

At Sea: Siemens Constructs D-Link Network at Kiel's Naval Maintenance Department (MArs)

Together with D-Link, Siemens AG's IT Operations division has completed a modernization of the existing network of MArs Kiel using D-Link components. D-Link products have replaced the components of a well-known manufacturer that were in operation before the overhaul. What prompted the client to change was D-Link's and Siemens' competent pre-sales consultation, as well as the comprehensive functionality and excellent price-performance ratio of the offered D-Link products.



The Challenge

A number of buildings on the grounds of MArs Kiel had to be networked. The customer specified the following technical requirements:

- Link all buildings via 1 Gbps connections
- Link all servers via 1 Gbps connections
- Logical division of all buildings
- Redundant components (cold or hot standby)
- Redundant power supply in buildings without UPS
- Simple management
- Single IP Management protocol, reduced number of IP addresses
- Security features (port authentication)

In the medium-term, the introduction of Voice over IP (VoIP) is also planned.

The devices were therefore required to support functions necessary for the later implementation of VoIP.

A total of 14 buildings had to be linked, which were largely connected with 100 Mbit fiber optic cabling in the existing network. There were already 1 Gbps fiber optic connections between three buildings.

Of a total of 20 servers, only 7 were connected with 1 Gbps fiber optic links and the other 13 with 100 Mbps fiber optic links.

The Implementation

With the reliable help of the Siemens AG sales promoter Thomas Werwendt and the consultants Swen Zastrow and Jörg Wiese, Friedrich Ruland, Key Account Manager at D-Link Partner Sales, and Michael Seipp, Product Manager at D-Link, the representatives of MArs were presented

with the technologies and products intended to be used to implement the project.

Siemens AG and D-Link paid special attention to security, redundancy and the ease of use of the network in accordance with the specifications of the client.

The central project phase took place in October 2005. The delivery and initial installation of the components, as well as the instruction and training was carried out by the IT Operations business unit of Siemens AG. They will also provide support services for a minimum of three years.

Previous collaborations between D-Link and the Siemens AG in the area of network projects have been highly successful.

Knowledge gained from these reference projects, as well as the long-standing, close relationship with the Siemens AG led to the award of the contract by MARS.

The Solution

All of the employed D-Link switches are manageable and support Single IP Management technology (SIM). By means of so-called 'virtual stacking,' up to 32 switches can be managed with a single IP address regardless of the cable medium, transmission speeds or the distances between units.

The switches possess module slots supporting both twisted pair copper cables and fiber optic cables.

There are also redundant power adapters for all of the switches to secure power supply when operating components in buildings without UPS.

There are now 10 Gbps fiber optic cables between the individual buildings/servers implemented via the 10 Gbps uplink modules integrated into the DXS-3326GSR switches.

This by far exceeds the client's requirements (1 Gbps link).

In addition to the comprehensive management and security functions of the switches, including features such as the required port authentication, all the switches offer Quality of Service (QoS) and will thus form an ideal basis for a later implementation of VoIP.

To avoid having to lay new or additional network cabling in several buildings, a VDSL installation was implemented.

This made it possible to use the existing telephone cabling for setting up the Ethernet connection.

The specified components were installed by employees of Siemens AG, who are highly experienced in network installations. The resulting increase in performance was acknowledged by a very satisfied customer.

Our Partner

In Schleswig-Holstein, the main company presence of Siemens is situated in the region's capital Kiel. For over 70 years, Siemens has been making a substantial contribution to improving the state's infrastructure and strengthening the business location. Siemens provides innovative products and facilities, helping Schleswig-Holstein to continue along the path of becoming a driving force and business hub of the Northern European and Baltic economic region.

SIEMENS

The Siemens IT Operations business unit optimizes the IT infrastructure of its clients and thus increases their competitiveness by facilitating the implementation of integrated business processes.

IT Operations offers companies IT solutions across the entire life-cycle: From consultation and planning through to implementation and operation.

Siemens IT Operations' business activities comprise services and solutions in the areas of:

- IT outtasking
- IT infrastructure

- IT security
- Business process management

Successful partnerships with leading manufacturers from the fields of hardware and software qualify IT Operations as a reliable service provider.

About D-Link

D-Link has been a successful vendor of network solutions for over 19 years now. Thanks to its steady growth and stability, D-Link presently generates an annual turnover of about one billion US dollars. Customers across the globe trust in D-Link when it comes to high-performance products in advanced technologies. D-Link is proud to exceed expectations time and time again.

Since 1990 D-Link Central Europe has been supervising company-own sales branches in Vienna and Zurich for Austria and Switzerland from the European headquarters in Eschborn near Frankfurt, Germany.

The company offers a wide range of products and services in the areas of

- Switches
- Security
- Communications
- Wireless LAN

These range from professional high-end solutions for corporations right down to solutions for small and medium-sized companies.

Positioning this broad product portfolio in the market at the best price-performance ratio possible is the stated goal of D-Link Central Europe.

The Products

The following products were employed for the network installation in Kiel's MARS:

DES-3526 26-Port Single IP Management Switch

- 24x 10/100/Mbit TP (RJ-45) Ports plus 2x 10/100/1000Mbit TP (RJ-45) Combo Ports zur Umrüstung auf 1000BaselX/SX durch Mini GBIC
- 8.8 Gbit Switch Fabric
- VLAN, Trunking, QoS
- Sicherheit durch Access Control Lists (ACL)
- SNMP Management, SIM (Single IP Management)
- Opt. redundante Stromversorgung: DPS-200
- Passende Module: DEM-310GT, DEM-311GT

DXS-3326GSR 26-Port Layer3 Gigabit Stack Switch

- 4x 10/100/1000Mbit TP (RJ-45) Combo Ports zur Umrüstung auf 1000BaselX/SX durch Mini GBIC
- 20x 1000Mbit Fiber Mini GBIC (SFP) Slots, opt. 2-Port 10Gigabit Fiber (XFP) Uplink
- 128Gbit Switch Fabric
- 10Gbit stackable (Ring o. Stern mit DGS-3324SRi), bis zu 120Gbit Stack Bandbreite
- Layer2 Switching, VLAN, Trunking
- Layer3 Routing RIP v1/v2, OSPF, VRRP, IP-Multinetting
- Sicherheit durch Access Control (ACL) RADIUS, IEEE 802.1x, Port Security, SSH, SSL,, Tacacs+
- SNMP Management v1, v2c, v3, SIM (Single IP Management)
- Opt. redundante Stromversorgung: DPS-500, DPS-900
- Passende Module: DEM-310GT, DEM-311GT, DEM-420X, DEM-421XT, DEM-422XT

DS-510P SNMP Management Software 5.1 Professional Edition

- Kosteneffiziente leicht bedienbare SNMP Management Software
- Strukturierte, herstellerunabhängige Plattform für Plug-in Module
- MIB Compiler & MIB Browser für einfache Integration von third-Party-Devices
- Layer 3 Utilities zum managen entsprechender Geräte
- SNMP v3 support für ausgewählte MIBs
- Integriertes Tool zum Visualisieren des Netzwerkdesigns und der Topologie
- Multiple Views zum Betrachten der Objekte im Tree-
- Modus
- Email Benachrichtigung für Traps und Alarme
- Account und Billing Funktionalität
- Verwendet das populäre Microsoft Access Datenbankformat

DHS-3224VJ 24-Port V-DSL Switch

- 24x RJ-21 VDSL Ports
- Stacking Ports. um bis zu 6 Switche zu kaskadieren
- Full Wire Speed Layer 2 Switching
- IEEE 802.1Q VLAN Support
- Ein Modulschacht für Netzwerk Anschluss
- SNMP v1, Web-Basierte Konfiguration, Telnet, FTP Support , MIB files, RMON Group1,2,3,9 ,IGMP v2
- Bandbreitenkontrolle
- Port Basierter Flow Control Support
- Traffic Classification und Prioritization

DEV-301J Ethernet to V-DSL Bridge

- Voice over DSL bridge
- Easy installation, no configuration necessary
- LED indicated connection to LAN and V-DSL
- Integrated filter for analog voice transmissions
- Existing telephones can continue to be used and connected



DES-3526



DXS-3326GSR



DS-510P



DHS-3224VJ



DEV-301J