



ConnectedCare

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The software for the best patient infotainment.

ConnectedCare flexibly integrates modules and services to create added value for people in hospital. The modules of the ConnectedCare software support nursing staff in daily patient communication. Numerous information and entertainment services are offered via the ConnectedCare tablets or mobile devices, such as iPads. From digital service calls and menu ordering to complaints management, ConnectedCare offers greater orientation and convenience, simplifies hospital processes and improves the use of resources.



Benefits

1. added value for patients

Better quality of care

- · Comprehensive support for nursing staff in their daily communication with patients
- · Release of resources for nursing and care
- Relieved nursing staff ensures increased patient satisfaction in everyday hospital life

More comfort and information

- Comprehensive infotainment offering provides more information and therefore more safety for patients in everyday hospital life
- Versatile entertainment offering with free and pay TV, digital reading options and much more ensures more comfort and the best entertainment during the stay

2. added value for clinics

More efficiency

- \cdot Better use of resources thanks to smart digitalization of processes at the point of care
- Time saved by integrating patients into everyday hospital life (digital service call, menu ordering, etc.)

More future-proof

- Open software solution with interface standards for numerous applications and services
- · Hardware- and system-independent
- \cdot Full investment security and future-proof thanks to the system's maximum adaptability

Requirements

- · High-performance and secure internet connection
- · When using mobile devices: Modern Wi-Fi infrastructure for patients
- $\,\cdot\,$ Suitable for ConnectedCare tablets (from Android device generation) and various mobile iOS / Android devices (smartphones, tablets) 1
- Recommendation: Local entertainment streaming server to save bandwidth
- Firewall releases according to the specifications in the product data sheet "ConnectServer"

Scope of Services

1. system and device independence

With ConnectedCare, the choice of patient terminals is flexible. The following hardware variants are available:

- · Patient-owned mobile devices (BYOD)
- · Hospital-owned mobile devices such as iPads
- · Professional devices (ConnectedCare tablets)

2. Data security and data protection

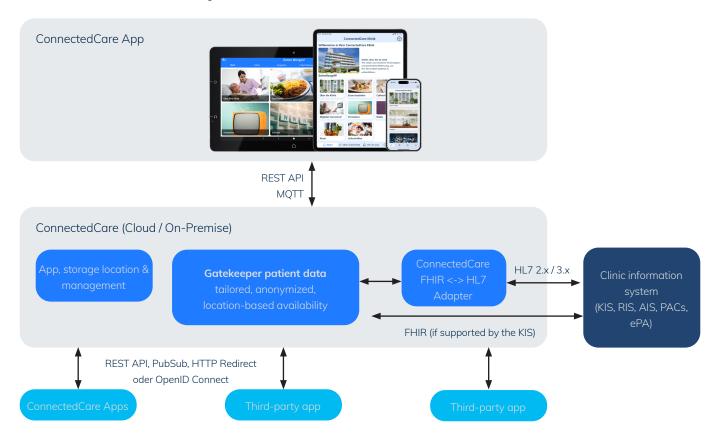
- Data protection-compliant data communication using end-to-end encryption up to the HIS interface in the secure internal hospital network
- At no time is sensitive patient data (from the HIS) stored within ConnectedCare
- ConnectedCare's data protection and data security concept is fully compliant with the statutory data protection regulations of the federal government and the general data protection requirements of the EU GDPR
- Patients can log in and authenticate themselves to ConnectedCare using different options, depending on the device and the hospital's wishes:
 - · Contact and contactless RFID / NFC chip cards
 - · Shared login via centrally generated token
 - · Auto-generated login credentials
 - PIN number
 - · Case number / patient ID and date of birth
 - · Email and password
 - Access data from the clinic's own identity management system (federated identity)

¹ Due to the dependence on various hardware and software components (CPU, graphics card, operating system, browser), no general guarantee of compatibility can be given.

3. infrastructure and data flow

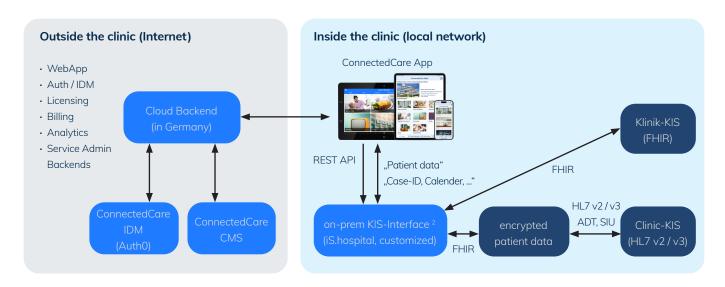
The infrastructure behind ConnectedCare - scalable and high-performance

The entire ConnectedCare infrastructure can be easily integrated into the hospital's IT infrastructure. The following diagram shows the infrastructure of the ConnectedCare software solution at a glance:



Data flow between ConnectedCare and the hospital information system (KIS)

The following diagram shows in simplified form the data flow between ConnectedCare and the hospital's HIS and the integration of the necessary, relevant system components, which must be integrated locally into the existing hospital network infrastructure (on-premise):



² Operation as a virtual machine (VM) on the customer's own server infrastructure. ConnectedCare is happy to provide suitable infrastructure components for operation on request. The ConnectedCare HIS interface is provided by ConnectedCare but operated by the hospital - ConnectedCare has no access to patient data.

4. ConnectedCare modules and features at a glance

ConnectedCare is offered as a basic license, to which optional, project-specific modules and features can be added. These are listed below, with a note indicating their usability on ConnectedCare tablets and/or mobile devices.

Available for ConnectedCare tablets

Available for mobile devices

(CS) Coming soon (already included in release management)

Modules / features included in the basic licens	se
Game Center	
Internet / Browser	
Push Notifications ¹	
Mirror	
Language Packs	
TV and Radio (IP) 1,2	
Weather	
WLAN Client & WLAN Hotspot	

Optional modules / features (chargeable)	
ConnectedCare DeviceManagement ⁵	
Dementia TV Goldensummer	
eMagazine / eBooks / Hörbücher sharemagazines ^{1, 2}	
Clinic-Content	
Menu Ordering (Third-Party Provider) 1.2.3	
Patient Billing Inc. Online Payment	
Patient History / Information (Third-Party Provider)	
Patient Survey & Complaint Management	
Pay-TV Sky ^{1,2}	
Room Control ¹	
KIS Interface (HL7, FHIR, etc.) 1.2	
Digital Service Call Cliniserve 1, (3)	
Speechless Help	
Telephony-Client ¹	
TV Remote ¹	
VideoVisite ^{1, (3), 4}	
Patient Portal	
Patient Appointments	

¹ Only within the secure hospital network | ² Additional hardware or third-party content/license costs may apply | ³ HIS interface required | ⁴ Patient-side use exclusively on ConnectedCare tablets; hospital-side use via mobile devices/PC/laptop | ⁵ Mandatory component for ConnectedCare tablets

5. The features and modules of ConnectedCare in detail

The following list describes the features and modules included in Connected Care in detail.

Modules/Features included in the base license	Description
Game Center	The Game Center module offers patients an expanded entertainment offering on ConnectedCare tablets with entertaining offline games in a secure game pool. The following 10 games are included: aa, Monkey Jump, Puzzle Tap, Sudoku, Unblock, Bubble Shooter, Tap the Frog, Swipe & Don't Fall, Clans Runner, and Jewels.
Internet / Browser	A web browser allows patients to surf the internet on the ConnectedCare tablet.
Push Notifications	The Push Notifications feature allows clinics to send personalized messages to ConnectedCare tablets at the patient's bedside via ConnectedCare Device Management.
Spiegel	The Mirror module allows patients to activate the webcam built into the ConnectedCare tablet and view their reflection in real time on the tablet. This module is particularly beneficial for patients who need to train their motor skills due to an accident or medical procedure.
Sprachpakete	By activating a language pack, the menu navigation is available in the corresponding language. This applies exclusively to the menu navigation. The availability and automatic language changes within modules/third-party applications and the hospital's own content are not automatically included. Language changes relating to hospital content, applications, or third-party modules must be implemented separately or agreed upon with the module providers. The following languages are available: Arabic, Chinese, Danish, German, English, Finnish, French, Greek, Hebrew, Italian, Croatian, Dutch, Norwegian, Polish, Portuguese, Russian, Swedish, Spanish, Czech, and Turkish. Furthermore, the menu interface can be expanded to include additional languages if required.
TV und Radio (IP)	IP TV/IP Radio functionality for use on mobile devices and on the ConnectedCare tablet within the hospital for high-quality entertainment during the hospital stay. Necessary hardware components must be ordered separately (TV streamer, head-end transcoder, etc.).
Wetter	The Weather module activates a location-based weather display on the ConnectedCare tablet for patients.
WLAN Client & WLAN Hotspot	WLAN Client: With the WLAN Client, ConnectedCare tablets have a WLAN interface in addition to the LAN and Bluetooth network interfaces. This allows the ConnectedCare tablet to connect to the clinic's existing WLAN network. Wi-Fi Hotspot: Activation of the WLAN hotspot function, whereby the ConnectedCare tablet serves as a WLAN access point for patients' mobile devices. The WLAN hotspot opens up a source of revenue for clinics, as patients can be required to pay for internet access. 3 Incidentally, the feebased display of WLAN access data can also be implemented without using the ConnectedCare tablets as an access point using the customer's own WLAN infrastructure.
ConnectedCare DeviceManagement	With ConnectedCare Device Management, hospitals have access to a centralized system through which all ConnectedCare tablets can be managed easily and efficiently. This license includes access to and use of ConnectedCare Device Management by administrators, as well as the regular provision of free updates. This module is mandatory for ConnectedCare tablets.

³ Supported third-party solution: Asteas IACBox with PMS interface. Requires billing via Dataconnect / iS.hospital. This combination allows for monetization and comprehensive control over patient internet access through various configuration options, such as bandwidth restrictions or blocking of unwanted sites (e.g., streaming services, sites with illegal or pornographic content). Please note that, regardless of the Wi-Fi Client & Wi-Fi Hotspot module, additional costs may arise for the purchase, setup, and operation of this solution.

Modules/Features included in the base license	Description
Dementia-TV Goldensummer	The Dementia TV Goldensummer module is a care television program developed by dementia experts. It supports hospital staff in dealing with patients with dementia. Three television programs for different stages of the disease (mild, moderate, and severe) increase patient well-being and relieve the burden on nursing staff.
eMagazine / eBooks / Audio- books sharemagazines	With our partner eMagazine, we offer you an optional library of eMagazines, eBooks, and audio-books that are made available to patients on ConnectedCare tablets and mobile devices during their hospital stay.
Clinic Content	The Clinic Content module provides patients with all relevant information on their mobile devices and via ConnectedCare tablets, e.g., about the clinic's wards and services. This allows patients to learn about local conditions and, for example, take advantage of in-house clinic services such as menu plans, site maps, therapy videos, and much more. The clinic can maintain the content independently via ConnectedCare Content Management. To implement the module, the clinic receives a demo instance including demo content, as well as extensive training on how to use the content management system.
Meal Ordering (Third-Party Provider)	With the Menu Ordering module (Third-Party Provider), patients can independently order their meals during their hospital stay via their mobile device and the ConnectedCare tablet. This requires the integration of a front-end and back-end solution from the kitchen system (e.g., OrgaCard, Logimatika, Kost, Sanalogic). An interface to the HIS is required for patient authentication.
Patient Billing Including Online Payment	The integration of a billing system enables the clinic to offer and bill patients for paid services, such as entertainment packages, via the ConnectedCare tablet and mobile devices. A mixed approach is also possible – for example, billing for Sky pay-TV and sharemagazine eMagazines to regular patients and a free version for elective patients. For the integration of one of the billing systems supported by ConnectedCare, a license from ConnectedCare is required, depending on the billing system. Any necessary hardware is not included in the license and must be purchased separately.
Patient History / Information (Third-Party Provider)	With the Patient History / Information (Third-Party Provider) module, patients have the opportunity to complete medical history questionnaires during their hospital stay via their mobile devices or the ConnectedCare tablets. This eliminates the need to print, distribute, and manually enter medical history forms – the result: a significantly more efficient and less error-prone process that relieves the burden on hospital staff and increases patient safety. Digitally supported patient history taking requires the integration of a front-end and back-end solution of the patient information system, e.g., from Thieme Compliance.
Patient Survey & Complaint Management	With the Patient Survey & Complaint Management module, patients can provide feedback on their hospital stay via the ConnectedCare tablet or their mobile device. This provides the hospital with an effective tool for statistical surveys thanks to numerous combinable analysis options. The content can be maintained independently by the hospital via the system. Each hospital receives multiple logins, allowing the responsible staff to independently edit, adapt, and evaluate the survey templates.
Pay-TV Sky	With the Pay-TV Sky module, Sky pay-TV channels can be provided on the ConnectedCare tablet or via the mobile device, taking into account FSK protection. Patient authentication is required to comply with FSK protection, which can be implemented with the ConnectedCare systems. An additional Sky subscription is required to use pay-TV services. Any necessary hardware, such as decoding modules, receivers, CAM modules, and smart cards, is not included in the license and must be purchased separately or provided by the pay-TV provider.
Room Control	With the Room Control module (third-party provider), lights, blinds, heating, and ventilation, etc., are easily controlled via an interface on the ConnectedCare tablet – thus, patients benefit from greater independence and comfort at the bedside, and nursing staff are relieved.

KIS Interface (HL7, FHIR, etc.)	(HL7, FHIR, etc.) Support for the HL7 2.x/3.x and FHIR interfaces ensures secure data exchange with the hospital information system (HIS). This is used, among other things, for the communication of authentication-relevant patient data. Communication and data exchange take place under strict security protocols, so that sensitive data can never be accessed unencrypted (end-to-end encryption). On-premise components are provided for interaction with the HIS.
Digital Service Call Cliniserve	The Digital Service Call Cliniserve module is a useful addition to the nurse call system and can be used by patients on their mobile devices and ConnectedCare tablets. By defining specific patient requirements, the communication process between patients and nursing staff is made significantly more efficient, cost-effective, and service-oriented.
Speechless Help	With the Speech Aid module, patients who cannot speak or who have difficulty speaking due to their illness have the opportunity to communicate their wishes and needs via the ConnectedCare tablet using images and accompanying audio tracks. The output language for nursing staff can also be selected differently from the input language, simplifying communication with patients who do not speak English.
Telephony Client	With the Telephony Client module, the IP telephone function is activated on the ConnectedCare tablet and the use of the telephone application is enabled for easy operation via the ConnectedCare tablet's touchscreen. The telephone system and other hardware are not included.
TV Remote	With the TV Remote module, patients can conveniently and hygienically operate wall-mounted TVs via the ConnectedCare tablet. This requires the use of supported TVs from the Samsung Hospitality TV series 690/800.
VideoVisite	The VideoVisite module offers valuable support in dealing with infectious diseases: It allows doctors and nurses to connect with their patients directly at the bedside via a video call from a mobile device/PC or notebook to the ConnectedCare tablet. This significantly reduces physical contact with patients with an infectious disease without sacrificing confidential medical consultations with eye contact. Optionally, a connection to the customer's own Active Directory (AD) via SAML or LDAP is possible. The KIS interface is required for this.
Patient Portal	The objective is to visualize the patient portal (web application) used by the clinic. Through this integration, patients can access the patient portal via the ConnectedCare tablets or their mobile devices during their hospital stay.
Patient Appointments	The objective is to visualize all upcoming patient appointments for patients on ConnectedCare tablets or their mobile devices during their hospital stay. This is achieved through secure and controlled data exchange with all appointment scheduling systems verified by ConnectedCare (e.g., patient portals, HIS solutions, etc.) connected via interfaces.

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