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GERMAN SECURITY SOLUTIONS

GOVERNMENTAL SECURITY SOLUTIONS

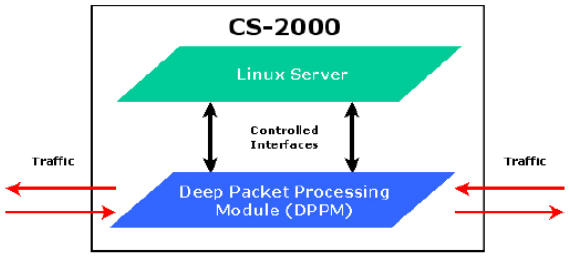
CS-2000 High End

High Performance Network Platform

CS-2000 High End, High Performance Network Platform

CS-2000 is a modular platform for high-speed network applications and services

Networking engineers are constrained by available applications platforms. Open conventional servers are unable to perform at the speeds of the network, and high-speed appliances are closed, inaccessible, and often fixed-function systems.



CS-2000 combines the best of these computing architectures resulting in a multi-purpose, high-speed programmable packet processing platform. With the **CS-2000**, ELAMAN removes the barriers to innovation and service development.
The major innovation in the **CS-2000** is the programmable Deep Packet processing Module, or DPPM. The DPPM provides a complete set of computing resources and instruction sets architected for, and dedicated to, packet processing in the data plane. The DPPM provides ASIC-based appliance performance in a general platform.

Faster, More CPUs is *Not* the Answer

CPUs, RAM, bus and disk drive technologies all benefit from continued performance improvements. However, the one area CPU-based computing platforms fall short is network performance. When heavy packet processing is required, CPU-based computing platforms can't keep pace. The problem is not CPU speed, its architecture.
ELAMAN has a new network applications platform – a general purpose deep packet processing platform combined with an open Linux server blade. Designed for applications focused on real-time network traffic processing, the **CS-2000** provides the application developer high-speed processing, high-speed RAM, a high-speed database, and a structured programming language for data plane-resident packet operations. No more CPU interrupt latency, no more PCI bus bandwidth constraints, but the power to operate on every packet – every bit of every packet – on the wire in real-time. The **CS-2000** also provides conventional Linux server resources for off-line analysis and non real-time application functions.
The **CS-2000** enables network operators and network applications developers to implement their ideas, build differentiating service features, deliver benefits to customers, and bring value to their companies.

Modular System Delivers the Capacity You Need

DPPM–500 Deep Packet Processing Module for high-performance packet processing applications on Gigabit Ethernet networks. Providing 2 gigabits per second (Gbps) packet processing performance, the DPPM-500, has 4 Gigabit

Ethernet ports (Copper or Fiber) plus one 1000Base-T Gigabit Ethernet capture port on the front panel.
DPPM–600 provides DPPM 500 features at full line rate for OC-48 / STM-16 SONET/SDH links. The DPPM-600 supports two OC-48c/STM-16 PoS (Packet over SONET/SDH) interfaces and up to 2.5 Gbps of packet processing performance. Network interfaces are OC-3,12 / STM 1,4 capable. RAVE applications can be executed on either DPPM model without modification.
A proper **CS-2000** configuration today includes a single DPPM and a single Linux-based **Application Server Module (ASM).** The ASM is a dual Pentium server with 1 GB of RAM and a 60 GB hard disk. The ASM, supports Linux and hosts the web-based system management server software and database, an SNMP Agent, and DPPM control APIs. Under normal load, these components utilize less than 20 % of the available ASM resources. That leaves more than 80% of the Linux server resources for running non real-time application functions.
The **CS-2000** is really two computers to create one robust network computing platform. There is a high-performance packet processing computer for all real-time packet operations, and a standard Pentium-based server for less time-critical operations. No longer is fixed functionality a requirement for achieving high performance.

CS-2000 Features

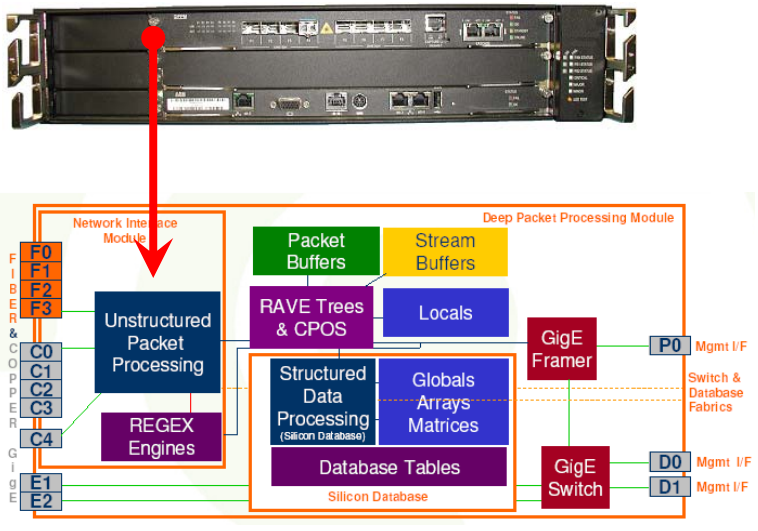
Deep Packet Processing

- Up to 5 gigabits per second L2-7 inspection and analysis
- Detect and track Up to 1 million simultaneous flows
- Secure transparent network installation
- Native IPv4 and IPv6 support, can be taught others

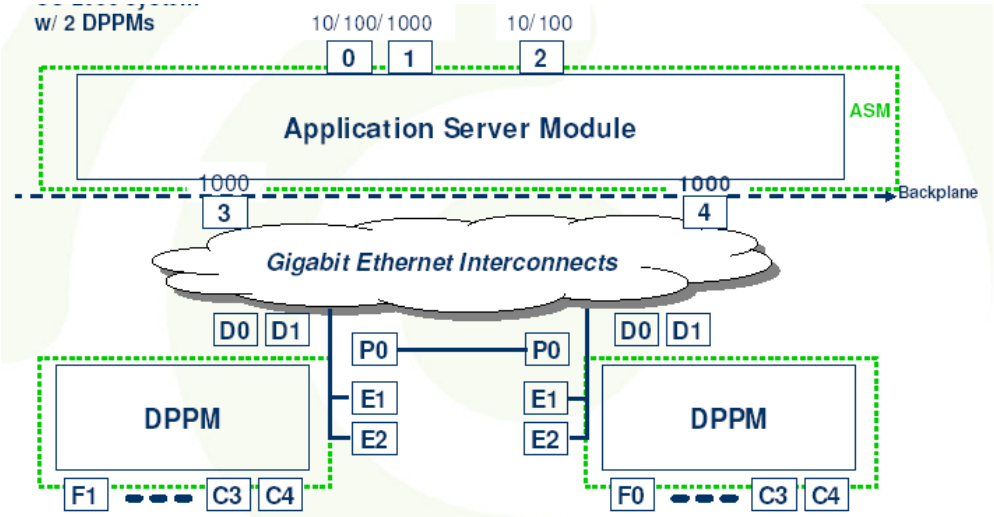
Management

- Web-based element management system
- Integrated scriptable command line interface (CLI)
- SNMP v1, v2c, v3 GET/TRAP support
- *User access:*
- Telnet (CLI), SSH (CLI), and HTTP / HTTP-S (web)
- Ethernet (all), COM port (CLI), KVM (CLI)

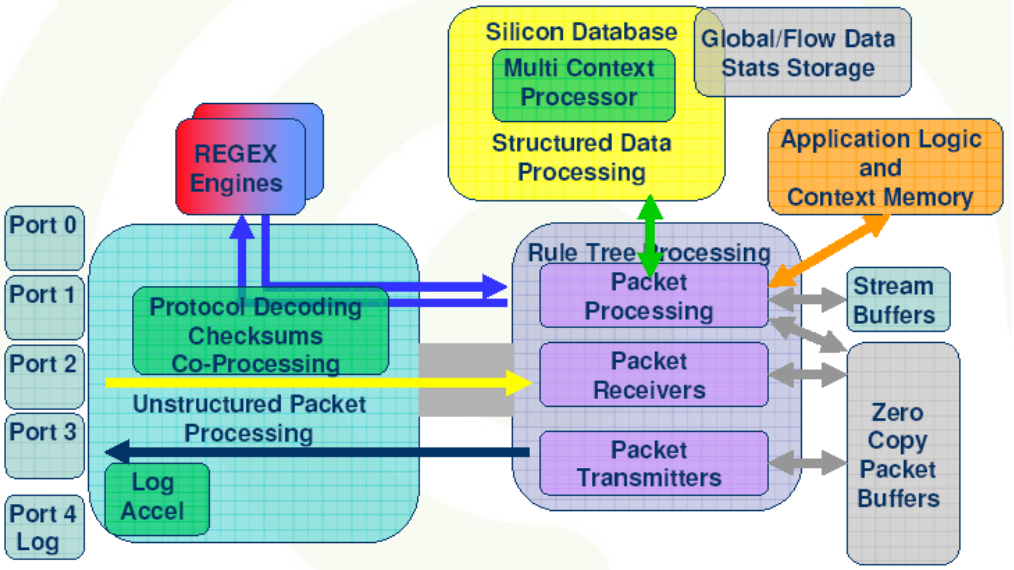
Hardware Overview: GE PPM



Hardware Overview: System Level Port Distribution plus Out of Band Management Architecture (CS-2000 system with 2x DPPMs)



Hardware Overview: Network Processing Pathways



Specifications:

DPPM-600 – Packet over SONET

- 4 million frames / second; 2.5 Gbps data throughput
- SONET / SDH Interfaces
- 2x OC-48c / STM-16 POS
- OC-12c / STM-4 & OC-3c / STM-1 *ready*
- *optics and SFPs*
- SR-1: 1310 nm single mode
- IR-1: 1310 nm single mode
- LR-2: 1550 nm single mode
- Dedicated 1000 Base-T for packet capture/logging

DPPM-510 – Gigabit Ethernet

- 3 million packets / second; 2 Gbps data throughput
- Gigabit Ethernet Interfaces:
- –4x unidirectional, 2x bi-directional
- *Copper* - 10/100/1000 Base-T Ethernet, RJ-45
- *Optics and SFPs*
- SX: 850 nm multi-mode
- LX: 1310 nm single-mode
- Dedicated 1000 Base-T for packet capture/logging

ASM – Application Server Modules

- Dual Pentium, 1 GB RAM, 60 GB HD
- 2x 10/100/1000 Base-T Ethernet RJ-45
- 1x 10/100 Base-T Ethernet RJ-45
- 1x RS-232 console port
- 1x USB port

Chassis19" rack-mount 2 HU

- Dimensions (HxWxD) 87 x 482 x 600 mm
- Weight: 11 kg

Power Requirements:

DC power

- DC input power 300 watts
- DC input voltage - 40.5 to - 72 VDC
- 6,25 Ampere at - 48 VDC

AC power

- AC input power 300 watts
- 90 – 240 VAC
- 2,5 Ampere at 120 VRMS

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or would like to discuss a specific requirement or project, please contact us at:

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