Health and wellness travel on the net

TELEMEDICINE
remote assistance, teleconsultation and telemonitoring
NAMIRIAL TELEMEDWARE focuses on TELEMEDICINE, providing advanced, consolidated software solutions within the context of public and private healthcare, home care and wellness.

NAMIRIAL TELEMEDWARE operates according to a dual marketing approach:

- as a supplier of software solutions specifically designed to provide teleassistance, teleconsultation and telemonitoring services.
- as a consultancy and design company for IT services based on the use of telemedicine systems.

MEDICINE HAS A NEW ALLY: WEB TECHNOLOGY.

Systems and solutions to support and manage diagnosis and wellness remotely.

Namirial Telemedware builds solutions based on the decentralization of the specialist skills (teleconsultancy, telemonitoring, etc.), and the improvement of peripheral first aid points with communication and telemedicine systems based on the hub and spoke model.

The company boasts advanced technological skills in:

- Audio-video communications on IP networks
- Document-sharing systems on IP networks
- Interoperability standards and protocols (HL7)
- Bluetooth and cabled communications (e.g. USB HID)
- Management, archiving, reporting of diagnostic imaging (DICOM) systems
FacileCare® HEALTHPOINT

IT IS A TOUCH SCREEN APPLICATION THAT ENABLES THE RECORDING OF BIOMEDICAL MEASUREMENTS.

Devised for health corners inside pharmacies, clinics and multi-specialty clinics, sports medicine centres, wellness and fitness centres, large and medium-sized companies, supermarkets and shopping centres, correctional facilities, long-distance trains, cruise ships, airports and other managed public places, FacileCare® HealthPoint allows you to quickly and easily monitor your health.

The system interfaces with certified medical devices that allow simple data acquisition and which can be operated either directly by the user (self-administered) or with the assistance of an operator. It offers specialist examinations (e.g. ECG, spirometry, dermatoscopy etc.) with the possibility to receive telematic reports by a specialist physician in accordance with certified protocols (requiring a digital or even graphometric signature).

The operator is identified through personal credentials; the process of inserting new users and automatically recognising existing users is made simple by scanning patient's national health cards, using a barcode or magnetic strip reader. The data that is subsequently acquired is then stored server-side in safe mode and can be accessed at any time subject to authentication, even via web.

In this way, users and any other authorised individuals are able to efficiently monitor all parameters, also thanks to the fact that they can easily and immediately access historical data relative to each reading (values are displayed as both tables and as graphs). Whenever necessary, the system also has the capability for high-definition audio/video conferencing with a remote specialist in real-time.
WHAT IT DOES

MEASUREMENTS
- Oximetry reading
- Blood glucose measurement
- Blood pressure reading
- Body weight measurement
- Body temperature measurement
- Body fat and lean body mass reading

EXAMS
- Spirometry reading
- 12-lead electrocardiogram in standard ECG format
- ABPM through holter monitor
- Dermatological examination with the aid of a digital video dermatoscope
- Microcirculation test using a video capillaroscope
- Analysis of hair and scalp using a digital trichoscope
- Examination of the oral cavity using a digital video odontoscope
- Otoscopy using a video otoscope
- High-definition audio/video conferencing with a remote specialist
- Cardiopulmonary tele-auscultation using a digital phonendoscope

HAEMATIC ANALYSIS
- Full lipid profiles
- Coagulometry (PT/INR)
- Glycated hemoglobin reading
- Cholesterol and triglycerides reading
- Multiparameter blood analysis on both capillary and venous samples

MAIN FEATURES
- Rapid and secure biomedical data acquisition
- Identification through National Health Service ID
- Audio/video conferencing in real-time with a remote specialist
- Connection with remote specialists doctors/clinics for online exam reporting
- Data stored server-side in safe mode
- Access to data (subject to authentication) via web or app
- Examination and measurement statistics taken at Health Point
- Functions for printing recorded values obtained from measurements / tests

PHR VIA WEB/APP
All users who use the FacileCare® HealthPoint application (to take measurements/perform tests) are automatically registered in the system.

Following authentication either via the web or on a smartphone app, users are able to access the recorded medical data. The data is a true PHR (Personal Health Record) that is filled in automatically.

It provides access to an up-to-date list of readings and tests performed over time.

For each (number) measurement, the recorded values are shown and users can generate time graphs on the collected data; for tests that require reporting (e.g. ECG, spirometry, etc.) the application displays pdf reports (for those tests where a report has already been prepared).
FacileCare® FOR HOME

IT IS A HOME TELEASSISTANCE AND TELEMONITORING SERVICE THAT CAN SUPPORT AND PROVIDE ASSISTANCE TO PATIENTS, IMPROVING THEIR QUALITY OF LIFE AND MAKING THEIR HOME ENVIRONMENT MORE COMFORTABLE AND SAFE.

It is ideal for monitoring and/or prevention purposes, and is intended to provide remote care for patients with chronic conditions (the elderly or individual patients affected by chronic pathologies or disabilities) and patients with acute conditions (for post-surgery or post-discharge monitoring).

The system, typically installed on a tablet or all-in-one PC, works with just a few simple touches. The simple and intuitive interface designed for a touch screen monitor does not require a PC or keyboard and is particularly suitable for users with minimal IT knowledge.

A set of biomedical measuring devices can also be supplied with the telecare service, allowing users to take their own readings (e.g. sphygmomanometer, scales, oximeter, handheld ECG, etc.).

The data recorded by each device are automatically fed to the user’s PHR, which is directly accessible via web site subject to user authentication.

The service also includes real-time audio/video conferencing with feedback:

- the possibility to send / receive either in real-time or pre-recorded multimedia messages,
- the distribution of interactive questionnaires and the broadcasting of audio / video contents (with profiling for patient categories).
MAIN FEATURES

• Simplified and user-friendly interface

• High-definition audio/video conferencing for real time communication with specialist operators in the advice centre, with a specialist physician or with a loved one

• 24/7 Advice Centre: can provide support to the user for all their needs and intervene in the event of “abnormal signals”

• Biomedical measurements, self-recorded using certified medical devices interfaced with the platform, and the possibility of remote patient monitoring

• Text / email alerts in the event that recorded values are out-of-range

• Healthcare Agenda: simplified interface used to provide feedback on completed actions (e.g., taking medication, performing physical activities, etc.)

• Video surveillance: remote monitoring through video cameras on a private network

• Geolocation functions can be incorporated through the FacileCare® 4Mobile device: it triggers emergency calls on loud-speaker and sends an text with the GPS coordinates of the location from where the message was sent.

• Geofencing functions that trigger notifications when the patient who is being monitored moves outside a preset geographic perimeter

• Personal multimedia messaging system to send/receive audio/video messages, images, texts

• Multimedia broadcast: streaming of pre-recorded videos and/or live video events

• Interactive questionnaires for each user profile

FacileVitals® APP

IT IS THE TELEMEDWARE SMARTPHONE APP FOR FACILECARE® USERS

Allowing mobile telemonitoring using a smartphone or tablet. The app measures vital signs using certified medical devices (pulse oximeter, spirometer, ECG, glucometer, sphygmomanometer, etc.), which are then sent to the user’s mobile device.

The mobile device and medical device communicate via Bluetooth (Bluetooth simple pairing procedure).

The readings are then sent and stored server-side in safe mode on the FacileCare® telemedicine platform. The readings history has a complete list of all recorded values and/or medical examinations that have been performed, with access to medical reports in pdf (provided a medical report has already been prepared by a specialist).
FacileCare® MOVING HEALTHPOINT

IT IS AN INTEGRATED HOME TELEASSISTANCE SERVICE, WHEREBY SPECIALIST PERSONNEL COME TO THE PATIENT’S HOME TO TAKE BIOMETRIC MEASUREMENTS USING SOPHISTICATED MEDICAL DEVICES, WHICH CANNOT ALWAYS BE HANDLED BY THE PATIENT.

Necessary readings, measurements and tests are performed at the home of the patient by a nurse (or designated staff) using medical devices that can communicate with the FacileCare® platform in order to store the data that is gathered.

This service is mainly intended for elderly patients, chronic or discharged convalescent patients and people with disabilities.

Thanks to this system, the patient can benefit from the assistance of qualified healthcare staff in their own home to perform specialist examinations, thereby enjoying continuity of care at a significantly lower cost and with far less discomfort compared to being hospitalised in healthcare facilities.

MAIN FEATURES

- System can acquire data from a high number of devices (weight, blood pressure, heart rate, oximetry, spirometry, ECG, glycaemia, PT/INR)

- Data acquisition using optical devices for dermatology (video dermatoscope, video capillaroscope) and otological (video otoscope) applications, which produce DICOM imaging studies and cine-loops in Visible Light mode

- High-definition audio / video conferencing for real-time communication with a specialist physician

- Remote auscultation in real-time using a digital phonendoscope
This process may involve two physicians who discuss a particular case, or the consultation may occur between a physician and patient (normally with the mediation of nursing staff).

A teleconsultation request is constituted by a set of structured pieces of information designed to provide an exhaustive clinical overview of the patient for whom the consultation has been requested (dataset).

The platform communicates with regional or departmental databases (in the event the former cannot be reached) and involves the use of “auto-fill” functions (following the registration of the patient’s national health card number or fiscal code or STP “temporarily present foreigner” code).

System allows patient-related diagnostic material to be attached to teleconsultation requests for lossless transfer (disc file in any format and DICOM images).

System can have customised user interfaces according to specific needs.

FacileCare® FOR TELECONSULTATION

IT IS AN APPLICATION THAT ENABLES SPECIALIST CONSULTATIONS BY REMOTE, FOR EMERGENCY SITUATIONS, FOR SCHEDULED FOLLOW-UPS OR FOR “SECOND OPINIONS”.

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Depending on the physician’s instructions, televisits may include biomedical data acquisition and tests performed on the spot by specialist medical staff using mobile equipment, which then communicates with the FacileCare® platform.

The system includes functions that enable notifications to be automatically sent (via email, sms, alert) for televisit requests, which will then typically be conducted in a synchronous-type session (in the presence of both the physician and patient). The physician can perform a remote cardiopulmonary auscultation on the patient with exemplary audio quality. A digital phonendoscope communicates via Bluetooth with the FacileCare® workstation, which then processes the specific audio signal by applying a compression algorithm specifically developed by TeleMedware, making remote auscultation possible at the highest quality (the same as can be obtained by direct auscultation). Because the system can simultaneously transmit two video streams, special medical examinations such as ultrasounds or dermatology visits can be efficiently performed in remote, allowing the specialist to correctly guide the operator who is using the medical devices.

This is a multidisciplinary software that enables the viewing of any data relative to activities performed through the FacileCare® platform (from simple weight or pressure readings, to more complex electrocardiograms and cardiotocograph recordings, as well as multimedia examinations containing images and cine-loops, such as video dermatoscopy, video capillaroscopy or video otoscopy). Depending on the type of activity, the results can also be viewed in different modes: for example in the case of a blood pressure reading, heart rate, oximetry reading, etc., recorded values can be displayed in a table format or personalised graphical format. The system can also create groups of measurement-types in order to view their progress over time, in a graphical format as well.
**FacileCare® DataBrowser** also enables types of examinations to be viewed where results are not necessarily provided in an alphanumeric format (or not only in that format). In fact, the application features an integrated series of dedicated viewers that allow the viewing of: electrocardiograms (DICOM-ECG, HL7 eECG, SCP-ECG), cardiotocograph recordings, spirometry graphs, DICOM studies (images and/or cine-loops) obtained using video dermatoscopes, video otoscopes and video capillaroscopes interfaced with the platform.

The software also includes functions used to **measure** and **zoom** in on **graphs and images**, assisting in the assessment of results and therefore in the diagnosis. **FacileCare® DataBrowser** has an integrated reporting module for examinations, and can apply a digital signature (electronic signature with smart card, token, or graphometric signature).

**Reports can be printed and / or saved in a digital format** (personalised layout for each type of examination)

**MAIN FEATURES**

- High-definition audio/video conferencing
- Can record sessions (pending prior authorization by both parties involved in the process)
- Data reviewing from a vast range of certified medical devices
- Interfacing with phonendoscope for remote cardiopulmonary auscultation
- Interfacing with external echocardiography systems featuring a composite video output and DICOMisation of the signal
- Data reviewing from an echo fetal monitor to detect the fetal heart rate and uterine contractions

**FacileCare Medical Station** complies with and is certified under the Medical Devices Directive 93/42/EEC requirements. Specialists authenticate on the platform via unique credentials and sign each report with their own digital signature (by token, smartcard and graphometric signature).
FacileCare® HEALTHCARE SCHEDULE

THIS FUNCTIONALITY IS OF GREAT CONCERN TO ENSURE PATIENT ADHERENCE TO PHARMACOLOGICAL THERAPY AND IMPLEMENTING STRATEGIES TO IMPROVE DRUGS USE AND EFFICACY.

The integrated Healthcare Schedule in the FacileCare® platform enables physicians to prepare a calendar of activities to be performed by a particular patient, whether relative to taking medication, performing physical activities and even checking vital signs (e.g. measuring blood pressure), or relative to the periodic repetition of other types of tests.

This tool makes it easier to monitor the patient and allows the physician to be informed as to whether or not the patient is correctly following prescriptions and instructions.

It also helps the patient to be more precise and punctual when respecting the physician’s orders. The system is based on web technology and is therefore also available on mobile devices.
Audio-video communications
IP NETWORKS
Bluetooth
Archiving and Diagnostic Image Reports
DICOM
CONNECTIONS
Data transmission
DATA TRANSMISSION
PLATFORM
FacileCare®
Safe with telemedicine
MEDICAL REPORTING
Protocols and Interoperability Standards
HL7
• HOME TELECARE
Health, wellness and safety: the ideal tool for putting prevention into practice
• ASSISTED HOMECARE
Continuous remote monitoring, instrumental data acquisition and specialist homecare
• MULTI-SPECIALIST TELECONSULTATION
Specialist remote consultancy for follow-ups, second opinions or emergency consultations instrumental data acquisition and specialist homecare
• SPECIALIST TELEVISITS
Quality healthcare services without physical, geographical or sociocultural boundaries
• HEALTHPOINT SERVICE
Rapid and accurate biomedical measurements at Health Points in pharmacies, clinics and managed public places
• MULTIDISCIPLINARY REPORTING SYSTEM
Remote reporting by specialist practitioners for a wide range of medical examinations (ECG, dynamic pressure monitoring, cardiac Holter, spirometry, video-dermatoscopy, etc.) performed and transmitted remotely for screening and checkup purposes.
FacileCare® platform has a series of back-end services available for successful integration by external information systems e.g. Hospital Information Systems:

- **Relational DBMS**, which satisfies all data storage requirements and which can be rapidly interrogated for statistical or search purposes
- **Structured file system service**, which is scalable and expandable for the storage of reports
- **Interfaces with SMTP services** and sms alerts
- **Integration with clinical engineering elements including**: integration with XDS service Registry and Repository, DICOM Gateway for communication with DICOM nodes interfacing with dematerialisation services (legally admissible electronic storage of documents)
- **Streaming Server** that transmits both live and prerecorded video contents
- **Presence Server** that registers users connected at a given moment in time, in real-time
- **Real-Time Communication Server** and **Mediation Server** that allows audio/video communication between two parties, adapting the quality of audio / video streams depending on network conditions

**COMPLIANCE**

Telemedware operates under **ISO 13485** and **ISO 9001:2015 Quality Management System Certification**.

Telemedware is already compliant with regard to the current regulation about personal data processing Reg. **EU 679/2016 GDPR** as well to the actions issued by the Guarantor with regard to Privacy in accordance to the **UNI ISO 27001** requirements for an information security management system (ISMS).

**REBRANDING**

All the solutions based on the **FacileCare® platform** are also available in **double brand mode** (TeleMedware - Client) or **white label mode** (Client brand only).
according to Annex II of Directive 93/42/EEC on Medical Devices as amended