



Advisory Report:	Global Data WAN Product Assessment Update
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Summary

Issue

Global data network services continue to evolve, with strong attention to security and to enabling enterprises to move applications, computing and data storage into the cloud. Current Analysis recently updated its assessments of the global data WAN portfolios of five major international providers: AT&T, BT, Orange Business Services, Tata Communications and Verizon. This report focuses on the improvements made to the portfolios over the past six months and examines product roadmaps and initiatives in place for future service advancements.

Perspective

Current Perspective

There has been no seismic shift in the pool of carriers examined in the Current Analysis Global Data WAN product class in the past six months. The changes have been in small increments, with no major breakthroughs to propel any single provider into a leading spot. Outside of the core global enterprise competitors actively tracked by Current Analysis, NTT Communications has expanded its sales and operational presence aggressively. NTT had new sales offices and PoP expansions in Europe and launched new Ethernet offerings in the U.S. Global Crossing and Interoute continued to expand their networks, pushing farther into the retail multinational market. The five service providers covered in the product class (AT&T, BT, Orange Business Services, Tata Communications and Verizon), however, also have been focused on several aspects for strengthening their global data WAN services.

One of the main priorities has been expanded reach via NNI partners, new PoP builds and more Ethernet and DSL access options. Most providers have improved local access by adding more countries where broadband is available and by delivering PoP diversity with new regional partners to extend off-net reach. BT, for example, rolled out premium DSL available in Italy and Austria, and the carrier intends to offer more flexible multi-protocol access based on packet-switched Ethernet. Verizon has also increased the availability of DSL access to MPLS, up from six to eleven countries.

Customer self-service tools are also being improved to give clarity on how applications are behaving in both public and private networks, as well as across the cloud. For example, during November 2010, AT&T integrated its 'BusinessDirect eMaintenance' capabilities with OPT-E-WAN (AT&T's flagship Ethernet service) for trouble reporting and tracking, as well as online ticketing and inventory activities, and enabled move/add/change/delete (MACD) requests through a MACD selection tool. BT is also adding online monitoring for its international Etherflow service to Virtual Business Centre, available in a single interface alongside IP VPN monitoring.

Layer 3 IP VPNs continue to feature the most highly in corporate data WAN deployments as a mainstay technology and protocol. However, Ethernet access and end-to-end Layer 2 Ethernet VPN take-up is accelerating according to most operators, alongside steady progress to higher Ethernet port speeds such as 100 Mbps access, 1 Gbps and even upwards to 10 Gbps. Carriers report solid take-up of higher port speed Ethernet services point-to-point, but in contrast, there is some vagueness in the take-up of VPLS any-to-any products. Tata Communications and Colt are exceptions, with these operators reporting positive momentum for Ethernet VPLS.

Smart demarcation for Ethernet services was on the product development agenda of several providers during H2 2010, with Global Crossing, Colt, Telstra International and BT all releasing intelligent NID devices to support better fault isolation, circuit performance monitoring and loop-back testing on their international Ethernet services. Tata Communications has been supporting smart demarcation since 2007 with its Managed SLA product.

Meanwhile, Tata Communications largely completed a PBB upgrade in November 2010 based on the IEEE 802.1ah standard. The company used Cisco equipment to provide higher core service availability, support for a very high number of VLANs (16.7 million compared with the typical 4,094 maximum on other technologies), MAC efficiency for multipoint circuits and deterministic protection. Tata Communications' Ethernet strategy continues to be aggressive, as the carrier is somewhat new to the retail VPN segment internationally compared with BT, Orange Business Services, AT&T and Verizon; thus, the Indian incumbent is seeking to differentiate on L2 Ethernet innovation. For example, Tata Communications can currently offer up to up to 10 Gbps standard across 25 Ethernet PoPs in eleven countries, which is difficult for its rivals to match. In step with the PBB upgrade, Tata Communications is deploying nodal diversity in London, Paris, Singapore (two locations), Japan (two locations) and the U.S. (four locations).

In terms of cloud enablement, all the major international providers are gearing their networks and messages to support enterprise customer migration of computing power and applications into the cloud. BT is increasing port speeds, expanding its multi-protocol access options and focusing on secure network integration between public and private networks to give customers more suitable cloud environments, whilst Orange Business Services launched a new IP VPN product named 'VPN Galerie' domestically in France during February 2011, marketed as a new VPN service pre-configured to take enterprise clients directly into cloud computing and to take advantage of SaaS. VPN Galerie has more or less the same product metrics, access types and speeds, and SLA parameters as Orange Business Services' Business VPN product. The difference is that applications developers are encouraged to plug into the network, so that VPN Galerie users and customers can take advantage of cloud services including IaaS, collaboration and telepresence, Orange's IT Plan and other cloud computing applications. Meanwhile, AT&T has invested considerable resources into developing its Synaptic solutions portfolio to give customers secure and efficient delivery of on-demand storage and compute services over its OPT-E-WAN and AVPN product tiers. Finally, Verizon spent \$1.4 billion to acquire Terremark Worldwide to boost an existing everything-as-a-service strategy further, adding 13 new data centres in the U.S., Europe and Latin America from which to support Verizon's enterprise IaaS and security offerings. As we proceed into 2011, we can expect service provider marketing of data WAN services to include more emphasis on service-on-demand and all things done in the cloud via a single access to said corporate data WAN, be that IP VPN or Layer 2 Ethernet VPN.

The following section summarizes the positioning of the five carriers covered in the global data WAN product assessments:

AT&T: Threatening

AT&T sells mature L2 Ethernet 'OPT-E-WAN' and L3 IP VPN 'AT&T VPN' (AVPN) offerings, backed by a strong online customer portal, AT&T Business Direct. AT&T enjoys a significant global brand and has relatively massive group scale and synergy to provide worldwide support. In Europe, Orange Business Services and BT Global Services can highlight AT&T's lower IT outsourcing staff presence for supporting fully managed, complex IT projects in this region on behalf of clients.

BT: Threatening

BT is very strong in Europe (Eastern and Western) and has a solid presence in Asia-Pacific, the Middle East/Africa, and North and South America. BT closed a gap with competitors when it launched Etherflow in ten countries (this number will increase to 26 imminently). The carrier has a leading Applications Aware Infrastructure (AAI) strategy and achieves differentiation by offering a monthly client-touch session with a dedicated consultant.

Orange Business Services: Very Threatening

IP/MPLS capabilities to 197 countries give Orange Business Services a very strong global data WAN proposition. However, many announcements coming out of Orange Business Services focus on contract renewals rather than new client wins, which is a concern moving forward and indicates competitors are more up to speed compared with the former SITA/Equant glory years. Orange Business Services' international Ethernet VPLS reach is smaller than the reach offered by several competitors, including AT&T, Verizon, Global Crossing, Tata Communications

and Cable&Wireless Worldwide.

Tata Communications: Threatening

Tata Communications' roots in international wholesale have created a compelling global footprint to leverage on behalf of multinational clients. The carrier has a solid international IP VPN offering, and it was also an early-mover in international Ethernet VPN services. The carrier is a natural choice for Asia-based companies due to strong in-region coverage and operations, and it focuses on emerging markets both in Asia and in the Middle East/Africa regions. It is solid enough in Western Europe and the U.S., but less competitive for projects demanding comprehensive multi-site, in-region services in Latin America and Eastern Europe.

Verizon: Threatening

Verizon has strong IP VPN capabilities in the form of Private IP and a strong selection of Ethernet products. It has exceptional network assets and local sales and support in Western Europe and North America, as well as solid coverage in Asia-Pacific, Latin America and Eastern Europe. Its presence in the Middle East/Africa is not quite as strong as a handful of service providers that are powerful in this region, such as Tata Communications and Orange Business Services. Verizon improved its pan-African reach early in 2011 by putting in place several MPLS interconnections with a regional partner, Gateway Business Africa.

Recommended Actions

Vendor Actions

- Service providers need to support customers with flexible pay-as-you-go services and pricing to assist with tight budgets and unpredictable business cycles. Traffic bursting and bandwidth on demand as self-service functions via an online portal are areas that can deliver differentiation, since this has not been fully addressed on the international scale.
- Service providers should also work the flexible bandwidths afforded by Ethernet access into their portfolios to as many destinations as possible, so customers do not feel they need to pay more for entering the next price bracket for growing bandwidth needs.
- Carriers are effectively extending global reach via partners and interconnection. Identifying partners that can support end-to-end service consistency and standard SLAs is important, particularly in emerging markets such as Latin America, the Middle East, Africa and Asia-Pacific.
- Orange Business Services needs to keep the market informed of its progress with VPLS rollouts. Since the carrier's initial announcements of ten countries supporting Ethernet VPLS, little more has been said to confirm VPLS expansion in line with certain competitors that are ahead: for example, Tata Communications, Global Crossing, Verizon and AT&T.
- BT can continue to tout its advanced AAI portfolio, and it needs to keep up intense development efforts and focus on rolling out more widely available EPL services. The carrier can point out that it can offer very strong consulting and on-the-ground presence, particularly in Western Europe, through major subsidiaries in the Benelux, Germany, France, Italy and Spain.
- Telefónica Multinational Solutions can continue to play its fixed, mobile and ICT card for serving multinationals, because its mobile footprint offers differentiation. The carrier must launch a global Ethernet VPN offering to close a gap. The company also needs to showcase its capabilities for enabling cloud computing environments on behalf of major multinationals, which includes underscoring its international telepresence and IP multicast experience.

User Actions

- Customers should examine the on-net reach of various prospective network suppliers, to see which on-net footprint most closely matches the distribution of sites that must be interconnected. In most global deployments, the provider will be relying on partners. In such cases, it is important to check for SLA and service consistency, as well as how local customer support can be provided.
- Prospective customers need to ensure that their network vendors are not overly relying on legacy platforms such as frame relay and ATM, which raises network costs and reduces flexibility. Clients should be asking for

flexible bandwidth increments in order to pay for only the capacity that is required; they should also check whether the service provider offers consulting to help build optimized WAN solutions, including applications performance management. Such services will lend themselves well to the next generation of cloud services and corporate video.

- For large-scale international requirements, the main vendors to consider include AT&T, BT Global Services, Orange Business Services, Sprint, Verizon, T-Systems, Tata Communications and Telefónica. These global heavyweights have the workforces and experience in handling large projects to be able to deliver competitive offerings. However, there remain many alternative carriers to consider; therefore, the bids could also go out to Global Crossing, Interoute and Cable&Wireless, for example, or Telstra, SingTel and Reliance Globalcom if there is a heavy Asia-Pacific emphasis.

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