

Installation Guide

Telia Yrityys- internet Plus



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Thank you for choosing Telia

Telia Yritysinternet Plus is an Internet service for demanding needs of different companies. Suitable for companies that see the Internet as a key part of their core business, the service comes with static, public IP addresses and is compatible with both individual workstations and extensive workstation solutions.

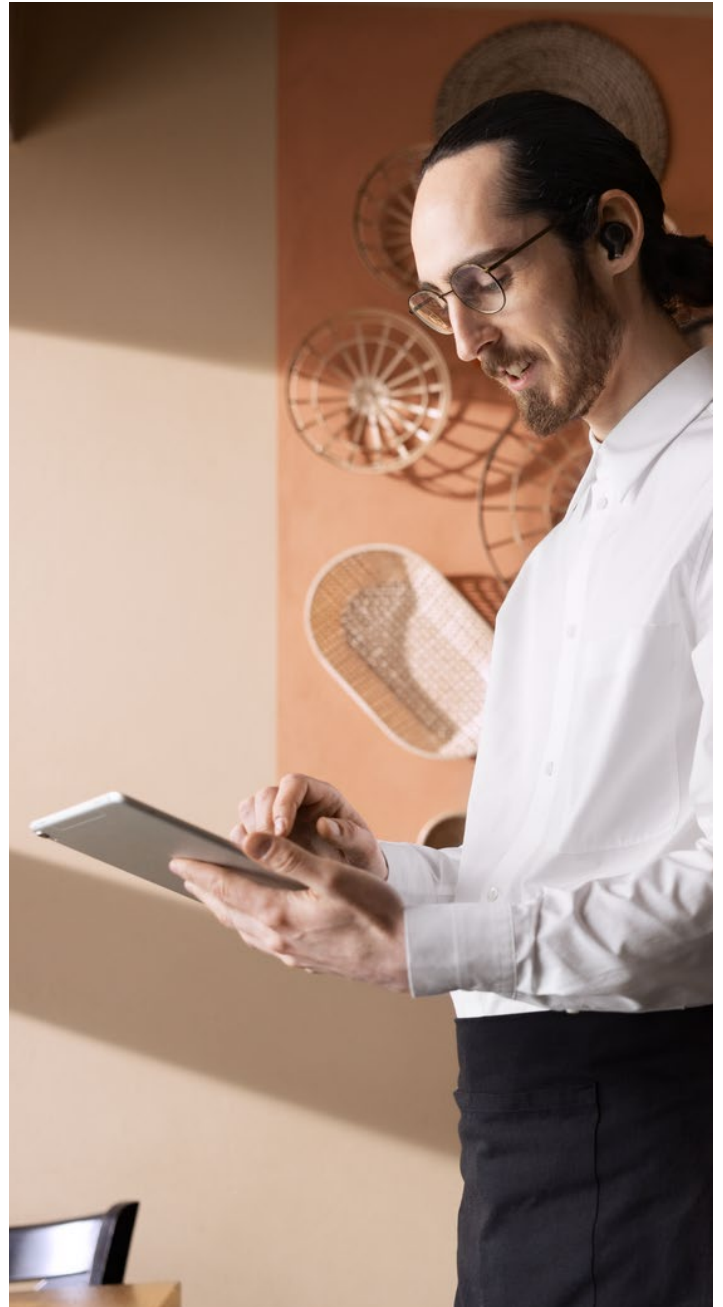
The service enables high-quality Internet access, providing high capacity, availability, traffic reports and backup solutions. The company may offer its services from its LAN (local area network) to large numbers of users on the Internet and also as internal services within the LAN.

Key benefits of Telia Yritysinternet Plus:

- Tailored Internet access that adapts to your company's needs
- Services can be provided reliably from the company's own server
- You can choose your transmission rate and service level according to need

It is our pleasure to provide efficient, fast, and reliable connections!

With best regards,
Telia Corporate Customer Service



Telia Yritysinet Plus

This guide will help you configure your workstation settings before you start using your Internet access.

Basic features of the access	Fee-based supplementary services to the access
Customer router	Available Telia information security services, among others: Telia Enterprise Security, Telia DDoS Protection and Harmful traffic filtering service
Transmission speeds: 1 Mbit/s –10 Gbit/s (subject to availability)	
Service level: Package A24h	Increased service level, available levels: Package A12h, Package A8h, Package A4h, Package B8h, Package B4h, Package C8h or C4h Package D15*
Static, public IP addresses (IPv4 addresses)	IPv6 addresses
DNS checks	DHCP service: Automatic distribution of IP addresses to LAN devices NAT service: The customer's own, non-public IP addresses can also be used SNMP read rights
Management and reporting service: basic reporting	Services that improve availability: Mobile backup connection Backup connection Redundant backup connection Fully redundant backup connection
	Multihoming* *Limited availability



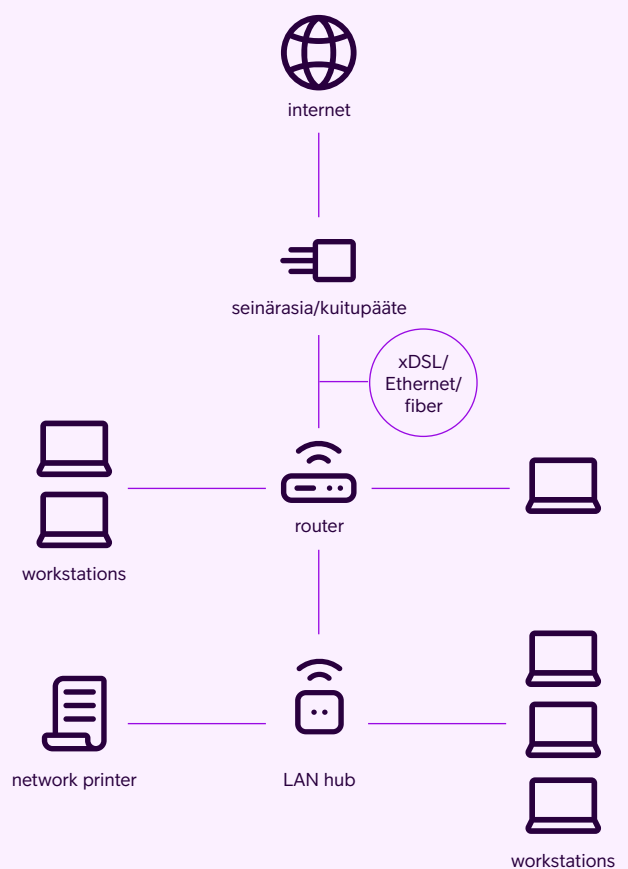
Connection of Telia Yritysiinternet Plus access

First, check the following:

1. Telia has given you the technical details of the subscription, e.g. IPv4 addresses (or IPv6).
2. An installation engineer has installed the customer router.
3. The customer router is connected to the local area network.
4. The cables are properly connected.
5. Telia has notified you that the Internet access is ready for use.

Please note that only the notification confirms that you can start using the service.

The diagram below describes how Telia Yritysiinternet Plus is connected. The diagram is only for suggestive purposes.



Telia tests the customer devices (routers) offered in Telia Yritysiinternet Plus and selects the device based on its usability and suitability for the service. Telia is responsible for the customer device, its settings and maintenance of the access. Only customer devices delivered by Telia may be used with Telia Yritysiinternet Plus.

Our devices are provided by well-known manufacturers, e.g. Cisco and Juniper. For more information on the customer devices, please refer to the manufacturers' websites.

Telia's servers used in the service:

DNS - name servers	IPv4: 193.210.18.18, 193.210.19.190 and 193.210.19.19 IPv6: 2001:2060:ffff:a01:53 and 2001:2060:ffff:a02:53
Proxy server	cache.inet.fi (port:800)
IRC server	192.89.123.51
Relay server for outgoing mail	smtp.tele.fi
Relay server for incoming mail	Check settings from your service provider

The transmission rates of Telia Yritysinet Plus are determined by the ordered rate and the available technology.

The capacities, i.e. data transmission rates, of Yritysinet Plus are either asymmetric or symmetric. The company may choose from the following options, subject to availability:

Asymmetric capacities*	Symmetric capacities:
(1 Mbit/s/512 kbit/s)	(1 Mbit/s)
2 Mbit/s/512 kbit/s	2 Mbit/s
2 Mbit/s/1 Mbit/s	4 Mbit/s
8 Mbit/s/1 Mbit/s	5 Mbit/s
10 Mbit/s/1 Mbit/s	8 Mbit/s
10 Mbit/s/2 Mbit/s	10 Mbit/s
24 Mbit/s/1 Mbit/s	20 Mbit/s
24 Mbit/s/1 Mbit/s	30 Mbit/s
100 Mbit/s/20 Mbit/s	50 Mbit/s
	100 Mbit/s
	200 Mbit/s
	300 Mbit/s
	500 Mbit/s
	1–10 Gbit/s





Service levels

The standard service level of Telia Yritysinternet Plus is A24. Telia's fault repair time, 24 hours, begins when the customer submits a fault report or when the fault is detected. Please note that repair time only includes time on weekdays between 7:30am and 6:00pm (excluding midweek holidays).

To improve the service level of Telia Yritysinternet Plus, the customer can order higher service levels as a supplementary service. For further information on higher service levels, please contact Telia Corporate Customer Service or see the service description.

IP addresses

Telia Yritysinternet Plus comes with static, public IP addresses. The addresses are provider-aggregatable (PA) IPv4 addresses. The customer must be able to justify why it needs public IPv4 addresses. IPv6 addresses are available as a supplementary service.

When delivering the service, Telia informs the customer of the IPv4 addresses used in the service. The form lists the IP addresses to be used. The form also indicates a sub-network (e.g. 255.255.255.0) and a default gateway.

When the IP addresses are configured, the details of Telia's domain name server (DNS) should also be entered in the devices in the LAN.

Telia's domain name servers:

IPv4: 193.210.18.18, 193.210.19.190 and 193.210.19.19

IPv6: 2001:2060:ffff:a01:53 and 2001:2060:ffff:a02:53



Using a proxy server

A customer subscribing to Telia Yritysinternet Plus has the right to use Telia's proxy server for accessing the Internet. When an Internet browser is used, the connection to the Internet can be established through Telia's proxy server.

Settings for Telia's proxy server: cache.inet.fi and select gate 800.

Supplementary services

Telia Yritysinternet Plus has a range of available supplementary services in addition to those listed below. For more information, please refer to the service description or contact Telia Corporate Customer Service, tel. **020 693 693**.

DHCP service

The DHCP (Dynamic Host Configuration Protocol) IPv4 service is a service that automatically assigns network settings (e.g. IP addresses, DNS, and sub-network) to LAN devices.

In the DHCP service, Telia's customer device (router) dynamically assigns an official IPv4 address to a computer connected to the LAN. The address is needed for communication over the public Internet.

A required number of IPv4 addresses is assigned for the DHCP service at the delivery stage.

DHCP release: When a workstation that has been assigned an IPv4 address releases the address, the address may be reassigned after 80 minutes.

All IP addresses need not be assigned via the DHCP service. As a rule, static IP addresses must be assigned to servers, printers and other shared resources.

The DHCP also enables the assignment of non-public IP addresses used in NAT.

NAT service

NAT (Network Address Translation) enables the use of so-called private, non-public IP addresses in the LAN while taking account of IPv4 sub-network rules. Within the LAN, the customer may use different IP addresses than those needed for accessing the Internet. The NAT service also blocks direct connection attempts from the Internet towards the customer's LAN.

At delivery, Telia and the customer agree what address space the customer will use in the NAT service. When traffic is routed to the Internet, the router performs an address translation whereby a non-public IP address is translated into a public IP address. The translation is connectionspecific, which means that one non-public IP address is not necessarily translated into the same public IP address each time a connection is established (dynamic NAT).

Not all public IP addresses need to be assigned for NAT: they can be excluded, in which case they can be reassigned (for example, to servers in the LAN).

The IP addresses used in the NAT service may also be assigned using DHCP.

Reporting service – SurfManager

The following reports are included in the service: Usage data, service level reports, problem ticket and rush hour reports as well as traffic volume and service break reports both in graphical and in numerical format.

The SurfManager username and password will be sent to the administrator by email.

Email settings and email routing

If you subscribe to Telia's email service, configure your settings according to the instructions. If you are using email boxes provided by operators other than Telia, the server for incoming mail is that given by the operator and the server for outgoing mail is **smtp.tele.fi**

Email routing service (supplementary service of Telia Yritysinternet Plus)



Data security

By default, Yritysinternet Plus is delivered as a fully open Internet access. This means that by default, the access includes no IP network or port filtering of any kind. Therefore, it is extremely important that the customer protects its LAN with data security solutions as needed.

Telia Enterprise Security is a service entity designed to protect the information network and services of a company or public corporation. It comprises essential services providing protection against threats to information networks. From these services, Telia's information security specialists compile an information security solution meeting the company's needs.

If you share your capacity among several users in the LAN without using appropriate data security solutions, you may jeopardize the confidentiality of your communications.

Troubleshooting

In case of a fault or a problem, you can contact Telia Technical Corporate Customer Service. Before contacting technical customer service, make sure that you have switched off your customer-premises device and switched it on again and that you have checked the connections between the device and the LAN.

If an individual workstation is unable to use Internet services, the problem is most probably caused by either LAN cables or changed network settings. Check the network settings and make sure that the same IP address is not used by several devices in the LAN and that both the default gateway of your workstation and domain name settings are correct. If the workstation has a firewall, make sure that it allows traffic to the Internet.

Before contacting customer service, find out what your subscription ID is (IN -xxxx). The subscription ID can be found in the customer device, for example.



Contact information

Telia Corporate Customer Service

(on weekdays between 8am and 4pm)

SME's **+358 20 355 800**

(8,35 cnt/call + 16,69 cnt/min)

Large enterprises **+358 20 693 693**

(mobile call / local network charges apply)

My Telia for Business telia.fi/mtb

If you need help with installing workstations and other customer equipment, you can call Telia's User Support at **0600 15500** (local network charge / mobile call charge + €2.25/min, VAT 24%).

Telia's User Support **0600 15500**

Mon–Fri, 8am–8pm, and Sat, 9am–4.30pm.

<https://www.telia.fi/yrityksille/asiakastuki>