryptography card handles SSL initiation and CPU handles SSL throughput., leaving **45%** CPU capacity for business applications.



新一代的SSL加速卡同時將高速網路晶片整合進來，伺服器完全不需要處理SSL運算，可以讓伺服器的CPU 100%用在應用程式邏輯上，大幅增進伺服器整體效能。

nCipher Ultra Products:

SSL-enabled network interface card handles all SSL processing, ensuring **100%** CPU capacity for business applications.



nCipher 的 nFast Ultra 產品結合最先進的SSL運算晶片與高速網路晶片於一張加速卡中，它提供目前業界效能最高的每秒10,000次的SSL運算速度，它可以100%卸除伺服器CPU的負擔，讓伺服器與應用系統完全不會感覺到SSL的存在，它提供Plug&Play的簡易安裝，任何執行在Windows, Solaris, Linux平台上的TCP/IP應用程式隨插即用。

產品規格

OS Support

- Windows 2000
- Windows 2003
- Windows Server 2003
- Linux - Kernels 2.2 and 2.4 and a variety of Linux distributions including Redhat 7.0, 7.1, 7.2
- Solaris - Solaris 7, 8, 9

PCI Hardware Specification

- PCI Card 3.0 in x 8.0 in (76.2mm x 203.2mm)
- 10/100/1000 - BaseT Ethernet (RJ45)
- PCI v2.2 and PCI-X 1a Bus Connector upto 133 MHz
- Operating voltage +5 volts
- Typical power consumption: 17 watts
- Operating Temperature: 10-55 degrees centigrade with airflow (200 LFM recommended)

SSL/TLS Operation

- SSL 3.0, TLS 1.0
- Fully offloads SSL/TLS processing including handshaking, record handling and all cryptography
- Supports SSL V3.0, TLS V1.0 (RFC 2246)
- Stores up to 256 certificates

Cryptographic Algorithms

- RSA: 1024-bit, 2048-bit and 4096-bit, public and private key processing
- ARC4, DES, 3DES, and AES bulk cipher algorithms.

Performance

- Up to 10,000 RSA SSL handshakes per second (1024-bit RSA decryptions)
- 300 Megabit Full-duplex throughput

Gigabit Ethernet Network Port

- Full-duplex 10/100/1000 RJ-45 Ethernet network interface
- Handles IEEE 802.3 (RFC 1042) or DIX (RFC 894) frames
- Supports IEEE 802.3, 802.3u, 802.3x, 802.3z, and 802.3ac Ethernet specifications
- Supports MTUs up to 1500 bytes
- Pass-through of IEEE 802.1q VLAN tags

IP Layer Processing

- Processes IPv4 (RFC 791) datagrams
- Pass-through of IP header fields such as source/destination addresses and Type of Service (TOS)
- Calculates and verifies header checksums
- Supports limited ICMP messaging (RFC 792)
- Non-SSL traffic can be passed through unaltered to host or blocked

TCP Layer Processing

- Terminates TCP streams from clients and to servers (designated SSL/TLS connections)
- Supports standard TCP functions per RFCs 793, 813, and 1122
- Extracts/inserts SSL/TLS records
- Supports transparent pass-through of non-SSL/TLS traffic
- Segmentation and reassembly (including reordering)
- Performs TCP port translation (source and/or destination)
- Calculates/verifies pseudo-header checksums
- Fast Retransmit/Fast Recovery (RFC 2581)
- Round Trip Time Estimation (Karn's Algorithm)
- Slow Start (RFC 896)
- Window Scaling (RFC 1323)

Standards Certification

- FCC: CFRA47, Part 15, Subpart B, Class A
- CE: EN 55022 Class A
  EN 55024-1
  EN 60950