ASC DSLAM Aggregation Solutions

The Challenge

Service providers need a low cost, high density aggregation device to concentrate incoming IMA traffic from remote DSLAMs and feed it upstream to the core network via DS-3/E3 or OC-3/STM1 facilities. In addition, in order to maximize service provider revenues and profits, the same device must also provide the ability to concentrate non-DSLAM traffic from outside the DSL serving area and support other protocols including Frame Relay and TDM / Circuit Emulation.

The Solution

The ASC family of multi-protocol broadband access platforms from NSGDatacom is ideally suited to meet this challenge. ASC's A-1240 and A-2000 products are high density, compact and reliable concentration devices that provide effective solutions for both DSLAM and non-DSL applications.

The A-1240 allows service providers to receive N X T1 IMA groups from multiple remote DSLAMs and aggregate them upstream via a single DS3 / E3 or OC-3 / STM1 facility. In addition, the same A-1240 lets service providers offer T1/E1 or N x T1/E1 ATM and Frame Relay services to customers located beyond DSL's wire-length limits and the ability to efficiently aggregate these services upstream alongside DSL-originated traffic.

Intended for sites with multiple DSLAMs, the A-2000 product provides significant savings by aggregating the DS-3 egresses from up to four DSLAMs, concentrated traffic can be fed directly upstream via OC-3 / STM-1 or another DS-3/E-3.

The multi-protocol software capabilities of the A-1240 and A-2000 enable the network outputs from both Frame Relay and ATM DSLAMs and non-DSL devices to be aggregated onto a single upstream link, eliminating the need for separate access networks to support each specific service and translating into further savings for the service provider.

Significant benefits offered by the ASC family of products include:

   IMA aggregation. Using ASC to aggregate all traffic over a T1/E1, NxT1/E1 (using IMA or multi-link frame relay), T3/E3, or OC-3c provides considerable cost savings to service providers.

   Inter-works multiple DSLAM types. ASC can inter-work ATM and Frame Relay traffic and hence can aggregate traffic from DSLAMs of either type, allowing the service provider to "mix and match" DSLAMs on a per site basis as necessary.

   Supports T-carrier traffic. For customers where DSL is unavailable because of loop quality or distance, ASC also supports direct T1/E1, multi-T1/E1, or T3/E3 access. ASC's "any protocol over any port" capability lets service providers deliver a mix of ATM, frame relay, and TDM circuit emulation services to customers that are beyond the reach of DSL.

   Adds QoS. Most DSLAMs lack QoS support; ASC's integral QoS capabilities allow service providers to meet their service level agreements and offer differentiated services.
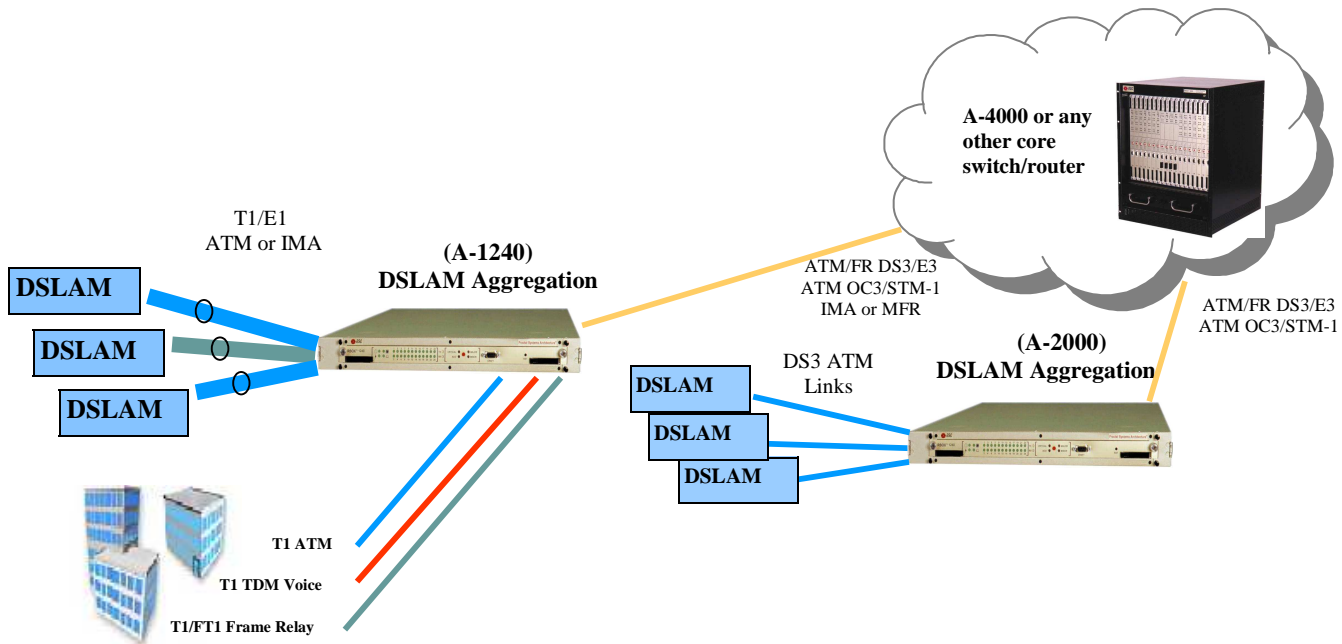
High Density IMA Aggregation Device

Multi-Protocol Support

Extremely Reliable

Voice and Data Support in One Box

Compact Form

T1/E1
ATM or IMA

**(A-1240)
DSLAM Aggregation**

DSLAM

DSLAM

DSLAM

**A-4000 or any
other core
switch/router**

ATM/FR DS3/E3
ATM OC3/STM-1
IMA or MFR

ATM/FR DS3/E3
ATM OC3/STM-1

DS3 ATM
Links

**(A-2000)
DSLAM Aggregation**

DSLAM

DSLAM

DSLAM

T1 ATM

T1 TDM Voice

T1/FT1 Frame Relay

Summary

By implementing ASC's aggregation solutions, service providers can concentrate both remote DSLAM and non-DSL traffic upstream to the core network over a wide variety of facility types and protocols. The flexibility inherent in the ASC A-1240 and A-2000 products allows service providers to eliminate the use of unnecessary, expensive, and duplicated facilities and equipment and results in significant improvements in service provider profitability.

About NSGDatacom

NSGDatacom designs, manufactures, sells and supports a wide range of voice and data products focused on real world business communication needs.

Combining key strategic acquisitions with its own core development team, NSGDatacom utilizes a wide range of proven, stable technologies. NSGDatacom creates solutions with these technologies to maintain and preserve organizations' network investments and mission-critical applications while enabling a smooth migration to newer technologies.

NSGDatacom products are deployed worldwide in corporate, financial, government, military, carrier, satellite, and cellular networks.

NSGDatacom

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