Échantillon de lecture

Modern network management

with scalable and cloud-native solutions
for holistic network control

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Introduction

In the last two years, the prevalence of working from home and the COVID pandemic have fuelled digitization in companies even further. Cloud infrastructure has been brought into focus and new software-defined solutions have been established in IT areas that previously caused problems on the hardware side. They are now to help companies meet the ever-increasing expectations. Especially in the area of network management can a change be seen. Companies need to be able to flexibly adapt their networks to new performance requirements. In general, flexibility and scalability play a much greater role today than they did a few years ago. In addition, not only the working methods and techniques have changed. The number of devices in the networks has also risen rapidly. These devices now have to be identified, managed and connected.

This is not always easy as each device has different characteristics, functions and security risks. The need to be able to keep track of the situation often causes network administrators quite a few problems. But automated and high-performance networks are now a prerequisite for modern digitization technologies (such as IOT or multi-cloud).

But what is the current situation with regard to network management in companies? What are the challenges users are facing? What are the advantages of network management? And what are the advantages of migration to the cloud? These questions, and others, are analysed and presented in the “Modern network management” study. The answers of 200 IT experts from 200 companies with between 150 employees and 2500 employees provide the data base.

Network management in companies

Globalization, digitalization and the pandemic have shown companies that the technical prerequisites for a future-proof operation are not yet fully developed. Not only the number, but also the variation of the devices in the network has risen rapidly alone by the fact that a lot of employees have switched to working from home. This also affects network security. It is no longer just defined and known devices such as work computers and laptops that require management; you now also find many mostly smaller devices in the network. Today, a network architecture uses a large number of sensors, controllers, routers, switches and access points. In addition, the networking of different locations has become a significant factor in the efficient operation of the entire company due to globalization, internationalization and outsourcing as well as the integration of business areas. What is needed are network management solutions that intelligently organize, optimize and manage these components and enable the network to achieve a holistic security standard. Here, it is important that companies can ensure that the data traffic between their locations is fast, reliable and as cost-efficient as possible and, at the same time, provide a high-performance network on site. Technologies such as SD-WAN, SD-Branch and firewalls can help in achieving this goal.

Another development in recent years is the transition to the cloud. Many companies have turned away from on-premises solutions and migrated their system to the cloud. Cloud models offer the companies in particular security, flexibility and cost control. The demand for cloud solutions in the area of network management is correspondingly high.

Only about a quarter of the companies surveyed (27 percent) say they are still using pure on-premises solutions in the area of network management. The majority of companies (52 percent) use a hybrid system of cloud and on-premises solutions. One in four companies (21 percent) already uses a pure cloud solution for network management.

When companies weigh all aspects of both deployment models against each other, there are several advantages and disadvantages. In the on-premises deployment scenario, corporate IT has adapted the solution to the company and has full control over hardware, security and upgrades. This means that the solution is, on the one hand, tailored to the requirements of the company and, on the other hand, tied to the IT department in the company. But the latter entails a certain risk: Today, corporate IT does not have the capacity and resources to manage and develop solutions independently. In trying to do so, companies are tying up valuable and particularly scarce resources for administration and monitoring tasks that can be simplified and automated. This is where cloud solutions for network management come into focus. With the help of specialized providers in the field of network solutions, companies can realize a speed and a range of functions that would be far too costly and time-consuming were they to endeavour to do it themselves. In addition, the suppliers guarantee the operation, the up-to-dateness and the security of the solution. In this way, the aforementioned challenges of flexibility and scalability are also mitigated in the network management. But there are other challenges lurking in the networks of companies.

Deployment models of network management solutions

Base: 200 companies

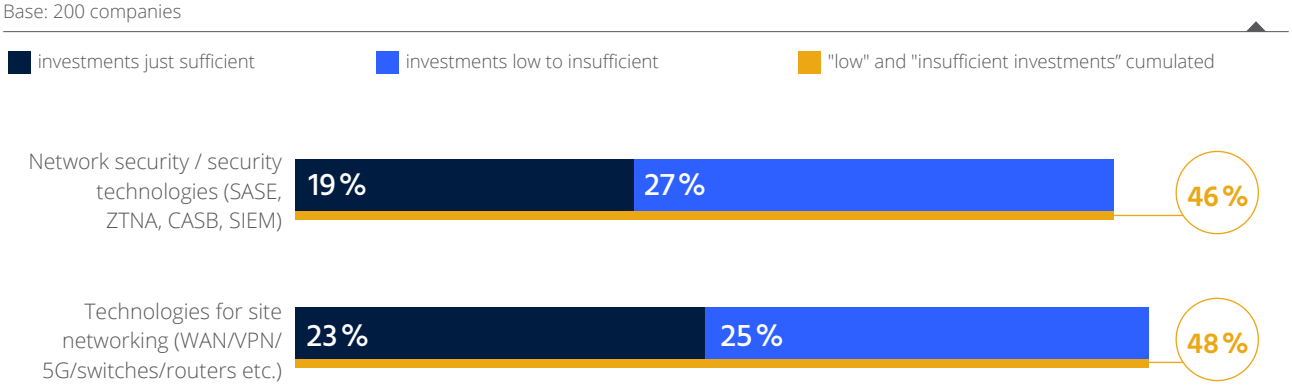
Network management stumbling blocks

In recent years, the type and architecture of the existing networks in companies have changed considerably. There are not only much more, but also a multitude of new technologies that need to be taken into account. Among other things, cloud applications and multi-cloud scenarios are used. This makes new technologies a potential threat to the network. Intelligent network management must be able to detect, control and filter when new components are added to the network. The security aspect is the main challenge for the companies surveyed.

More than half of the companies (52 percent) reported network security problems. This is no surprise, when companies reflect on the measures they have undertaken and their investments in network technologies. In all aspects of network management, a low to insufficient investment rate can be found for every second company. Challenges are strongly linked to the inadequate of measures and investments.

Corporate network management investments

Base: 200 companies



Another aspect that concerns companies is the shortage of IT experts. The digitization pressure is growing and with it the networks of digital nomads. New technologies and business models require expert IT personnel, who are, however, mainly concerned with the growing need for security and management of the network. Consequently, there is often little time left for new projects. This means that every second company (51 percent) also recognizes that the shortage of IT staff is a major challenge within network management.

In addition, there is the aspect of troubleshooting. Due to the complexity and size of a network, errors and problems can occur more frequently. When this happens, the problems have to be remedied as quickly as possible. During troubleshooting, however, the network is not fully operational and is highly vulnerable to security breaches. This makes quick troubleshooting all the more important to avoid downtimes and restore stability. At the same time, this can affect not only individual locations, but the entire corporate network. Almost one third of the companies surveyed (32 percent) are struggling with longer downtimes during network troubleshooting.

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