

# Arcstar Global IP-VPN Service

Secure, Scalable Global Networking With World-Class Quality

## The NTT Communications Global MPLS Solution

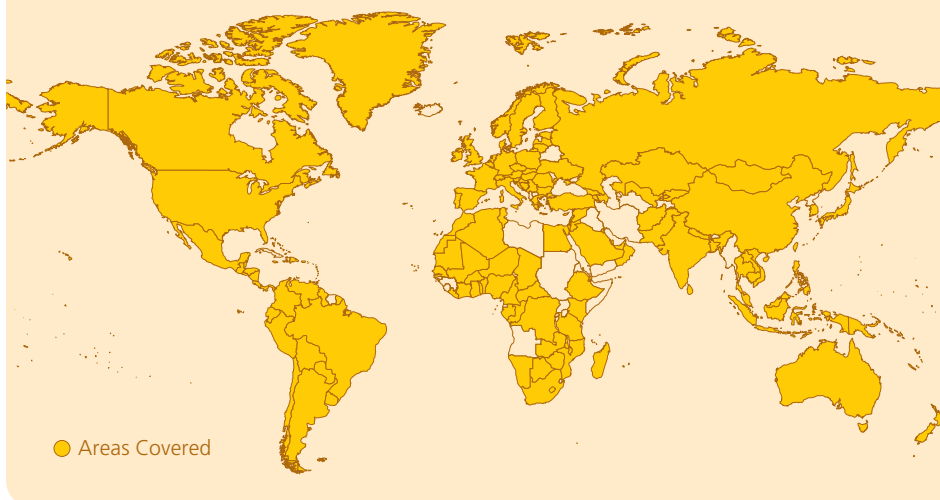
NTT Communications' Arcstar Global IP-VPN service is a fast, secure, cost effective and high quality global network solution, that uses a Layer 3 IP-based backbone to help enterprise customers integrate their converged global networks in a full-meshed network environment. For customers that operate around the world, in both developed and emerging markets, the Arcstar Global IP-VPN service provides performance and agility.

The NTT Communications Global IP backbone architecture has been designed with full redundancy and automatic reroute. We offer service level guarantees designed to support your commitments to internal and external business users. With NTT Communications, customers feel secure running mission critical data, voice and video applications over a world-class MPLS network.

Customers choose NTT Communications for unparalleled global implementation expertise and ongoing support, which has been demonstrated through over 10,000 MPLS ports worldwide. With local presence and strong last mile partnerships in every country where the Company does business, NTT Communications provides "feet-on-the-street" support to troubleshoot issues and maintain constant communication with its customers.

Winning the highest cumulative score among eight global operators, ranked NTT Communications highest in terms of overall customer satisfaction in the "Voice of the Customer: Global Data VPN" report issued by Telemark Services on April 24th, 2008.

## NTT Communications Global MPLS IP-VPN Service Coverage



### MPLS Benefits

- High Availability
- Service Level Agreements
- Voice, Video and Data
- Quality of Service (QoS)
- Scalability
- Ease of Management

### NTT Communications Benefits

- Extensive Global Coverage with particular depth in Asia-Pacific region
- No congestion Tier 1 global backbone with largest capacity between U.S. and Asia
- Proactive Monitoring
- One-stop Order, Billing and Support
- Simple Per-Site Quality of Service (QoS) Pricing

### Quality Recognition

Telemark Platinum Award\* April 2008 "Voice of the Customer: Global Data VPN" report

"NTT Communications occupies the number-one position in the league table that compares eight global operators for overall customer satisfaction."

**Janet Watkin**  
Director of Telemark Services

\* Telemark Award: Based on a Customer Satisfaction Index (CSI) survey by an independent market research firm Telemark Services

## Complex Routing Support

NTT Communications can provide support for complex customer routing environments. Static, BGP and EIGRP routing options are available between CE and PE router, as well as support for Load Sharing and redundancy designs.

## Quality of Service (QoS) Enabled

We provide a mature platform for the integration and QoS management of voice, video and data through our 7-class Priority Control Service (PCS). PCS adheres to industry standards for classification, congestion management, queuing and end-to-end delivery of IP packet data. PCS features a unique and simple price structure with a single per-site charge to have the service enabled. NTT Communications does not price the service based on real-time traffic profiles or Gold, Silver, Platinum type classifications.

## Access Options

The Arcstar Global IP-VPN service features a range of access options by location, including Ethernet, DSL, MPLS and Leased Line connections. We work closely with you to determine the best option at each site for both performance and cost effectiveness. NTT Communications is the leader in carrier management in the Asia-Pacific region and beyond, working closely to enhance local access quality through the Arcstar Carrier Forum, an ongoing quality improvement program involving our global partners.

## Superior Service Level Agreements

The Arcstar Global IP-VPN service features Service Level Agreements for Restoration Time, Outage Notification Time, On-time Delivery, Transmission Delay, Availability and Data Delivery Ratio. SLAs are also enhanced with the use of QoS, where prioritized traffic will receive a higher SLA commitment.

## Managed CPE

NTT Communications also offers optional managed router services. These services include global procurement, configuration, installation, monitoring and maintenance of customer premise devices used to connect to the MPLS service. NTT does not require all locations to have managed CPE, customers have the flexibility to mix and match these deployments wherever needed, effectively filling gaps in remote IT presence while keeping control where IT expertise is available. We manage both the router and the circuit.

## Multicast Enabled

The Arcstar Global IP-VPN service supports native IP Multicast over our managed network. The standard implementation offers PIM-SM (sparse mode) and PIM-SSM (source specific Multicast). Use of multi-cast can be determined on a per-port basis.

## Web Portal Reports

NTT's Web-based Traffic Reporting Service provides Arcstar MPLS customers with network utilization, performance information (latency, packet loss, jitter etc), service outage information and trouble ticket resolutions via a Web Portal. Customers will be able to access this web reporting service anywhere and anytime.



### MPLS Recovery Capability for Large-Scale Disaster

On December 26, 2007, there was a large earthquake 90km south of Taiwan that damaged most of the undersea telecommunications between Asia and the U.S.

Not only did the NTT MPLS backbone's fully resilient design allow for all customer traffic to automatically re-route over an unaffected path, but NTT also leveraged our relationship with a China partner to implement a China terrestrial route within 1 day to dramatically reduce latency for MPLS customers.

### MPLS Customer Referral

"NTT Communications' customer service and support is superior to the major competitors. NTT is a lot more personal, easier to get people on the phone, and the job gets always done on time."

**John Berry**  
IT Director  
NNR Global Logistics