SmartSwitch Product

The basis of **SmartSwitch** is formed by an ATM switching node with two ATM interfaces extendable with 2 or 3 additional ATM switching nodes. Access is provided by low cost access option boards delivering a broad range of standard interfaces. This amounts to an integrated access and switching node capable of supporting users on a given location with very dissimilar bandwidth and quality of service requirements. **SmartSwitch** supports SVC and PVC type of connections. **SmartSwitch** can be delivered in either a 19" rack housing (S_X), a compact housing (C) or a ruggedised housing (R-155) withstanding extreme temperatures, humidity shocks and aggressive and toxic fluids.

Access Interfaces

- Video (Pal / NTSC / S-Video)
- Ethernet (10 BaseT)
- Audio / Radio
- Serial data
  (a/o. RS-232, RS-485, RS-422 X.21)

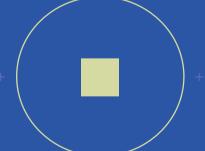- Telephony (POTS / ISDN)
- G.703 / G.704
- Additional interfaces upon request

SmartSwitch R-155

SmartSwitch S$_X$

SmartSwitch C

SmartSwitch
Network

The only cost effective, multi-accessible, mission critical,
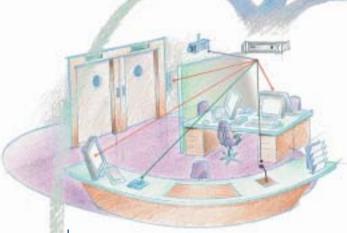
multi-service and plug & play ATM Network

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THALES

SmartSwitch Network

The only cost-effective, multi-accessible, mission critical, multi-service and auto configuring ATM Network

SmartSwitch Concept

Thales Communications' SmartSwitch offers advanced possibilities of a truly distributed multi-service switching network. Data, voice, telephony and video are distributed through the network with an excellent Quality of Service (QoS) and outstanding reliability. SmartSwitch's modularity enables the scaling of the number of ATM ports as well as the number and types of access interfaces. Any network topology is supported enabling small scale Local Area Networks (LANs) and large Wide Area Networks (WANs).

Essentials

- Optical ATM LAN/WAN network

- Switching and access in every network node

- Multi-service (audio/video/data/telephony)

- Stand-alone operation (no management station required)

- True plug & play

- Automatic network configuration

- Fit for use in mobile and fixed applications

- Ruggedised versions available

- Interoperable with ATM switches from major vendors

- Customised access interfaces

Features

Network
- Mission critical
- Cost effective
- Scaleable ATM network (25/155 Mb/s)
- Self Discovering Topology (SDT)
- Immediate Routing Recovery (IRR)
- Advanced Traffic Control (ATC)

Services
- Point-to-point connections
- Point-to-multipoint connections
- Conference call (video-,data - audio)
- Support of PVC and SVC

Node
- Plug & play operation
- Combined switching/access
- Multi-service
- Highly reliable, harsh environments
- Compact switching nodes
- Switching speed 2Mb/s – 3.4Gb/s

Management
- SNMP
- TCP/IP and PPP interface
- Software upgrade capability
- Configuration management from Management Station
- Compatible with HP Openview, IBM Tivoli and Cabletron Spectrum

Network Services

Thales Communications' SmartSwitch multi-service network supports the access, switching and transport of video, data, telephony and audio services.

Video Services

Video connections like camera live video, still video, videophone (i.e. picture telephone) or even on-line radar images can be setup easily using SmartSwitch. Wavelet encoding of analogue video is supported for PAL, NTSC and S-Video type of equipment. This allows for an adjustable compression/quality ratio to convert analogue video to bit rates between 64 kbps and 10 Mbps. Video-matrix functionality is supported by the network.

Data Services

SmartSwitch supports data to be transported throughout the network originating from the following sources: Serial data (RS232, synchronous/asynchronous), Emulated LAN (Ethernet 10BaseT) and ISDN. Both point-to-point and multidrop protocols are supported.
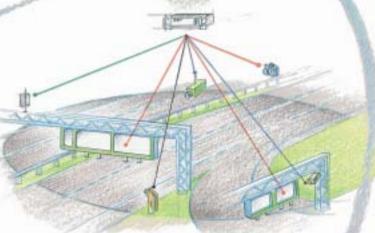
Audio Services

Public Address
SmartSwitch provides selectable audio circuits between numerous audio sources and destinations.

Telephone
The telephone function enables the network to operate as a PBX, providing POTS and ISDN interfaces. It also supports conference calls.

Alarm
SmartSwitch provides the capability to distribute warning tones/signals to any user in the system, based on external or internal alarm signals.

Network Features

Self Discovering Topology (SDT)
At the insertion- or deletion of network nodes, the network will immediately discover its new topology automatically and will re-arrange the configuration of the permanent- and switched virtual circuits accordingly.

Advanced Traffic Control (ATC)
SmartSwitch's built in Advanced Traffic Control capabilities allow the network to discriminate between traffic streams, increase link efficiency, utilise maximum bandwidth, avoid congestion and meet the specific QoS requirements of each traffic type.

Immediate Routing Recovery (IRR)
Connections will be automatically rerouted in the event of a network failure, without intervention of the network manager.

SmartSwitch Management features
Management includes: Fault-, Configuration-, Performance-, Accounting-, and Security management and SW and configuration upgrades.
Based on the SmartSwitch MIB any SNMP based management station can be used offering full flexibility.