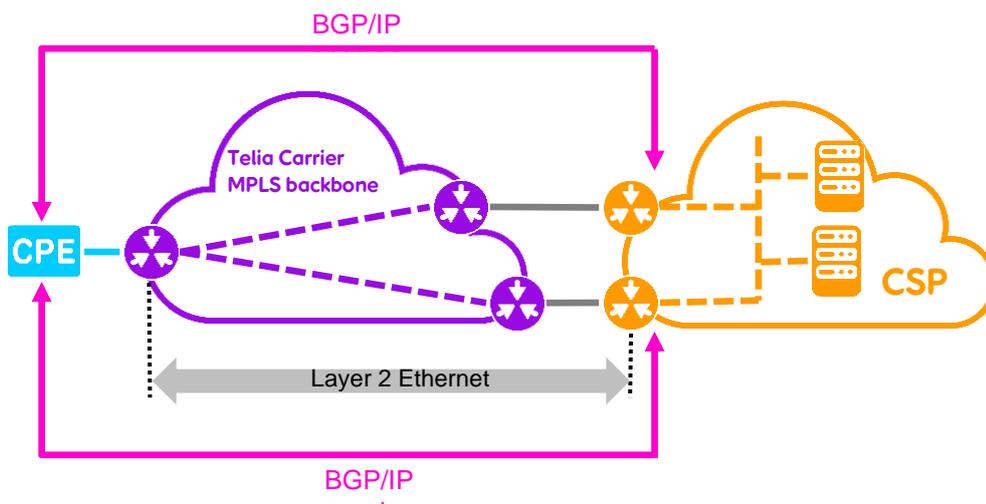


Telia Carrier's Cloud Connect solution - Frequently Asked Questions

Q1: What are the different cloud connections that Telia Carrier can provide?

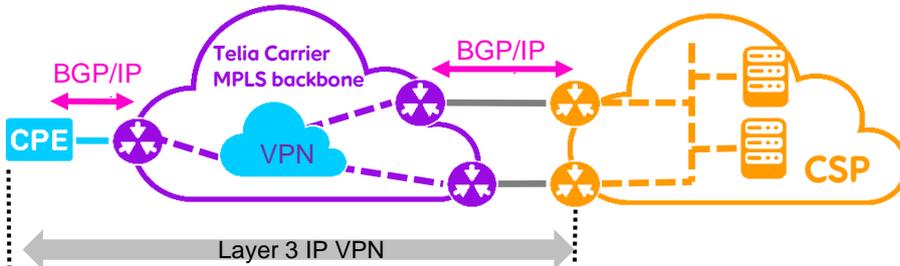
A: Telia Carrier can offer cloud connectivity in two ways. **The first** is where Telia Carrier takes care of the connection to a Cloud Service Provider (CSP), as well as the connection to customer site(s). We coordinate these service components and make sure that the customer site gets connected to the appropriate CSP region. This is our comprehensive, end-to-end service called Telia Carrier Cloud Connect.

The second option is when customers manage their Cloud connections directly with their CSP, and Telia Carrier provides the necessary connectivity services, such as a direct Internet connection and transport services.



The different connection alternatives for Cloud Connect solution can be tailored to how you want to connect your network to the cloud. You can choose between Layer 2, using our Ethernet services, or Layer 3, using our IP VPN services. If, for example, you have a specific site you want to connect, you should probably choose the L2 option, where we connect customer sites using a point-to-point Ethernet service with the appropriate CSP region. You can also connect to several CSPs from your main Ethernet connection, and you then manage BGP routing end-to-end.

If you need to connect from a VPN, you can choose our L3 option, which is based on our Smart IP VPN service. We then connect your VPN to the CSP. In this case, we are responsible for the BGP sessions, including primary and secondary configurations. Telia Carrier supports the services in your CSP partner programs, for example Azure ExpressRoute or AWS Hosted Connection, with the option of Transit Gateway, which is growing in popularity (bandwidths range from 50Mb/s up to 10G, depending on the CSP service).



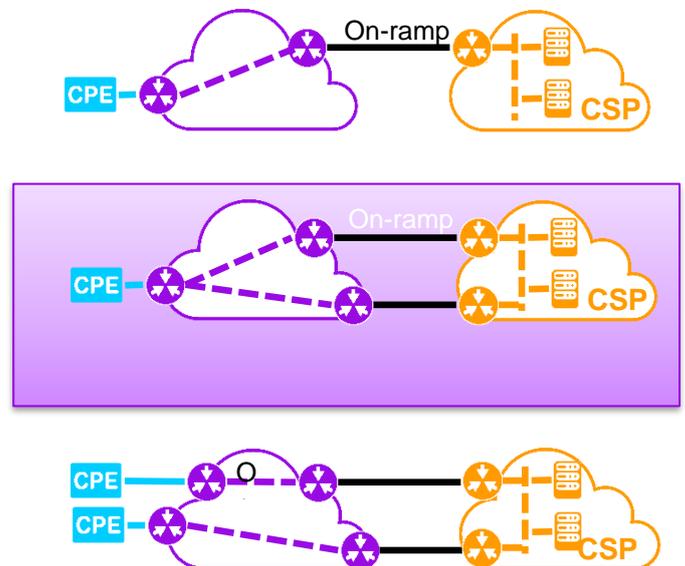
If you buy Cloud ports directly from your CSP, Telia Carrier can support you with network transport services. For example, if you plan to use Microsoft Office 365, we can support you with our Dedicated Internet Access service (DIA). If, on the other hand, you plan to use AWS Dedicated Direct Connect, you can connect your site with AWS using our Ethernet services, across our wide footprint of PoPs (Points-of-Presence).

Q2: Which SLA and diversity options are available with Cloud Connect?

A: When moving to the Cloud, enterprises and operators are dependent on secure and reliable connectivity services for business-critical applications. Telia Carrier offers several levels of diversity and various SLAs, based on your needs. The first level is basically a single connection from the customer to a Telia Carrier PoP and a single connection from a Telia Carrier’s PoP to the chosen CSP.

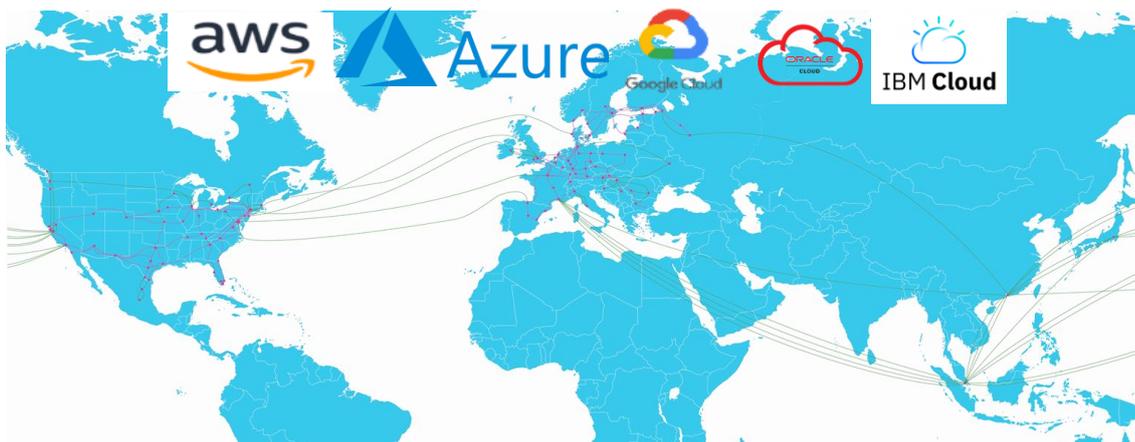
Since this is based on single ports, we would recommend the next level if you require a greater degree of redundancy towards your CSP. This option provides you with two redundant CSP connections (some CSPs have redundancy included in their service by default).

The highest level includes fully redundant connections towards both the customer site and CSP, including two redundant connections to the Telia Carrier PoP. All options are built on our global backbone, where we provide logical redundancy as well. Each service level is backed up with an SLA for the availability of the customer and cloud connections. Additionally, there is also an SLA for network performance because the traffic is carried in our managed MPLS network.



Q3: Why is Telia Carrier's Cloud Connect service so attractive?

A: Our Cloud Connect service is all about effortless connectivity and being able to provide an exceptional network experience for our customers, which means we need to be where you are and also where your CSPs are – in other words, where the CSPs have their main peering locations and regional support. Telia Carrier can offer a combination of global network coverage across our own network, where we connect customer premises either using L2 or L3 services, and an extensive range of interconnects with CSPs at key peering locations. Telia Carrier's global network of 320+ PoPs allows customers to connect their sites to our MPLS network and from there to their chosen CSPs via high-capacity on-ramps at key CSP peering locations. Our global backbone is constantly expanding and we are continuously adding new locations, new PoPs and routes. Additionally, thanks to our partnerships with AWS, Azure, Google, Oracle and IBM, and direct connections at multiple peering locations where we support their different regional offerings, we can provide our customers with reliable, effective and secure Cloud Connect solutions.



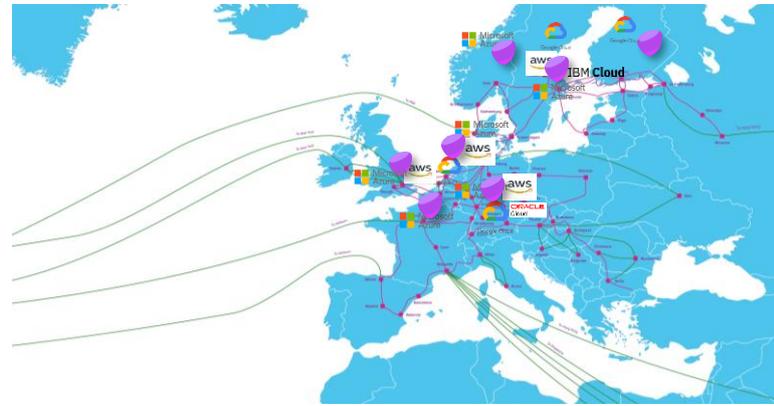
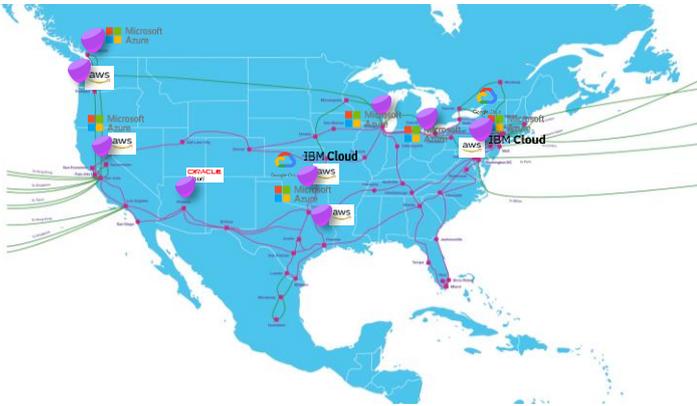
Q4: What security concerns do we need to be aware of?

A: Beyond dependable network performance, one of the main reasons customers choose to transport their data traffic to their CSPs in a managed network is to minimize the risk of security breaches. By employing a managed MPLS network, data traffic bypasses the public Internet, thereby minimizing the exposure to threats like DDoS. As such, a Cloud Connect solution is a compelling option for companies with high demands on security, for example those operating within the finance, healthcare, government and manufacturing sectors.

Q5: Geographically, where can I access Telia Carrier's Cloud Connect services?

A: Telia Carrier can connect your site to any of the PoPs within our global network. We then connect you to your CSP's local region using our network of high bandwidth interconnects in Europe, North America and in Asia. The main CSP interconnection points are highlighted on the map. With our global coverage and presence, as well as direct connection to all top cloud service providers, we are well positioned to meet your cloud connection needs.





Q6: What is driving the demand for Cloud Connect services today?

A: Enterprises today are increasingly moving away from traditional on-premises equipment to cloud provider-based platforms and services. There is a strong trend towards cloud-based, off-premises IT platforms. New sites and expansion of the IT environment can be done without complex and expensive construction and implementation projects, since there is no hardware ownership involved. Turn-key solutions for operating systems and various web-tools/development platforms are also a compelling opportunity for many companies.

One of the most important benefits is also elasticity where computing resources can be quickly added or removed on-demand, either automatically or using planned schedules. On top of that, this can all be done without complicated hardware ownership and design considerations.

Q7: Why Telia Carrier Cloud Connect?

A: Telia Carrier is an industry pioneer and ranked as the world's leading Internet backbone provider - offering exceptional global connectivity in combination with an excellent customer experience.

By combining a managed MPLS network with extensive global coverage (including connectivity to customer sites) and a multiple in-region CSP interconnections, we provide unparalleled connectivity the Cloud.

We also strive to mirror the Cloud Service Providers' services as much as possible, for example by offering bandwidth from 50 Mb/s to 10G with increments that reflect the CSP packages.

For AWS, our service is based on Hosted Connection, which supports, amongst other things, Transit Gateways.

The main benefits can be summarized as follows

- Carrier-grade connections
- Traffic does not traverse the public Internet
- Latency optimized
- Secure and reliable connectivity built on a high availability network
- An award-winning customer experience

