LAYER 2 OR LAYER 3?
INTERVIEW TO GABOR DERI

Layer 2 or Layer 3?

Private network services are excellent solutions for organizations wanting to cost-effectively connect multiple corporate locations and thus realize easy-to-use, scalable next-generation data transport solutions. They also optimize business performance by allowing data to be sent securely and at the desired speed.

Private network services are based on Multiprotocol Label Switching (also known as MPLS or Layer 3 solutions) and Carrier Ethernet Network (Ethernet Lines or VPNs, Layer 2 solutions).

First of all, Mr. Deri, how do you explain the increased demand for private network services?

In my opinion, it can be attributed to several factors. For example, it emerges from the enterprises' attempt to develop and optimize their IT infrastructure, quickly distribute business applications, and it also stems from the growing use of bandwidth among their production sites. These issues require them to restructure their heterogeneous telecommunication solutions, with dedicated and harmonized networks which provide high security and reliability.

Private network solutions can be based on Layer 2 or Layer 3. What do they have in common and what differs?

Layer 2 and Layer 3 VPNs enable enterprises to connect their sites in a consolidated way. However, there are clear differences between the two solutions. For example, Layer 2 Ethernet services are often used to optimize or replace legacy networks, which are currently realized with point-to-point connections. They offer different topology schemes such as point-to-aggregate or fully meshed VPLS (Virtual Private LAN Services). This allows customers to design the kind of network that best fits their data exchange matrix among interconnected corporate locations.

On the other hand, Layer 3 MPLS VPN is also used to connect corporate locations, but is especially suitable for larger networks with lower bandwidth requirements. This solution is relevant for multinational customers with long and remote distances between their user sites, or with a clearly defined area of geographical coverage.

Could you explain the specific benefits of using a Layer 2 or a Layer 3 solution?

With Layer 2 solutions carriers have full control over the network provided to their customers. They are able to manage their VPNs themselves and replicate their own product portfolio footprint by using the network coverage of their service provider. This solution allows an enterprises' IT departments to entirely manage their own processes and data integrity. Furthermore, they do not require additional hardware investment for bandwidth upgrades since the service termination interface is already configured for fast capacity increase. This gives flexibility over the management of bandwidth with the ease of upgrading capacity to port speed.

Layer 3, however, is a partially or fully outsourced solution, which reduces the total cost of ownership. This network is managed by ICSS, which only requires customer input concerning site changes, capacity needs and value added-functionalities. This is an optimal solution for enterprises that wish to focus on their core business and outsource network management.

Which solution fits best to your company?

◯ Layer 2

◯ Layer 3

◯ Both

See results

Which kind of enterprises are best supported by Layer 2 or Layer 3 solutions?

I would say that Layer 2 services are more suitable for organizations that need homogeneous access solutions and high bandwidth demands – such as financial institutions, government networks, healthcare organizations, and media or information technology companies. Layer 3 is an optimal solution for multi-site enterprises with many endpoints, but with lower bandwidth demands, such as retail store chains, service stations or embassies.

Even a combination of these two service types is viable in case the customer needs different networks for specific business needs, or classifies the endpoints differently.

> **"ICSS CES provides a complete portfolio for both Layer 2 and Layer 3 services with exceptional local access and backbone coverage."**
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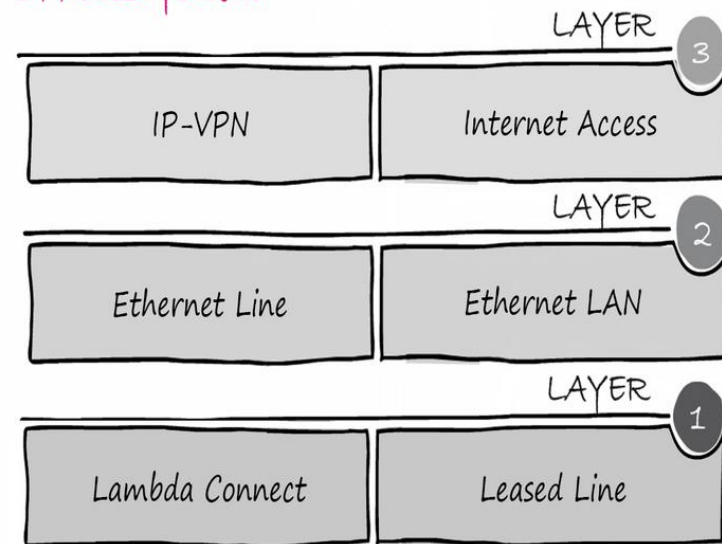> **Gabor Deri, Solution Engineering at Deutsche Telekom ICSS**

What makes ICSS Carrier Enterprise Services (CES) the best partner match for carriers?

ICSS CES provides a complete portfolio for both Layer 2 and Layer 3 services with exceptional local access and backbone coverage. We establish global network accessibility with last mile infrastructure managed by our affiliates, and complete them with our partner providers' network through competitive propositions. We provide a one-stop-shop customer experience, consolidated products and customer support, reinforced by the unrivalled service quality of Deutsche Telekom.

With highly qualified experts, we at ICSS are fully dedicated to our customers and ready to meet your needs for global telecommunications network. In short, we are connecting our customers with the entire world!

CARRIER ENTERPRISE SERVICES OFFERS YOU ...

LAYER 3

| IP-VPN | Internet Access |

LAYER 2

| Ethernet Line | Ethernet LAN |

LAYER 1

| Lambda Connect | Leased Line |

For more information on how you and your business might benefit from ICSS visit our website.

About our Expert

Mr.Gabor Deri has more than 10 years experience in the telecommunications industry. He is responsible for Wholesale Access Product Management, Partner Management and Solution Management at Deutsche Telekom ICSS.

Do you want to know more about our solutions?

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THANK YOU FOR READING

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