

individual sites.

With <code>cityLAN</code>, LINZ AG TELEKOM offers you a fast and future-proof fibre-optic network with a transmission speed from 25 Mbit/s to 10 Gbit/s. Integrating your sites thus becomes a piece of cake. In cooperation with reliable partners, we can offer our services even beyond the limits of our service area. And by combining <code>cityLAN</code> and <code>cityWEB</code> we can also provide you with a fast Internet access.

## The **cityLAN** advantages at a glance:

- implement your own network
- upgrade to greater bandwidths possible any time
- allows prioritisation of data transmission (QoS)
- guaranteed availability according to the selected Service Level Agreement (SLA)
- future-proof fibre-optic technology

# Anything is possible. With **\_ityLFN** even more than that.

With **LILYLAN** you do not only benefit from all the advantages of a better integration of your sites. It also opens the door to the services of the IT and Data Center Linz.

**TELEKOM.** Choose from a variety of tailored combinations.

**Get information on** Integration & Internet, Housing & Hosting, Telephone & Video as well as Security & Monitoring. What are you waiting for? **www.linzag-telekom.at** 



# Last Update 03/2019, subject to modifications/errors & omissions excepted

#### Details

#### Technical data:

- CarrierEthernet Technology
- backbone bandwidth: 10 Gbit/s
- meshed core and access area with ring topology
- 99,9 % own infrastructure (optical fibre and copper core)
- backbone redundancy with average switching times of 2s
- uninterrupted power supply at all sites within the LINZ AG network

#### **Network Management System**

- central network management system:
  - integrated fault correlation for quick fault localisation
  - automatic notification of the team of technicians
  - central configuration and administration of terminals

#### **Security**

• MAC addresses – Limit:

EPL (Ethernet Private Line, P2P): unlimited EVPL (Ethernet Virtual Private Line, P2P): unlimited EP-LAN (Ethernet Private LAN, MP2MP): max. 500<sup>1</sup> EVP-LAN (Ethernet Virtual Private LAN, MP2MP): max. 500<sup>1</sup>

Layer2 Security Features

#### Variants (bandwidth limitation in Mbit/s)

• from 25 Mbit/s to 10 Gbit/s

#### cityLAN Service

- transparent Layer-2-Ethernet Service
- point-to-point and multipoint-to-multipoint connections
- redundant service connection within the entire provider network<sup>2</sup>
- bandwidths from 25 Mbit/s to 10 Gbit/s
- bandwidth limitation by policing 3, 5
- 100 % guaranteed bandwidth (100 % CIR, no EIR)<sup>2</sup>

#### **Interface configurations**

FDX/HDX/AUTO

electrical: 10 Mbit/s, 100 Mbit/s, 1 Gbit/s optical: 1Gbit/s, 10Gbit/s

 transfer sockets: electrical (RJ45) optical (SX, LX/LH, ZX, BX-U/D, SR, LR, ER, ZR) standard: UNI transfer, NNI transfer possible

 MTU size: transfer by end device up to 1916 Bytes transfer optical up to 9000 Bytes

 QoS-transparent (CoS, IP-DSCP, IP-Precedence, MPLS-Exp.)

- broadcast/multicast transparent
- frame loss: max. 0,0001 %
- RTD / Jitter: upon request (depending on end device, mentioned in the acceptance/test protocol)
- RFC2544-acceptance test with test protocol <sup>2, 4</sup> (test protocol is sent to customers upon completion, RTD / Jitter included)
- VLAN-transparent (802.10)
- VMAN-transparent
- Layer2 PDU-transparent (STP, VTP, CDP)

#### **Service Level Agreement (SLA)**

- central Network Operation Center (NOC)
- SLA availability from 99,0 % 99,95 % per year (depending on the SLA selected)
- technical support 7 x 24
- response time < 4 hours to < 1 hour (depending on the SLA selected)
- time to repair cf availability down to 4 hours (depending on the SLA selected)
- service availability up to 00:00 24:00, daily
- SLA calculation via ticketing system
- online SLA monitoring with optional add-on cityMON

## MEF Certified Equipment (MEF 9, MEF 14) MEF Certified Services (MEF 9, MEF 14)

#### Quality of Service (optional) 1

- traffic prioritising through predefined categories
- hierarchical Quality-of-Service can be implemented (H-QoS)
- prioritisation according to: CoS, IP-DSCP, IP-TOS, IP-Precedence, MPLS-Exp.
- change in customer prioritisation possible (QoS-Mapping)

#### **Feature sets (optional)**

- Link Loss Carry Forward (LLCF)
- FlexLink for Backup-Hot Standby or Backup-Cold Standby
- several redundancy types to select from
- bundling of bandwidths via Etherchannel
- exchange possible in Vienna and Salzburg through own DWDM infrastructure

#### Possible combinations

□ItyWEB (Internet access)

□ILYPROTECT (firewall, antivirus and antispam systems)

□ItySTORAGE (storage solution)

□ItyHOST (hosting)

□ItyBACKUP (backup solution)

□ItyVIEW (video monitoring)

□ItyVOICE (telephone)

citySITE (housing)

□ItyM□N (monitoring tool)

**PEERING** (interconnecting networks)

LINZ AG TELEKOM certification according to ISO 27001, ISO 9001, ISO 45001

### Get in touch for a face-to-face consultation.

<sup>&</sup>lt;sup>1</sup> upon agreement with customer

<sup>&</sup>lt;sup>2</sup> standard, no extra charge

<sup>&</sup>lt;sup>3</sup> shaping possible with hierarchic QoS

<sup>4</sup>test of throughput, latency (RTD) and jitter with all RFC2544 frame sizes

<sup>&</sup>lt;sup>5</sup>bursting permitted (please request details on burst rates)