

# ITU-T The Leader on Ason Standards

## Architecture and Requirements

**G.8080/Y.1304**, Architecture for the automatically switched optical network (ASON)

**G.807/Y.1302**, Requirements for automatic switched transport networks (ASTN)

## Call and Connection Management

**G.7713/Y.1704**, Distributed call and connection management (DCM)

**G.7713.1/Y.1704.1**, DCM signalling mechanism using PNNI/Q.2931

**G.7713.2/Y.1704.2**, DCM signalling mechanism using GMPLS RSVP-TE

**G.7713.3/Y.1704.3**, DCM signalling mechanism using GMPLS CR-LDP

## Discovery and Link Management

**G.7714/Y.1705**, Generalized automatic discovery techniques

**G.7715/Y.1706**, Architecture and requirements of routing for automatic switched transport network

**G.7716/Y.1707**, Architecture and requirements of link resource management for automatically switched transport networks

**G.7717/Y.1708**, ASTN connection admission control

## Other Related Recommendations

**G.872**, Architecture of optical transport networks

**G.709/Y.1331**, Interface for the optical transport network (OTN)

**G.959.1**, Optical transport network physical layer interfaces

**G.874**, Management aspects of the optical transport network element

**G.874.1**, Optical transport network (OTN) protocol-neutral management information model for the network element view.

**G.875**, Optical transport network (OTN) management information model for the network element view

**G.7041/Y.1303**, Generic framing procedure (GFP)

**G.7042/Y.1305**, Link capacity adjustment scheme (LCAS) for virtual concatenated signals

**G.65x** series on optical fibre cables and test methods

**G.693**, Optical interfaces for intra-office systems

**G.7710/Y.1701**, Common equipment management function requirements

**G.7712/Y.1703**, Architecture and specification of data communication network.

**G.806**, Characteristics of transport equipment - Description methodology and generic functionality

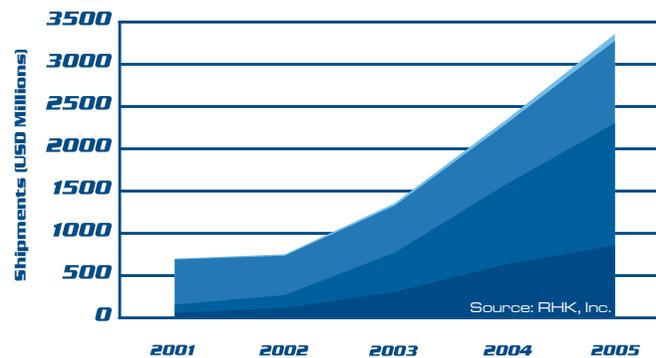
## ASON means

- Dynamic signalling-based policy-driven control over OTN and SDH networks via a distributed (or partially distributed) control plane that provides auto-discovery and dynamic connection set-up. This enables:
  - Improved support for current end-to-end provisioning, re-routing and restoration
  - New transport services such as bandwidth on demand, rapid service restoration for disaster recovery, switched connections within a Private Network, etc.
  - Support for a wide range of narrowband and broadband clients signals such as:
    - SDH/SONET
    - IP
    - Ethernet
    - ATM
    - Frame Relay
    - ESCON, FICON, Fibre Channel
    - Audio/Video

Given the global scope of fibre optic transport networks based on WDM, the ASON market potential is bright.

## Wavelength Service Forecast (worldwide)

Global Optical Core Switch Market (USD Millions)



Legend: Asia Pacific, North America, Europe, Rest of World

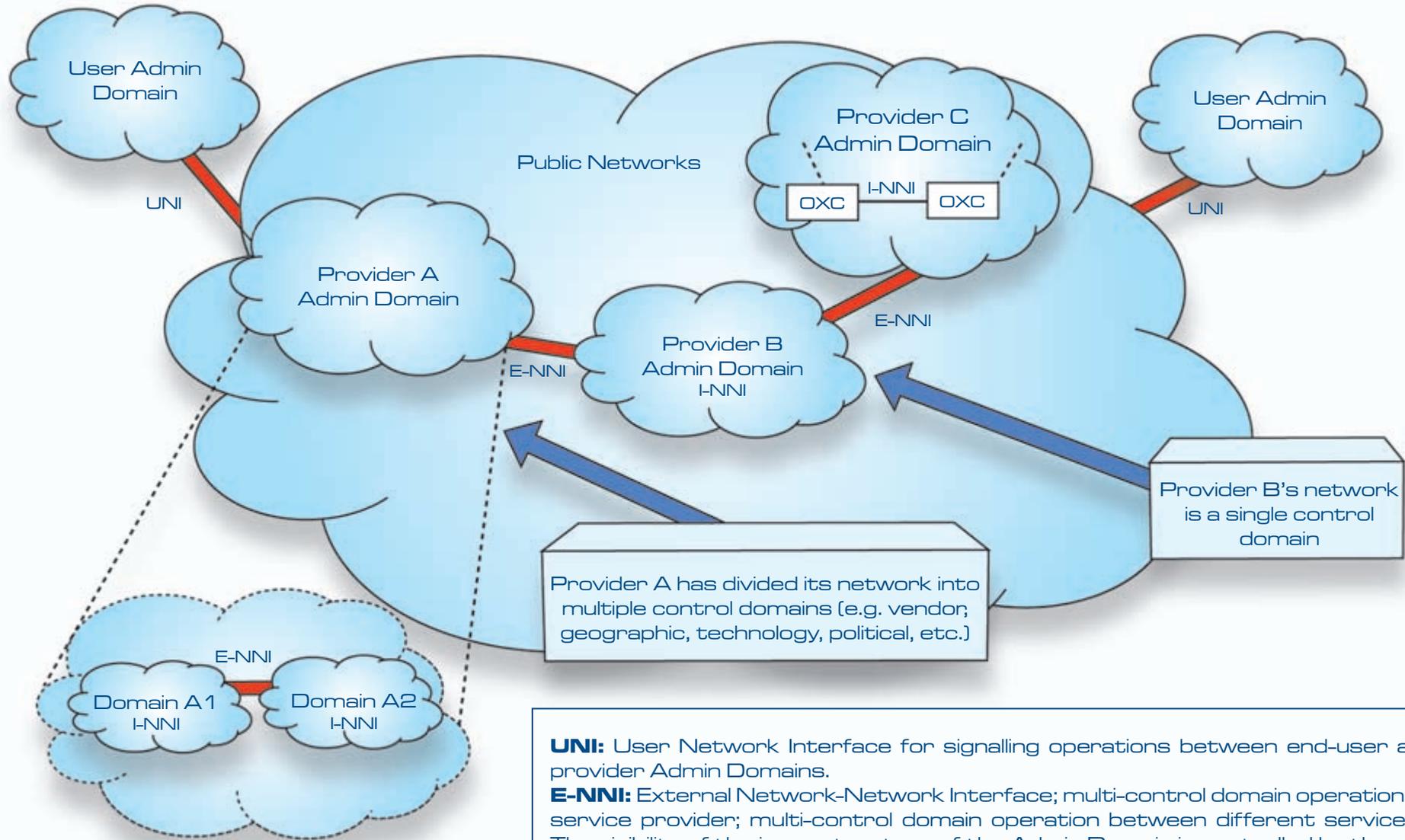


# ASON

Automatically Switched  
Optical Network

Your new fibre optic network  
control plane solution

# Global Optical Connection Control



**UNI:** User Network Interface for signalling operations between end-user and service provider Admin Domains.  
**E-NNI:** External Network-Network Interface; multi-control domain operation for a single service provider; multi-control domain operation between different service providers. The visibility of the inner structure of the Admin Domain is controlled by the policy of the service provider.  
**I-NNI:** Internal Network-Network Interface; intra-control domain operation.  
**OXC:** Optical Cross-Connect system (electrical or photonic matrix).

(Figure above represents one of many possible implementation scenarios.)