

CASE STUDY – Telecommunications

Securely Monitor, Provision and Maintain IT Assets with Out-of-Band Management Tools by Avocent



OVERVIEW

Vodafone Group Plc, the world's largest mobile telecommunications company, provides an extensive range of mobile telecommunications services, including voice and data communications with a significant presence in Continental Europe, the United Kingdom, the United States and the Far East. Germany represents the largest mobile communications market in Europe in terms of customers, and Vodafone D2 currently serves 24.7 million.

As it adds subscribers to its wireless network, Vodafone D2 continues to look for ways to upgrade and better manage its network. When it replaced the console servers at the core of its out-of-band infrastructure, Vodafone D2 chose Cyclades[®] TS terminal servers. Its primary business requirement was for centralized server management that integrated with its network architecture of mostly Sun[™] servers.

CHALLENGE

For total network management coverage, Vodafone D2 uses systems management tools to address IT application failures using the network along with out-of-band management tools to access, monitor, provision and maintain mission-critical IT assets, including more than 400 Sun servers at its data center near Düsseldorf and eight branch offices located throughout Germany. Any new out-of-band management solutions, such as Cyclades TS terminal servers, had to enable network managers to remotely access and manage IT hardware and operating systems independent of the network. Yet they had to be compatible with the existing network architecture and systems, providing seamless in-network and out-of-band access to equipment.

Vodafone D2 also needed a remote server management solution with enough flexibility to make quick configuration changes, as unobtrusively as possible. The company also required offline data buffering, which stores all data that comes from a server, to analyze server performance as well as Sun hardware incidents.

Security features, specifically SSHv2 encryption with strong authentication and auditing control, were critical to enable network managers to selectively grant access to the appropriate IT personnel. Auditing and logging were needed to track 'who does what' with the network infrastructure.



PROFILE

Company
Vodafone D2 GmbH

Type of business
Mobile communications

Corporate headquarters
Düsseldorf, Germany

Web site
www.vodafone.de

Application
Remote access and management of servers

"Since first deploying Cyclades TS terminal server more than two years ago, we have not experienced any out-of-band infrastructure problems that have resulted in network failures and unplanned downtime."

Patrick Maes
IT Coordinator
Vodafone D2 GmbH

SOLUTION

Vodafone D2 purchased Cyclades TS3000 and TS1000 terminal servers, recognizing out-of-band management tools as fundamental to reducing by hours the event duration for a given failure, and to increasing the effectiveness of the entire IT organization. Technicians can quickly take control and log in to a server from a single location without having to travel to remote sites to address problems, saving the company time and money while increasing network availability. Cyclades TS terminal servers also allow them to view, access, and control multiple devices from a single system, helping to reduce the need for redundant equipment installations and risks from multiple points of failure.

To enable the remote management of Sun servers, Cyclades TS terminal servers are Sun break-safe certified. "Break" is a specific signal sent over the console connection for the server to suspend operations. Unfortunately, some terminal servers may unintentionally send a break signal when turned on or off, or due to an internal software malfunction. Cyclades TS terminal servers are designed to never send an unintentional break over the console connections. This provides Vodafone D2 network administrators with the peace of mind to install Cyclades terminal servers in remote locations.

ABOUT AVOCENT

Avocent delivers IT operations and infrastructure management solutions for enterprises worldwide, helping customers to reduce costs and simplify complex IT environments via integrated, centralized in-band and out-of-band hardware and software. Through LANDesk, Avocent also is a leading provider of systems, security, and process management solutions. Additional information is available at: www.avocent.com.

RESULTS

- Reduced IT infrastructure incidents
- Centralized server management
- Integration with in-band systems for complete network management coverage

"Using terminal servers to access and diagnose information, change low-level system configuration and perform other administrative tasks is one of the easiest and most effective ways to reduce human intervention and operational costs while minimizing unplanned downtime."

Patrick Maes
IT Coordinator
Vodafone D2 GmbH



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