GÉANT

GÉANT MD-VPN

High performance, seamless Point-to-Point and Multi-Point layer 2 or 3 Multi-Domain VPN services

The GÉANT MD-VPN service will provide private high bandwidth international connectivity for research and education partners and providers.

Based on the same infrastructure that delivers IP service to millions of academic users through NRENs and GÉANT, MD-VPN is designed to be robust and highly scalable

Many research projects require the security and reassurance of a Virtual Private Network (VPN) to ensure data services are isolated from general Internet traffic. MD-VPN provide to end-users a safer inter-university network for research and education. Moreover, the traffic isolation allows projects to minimise the affect of the firewall - enabling high throughput performance.

GÉANT MD-VPN is a seamless infrastructure meaning the only configuration required is the setting up of the end-user connections. This wil make the lead time for delivery much shorter.

MDVPN will be able to transport all types of MPLS-VPN (L3VPN, P2P, L2VPN, MP L2VPN). Uniquely MD-VPN will allow sites to be connected to the VPN even if their host NREN does not take part in the service by using its VPN-Proxy. This dramatically increases the flexibility of the service.

ComputerWeekly
European**User Awards** : Networking
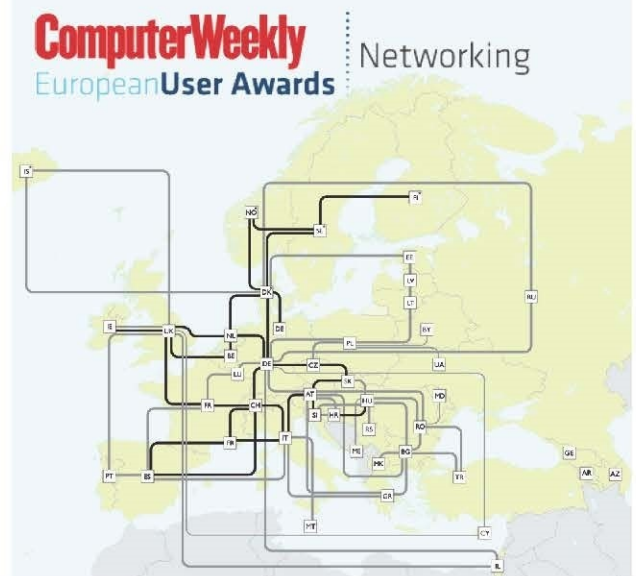
BENEFITS

Robust: BGP and MPLS VPN services provide automated re-routing and recovery

Safety: provide a safe environment

Flexible: Ideally suited for one-to-one, one-to-many or many-to-many connectivity requirements

Lead Time: VPN fast provisioning

High Capacity: up to 100Gbps services available*

**Reliable:** up to 99.999% availability (in core)

*MD-VPN services are normally delivered across the standard GÉANT connection and the aggregate of IP and MD-VPN capacity is limited to the access connection speed.
Service currently in pilot and specification subject to change

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Technical Specification

The GÉANT MD-VPN Service operates across the same physical infrastructure as GÉANT and all partners that take part in the service (NORDUnet, NRENs and regional networks). In addition to the standard GÉANT IP service, the following features are offered:

- L3VPN, P2P L2VPN (Martini and Kompela), MP L2VPN (VPLS)
- BGP LU peering with GÉANT Carrier of Carrier instance.
- BGP LU peering between NRENs and Regional Network
- VPN route reflector provided by GÉANT
- Resilient connectivity to GÉANT network when NREN/Sites are connected over dual BGP labelled Unicast peering.
- If connected via dedicated access line then provisioning and monitoring of access line on the agreed demarcation point.
- MPLS transport through GÉANT backbone network
- MPLS redundancy for transport across GÉANT backbone network
- Traffic statistics graphs
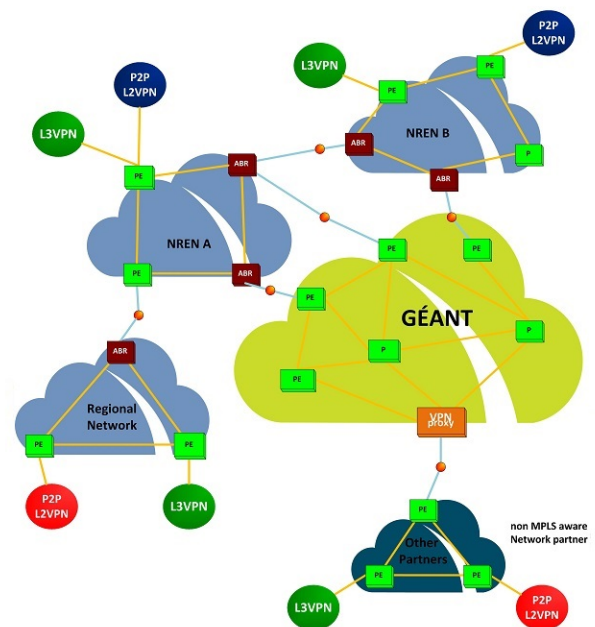
GÉANT MD-VPN is currently in pilot phase and is seeking participants from across the NREN community to work together to develop the service.

For more information on GÉANT MD-VPN download the white paper from http://www.geant.net/Resources/White_Papers/

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GÉANT is the pan-European research and education network that interconnects Europe's National Reseach and Education Networks (NRENs). Together we connect over 50 million users at 10,000 institutions across Europe, delivering services to drive innovation.

connect ● communicate ● collaborate

www.geant.net