root-service

IT-Systeme | Netzwerktechnik | TK-Anlagen

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nymphe
strandhotel & apartments

Name of company:
root-service

Size of company:
Two employees

Industry:
IT services

Company website:
www.root-service.de

Region:
Varel, Germany

root-service, IT services

Premium service for guests: root-service used NETGEAR devices to help a hotel offer its guests a first-rate WiFi service, including a PoE switch that eliminated the need to run additional power lines to access points

BACKGROUND

root-service is an IT service provider based in Varel, Germany. The company was founded by Jörg Losert in 2007. The company prides itself on operating as a single-source, end-to-end provider of all project services — from on-site consultations to installation and commissioning of the hardware and software. The nymphe strandhotel & apartments (www.hotel-nymph.de), located in the Baltic Sea resort of Binz on the island of Rügen, asked root-service to help bring its WiFi infrastructure up to scratch. The hotel has 52 rooms over four floors, including 18 double rooms, 12 comfort rooms, 16 apartments and 6 suites, as well as a spa and a restaurant.

THE PROBLEM

In 2008, the nymphe strandhotel & apartments became Germany's first multimedia hotel with state-of-the-art technology. Although a WiFi network was available, actually using it was a different matter. Guests found themselves having to re-enter their log-in codes whenever they moved between access points. The system had become unworkable, attracting criticism from guests and causing headaches for Managing Director Georg Boske. root-service's Jörg Losert started by analyzing the hotel's existing infrastructure and compiling a list of the parts that needed replacing. All of the hardware—with the exception of the wiring—needed to go. Having had extremely positive experiences with NETGEAR in the past, Losert opted once again for the world's leading provider of innovative network and storage solutions for small and medium-sized enterprises. As well as a Smart Managed Pro Gigabit Switch with PoE

functionality, he also chose a Wireless Controller and 21 Wireless Access Points. According to Jörg Losert; "What really impresses me about NETGEAR is the price-performance ratio. But that's not all. NETGEAR's huge range of PoE switches offers a solution to every problem. Free WiFi coverage, outstanding email support, a short lead time for hardware orders and, last but not least, lifetime warranties are the icing on the cake. The NETGEAR team is always happy to help as well."

THE SOLUTION

The new WiFi environment was implemented in two stages — the hotel first and the restaurant shortly afterwards. root-service's Jörg Losert started by installing free WiFi coverage from NETGEAR in the main building, which accommodates 52 rooms over 4 floors. After determining his customer's hardware needs, Losert selected a GS728TPP 24-port 1000Base-T Gigabit PoE Smart Managed Pro Switch, along with a WC7600 Premium Wireless Controller, 21 WAC720 Business 2 x 2 WLAN-AC 802.11ac Access Points and 3 10-AP license packages.

The Smart Managed Pro Switch GS728TPP is one of NETGEAR's bestselling products, and an ideal choice for web-managed switching. It also supports Power over Ethernet (PoE) on all ports, guaranteeing a high level of flexibility in terms of access point installation since the Ethernet cables can transport both data and power. The time-consuming task of laying power cables and installing sockets can therefore be avoided. The

switch's maximum power budget is 384 watts — more than enough for the total number of access points required (approx. 11 watts of power per access point). An optional external power supply makes it possible to increase the PoE power budget to 720 watts. NETGEAR designed the WC7600 Controller with the express intention of meeting the demand for BYOD (Bring Your Own Device) capabilities and manageable wireless connectivity. The WAC720 Access Point operates in the high-performance dual band and supports a throughput of up to 1.2 Gbit/s (300 Mbit/s for 2.4 GHz and 867 Mbit/s for 5 GHz).

The existing wiring arrangements in the nymphe strandhotel & apartments were operating perfectly well, and so Jörg Losert did not interfere with them. He installed the switch, the controller and the access points in the hotel (four on the corridors of each floor). He also set up three indoor access points and two additional outdoor access points with antennae for WiFi coverage in the restaurant. This resulted in five separate networks: guests (hotel), guests (restaurant), cash office, internal, and administrator.

root-service spent four days working on site in the Baltic Sea resort of Binz. Although his company is based some distance away in Varel (almost exactly 500 miles away), Jörg Losert was able to access the devices easily at any time using a VPN connection. He was happy with what he saw: "The switch's PoE functionality saved me work down the line, since I didn't need to run power to the 21 Access Points. The customer was also more than pleased with the results: In the past, the hotel often

had guests complaining because the WiFi network was unreliable and difficult to use. Those problems have disappeared completely since the move to the NETGEAR set-up."

root-service rates the GS728TPP Switch highly for the following reasons:

- 24 PoE+ ports (potential power budget of up to 720 watts)
- Dedicated SFP fiber uplinks without loss of downlink Gigabit ports
- Dynamic VLAN assignment
- Static routing for network segmentation
- Comprehensive IPv6 support for administration, ACL and QoS
- Robust security features (802.1x authentication, DHCP filtering, ACL filtering, etc.)
- Auto Voice VLAN and Auto Video VLAN
- Extensive QoS features for network performance optimization
- DHCP snooping for IP address allocation integrity

The WAC720 Access Point boasts some remarkable features:

- Outstanding 802.11ac performance with up to 1.2 Gbit/s
- Reliable data transfer: 2 x 2 (write and read) with two data streams for 2.4 GHz (300 Mbit/s) and 5 GHz (867 Mbit/s)

- Simultaneous dual-band operation with backward compatibility to 802.11n
- Integrated Power-over-Ethernet (802.3af) for low deployment costs
- Particularly user-friendly, with intuitive graphical user interface
- Comprehensive security with WPA and WPA2, and MAC address access list
- Full compatibility with WC7600 Premium Wireless Controller

Additional benefits of the WC7600 Wireless Controller:

- Maximum simplicity, easy administration and user friendliness
- Complete manageable range of Business Access Points
- Enterprise functionality and performance tailored to small and medium-sized enterprises — without the cost and complexity of large IT solutions
- Highly scalable and secure mobile access solution
- Ufast protocol for ultra-fast access point detection
- Layer 2 and Layer 3 fast roaming
- Captive portal for guest access (redirection to welcome page during log-in)
- Fully decentralized architecture and simple configuration and management
- "Pay as you grow" license model (customer only pays for what he really needs)
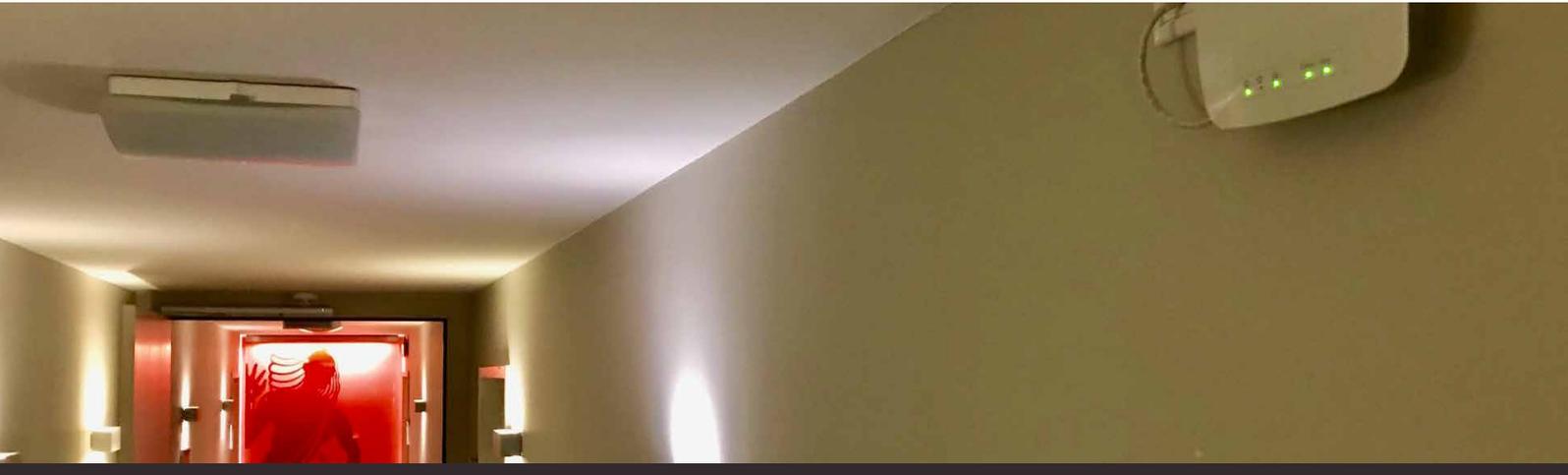
RESULTS

It took only four days to build the WiFi network that the nymphe strandhotel & apartments had always dreamed of. Now guests no longer need to log in again every time they leave their rooms. The WiFi network also covers the restaurant. The PoE functionality of the switch selected as part of the solution removed the need to run additional power lines to the 21 Access Points. As well as saving the hotel an enormous amount of money, this meant that root-service could complete the job in a shorter period of time.

PRODUCTS USED

- 1 x NETGEAR GS728TPP 24-port 1000Base-T Gigabit PoE Smart Managed Pro Switch

- 1 x NETGEAR WC7600 Premium Wireless Controller

- 21 x NETGEAR WAC720 Business 2 x 2 WLAN-AC 802.11ac Access Point

- NETGEAR 3 x 10-AP licenses

www.netgear.com

www.root-service.de

CASE STUDY: root-service