



As the largest care provider in Europe, KORIAN Group stands for high-quality care and nursing for senior citizens. In order to maintain these values, it is important for KORIAN to make efforts to modernize and drive the digitalization of care forward. Digital technology allows for innovative solutions like relieving nursing staff's workloads, improving communication between residents and their families, and seamlessly integrating network infrastructure within and between site locations. A secure and stable network infrastructure is essential for implementing these digitalization measures. To achieve this, KORIAN Deutschland AG worked with m3connect GmbH for a digitalization program with a future-proof infrastructure and innovative SD-WAN.

The German government is strongly promoting the digitalization of health care facilities. The Nursing Staff Strengthening Act (Pflegepersonal-Stärkungsgesetz) provides funding of up to €12,000 gross per facility for measures that serve to improve the working conditions of nursing staff.

## Efficiency for Nursing Staff to Allow More Time for Personal Care

A comprehensive wireless and wired network was created in various rooms throughout the facility in order to run important digital services. This network runs in resident rooms, office and staff rooms, and common rooms and corridors. The digital services for residents and visitors include Wi-Fi access for web browsing, staying connected with family members, or even telehealth video calls with doctors. For staff, the network facilitates storage of and access to digital patient files, equipment inventory, and

building operations technology.

This advanced, comprehensive network allows for endless digital opportunities, such as using streaming services, accessing information from the internet, and maintaining contact with family and friends electronically. Additionally, the network allows for telehealth services, allowing doctors to check in on residents and patients from their offices via video call. This allows doctors and specialists to save travel time, and enables faster communication and diagnoses. This was especially helpful during the COVID-19 pandemic, when in-person contact needed to be minimized in order to avoid possible on-site infections.

For facility staff, a comprehensive network offers advantages like immediate access to up-to-date information with digital documentation and the use of mobile devices. With this network, processes can be optimized and the organization as a whole can be more central and uniform. This leaves nursing staff with more time to do their most important work: providing residents with personal care and support.



Digitalization measures can create more time for caregivers to provide personalized care.

#### **About Korian**

KORIAN Group resulted from the 2003 merger of the two French senior citizens' home operators: Finagest and Serience. KORIAN is now Europe's leading provider of care and nursing services, with an admission capacity of 470,000+ residents and patients in roughly 890 facilities with approximately 56,000 employees in 6 countries.

KORIAN Group's German holding company is KORIAN Deutschland AG, which operates under the name KORIAN Deutschland. KORIAN Deutschland employs more than 23,000 people, and operates over 250 facilities with more than 27,000 inpatient care venues and around 3,000 assisted living apartments.



Digitalization enhances facility residents' quality of life.

#### The Nursing Staff Strengthening Act

The Nursing Staff Strengthening Act (Pflegepersonal-Stärkungsgesetz - PpSG) subsidizes measures to digitalize nursing facilities. From January 2019 to 2021, care facilities were able to apply for a one-time grant for digital measures that help to sustainably improve the working conditions of their care staff. The grant amounts to up to 40% of the investment costs for the measures, with a maximum of €12,000 gross, which could be claimed per facility.





#### Separate User Groups for Secure Transmission of Sensitive Data

m3connect's network infrastructure can be shared by all users and services. User groups are virtually separated in order to ensure the secure transmission of sensitive data. Additionally, different rates can be assigned to each user group in both the guest and resident Wi-Fi. For example, the network can be free for residents and activated with a password, while chargeable rates can be available to visitors. With this model, the facility can generate additional revenue and create numerous combinations of various user groups and rate tiers.

# Use of Existing Structures to Reduce Costs and Avoid Complex Cabling

One of the main challenges of establishing a digital infrastructure for KORIAN Germany's facilities is that the existing conditions in each facility were different. Therefore, the network for each site needed to be planned individually based on the existing structure. Depending on the house, CAT7 cabling, coaxial cabling, or two-wire infrastructures were available as basic requirements. In order to avoid costly and disruptive cabling work, the existing structures were used during installation.

Due to the different structures of the individual sites, m3connect devised three options in order to guarantee optimal networking for each scenario. If the existing cabling was sufficient, classic LAN cabling was used. If there was no sufficient cabling, coaxial or two-wire telephone cabling was used. Finally, if there were gaps in the existing cabling, a hybrid model with CAT7 and coaxial cables was created.

# Cross-Site Networking with SD-WAN and Cost Savings with Line Consolidation

In addition to equipping the sites with network components, all locations were strategically networked with each other and with the central offices. In order to achieve this, m3connect implemented a highly dynamic SD-WAN. The locations were then equipped with at least 100 Mbit VDSL lines. SD-WAN routers were also implemented in all locations. Additionally, several lines were consolidated and cross-location networking was created. The sites can now be viewed centrally via the m3connect dashboard. Not only does this consolidation streamline the network, but it also cuts unnecessary costs.

# Head Office Relief with m3connect's Comprehensive Planning and Rollout

m3connect's full rollout service required very little effort from KORI-AN, which was a great relief for the head office. The head office only had to sign off on the process and inform each relevant facility about upcoming measures. From that point

forward, m3connect took over all planning and the complete rollout with collaboration from each site.

The head office was then informed about the results after each successful connection. The work on site was carried out under strict COVID-19 precautions



The Center for Care and Nursing Seidenhof Nettetal

#### **Coaxial Cabling**

With internet connection via coaxial cable, existing wall cables for connecting television and radio were also used to connect to the internet. Since cable connection sockets were commonly found in almost every room, a comprehensive network was created quickly, easily, and inexpensively throughout the entire building. The antenna cables were only located inside the building and have no connection to the outside world, which contributes to the security of the network. The DOCSIS 3.1 standard provided the basis for these options.







in order to ensure the safety of residents and staff, and in order to cause as little disruption as possible.

After each rollout was successfully completed, m3connect took over full operation and monitoring of the sites. Through proactive fault management, m3connect can directly report and respond to irregularities. Additionally, the facilities are always kept up to date via fault reports. KORIAN can also use the m3connect dashboard to see the utilization of the sites and response times in the event of malfunctions, as well as carry out independent bandwidth management. Minimal effort is required from the head office and respective sites for day-to-day operation.

#### Full Expansion of Sites in Minimal Time

Another important advantage of m3connect is that we operate throughout German and easily expanded KORIAN's digitalization to all sites. Using our specialist expertise, m3connect can also provide continued guidance related to all sorts of IT and network solution concepts.

As a pilot project, the Seidenhof Nettetal Care and Nursing Center in North Rhine-Westphalia was equipped with a high-performance internet connection. The center was quickly converted into a COVID-19 quarantine center before its opening. To ensure that the quarantined residents could still maintain contact with their relatives, m3connect installed full Wi-Fi equipment in the facility in just 2 weeks.

""m3connect worked quickly, straightforwardly and professionally, implementing all requirements. We look forward to expanding this excellent collaboration in the future.",

Jochen Hartmann, Division Manager -Purchasing at KORIAN Germany, praises the partnership with m3connect.

#### Intelligent Network Concept to Enable Use of Valuable, Cutting-Edge Technologies

Thanks to close cooperation during project rollout, m3connect complied with KORIAN's special, COVID-19 hygiene protection measures, as well as m3connect's own hygiene protocols.

The overall project rollout, consisting of the supply and connection of 100 sites in Germany, was completed in 2021. One expanded site is Haus Lindental in Krefeld. Here, the infrastructure was designed and created specifically with IoT technologies in mind. This means that no future separate network will need to be established in order to operate IoT technologies. m3connect and KORIAN are in continued talks to determine which other technologies can be tested and implemented in the Lindental site. Some examples include the use of digital measuring cups to analyze drinking behavior, fall mats that inform staff of a resident's fall, or COVID-19 wristbands that function similarly to the federal government's COVID-19 warning app for use by those without mobile devices.

#### KORIAN Deutschland AG as a Pioneer in Digitalization

These new, smart developments, like the building technology control, vital data monitoring, or care beds with assistance systems, can now be implemented effortlessly.

KORIAN's new robust, comprehensive network has laid the foundation for future innovations and upgrades. Their network provides the basis for expanded digitalization in healthcare in a simple and cost-effective manner.

#### **Internet of Things**

Internet of Things (IoT) is a collective term for the collective network of devices connected to the internet. These devices can communicate with each other via internet connection and perform tasks automatically. They can also usually be remotely operated by a user from any location.

In care facilities, for example, room temperature is regulated with automatic window blind control. Tracking devices also assist with locating shared equipment and resident escape prevention.

The "Internet of Medical Things" also plays a major role here. This includes devices that monitor vital resident data, support fall prevention systems, or operate nursing beds with assistance systems like stand-up aids or weight sensors.



© m3connect KORIAN's custom Wi-Fi portal.





With this project, KORIAN is realizing the first steps for the future of care. With a future-proof network at the helm, KORIAN Deutschland AG can easily implement and grow digitalization measures, cementing KORIAN as a pioneer in process digitalization.

Together, we create the basis for digitalization in your care facility. Schedule a consultation now.



m3connect GmbH

Ralf Ander Pascalstraße 18 52076 Aachen, Germany

Phone +49 241 980 986-39 Fax +49 241 980 986-90

r.ander@m3connect.de www.m3connect.com



From WiFi pioneer to market leader. Since 2001, m3connect has grown to become one of the largest wireless Internet service providers in Europe, with offices in Aachen, Karlsruhe, Munich, San Francisco, the United Arab Emirates and Sibenik (Croatia). Globally, m3connect serves 13,000 of its customers' sites in over 23 countries and, as a thought leader in cloud technologies, has been extending its self-developed platform for more than 20 years. As a technology leader, m3connect provides best-in-class wireless internet networking with flexible design. m3connect works with state of the art technologies, like WiFi, private LTE, and 5G, and creates innovative software solutions such as SD-WAN and various digital applications. m3connect's service spectrum ranges from digital signage and guest infotainment systems to VoIP, VoD, and location-based services. m3connect is a platform developer and integrates its solutions into customers' existing processes.



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