Service Description TopNet.

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DreiBusiness.
Macht's einfach.

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1. Basic Service.

In the frame of the existing technical and operational possibilities, Drei provides its customers with a connection to its TopNet network at the sites indicated by the customers. The site of a network destination point is designated by the exact address and the premises of the customer.

Drei sets up TopNet connections (consisting of bearer service and router connections) between the network destination points in accordance with the customer's instructions.

Via TopNet, the customer is provided with a data interconnection through router based on Drei's bearer services such as ViPNet (MPLS-VPN).

1.1 Description of the MPLS VPN

TopNet service is based on MPLS (Multi-Protocol Label Switching) infrastructure of Drei. The MPLS network is a shared backbone for many customers Virtual Private Networks – MPLS VPNs. Although it is used a shared backbone, the customers MPLS VPNs are strictly separated from each other. The IP addresses on the LAN side are private IP addresses. There is no IP address overlap since different customers belong to different VPNs. From topology point of view, "Any to any" or "Hub & Spoke" variants can be deployed.

1.2 Description of the Service TopNet.

1.2.1 TopNet CPE.

The TopNet Customer Premise Equipment (CPE) makes available the functionality required for the connection of LAN (Local Area Networks). The TopNet CPEs are conventional routers.

1.2.2 TopNet Access.

The TopNet access connects a TopNet Backbone of Drei to the customer's site. The TopNet access consists of a bearer service made available at the WAN CPE port set up at the customer's site (standard interface).

1.2.3 Physical Interface.

The physical interface at the customer's site is made available in accordance with the requirements as

- 100Base-TX
- Gigabit Ethernets up to 10 Gbps Ethernet
- Possible other types (FX) of interfaces upon request.

1.2.4 Access Bandwidth.

Within this Product different access bandwidths are available according to the access technology supported.

- Copper access - up to 25/25Mbps
- GPON access - up to 50/50Mbps
- Microwave access - up to 1/1Gbps
- Fiber access - multiples of 10/10Gbps, up to 100/100Gbps

1.2.5 TopNet Connection.

The TopNet connection is set up by configuration of the TopNet CPE's and Drei's network nodes within Drei's bearer network in order to provide private connectivity between the different customer locations, establishing VPN connections via a common MPLS infrastructure. It is very important that over the private links QoS mechanisms are available. The details for the QoS mechanisms are given in the "TopNet QoS LB" document.

1.3 Service Level Agreement.

Service Level Agreements are optionally offered for TopNet. The detailed description of the services covered by the Service Level Agreement can be found in the "Service Description Service Level Agreements (SLA) TopNet".

1.4 Installation of the TopNet access.

1.4.1 General structural premises.

A clean and dry installation or operating room which is free of dust and sufficiently ventilated at the customer's site is required for the installation of any TopNet access. The customer must ensure that a range

of operating temperatures between +5°C and +40°C and a relative air humidity between 35 and 75% (without condensation) are complied with.

1.4.2 Access Device.

Drei installs and integrates an access device at an adequate place easily accessible in the event of a failure in the installation room at the customer's site. The access device consists of a bearer service termination (modem, NT network termination), a TopNet CPE (router).

The space required for the access device must be made available by the customer at an appropriate location. The customer is not entitled to the provision of an access device in a determined kind of execution.

1.4.3 Network Termination Point.

The TopNet access constitutes the termination of the transmission path of Drei's TopNet network, i. e. the network termination point.

The network termination point determines the limit of responsibility between Drei and the customer. Drei is responsible for all network devices up to the access device (on the side of the network) and the bearer service termination itself. All devices beyond the network termination point (e. g. servers…) come under the customer's responsibility, who is also in charge of any possible required change of configuration.

The customer connects additional devices (router, switch, host, PBX etc.) by corresponding connecting cables to the network termination point. The configuration of the additional customer devices is customer´s responsibility.

1.4.4 Installation.

The realization of the TopNet connection is done according to the usual rules applying to installation (standard installation).

For inhouse copper infrastructure or fiber infrastructure the standard installation criteria should be fulfilled by the customer.

2. TopNet Management.

Drei delivers the complete solution for the corporate network beginning with the bearer services, the required CPE's (e.g. routers), maintenance and management (compulsory). All supplied CPEs remain the property of Drei. The CPEs are integrated into Drei's central management system. All configurations of the CPE's are stored in a system and in the event of any fault are fed again into the router.

- Full maintenance of all CPE's supplied by Drei and fault clearance at the customer's site.
- Integration of all SNMP-enabled CPEs supplied by Drei into management with central archiving of all configuration files, reactive management.
- During the agreed term of the provision of service, the execution of any configuration and/or their changes and any extension of the hardware must be made exclusively by Drei or any third party charged by Drei.
- The charges do not include any service intervention caused by the fault of the customer or any third party charged by the customer (e.g. change of configuration) and are invoiced according to the expenses incurred in accordance with Drei's hourly rate applying to specialists.
- The service support does not include any other devices, software, plug-in units, and any other accessories which are not agreed with Drei.
- Drei archives the configuration file of the last ordered change (official set-up) and, in the event of any fault, restores the said configuration (if possible, by remote command from the Customer Incident Management Team - CIMT, otherwise at the customer's site). If the fault can be cleared this way, it is assumed that is has been caused by any change of the configuration executed by the customer and the fault clearance therefore is not included in the service support case.
- The scope of services does not include any remote change of configuration, which is considered as a new order. Invoicing is done according to the expenses incurred in accordance with Drei's respectively valid hourly rate applying to specialists.