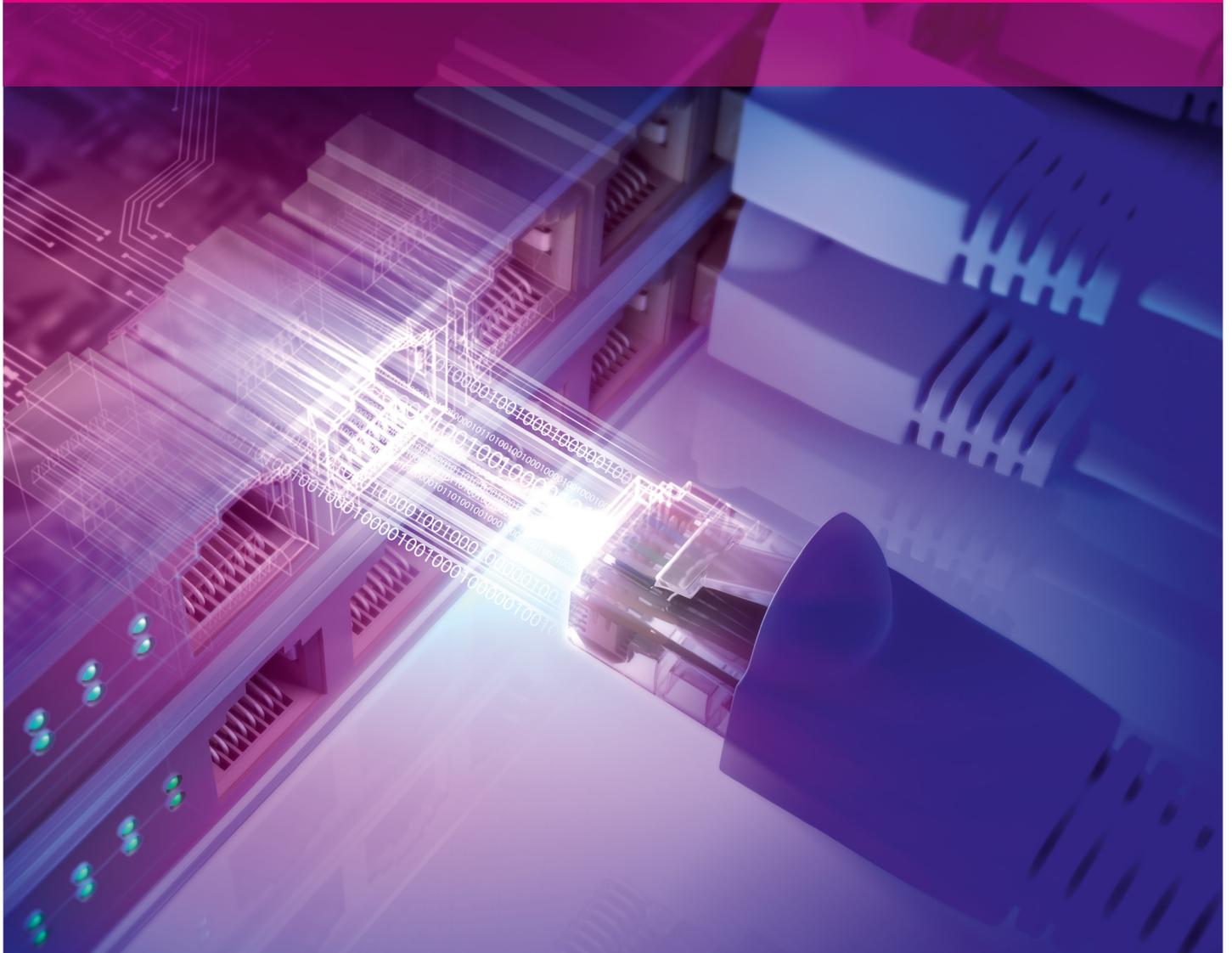# MANAGED LAN SERVICES
BUILT-IN FLEXIBILITY

The LAN infrastructure now forms the backbone of communications in practically all major organizations. And any changes to the IT or tele-communications environment have a direct or indirect impact on that network. What's more, the arrival of ever-new trends, such as application virtualization and cloudification, is ramping up the demands to be met by the corporate LAN. And legacy LAN infrastructures operated by in-house staff face especially urgent challenges – quickly hitting the buffers in terms of performance, security, business continuity and sustainable innovation. The only effective answer is to establish an end-to-end approach to LAN planning and operations. Managed LAN Services from T-Systems does just that, creating a future-proof environment that fully meets your needs – now and in the future. Manual administration activities are replaced by highly automated, highly efficient processes; networks are streamlined and costs are cut; and automated monitoring ensures compliance with clearly defined quality standards.

The Managed LAN Services offering is modular in design, based on standardized LAN port packages, plus optional services – allowing far greater responsiveness to changing business needs.

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MANAGED LAN SERVICES
DESIGNED FOR ADAPTABILITY

AN END-TO-END LAN SOLUTION

Managed LAN Services (MLS) comprises the planning, on-demand provisioning and management of your LAN ports. The offering includes roll-out to all sites, software and hardware maintenance, proactive monitoring, service level reporting, updates (within the scope of an evergreen strategy), and worldwide support. Where existing LAN / WLAN compo-

nents are suitable, they can be incorporated into the new solution. Otherwise they will be replaced. Where operated in conjunction with a managed WAN platform (IP VPN), T-Systems can offer defined end-to-end service levels for the combined environment. Managed ports can distributed across multiple sites – for 200 users, or for many thousands.

MANAGED LAN SERVICES – OFFERING ELEMENTS

1. LAN / WLAN MANAGEMENT

Services
- Fault identification and resolution in line with SLAs
- ITIL-compliant processes for incident management
- Services available worldwide, in collaboration with carefully chosen partners
- Operational reporting for total visibility into SLA fulfilment

2. LAN / WLAN INFRASTRUCTURE

With its standardized basic network (based on the T-Systems design guide) and modular options, the T-Systems infrastructure can be extended and adapted at any time to account for technological innovation or customer-specific business imperatives.

Services
- System components
  (hardware from Cisco Systems or Juniper Networks)
- System software and licensing
- Storage and staging
- Provisioning and logistics
- IMAC (installation, move, add, change) services

LAN Port and Access Point
The LAN Port und Access Point elements are the basis for the fully managed LAN. A complete package is provided for each LAN port or access point, consisting of design, hardware procurement and provisioning, plus service and management by T-Systems. You can choose between the following LAN port packages: Data Basic or High-Speed, Voice Basic or High-Speed, Server Port or Special Port.

3. LAN / WLAN MAINTENANCE

Maintenance is performed to safeguard agreed service levels. It includes defined processes for reactive resolution of infrastructure faults plus proactive measures, including software updates and security patches.

Services
- Maintenance and repair of hardware components
  (including a spare parts inventory)
- On-site support through trained service engineers
- Active involvement of hardware vendors, where required
- Defined fault resolution times

SERVICE MODEL

MAINTENANCE SERVICES	S72	S24	S8	S4
Time-to-resolution	72hrs	24hrs	8hrs	4hrs
Service desk	7 × 24hrs	7 × 24hrs	7 × 24hrs	7 × 24hrs
On-site service	6 × 12hrs Mon–Sat, 8am–8pm	6 × 12hrs Mon–Sat, 8am–8pm	7 × 24hrs	7 × 24hrs
Response time	2hrs	1hr	1hr	0.5hr
Status update	Only upon status change	Upon status change; at least every 4hrs	Upon status change; at least every 2hrs	Upon status change; at least every 1hr
Time-to-arrival	2hrs	2hrs	2hrs	1hr

AVAILABILITY

SERVICE CLASSES	PER MONTH	PER YEAR
Platinum	99.5 %	99.96 %
Gold	99.2 %	99.93 %
Silver	98.5 %	99.88 %
Bronze	96.0 %	99.67 %

4. CHANGES

There are two kinds of changes: fast-track changes, e. g. for modifying port speed, or activating or deactivating ports; and standard changes, for all configuration changes that do not impact the operation of your network, e. g. creating a new DNS domain.

Customer Self-Administration Changes (CSAC)
CSAC allows you to optionally perform all MLS changes yourself – quickly, independently, and at extremely low cost. Moreover, the Web portal provides you with anytime visibility into the configuration of all ports.

5. ADD-ONS

Professional Services
The Professional Services add-on provides customer-specific services, such as site surveys, that go beyond the scope of standard design and project planning activities.

Non-Standard Changes
In addition to fast-track, standard and CSA changes, there is also the option of non-standard changes. These include adding new sites, new products or devices, changes to quantities, installing DNS patches and new network features.

Technical Reporting Services
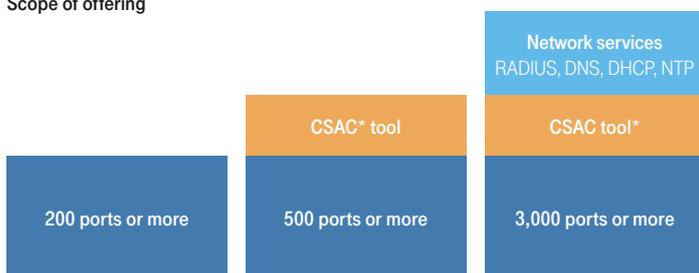Where required, T-Systems can provide reports on system load.

Network Services
- DNS Services (Dynamic Naming Service): conversion of a name to an IP address and vice versa, for intranets and the Internet.
- DHCP Services (Dynamic Host Configuration Protocol): network-centric service for the administration and assignment of IP addresses and TCP / IP configuration parameters within the LAN on the basis of a database.
- RADIUS Services (Remote Authentication Dial-In User Service): authentication to protect LAN against unauthorized internal access.
- NTP Services (Network Time Protocol): time and date synchronization on the basis of a standardized NTP protocol as an integral part of the three network services named above.

6. SCALABLE MANAGED LAN SERVICES

Managed LAN Services are available for a minimum of 200 ports. For 500 ports and more, it is possible to make use of the Customer Self-Administration Changes (CSAC) tool. If deployed for at least 3,000 ports, you can additionally opt for DNS, DHCP and RADIUS network services.

Scope of offering

200 ports or more	500 ports or more	3,000 ports or more
		Network services RADIUS, DNS, DHCP, NTP
	CSAC* tool	CSAC tool*

Scalability   *CSAC – Customer Self-Administration Changes

BENEFITS

Free up resources
- This comprehensive solution means you no longer need your own in-house LAN service, and do not have to maintain corresponding in-house skills. This frees up resources for your core tasks and strategic projects.
- The end-to-end approach is particularly advantageous for smaller and international sites.
- There is no need for training or trial-and-error phases after technology updates.

Transparency
Benefit from unprecedented cost transparency for your LAN – and gain a reliable basis for future planning and budgeting.

Quality and availability
- Proactive monitoring of LAN performance and availability enables you to act early to eliminate weaknesses before they become problems.
- The offering is backed by T-Systems' guaranteed quality of service (QoS).
- You can be sure of robust processes and best-in-class technologies, certified in accordance with recognized standards (e. g. ITIL).
- Service levels are clearly defined, ensuring efficient reliable, business operations.
- Change and other requests are professionally managed, with regular, accurate updates on status.

Flexibility
You have exceptional flexibility when it comes to adding new sites, changing the network configuration, and managing your ports.

SAVINGS

- Standardization and automation deliver outstanding cost-effectiveness.
- Savings of up to 25 % compared with in-house operation of active components. The more complex and extensive your LAN infrastructure, the greater the potential savings.
- Rental model means you have no upfront investment in hardware (OpEx not CapEx).

ENABLING GROWTH

- Managed LAN Services are highly scalable, and can be easily extended to further sites – including small and remote ones.
- This unique offering supports business growth – both nationally and internationally.

PRICING MODELS

- **Purchase:** one-time costs for hardware components and monthly price-per-port for the entire contractual term for managed services.
- **Rental model:** monthly price-per-port for the contractual term for hardware and managed services.

INTERNATIONAL AVAILABILITY (Valid as of: 07/2015)

- MLS for 3,000 ports or more: in more than 100 countries
- MLS for 200 ports or more: Germany, Austria, and Switzerland

MANAGED LAN SERVICES

WHY CHOOSE T-SYSTEMS?

T-Systems has extensive experience of managing customer networks (both WANs and LANs). Worldwide, T Systems is responsible for more than half a million LAN ports. MLS management tasks are performed from our high-end data centers, on the basis of certified processes (e. g. ITIL, CERT) and extremely high security standards. The data centers are connected to customer networks via extremely secure data lines. Access to MLS functions can be geared to your company-specific policies. We can provide expert advice on upgrading your LAN / WLAN – for example, migration to all-IP. You can only take full advantage of the strengths of all-IP if the corresponding IP technology is implemented enterprise-wide in a timely manner.

SCOPE OF MANAGED LAN SERVICES

- Service desk / help desk
- Change management und provisioning, e. g. of extensions
- Switch administration
- Targeted training for your IT professionals
- Establishment and maintenance of an asset management system
- Minimized cost risk thanks to scalable number of LAN ports
- Technical design for new applications
- Technical design for new hardware
- Internal and external (provider) service processes
- Coordination of vendors / suppliers, e. g. for ordering / purchase and invoicing, including small-scale extensions

DEVELOPMENT PARTNERSHIPS

We enjoy close partnerships with leading vendors Cisco and Juniper, exchanging information and insights on the development of new LAN components. We therefore have early notice of products and components to be introduced to the market, and are amongst the first companies to deploy proven new technologies. We also communicate with vendors on supported interfaces and functions, to ensure effective, seamless integration. In other words, thanks to these unique partnerships, we are able to future-proof your LAN solution.

SUPPLEMENTARY SOLUTIONS

We offer solutions that go above and beyond the scope of Managed LAN Services, where required. Here are just some examples:

IP VPN
IntraSelect is an IP VPN solution for secure, high-performance and cost-effective corporate networks. Enjoy the benefits of a fully managed network for voice, data, multimedia and business applications.

Corporate Video
Extend the functionality of your network to include HD video conferencing with both stationary (live experience) and mobile systems; both within and beyond your enterprise, and with seamless interoperation with third-party video conferencing providers.

Dynamic Services for UC
Managed Unified Communications Services comprise hardware components, software, licensing and operations, plus, optionally, user devices. You can choose between a hosted private cloud offering, where the solution is operated in a T-Systems data center, or alternatively, on-site at your premises. We deploy OpenScape technology from Unify, CUCM (Cisco Unified Communications Manager) and Cisco HCS (Hosted Collaboration Solution).

Telecommunications equipment (PBX systems)
T-Systems can also provide reactively managed telecommunications equipment (PBX systems) from Alcatel-Lucent, Cisco and Unify – for purchase, rent or lease. Within Germany, this offering includes nation-wide support.

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