

# Service description Office Connect Internet Wholesale.

Version: 12/2022

**Drei**Wholesale.  
Macht's einfach.



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## 1. Customer target group.

The Office Connect Internet Wholesale product is available for customers who qualify as businesses as defined in Article 1 of the Consumer Protection Act.

Office Connect Internet Wholesale is a Drei Internet access service with asymmetric or symmetric bandwidths using unbundled local loops.

## 2. Internet access.

### 2.1 Carrier service.

With Office Connect Internet Wholesale Drei provides its customers with a connection to the Drei network. This connection will be set up by means of one or two virtual unbundled copper lines or FTTH (Fiber to the Home) line from A1 Telekom Austria and the corresponding transmission technology used by Drei, which enable a high bit-rate use of the copper line. The physical interface is made available on the network connection installed at the customer's technical site.

Internet access is available in the versions below:

#### Asymmetrical bandwidth profiles and data transfer volumes in kbps (flat rate):

"up to" Bandwidth profile	Minimum download and upload speeds	Maximum download and upload speeds	Download and upload speeds normally available
14.366/1.024	256/64	14.366/1.024	10.240/718
20.480/8.192	10.340/256	20.480/8.192	15.500/5.632
40.960/15.360	20.480/5.120	40.960/15.360	30.723/11.264
81.920/25.600	40.960/15.360	81.920/25.600	56.320/18.773
153.600/40.960	81.920/25.600	153.600/40.960	102.400/30.720
281.600/112.640	168.960/56.320	281.600/112.640	247.808/99.123
307.200/56.320	153.600/40.960	307.200/56.320	230.400/42.240
512.000/71.680	307.200/56.320	512.000/71.680	384.000/53.760
563.200/168.960	281.600/112.640	563.200/168.960	495.616/148.685
1.024.000/225.280	563.200/168.960	1.024.000/225.280	921.600/198.246

The bandwidth profile in kbps corresponds to that advertised and available to order.

The first number signals the bandwidth available for receiving data (download), and the second is the bandwidth available when sending data (upload). The stated bandwidths are gross bandwidths. The net bandwidth takes into account the deduction of an overhead of roughly 5%, which is needed for addressing and for data streams sent in the form of IP packages. The data transfer volume is the sum of all outgoing and incoming data. Flat-rate in this case means, essentially, that there are no restrictions on data transfer.

The asymmetric bandwidths offered are best-effort bandwidths, i.e. maximum available bandwidths, but these cannot always be achieved for technical reasons. The bandwidth actually available depends on the physical and technical features of the local loop connection at the customer, which Drei has no control over. The actual bandwidth available depends above all on factors such as line attenuation, line length (measured from the customer connection to the nearest main distribution frame), the line diameter,

network load and the quality of the lines. If the stated bandwidth cannot be achieved for technical reasons, Drei will provide the maximum bandwidth that is technically available.

The minimum download and upload speeds in kbps are available outside maintenance windows or malfunctions at minimum.

The maximum download and upload speeds in kbps correspond to that advertised and available to order.

The download and upload speeds in kbps normally available correspond to the Internet access bandwidth that is normally available 95% of the day.

You are entitled to warranty claims in the event of a continuous or regularly recurring inconsistency between the speed or other service quality parameters actually delivered and the performance specified by Drei.

To begin with, you may choose between the improvement or replacement of Drei's deficient performance. This option does not apply if the choice made is impossible for Drei or involves a disproportionate amount of effort for Drei compared with the alternative.

Drei is obliged to satisfy your claim within a reasonable period of time and with the least possible inconvenience to you.

If both the improvement and the replacement are impossible or would involve a disproportionate amount of effort for Drei, then you have the right to a price reduction or, if the defect is not minor, to rescission of the contract. This also applies if Drei refuses to make the improvement or replacement or if it does not do so within a reasonable period of time, if such remedies would cause you considerable inconvenience or if they cannot be reasonably expected of you for valid reasons. The rescission gives rise to cancellation of the contract affected by the deficiency.

The following summary provides an overall view of the extent to which typical Internet services may be used. The bandwidth with unlimited data transfer volume is considered (Flat Rate). There is no reduction or blocking after the consumption of a certain data transfer volume.

✓ = Service expected to work ☹ = Service no longer works

Service (Required bandwidth/ guide)	Download bandwidth in mbps				
	2,048	4,096	8,192	12,320	20,480 and above
Surfing the Internet (approx. 2 mbps)	✓	✓	✓	✓	✓
HD video streaming (approx. 5 mbps)	☹	☹	✓	✓	✓
SD video streaming (approx. 2 mbps)	✓	✓	✓	✓	✓
4k video streaming (approx. 20 mbps)	☹	☹	☹	☹	✓
Voice over IP (approx. 0.1 mbps)	✓	✓	✓	✓	✓
Online games (approx. 5 mbps)	☹	☹	✓	✓	✓
Music streaming (approx. 0.32 mbps)	✓	✓	✓	✓	✓

Drei does not perform any traffic control measures for the Office Connect Internet Wholesale service.

## 2.2 Internet set-up.

All versions of the Internet connection provided by Drei include

- Virus filter
- Spam filter

- 1 static IP-address
- Domain registration (1 domain: .at, .eu, .com, .net, .org, .biz, .info, .de)
- Service Level: Basis
- Firewall

With asymmetric bandwidths the standard router has additional WLAN functions.

### 2.3 IP range.

The Office Connect Internet Wholesale service includes one fixed IP address by default. This allows the service to be used for server operation by forwarding specific TCP/UDP ports (transfer control protocol/user data protocol). A routed IP range with eight fixed IP addresses (see the Office Connect Internet Wholesale fee provisions) can be obtained against a separate one-off fee.

**One fixed IP address:** This address is located at the WAN interface of the delivered router. On the LAN side, only private IP addresses (RFC 1918) in conjunction with network address translation configuration (NAT) are set up here and no public IP addresses are available in the LAN.

**Eight fixed IP addresses:** Five of the eight fixed IP addresses from the IP range assigned can be used freely.

#### Example: IP address 62.218.0.8/29

Routed net:	62.218.0.8
Subnet mask:	255.255.255.248
Network address:	62.218.0.8 ← Not freely available
Router address:	62.218.0.9 ← Not freely available, default gateway
Address:	62.218.0.10 ← Freely available
Address:	62.218.0.11 ← Freely available
Address:	62.218.0.12 ← Freely available
Address:	62.218.0.13 ← Freely available
Address:	62.218.0.14 ← Freely available
Broadcast address:	62.218.0.15 ← Not freely available

The eight IP addresses are located directly at the LAN interface of the router supplied. A dynamically assigned IP address is used at the WAN interface. NAT or the firewall of the router are disabled.

IP addresses are assigned in strict accordance with the rules of RIPE NCC (Réseaux IP Européens Network Coordination Centre, responsible for assigning IP address ranges and AS numbers in Europe, the Middle East and Central Asia). A change in the number of fixed IP addresses is linked with a change in the IP address range. Independent IP addresses (provider independent IP addresses) explicitly assigned to end customers by RIPE cannot be used when connecting via the Office Connect Internet Wholesale service.

Drei suspends the routing of the addresses assigned immediately after termination of the contract.

### 2.4 Router configuration.

The Office Connect Internet Wholesale service is configured for IP routing in combination with NAT (network address translation) on the modem by default. Drei does not perform the configuration and servicing of a bridge setup. The initial configuration of port forwarding or DHCP settings is free of charge. Other configuration changes that differ from the standard configuration will be charged on a time and material basis.

### 2.5 Virus filter.

Drei has installed a central mail scanner for Office Connect Internet Wholesale customers that automatically checks incoming e-mails for viruses (no content is checked). If an incoming e-mail is found to contain a virus, it is rejected. This optional service can be activated and also deactivated by customers. The virus filter is regularly updated (even several times per day, depending on the availability of new virus signatures), and thus offers extremely good protection against new viruses. However, Drei undertakes no responsibility for absolute protection as virus scanners can obviously recognise known viruses only. Drei also cannot rule out situations where the virus filter rejects e-mails that contain no virus; Drei shall not be held liable for such situations.

## **2.6 Spam filter.**

Drei has installed a central spam scanner for Office Connect Internet Wholesale customers that automatically checks incoming e-mails for suspicious content and labels them accordingly. This means customers have the option to delete emails labelled as such automatically, or move them into a separate folder in their mail programmes. Drei deletes no emails so the customer can check, when in doubt, whether to actually read the e-mail. This feature can also be activated and deactivated by the customer.

## **2.7 Operating your own mail server.**

Office Connect Internet Wholesale offers the option to operate your own mail server. Running your own mail server requires the use of static IP-addresses and a spam-safe configuration of the mail server, which means it is not relay-capable from the outside.

## **3. Terminals.**

For the Office Connect Internet Wholesale product Drei provides customers with a router for their Internet connection.

Drei provides its customers with the necessary terminals for proper use of the Office Connect Internet Wholesale service. Customers shall return to Drei any and all such terminals upon the end of the contract. Drei reserves the right to bill customers for devices whose technical and aesthetic condition reveals improper use in the office.

All routers are managed centrally by Drei, which means Drei can configure the router remotely as well as analyse and rectify errors quickly. Customer administration or management access to the devices is not provided for security and support reasons.

The descriptions of technical data und functions are up-to-date at the time of printing and may deviate at the time of delivery. In accordance with technological progress, Drei reserves the right to change the terminals and/or features offered at any time, even without prior notice.

### **3.1 Standard router for asymmetric bandwidths.**

The standard router provided by Drei is a Multi DSL router with integrated WLAN, firewall and VoIP functions. The device is also fitted with a USB 2.0 host interface, enabling it to be used as a print server.

Overview of functions:

- 1x DSL (VDSL2 / ADSL2+)
- 1x Gigabit Ethernet WAN, Interface: IEEE 802.3ab, Connector type: RJ45
- 4 x Gigabit Ethernet LAN Ports, Interface: IEEE 802.3ab, Connector type: RJ45
- Wireless LAN - Wi-Fi 5 (802.11ac 3x3), WPA2-PSK
- USB 2.0 Interface, Connector type: USB Type A

### **3.2 Optional premium router for asymmetric and symmetric bandwidths.**

Premium routers are Cisco high-performance DSL routers offering high stability.

### **3.3 Connecting the customer's own terminals.**

The responsibility for operating the customers' own terminals in the Office Connect Internet Wholesale service is borne solely and exclusively by the customer. Drei assumes no responsibility or liability whatsoever that a specific terminal owned by the customer can be used with Office Connect Internet Wholesale. The inability to use or a breakdown of a terminal owned by the customer that is connected to Office Connect Internet Wholesale shall neither give grounds for the customer to cancel the contract nor may Drei be held liable. This must be taken into consideration particularly in the case of a failure of alarm systems. We recommend customers consult an alarm system technician.

## **4. Maintenance and support.**

Drei operates a Service Line for reporting incidents, reached round the clock / 365 days a year on a toll-free number in Austria, by fax or by email. Customers are given information on whom to contact in the event of incidents (contact person, telephone number, etc.) when the service is delivered.

Customers can contact the Service Line at any time to report an incident, regardless of the contractual troubleshooting times according to the agreed support level. The Service Line coordinates all reported incidents and forwards them to the competent fault management department in our Network Operation Center.

The support services offered by Drei only include support for terminal-specific solutions or software programmes of customers that were provided by Drei; they entail a level of support that can be reasonably assumed during installations and configurations. LAN support is not provided. Errors in the central components of the Drei network are monitored proactively and rectified 24/7.

To ensure the availability of the services provided, Drei shall endeavour to rectify faults or disruptions as soon as possible. The service comprises the elimination of all faults and errors falling under the remit of Drei or of third parties engaged by Drei. Errors and faults falling under the remit of Drei or its agents are rectified free of charge for the customer.

If Drei is called to repair a fault and it is found that there is either no problem with the Office Connect Internet Wholesale service or the fault was caused by the customer, then the customer shall compensate Drei for any expenses incurred in accordance with the prevailing specialist fees and charges (see GTC Business).

The user acknowledges that 100% availability is generally not technically feasible. Drei reserves the right to limit or suspend the service for short periods of time for maintenance, security or capacity reasons.

Office Connect Internet Wholesale includes SLA Basis by default. Optionally, customers can go for the packages SLA Plus and SLA Top.

	SLA Basis	SLA Plus	SLA Top
Reporting faults and failures	Mon - Sun: 08.00 am - 08.00 pm	Mon - Sun: 08.00 am - 08.00 pm	24/7
Incident working hours:	Mon - Fri: 08.00 am - 5.00 pm	Mon - Sat: 08.00 am - 06.00 pm	24/7
Error diagnosis	4 hrs	2 hrs	2 hrs
Repair deadline (punctuality)	2 hrs	1 hr	1 hr
No fault message	email/text - automatically	email/text - automatically	email/ text & opt. tel. call
Repair time	within 2 working days	8 hrs	6 hrs

**Incident acceptance:** the timeframe within which the fault at the customer is registered at Drei, an incident ticket is issued and forwarded to a 2nd level service technician for processing.

**Incident working hours (incl. on-the-spot work):** the timeframe within which the service technician works on the fault either by telephone or on-the-spot.

**Fault diagnosis:** the timeframe within which a 2nd level service technician starts rectifying the error by means of remote maintenance to solve the problem himself, if possible, or sends a field service technician to the customer. If it is necessary to send a technician to the customer, a field service technician will be sent immediately. Drei is responsible for deciding whether rectifying the fault should start with remote maintenance or on-the-spot troubleshooting.

**Repair time:** the average timeframe for troubleshooting

**Repair deadline (punctuality):** the maximum admissible deviation by the field service technician from the deadline mutually agreed by the customer and Drei for on-the-spot troubleshooting.

**Incident period:** starts from the time the fault diagnosis is completed

**Valid for:** problems with access or modems

## **5. Billing**

Customers receive their invoices on a monthly basis for all of the services provided under the given customer number. The bill can be sent to customers either electronically in pdf format to an e-mail address provided, or in paper form.

Electronic bills are signed electronically pursuant to the specific provisions on electronic invoicing of the VAT Act (Article 11 (2) UstG). The customer is required by law to archive such bills. By opting for an electronic bill, the customer automatically opts for electronic billing in the case of any other Drei products under this customer number. Unless stipulated otherwise in this point, the Drei eBilling terms and conditions shall apply.

## **6. Setting up your connection.**

### **6.1 General information.**

For subscribers whose connection is through a virtually unbundled copper line, Drei can only establish the connection once the existing connection is terminated at the previous operator and the line is switched from the previous operator to Drei by the previous operator. The termination at the previous operator only takes effect once the switch to Drei has been completed. The line can only be switched and the termination executed once the unbundling form/virtual unbundling form has been completed and signed by the owner of the connection.

### **6.2 Network termination point.**

The network termination point is the point designating where Drei's responsibility stops and that of the customer begins. All of the network equipment (up to the user interface) and the connection equipment including the user interface are the responsibility of Drei.

Terminals provided by Drei are also the responsibility of Drei.

Notwithstanding this, the customer is liable to Drei for the connection equipment being of the required technological standard and meeting the requirements in this document, for being fit for the contractual purpose and free of defects, and being subject to an unlimited right of disposal.

### **6.3 Creation of local loop.**

The local loop is created in accordance with the standard installation rules. The cabling comprises a shielded, 4-wire surface-mounted cable, and care must be taken to ensure that there are no external or interference electric fields in the direct vicinity of the cabling (e.g. transformer, radio equipment). The user interface is also surface mounted.

## **7. Installation.**

Installation is carried out on-site by one of Drei's installation partners. On-site installation includes installing a user interface. Works not included in the standard installation will be carried out on a time and material basis and only against a separate fee.

Proper on-site installation is subject to the provision of a connection appropriate for these works in terms of location and condition (e.g. existing power supply, LAN cabling, etc.). Drei provides DHCP servers by default (via the CPE). In order to disable the DHCP server at the CPE, it is important to ensure that Drei is notified if you operate your own DHCP server.

Up to 20 meters of cabling is provided (as required) for on-site installation. The customer is responsible for laying the cables (ordering of an electrician). Additional cabling must be ordered separately.

If it is necessary to route the subscriber line through piping or cable ducts and/or flush-mount the user-network interface during installation for any reason not attributable to us within buildings (e.g. requirement of the person authorized to dispose of the building), then the appropriate empty piping or cable ducts or flush-mounted socket must be provided.

Our customer service personnel or installation partners do not carry out chiseling work or wall/ceiling breakthroughs when laying cables.

## **8. Service delivery.**

Upon entry into service and transmission of the notification of completion, delivery of the Office Connect Internet Wholesale service is carried out and the services rendered by Drei thus billed for each access



realized. Any changes to the configuration after delivery of the service must be carried out independently. If the configuration is changed by Drei, costs are incurred which must be paid in accordance with our applicable hourly rates for a specialist.

### **9. Prerequisites for use.**

To use Office Connect Internet Wholesale, the following requirements must be met.

- A switched network environment in LAN, CoS (IEEE 802,1p) is recommended to maintain speech quality.
- The power supply (230 VAC) necessary for the user network and the terminals must be provided by the customer.
- The customer must ensure that the room temperature is kept between +5°C and +40°C with a relative humidity of between 35% and 75% (non-condensing).

### **10. LAN responsibility.**

The customer's LAN and WLAN do not fall under the remit of Drei, neither do the customer's firewalls, DNS and DHCP servers.

### **11. Technical parameters.**

When Drei provides the Internet service, the relevant Requests for Comments (RFC) are complied with:

- RFC 1661 (PPP, point-to-point protocol)
  - RFC 2516 (PPPoE, Point-to-Point Protocol over Ethernet) in connection with RFC 2684 (Multiprotocol Encapsulation over AAL5) – LLC Encapsulation for Bridged Protocols;
  - RFC 2516 (PPPoE, Point-to-Point Protocol over Ethernet) in connection with VDSL2 Standard (VDSL2 ITU-T G.993.2)
  - RFC 1994 (PPP CHAP, Challenge Handshake Authentication Protocol)
  - RFC 1332 (PPP IPCP, Point-to-Point Protocol IP Control Protocol)

Drei reserves the right to define Encapsulation.

### **12. NAT and firewalls.**

Private IP-addresses in the customer's LAN and firewall-protected Internet access points are essentially supported. NAT (Network Address Translation) devices and the firewalls must support the following connections from the private network to the Internet and to external networks.

Outgoing connections for the protocols:

DNS (UDP:53), NTP (UDP:123), HTTP (without proxy) (TCP:80), TFTP (UDP:69), RTP (> UDP:10000), SNMP (UDP:161 und UDP:162), SIP (UDP:5082)

All source ports with this protocol must be translated with NAT to > 1024.

The connections must accept response packets to outgoing requests after a time-out of up to 40 seconds (UDP time-out 40s).

SIP NAT protocol support should be deactivated if possible and should only be used after prior investigation by Drei.

It is not necessary to allow incoming connections in the firewall rules as long as TCP and UDP Stateful are handled.

Should the customer require further limitations in the outgoing connection rules, the address range can be restricted to 62.218.251.0/24. This address range is valid until further notice and can be changed by Drei without prior notice.