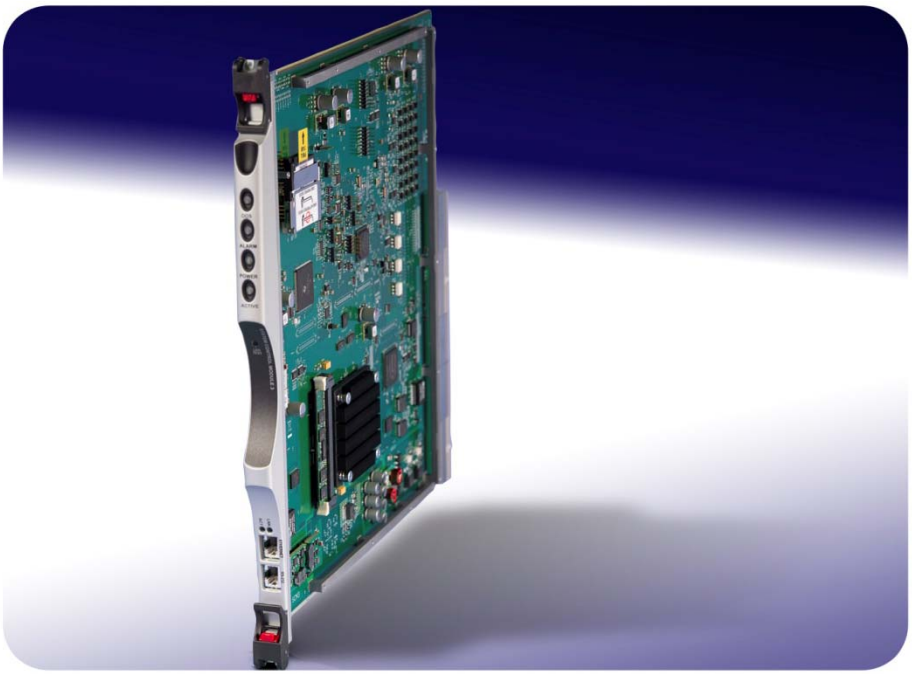
C4® and C4c™ CMTS

System Control Module 3



Features

- High-speed processor complex
- Performance benefits for chassis management tasks, including utilizing the CLI, SNMP polling, and IPDR streaming
- Compact Flash (CF) for non-volatile storage
- 1+1 redundancy for high availability
- Hot swappable
- Available for both C4 and C4c CMTS

Application

The System Control Module 3 (SCM 3) delivers significant performance improvements for control-plane tasks within the C4 and C4c CMTS as compared with the SCM II family. An enhanced, high-speed processor powers the SCM 3 and enables it to improve a number of management-related tasks for the C4 and C4c CMTS. Since the C4 and C4c CMTS architectures provide for separation of the control plane from the data plane, the SCM 3 is not intended to boost or enhance the processing of subscriber traffic.

Key Benefits

A number of important management-related tasks are enhanced or improved by the SCM 3. These tasks include Command Line Interface (CLI) responsiveness, Simple Network Management Protocol (SNMP) hosting, and Internet Protocol Data Record (IPDR) export. For such operations, the SCM 3 provides a significant reduction in the relevant required completion time as compared with the SCM II family. The exact benefit provided by the SCM 3 depends strongly on the specific configuration and applications deployed on the C4 or C4c CMTS, but characterization has shown completion time reductions by a factor of two or three (and sometimes much more).

Software Dependency

Rel. 8.1 software is required to operate the SCM 3 with either the C4 CMTS or the C4c CMTS. Operators should note that all of the software features contained in Rel. 8.1 function on the C4 CMTS and the C4c CMTS with the SCM II family. The SCM 3 is not required in order to utilize the software features of Rel. 8.1, but Rel. 8.1 is required to operate the SCM 3.

Control Complex Redundancy

For the C4 CMTS, redundant configurations must employ two SCM 3s (populated in slots 19 and 20). The SCM 3 and SCM II family of modules are not compatible to be deployed in the same chassis for redundancy.

Product Flyer

The SCM 3 will provide a significant operational benefit for those operators utilizing a processor-intensive management or monitoring scheme with their C4 or C4c CMTS. Simultaneous, frequent use of SNMP Management Information Base (MIB) polls; automated scripts via the CLI; and a 15 minute IPDR export interval can place an extreme demand on the SCM II family of devices. In such cases, operators should evaluate the SCM 3. The exact benefit that would be derived from the SCM 3 depends highly on the operator's specific application, so thorough testing and evaluation is recommended.

In-band and Out-of-Band Management

The SCM 3 supports both in-band and out-of-band management. For out-of-band management, Ethernet interfaces are provided on both the front panel of the SCM 3 and the SCM Physical Interface Card (PIC) in the rear of the chassis. Unlike the SCM II family, with the SCM 3 the front and rear out-of-band Ethernet interfaces are not simultaneously active. With the SCM 3, the out-of-band management interface defaults to the rear (PIC) Ethernet port. Persistent selection between the front and rear Ethernet interfaces for out-of-band management can be made at CMTS boot-up. The front out-of-band management Ethernet interface of the SCM 3 is capable of 10/100/1000 operation, an improvement from the 10/100 function of the SCM II family.

Compact Flash (CF) for Non-volatile Storage

The SCM 3 uses a Compact Flash (CF) device for on-board non-volatile storage. CF is the same type of media that is also employed by the SCM II EM(U). All other SCM II family devices utilize PCMCIA media for non-volatile storage.

Supported in Existing C4 and C4c CMTS Chassis

All existing C4 CMTS and C4c CMTS chassis can support the SCM 3, provided that they are upgraded to Rel. 8.1 software. Redundant C4 CMTS configurations must employ two SCM 3 units, rather than a mixture of one SCM 3 with one device from the SCM II family. The C4c CMTS does not support SCM or RCM redundancy.

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Find more information about the System Control Module 3 and other C4® and C4c™ products.

- Product Specifications — System Control Module 3 Technical Specifications

Customer Care

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