

GÉANT World Service (GWS)

Cost-Effective, Flexible Internet Connectivity for NRENs

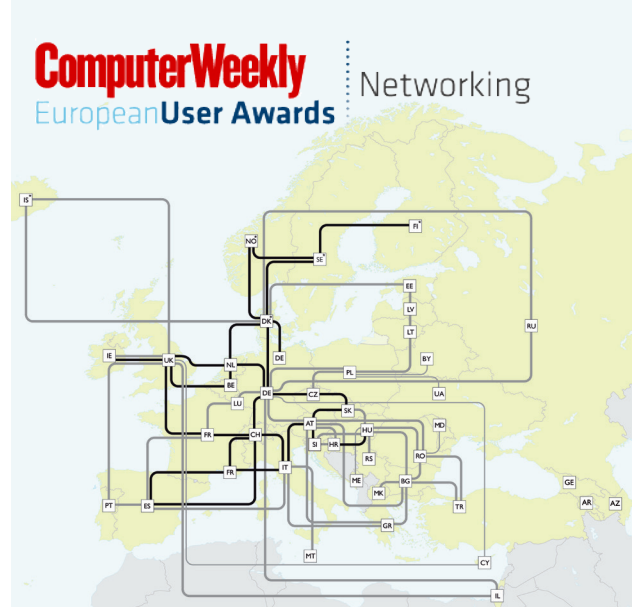
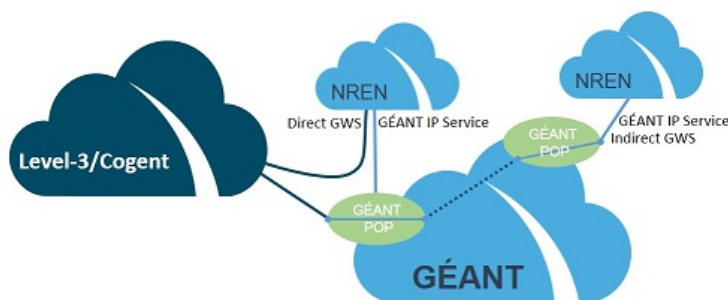
Cost-effective connections

GÉANT World Service (GWS) provides commodity IP access, offering NRENs access to the wider, commercial Internet. It is ideal for NRENs who wish to take advantage of the competitive costs, those who do not wish to organise an individual connection to an ISP or those who are keen to add diversity to their existing commodity IP access.

Multiple Connectivity Options

GWS allows NRENs to access commodity Internet traffic either through a direct connection to a GWS Internet Service Provider (ISP) or indirectly through their GÉANT IP port. In both cases there is a single bandwidth contract between GÉANT and the ISP, meaning that bulk-buying power often brings lower prices than might be available to an individual NREN locally.

GWS Delivery Options



BENEFITS

Flexible:

Provides additional or resilient Internet connections simply

Cost-effective:

Enables NRENs to benefit from negotiating power of GÉANT

Resilient:

Supports routing diversity for NREN traffic

Easy to Use:

Both Direct and Indirect Connectivity Options available

GÉANT World Service (GWS)

Direct GWS Service

As the GÉANT project's remit is to provide capacity for research and education traffic, GWS is not subsidised by EC funding and where possible GÉANT arranges a direct interconnection between the contracted ISP and the NREN, thus leaving the GÉANT port free for non-commercial traffic. NRENs can select from two ISPs: Cogent and Level-3.

Direct Connection GWS Pricing: the data rates offered by the different ISPs, as well as nonrecurring and recurring charges require custom pricing based upon location. For more information about your local options please contact

partner-relations@geant.net.

Indirect Connection via GÉANT IP

In locations where a GWS ISP is not present, or costs are prohibitive, then GWS will be provided via the normal GÉANT IP access over the GÉANT backbone.

To facilitate GWS, GÉANT is connected to two ISPs with world-wide connectivity: Cogent and Level-3. Traffic destined for these providers exits GÉANT at the closest point to its entry, and return traffic enters GÉANT at the closest point to the NREN. This is effected using Multi Exit Discriminators (MEDs), thus assuring symmetric traffic flow. Both ISPs provide communities that permit customers to modify how their routes are treated within the provider's network.

Indirect connection GWS pricing: For a quotation please contact partner-relations@geant.net

Technical Specification

GÉANT GWS Service Delivery

GWS provides access to two tier 1 Internet transit providers with direct peering to approximately 5000 ASNs worldwide.

GWS offers carrier grade SLA and support and efficient native IPV4 and IPV6 transport.

QoS and Multicast services are not supported by GWS. Customers seeking interdomain QoS or Multicast facilities should approach GÉANT separately for advice on alternative solutions to these requirements.

Supported Nominal Data Rates:	• 1Gbps - 10Gbps
Protocol Support	• IPv4 or IPv6, BGP routing
Target Circuit Monthly Availability	• Dependant on delivery mechanism
Delivery Time	• Subject to survey and provision of any third party circuits
NOC Coverage	• 24/7

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

