

The SPRITE PCI T1/E1 Network Interface Cards are the first PCI cards from Alcatel to provide direct connectivity from a Sun SPARCstation or a server directly into the wide area network (WAN). With these cards, users of the Alcatel 5620 Network Manager (NM), formerly the 46020 Network Manager*, benefit from cost-effective routing of control packet switching system (CPSS) traffic in a secure, manageable environment. SPRITE PCI cards enable users to minimize costs and maximize network efficiency by eliminating the need for multiple 8230 MainStreet Ethernet Little Bridges.

Newbridge Networks**, in conjunction with Brooktrout Technology Inc., developed the first PCI T1/E1 network interface card that provides channelized T1 (1.544 Mb/s) or E1 (2.048 Mb/s) connectivity directly to Sun SPARCstations, SPARCservers, UltraServers and Netra Internet Servers.



Fractional
and full T1/E1
services directly
to a Sun UltraServer,
SPARCstation,
SPARCserver or Netra
Internet Server



Network management

SPRITE PCI cards are installed in the 5620 NetworkStation for networks with up to 20 domains. Used in this manner, the SPRITE PCI card provides the following advantages for CPSS routing:

- ▼ supports multiple gateway links
- ▼ provides direct gateway connection, which reduces hop count by one
- ▼ routes data as opposed to simply bridging data
- ▼ fills a T1/E1 link completely, since it is a fully channelized card
- ▼ does not require a major address in its associated domain

The SPRITE PCI card provides connectivity to the 5620-managed networks. It is a fully channelized card that can completely fill a T1/E1 link.

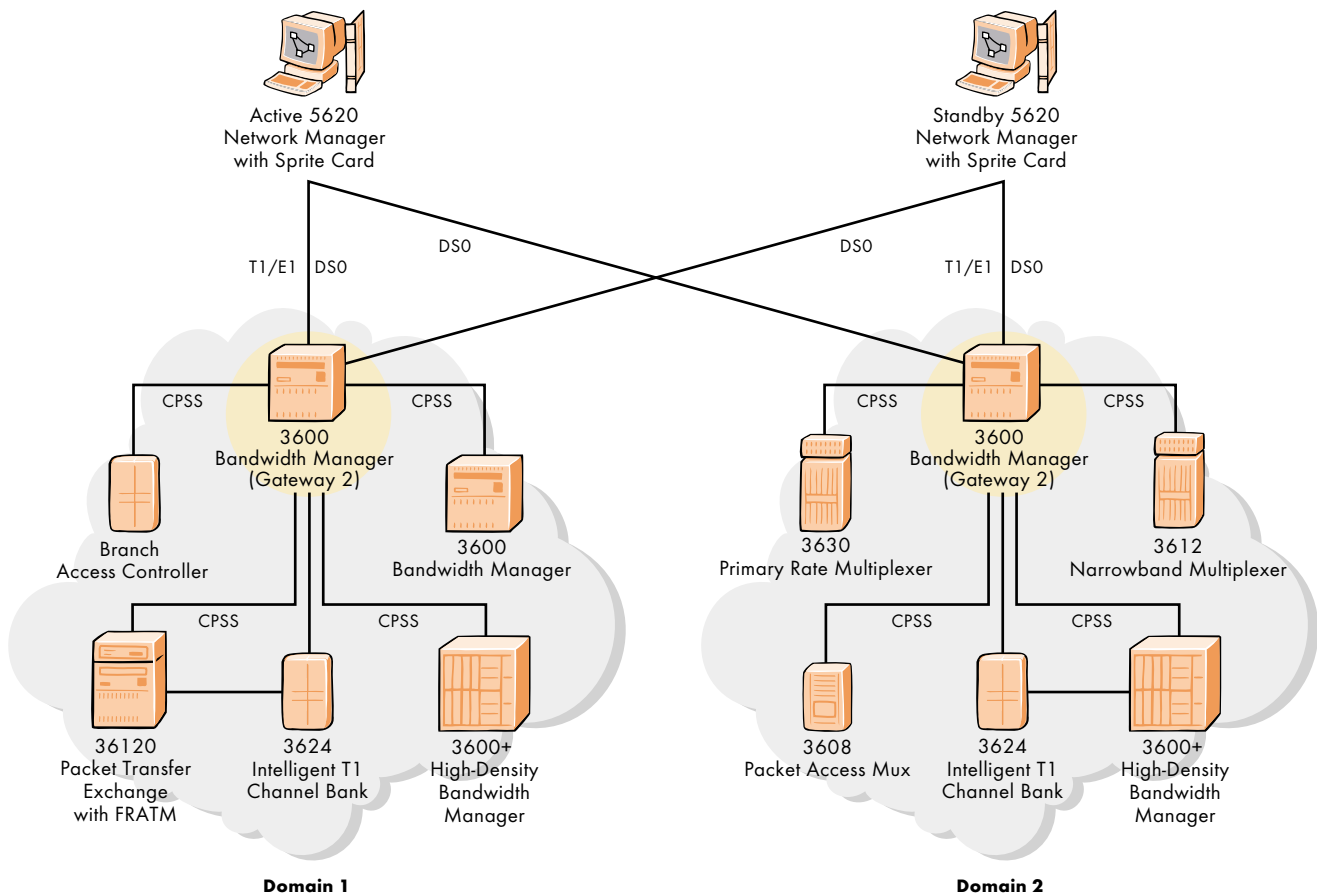
Applications requiring SPRITE PCI support CPSS

The 5620 communicates with network nodes using CPSS, an Alcatel proprietary packet switched, error correcting system. CPSS ensures the efficient transport of information by preventing corrupt or duplicate packets from entering the management network. As well, to prevent overloading of the management bandwidth, packet timers ensure that stray packets do not remain in the network. CPSS messages carry:

- ▼ status information so that the nodes can construct routing tables
- ▼ control information so that the 5620 can send commands to the nodes
- ▼ timing information between nodes that have automatic network synchronization enabled
- ▼ alarm information for the 5620 to gather diagnostic information
- ▼ performance information for the 5620 to gather statistics

Note: Customers ordering the SPRITE PCI card for the 5620 CPSS must upgrade to 5620 Release 3.2, while those ordering the card for non-CPSS applications will be able to configure it without the 5620 Release 3.2 upgrade. The configuration code will be included with the SPRITE PCI CD that is shipped with the card.

▼ CPSS Topology Application View



Alcatel Distributed Statistics Collector*

The SPRITE card provides a gateway for monitoring and collecting all performance and accounting statistics, as defined by G.821, from all Alcatel and partner network elements. This information results in three automatically or manually created reports: Link Quality Statistics Report, Channel Statistics Report, and G.821. In addition, this information is available to all client applications, such as CrossKeys Resolve, CrossKeys NetworkWare and Concord Network Health. The SPRITE PCI card provides the communications gateway from the network elements, where applicable.

Alcatel SVC Billing Mediation*

The SPRITE PCI card collects all X.25, ATM and frame relay switched virtual circuit (SVC) accounting records that are spooled from Alcatel's 36120 MainStreet Packet Transfer Exchange and Alcatel 7470 Multiservice Platform (MSP), formerly the 36170 Multiservices Switch*, network elements. It provides the communications gateway from the network elements to the SVC Billing Mediation, where applicable.

Features

Simple message interface (SMI) is used by application software to configure the SPRITE PCI card to suit the specific application. For example, the 5620 uses SMI to configure the card for transparent T1 or E1 access to the managed network.

Integrated CSU option

This feature improves system reliability by eliminating the need for an expensive external channel service unit (CSU).

Technical Summary

General

- ▼ Supports Solaris 2.5.1 and 2.6
- ▼ Streams-based device driver
- ▼ In subrate, supports data rates from 8 kb/s to 64 kb/s per channel, in 8 kb/s increments
- ▼ In super-rate, supports 64 kb/s up to full bandwidth of the T1/E1, in 64 kb/s increments

Variants

- ▼ T1 with DSX-1 card
- ▼ T1 with CSU card
- ▼ E1 with 120 ohm card
- ▼ E1 with 120 ohm card and 75 ohm cable adapter

T1/E1 Network Interface

- ▼ Network connector: RJ-48c for all variants
- ▼ HDLC framing on each channel
- ▼ Line interfaces: CSU or DSX-1
- ▼ Channels supported: 24/32 timeslots terminated onto a maximum of 24/32 channels
- ▼ Framing T1: D4 and ESF (extended superframe)
- ▼ Zero code suppression: B8ZS, JB7 or transparent
- ▼ Signaling: RBS (robbed bit signaling) enabled on a per-timeslot basis
- ▼ Timing source: line

Product Safety

- ▼ IEC950
- ▼ CSA950
- ▼ UL1950
- ▼ EN60 950
- ▼ AS/NZS 3260
- ▼ This product bears the CE Marking, and complies with the relevant CE Marking directives of the European Community.

EMC Standards

- ▼ ICES-003 Class B†
- ▼ FCC Part 15 Class B†
- ▼ EN55022 Class B†
- ▼ CISPR22 Class B†
- ▼ AS/NZS 3548 Class B†
- ▼ EN55082-1 (ESD, RF Immunity, EFT, Commercial)
- ▼ EN55082-2 (ESD, RF Immunity, EFT, Industrial)

† Use shielded cables to achieve Class B limits.

Network Attachment

- ▼ IC CS-03
- ▼ FCC Part 68
- ▼ CTR 12/CTR 13
- ▼ NTR 4
- ▼ NTR 10
- ▼ BE-SP103
- ▼ SS636334
- ▼ TS016
- ▼ TNA 117
- ▼ Jate Digital Services

* This product belonged to the Newbridge family. Newbridge was acquired by Alcatel in May 2000.

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For more information www.cid.alcatel.com

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