

Advisory Report

# Global Network Tracker: Assessing the Leaders for Global IP MPLS Reach and Competitive Access

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## ■ Issue

There are a number of key buying criteria that global multinational companies must consider when procuring international data networks, such as reach and performance, and the overall service wrap such as client support, value added services and SLA and contract terms.

*Current Analysis* recently completed its new **Global Network Tracker**, which compiles in a single database the networks of leading global carriers and plots on an interactive map network PoPs and access capabilities by country and city. The database tracks the countries reached by each carrier's MPLS network and whether they own the infrastructure or are using interconnect agreements (MPLS NNIs) with other operators to serve customers in a particular county. In addition, *Current Analysis* tracks the local access options supported such as DSL and Ethernet and the countries where carriers can deliver Ethernet VPLS. Fourteen major network operators were included: AT&T, BT, Cable&Wireless Worldwide, Global Crossing, NTT Communications, Orange Business Services, Reliance Globalcom, SingTel, Sprint, Tata Communications, Telefónica, Telstra International and Verizon Business.

This report summarizes the findings and identifies the competitiveness of each carrier by geographical region, namely Asia-Pacific, Eastern and Western Europe, Latin America/Caribbean, Middle East/Africa, and the U.S./Canada. The Global Network Tracker also provides on-going analysis on for example MPLS PoP expansions, capacity expansions and network upgrades, undersea and terrestrial cable investments and projects, new NNI partner agreements and key network services launches.

## ■ Current Perspective

The ability of an operator to provide a geographically comprehensive on-net IP/MPLS footprint that can support a customer's key sites is critical for customers when procuring global network services. However, the truth of the matter is that few carriers own and operate truly global on-net footprints, and therefore must rely on local access partners and NNIs to augment reach and deliver local support. For the purposes of the **Global Network Tracker**, a wholly-owned MPLS PoP and MPLS NNI is clearly defined, and it is noted in the data where a carrier's interpretation of their MPLS assets differs and the ability to extend IP/MPLS inter-working to the edge via long-line or other means, contributes to their IP/MPLS footprint.

The global network services market can roughly be divided into two camps: incumbents that have very strong local market and in-region infrastructure, such as Tata Communications in India and Asia-Pacific, and Telefónica in Spain and Latin America, and global operators, such as Global Crossing and

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Cable&Wireless, that are less involved in maintaining legacy footprints, but do not have incumbent status in their home country and massive-scale advantages. Thus for the end-user it boils down to a combination of choosing a service provider that has both strong on-net wholly-owned MPLS PoP assets, and effective third-party partnering strategies for NNIs and off-net access. There are clearly many other areas for consideration, such as local access strategies, customer operational and sales support, consistency and standardization and SLAs, and support for classes of service (CoS) for running and guaranteeing critical applications. Moreover individual country and regional requirements will remain a high priority deciding factor.

Being able to deliver on-net access in close proximity to a customer’s local offices, subsidiaries and partners all contribute to an effective international IP/MPLS strategy and can result in a carrier being more competitive with regard to faster local provisioning and troubleshooting, and more cost-effective circuit fees. Operators that have considerable global market presence and operations can play well to such strengths, including Orange Business Services which has for example particular operational advantages in African countries and throughout the ‘Orange’ countries in Europe.

The following table summarizes the competitiveness of each network operator based on the information gathered and presented in the **Global Network Tracker**, followed by more in-depth regional analysis:

	North America	Latin America	Asia Pacific	Middle East & Africa	Eastern Europe	Western Europe
AT&T	Strong	Competitive	Competitive	Concerns	Competitive	Competitive
BT	Competitive	Competitive	Competitive	Competitive	Strong	Strong
Cable&Wireless	Concerns	Uncompetitive	Competitive	Uncompetitive	Competitive	Strong
Global Crossing	Strong	Strong	Concerns	Concerns	Competitive	Competitive
NTT	Competitive	Uncompetitive	Strong	Uncompetitive	Uncompetitive	Concerns
Orange Business Services	Competitive	Competitive	Competitive	Strong	Strong	Strong
Reliance Globalcom	Competitive	Concerns	Competitive	Competitive	Competitive	Competitive
Singtel	Concerns	Uncompetitive	Strong	Uncompetitive	Uncompetitive	Concerns
Sprint	Strong	Competitive	Strong	Strong	Competitive	Competitive
Tata Communications	Concerns	Uncompetitive	Strong	Strong	Concerns	Concerns
Telefónica	Competitive	Strong	Competitive	Competitive	Strong	Strong
Telstra International	Competitive	Concerns	Strong	Concerns	Uncompetitive	Competitive
Verizon Business	Strong	Competitive	Competitive	Competitive	Competitive	Strong

Strong	Above average MPLS coverage based largely on own infrastructure and competitive access (DSL and Ethernet).
Competitive	Average MPLS coverage based largely on in-country NNIs, DSL and Ethernet access.
Concerns	Below average MPLS coverage in the region; limited DSL and Ethernet access.
Uncompetitive	Little or no presence in the region.

**North America**

U.S.-based providers AT&T, Global Crossing, Sprint and Verizon Business tout extensive national networks, with MPLS PoPs in major U.S. and Canadian cities and many second tier U.S. markets. In recent years, there has been an influx of international carriers working to establish a presence in North America to serve their existing MNC clients that have offices there. BT, Orange Business Services and Reliance Globalcom each have a strong presence in North America with the most owned U.S. PoPs among the international carriers; Telefónica and Telstra International

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also have PoPs in some top tier U.S. markets. BT and NTT America have had operations in North America since the late 1990s; Orange Business Services in the last several years has focused on strengthening its position within the U.S. market and today owns MPLS PoPs in major U.S. markets. Each of the carriers surveyed offer Ethernet access in the U.S. and AT&T, BT, Global Crossing, Orange Business Services, Reliance Globalcom, Tata Communications, Telefónica and Verizon Business also offer Ethernet access in Canada. VPLS is widely available in the U.S. through in-region providers AT&T, Global Crossing and Verizon Business, as well as through Reliance Globalcom and Tata Communications. Sprint does not offer VPLS; instead the carrier delivers EVPL services across its MPLS fabric, reaching all locations on its SprintLink and Peerless IP networks. Reliance Globalcom acquired U.S. Ethernet provider Yipes in 2009, bringing Reliance Globalcom approximately ten U.S. markets where the carrier supports Ethernet access and VPLS. Telstra's partnership with Global Crossing enables the carrier to offer VPLS as well as Ethernet access in the U.S. DSL access is available in the U.S. through AT&T, BT, Orange, Telefónica, Reliance Globalcom, Telstra International and Verizon Business, and in Canada from AT&T, Orange, Telefónica, Reliance Globalcom, Telstra International and Verizon Business.

**Latin America**

Global Crossing, Orange Business Services and Telefónica claim the broadest coverage in Latin America. Telefónica has had operations in the region for years and posts the most owned PoPs and interconnection agreements, providing services to businesses in 20 Latin American countries. Orange Business Services serves 31 Latin American countries, mostly through interconnection agreements although the carrier also has a strong on-net reach in the region as well. Global Crossing's strength in the region stems largely from its 2007 acquisition of Impsat. Today, Global Crossing serves the region with a service portfolio that includes Ethernet access options and the carrier's EtherSphere VPLS offer. AT&T, BT and Verizon Business, have strong on-net coverage across the region, Sprint also has broad coverage mostly through owned PoPs but also NNIs. Asia-based carriers are largely missing from this market, Telstra International reaches Latin America exclusively through NNIs, and Reliance has just a couple of PoPs in the region but to counter this potential weakness it does offer the highest number of Ethernet and DSL access countries with 15 Latin American countries covered. Telefónica, AT&T, Verizon Business, BT, Sprint, Global Crossing and Orange Business Services also provide Ethernet access to countries in the region. VPLS is quite limited in the region: Verizon Business notes availability in nine countries, AT&T and Global Crossing offer VPLS in four countries. DSL access is also fairly limited, Orange and Sprint offer the option in 12 countries, and finally AT&T, BT and Telefónica also offer DSL access in a few locations.

**Asia-Pacific**

Tata Communications and Telstra International claim the most-owned MPLS PoPs in the region. Telstra boasts the broadest coverage through a combination of owned PoPs and the interconnection agreements, but Tata Communications also has a substantial margin over other carriers in terms of reach. Sprint, BT, Verizon Business and Cable&Wireless also show strong on-net coverage, with each of these providers serving the region largely through their own MPLS PoPs. Despite its role as a regional carrier, NTT posted fewer owned PoPs in the region compared to its rivals. In terms of access, all 13 carriers surveyed provide Ethernet access to some locations, with Tata Communications, Singtel, Reliance Globalcom and Telstra International providing Ethernet access in the most countries. Singtel, Telstra International and Verizon Business make VPLS available in the most countries (13, 12 and nine respectively), although Tata Communications, NTT, AT&T and Reliance Globalcom also deliver VPLS in the region. DSL access is supported in some countries by AT&T, BT, Orange, Reliance Globalcom, Singtel, Sprint, Telefónica and Telstra, with Orange Business Services, Reliance Globalcom, Telstra International and Sprint supporting DSL access in the most locations.

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**Middle East & Africa (MEA)**

Orange Business Services, Sprint and Tata Communications report the highest numbers of own MPLS PoPs in this region, with Telstra International, Verizon Business and BT also owning reasonable footprints. Global Crossing has a good MPLS on-net presence in MEA, and is also a leader in terms of NNIs with other MEA-based operators. Despite lower owned PoP counts, Telstra International and Telefónica have among the highest numbers of NNIs in this region. Looking at the access side, Sprint offers the highest number of DSL access countries closely followed by Reliance Globalcom and Orange Business Services. Ethernet access appears to be in early stages of development in MEA, but having said that, Tata Communications reports a strong listing with service available in eight countries. Finally Ethernet VPLS is also largely missing from Europe-based and North American carrier's listings (i.e., no VPLS availability at all), in contrast with Asia-based carriers Tata Communications, Reliance Globalcom and Singtel each of whom have in-region Mid-East/Africa Ethernet VPLS offerings.

**Eastern Europe**

Orange Business Services, Sprint, Telefónica and BT are leading global MPLS providers with strong own-MPLS PoP coverage in the Eastern European region, closely followed by Verizon Business, AT&T, Global Crossing and Cable&Wireless. This region is less well-served by the main Asia-based providers, such as Reliance Globalcom, Singtel and NTT. Interestingly Telefónica and Sprint report the highest numbers of MPLS interconnections in place with other Eastern European providers. In terms of VPLS, Verizon Business and Cable&Wireless emerge as leaders with three and four countries respectively offering VPLS services. Finally Orange Business Services has the strongest DSL access country level listing in this region for economical low- to mid-band access.

**Western Europe**

As expected, the Western Europe leadership listing for wholly-owned MPLS PoPs includes major incumbents Orange Business Services, Telefónica and BT. However, Sprint and Telstra International also appear with very strong on-net MPLS footprints on par with the previously mentioned rivals. Global Crossing and Cable&Wireless also have strong representation in Western Europe. North American candidates Verizon Business and AT&T have fair in-region assets on par with the main Asia-based operators including, for example, NTT. Telefónica is a leader in terms of DSL access with services available across 19 Western European countries, closely followed by Orange Business Services, Sprint, BT and Reliance Globalcom. Ethernet access is also well developed in Western Europe with for example Telefónica, Verizon Business, Orange Business Services, and BT offering comprehensive coverage and several other carriers trailing behind by very minor degrees including: Cable&Wireless, Global Crossing, AT&T, Sprint, Reliance Globalcom and Tata Communications.

**Recommended Actions****Recommended Vendor Actions**

- Carriers with strong in-region MPLS PoP ownership should certainly present to customers the advantages of working with a provider that can more effectively monitor and manage its own network for better performance and rapid response and troubleshooting. Ongoing efforts to expand networks and invest in PoPs in new regions, Ethernet VPLS expansions, new Ethernet and DSL capabilities and new NNI agreements should certainly be communicated to the industry. Progress here gives positive marketing messaging and opens new opportunities with local customer prospects as well as for foreign-based MNCs looking for in-region services.
- MPLS interconnects and NNIs should be presented as a cost-effective and logical way to augment access off-net. Carriers can explain to customers that the quality of the NNI depends

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entirely on the partner program and agreement in place and that an interconnection does not necessarily mean automatic degradation in the overall end-to-end solution performance. For example clients can be presented tiered partner practices for greater choice to fit budget, and how preferred, or 'Gold' partners, can result in the delivery of full CPE-to-CPE transparency and consistency in end-to-end SLA guarantees.

- Clients can also be attracted by a comprehensive combination of Ethernet and DSL access in each country to allow end-users to select local access based on the price versus performance trade-offs that meets the budget. Ethernet access is in particular demand in Asia Pacific and service providers need to constantly explore new partner opportunities to expand Ethernet access capabilities and deliver faster provisioning times.
- A handful of service providers, such as Tata Communications, Verizon Business, Global Crossing and Cable&Wireless, are excelling in their ability to deliver Ethernet VPLS worldwide, and competitors need to close these gaps to avoid competing on a weaker footing. Meanwhile the mentioned VPLS providers can boast market leading portfolios and the early-mover advantage.
- Naturally, having the highest MPLS PoP count is not enough and the service wrap, pricing and SLAs are equally important; carriers must recall that Vanco, as a VNO, managed to win customers fairly effectively until it was bought by Reliance Globalcom in 2008. The main point here is that operators must be competitive on price and provisioning times and reassure customers that they are skilled in managing and selecting local network partners and that the partners they have chosen are reliable, financially stable and can deliver the target SLAs and required resiliency for a customer's sites

**Recommended User Actions**

- Multinational enterprises will want to match prospective carrier service availability to their service needs. Several carriers stand out as market leaders in the global network services space, including AT&T, BT Global Services, Global Crossing, Orange Business Services and Verizon Business, with a mix of networking solutions that include MPLS, VPLS, Ethernet and DSL access. Enterprises need to look beyond the number of PoPs and understand the local resources the carrier has serving a particular market, how customer service is handled and compare carriers around provisioning times guaranteed across key cities and regions.
- Enterprise customers also need to find out what a carrier's roadmap for expansion is. A multinational that is planning expansion into a particular market or region will want to make sure that the carrier can grow with their own company and deliver the required services. This is particularly important for enterprises that are considering expansion into emerging markets such as Eastern Europe and the Middle East/Africa where coverage by major providers is somewhat thin.
- Enterprises will also want to investigate a prospective service provider's partnering strategy for locations where the carrier does not have a presence. Maintaining consistent CoS and strong SLAs for critical applications such as VoIP and high-definition videoconferencing (e.g., telepresence) are important factors in deciding on a service provider, enterprises need to be assured that although a carrier must rely on partners for some locations enterprise service quality will not suffer as a result.
- VPLS is a relatively new technology that has been on the rise in recent years. Features such as ease of management and the ability to retain control over traffic routing tables has attracted the attention of the enterprise market. While availability of VPLS is still relatively limited, several carriers have deployed global implementations while others can provide the service to some countries on a regional basis. As enterprise's contracts come up for renewal, these companies may want to investigate VPLS, or consider a hybrid Layer 2 Ethernet/Layer 3 IP VPN option.

Business Network and IT Services

## Global Network Tracker

The new **Current Analysis Global Network Tracker** service provides a competitive database of the countries and cities where the leading global carriers own network PoPs, and have NNIs with other carriers in order to deliver MPLS IP, Ethernet and DSL VPN and access services. The service is designed to help competitors bid more effectively on global network deals for multinational customers.

Features of the new **Global Network Tracker** include:

### Global Network Database

Using the Global Network Tracker database, clients can quickly find what a carrier can offer in a particular region, country or city and build up a picture of global service capabilities and where they can deliver services on-net. Updated every six months, the database includes carrier offerings in Western Europe, Eastern Europe, United States and Latin America, Middle East and Africa and Asia Pacific.

### Global Network Alerts

Concise impact analysis reports will alert clients whenever major competitors have expanded their network reach, upgraded their network or service capabilities in a region via their own infrastructure or NNIs.

### Advisory Market Trend Reports

Published every six months, Market Trend Advisory reports provide market commentary on the global network operator market, new network expansion, partnerships and MNC bid activity and to determine competitiveness by geographical region.

### MPLS/VPLS Competitiveness Ratings

Analysts call out which carriers are competitive by region for MPLS and VPLS services.

### Talk to an expert

Analyst inquiry time is bundled in with subscriptions to the new Global Network Tracker.



### Companies tracked include:

- AT&T
- BT
- Cable&Wireless
- Deutsche Telekom
- Global Crossing
- NTT
- Orange Business Services
- Reliance Globalcom
- SingTel
- Sprint
- Tata Communications
- Telefonica
- Telstra International
- Verizon Business