

SMARTGUARD MONITORING

ENVIRONMENTAL RADIATION MONITORING SYSTEM



EASY MONITORING



COMECER

AN **ATS** COMPANY

SMARTGUARD

A SOLUTION THAT SUPPORTS HEALTHCARE PROFESSIONALS DOING THEIR JOB SAFELY SO THEY CAN DO WHAT IS MOST IMPORTANT, GIVING TREATMENT TO THEIR PATIENTS

The Comecer SmartGuard system allows any Nuclear Medicine Department, (PET) Cyclotron and pharmacy to implement a controlled monitoring environment, including comprehensive means to handle and document (exceeded) alarm levels and logging of measurement data.

The modular and flexible system permits operators to have a real time and continuous overview of the whole facility by means of a clear and immediate visualization of all potentially dangerous events.

The system is flexible in the sense that it can be configured to meet the specific needs of a site, where these needs can be of a regulatory, production monitoring and/or safety related nature.

The system is modular in the sense that there is a choice of (measurement) devices available, which can be used to build a small scale decentralized monitoring system up to a completely centralized, department wide, monitoring system. It is always possible to add devices when required.

Benefits of the Comecer Smartguard solution

Have a real-time overview of the environmental situation in your department

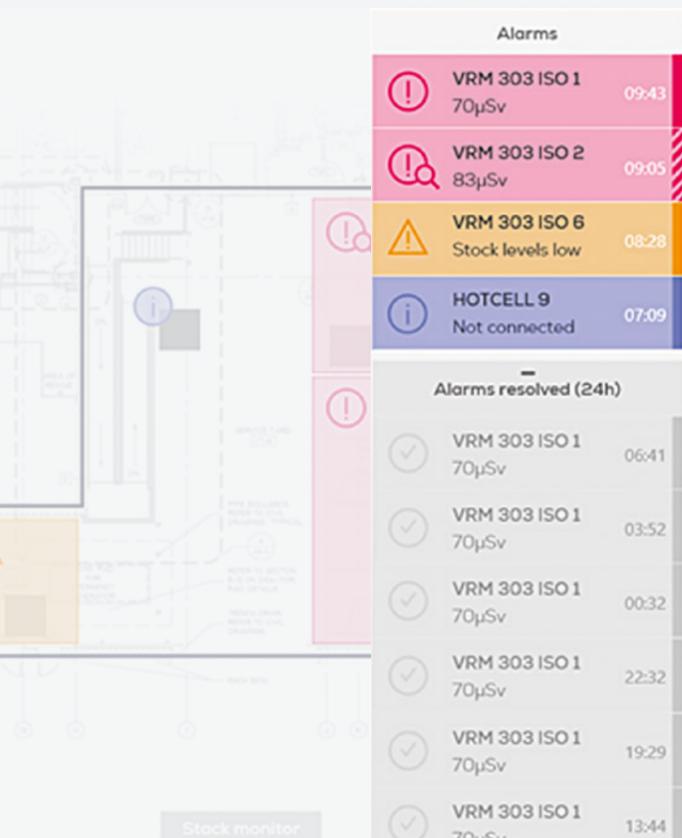
Access the system via your daily used browser

Email notification in case of an alarm during an event

Get notified immediately in case of an alarm by the local measurement device and/or with the light columns that can be flexible integrated into the system

Have a single point of entry for all the environmental data

Devices can be configured remotely through the SmartGuard software

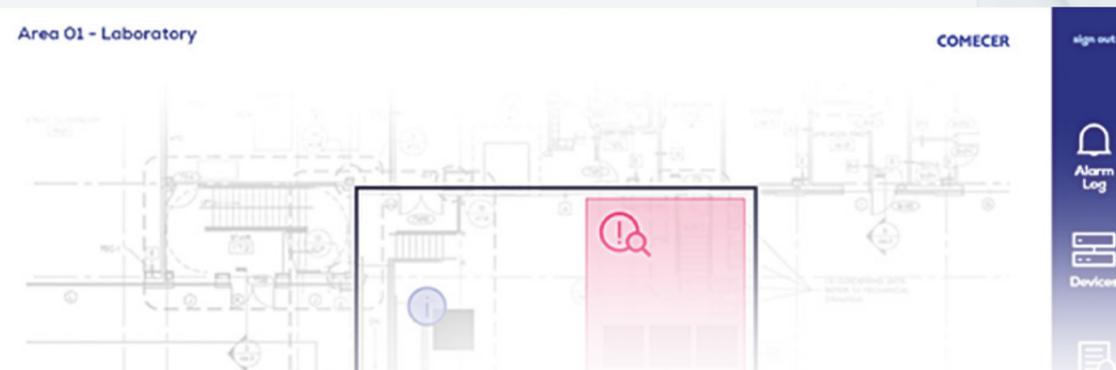


Alarms

- VRM 303 ISO 1 70µSv 09:43
- VRM 303 ISO 2 83µSv 09:05
- VRM 303 ISO 6 Stock levels low 08:28
- HOTCELL 9 Not connected 07:09

Alarms resolved (24h)

- VRM 303 ISO 1 70µSv 06:41
- VRM 303 ISO 1 70µSv 03:52
- VRM 303 ISO 1 70µSv 00:32
- VRM 303 ISO 1 70µSv 22:32
- VRM 303 ISO 1 70µSv 19:29
- VRM 303 ISO 1 70µSv 13:44



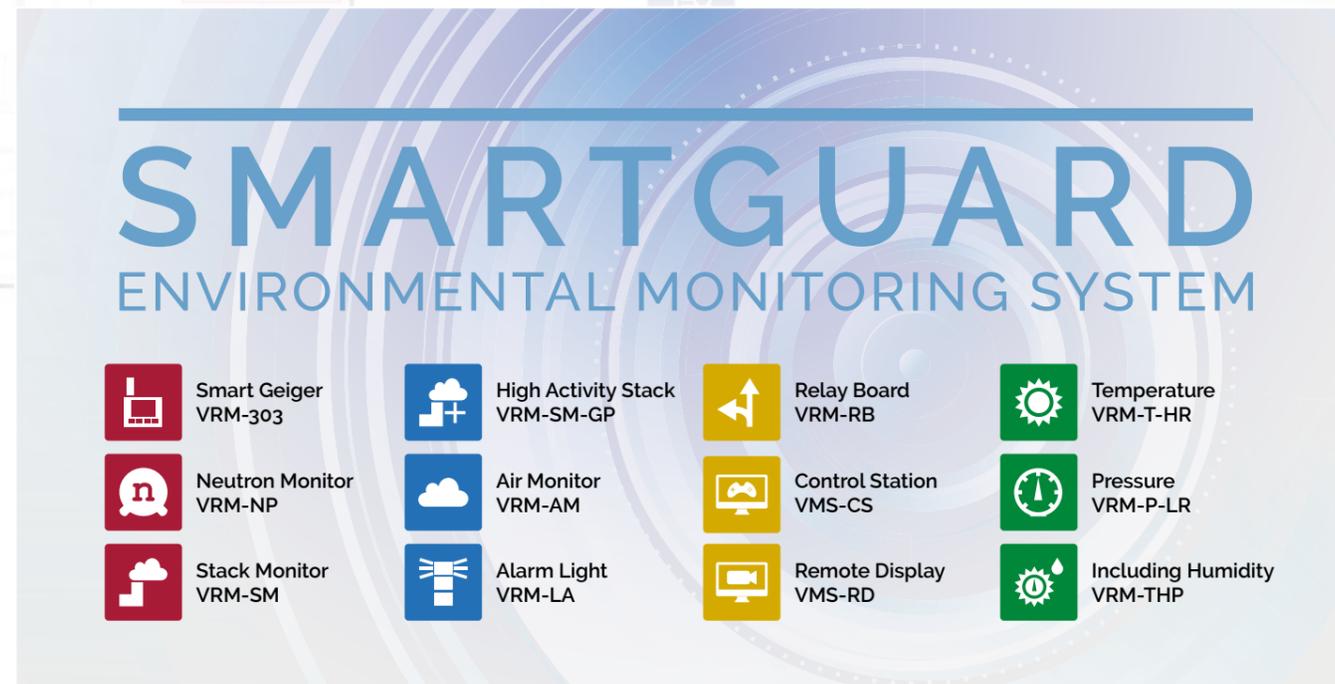
Area 01 - Laboratory

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sign out

Alarm Log

Devices



SMARTGUARD

ENVIRONMENTAL MONITORING SYSTEM

- Smart Geiger VRM-303
- Neutron Monitor VRM-NP
- Stack Monitor VRM-SM
- High Activity Stack VRM-SM-GP
- Air Monitor VRM-AM
- Alarm Light VRM-LA
- Relay Board VRM-RB
- Control Station VMS-CS
- Remote Display VMS-RD
- Temperature VRM-T-HR
- Pressure VRM-P-LR
- Including Humidity VRM-THP

This modular and flexible system provides real-time monitoring of the facility to ensure continuous control and safety

Web based
A web-based solution that stores, reports and exports data of monitored areas, rooms, and devices.

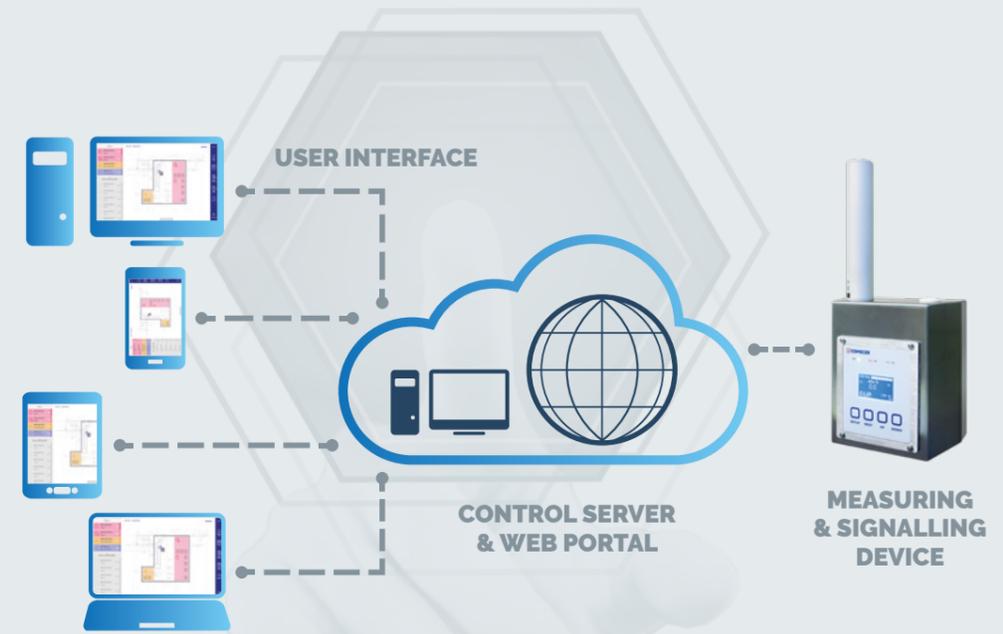
Multi maps
Custom virtual maps that are designed to fit your facility.

Data visualization
All data is stored in one database, allowing easy and fast data analysis on the measurement values of the connected devices.

Event notification
When levels are exceeded, the user will receive notifications of the event.

Audit trail
All changes to the system are permanently logged into the audit trail. Reports can be printed if necessary.

Reporting
Collected data can be exported in either graphs or in data grids.



Web based
SmartGuard is a web-based solution that stores, reports and exports data of monitored areas, rooms, and devices. The SmartGuard software will be installed on the local server of the customer, the system can be accessed using a normal browser via any computer that is connected to the server. No installation is needed on the devices used accessing the system.

Multi maps
The SmartGuard system supports different zoom levels of the floor plan. The floor plan can be divided in area's, which in turn can be divided in rooms and zone's. An area is a part of the monitored floor in the facility, each area exists out of several rooms, with zones in them. Devices can be placed on all levels to create a complete virtual map of the facility.

Event notification
When the measurement levels are exceeded, the user will receive notifications of the event.

The notification will show which device triggered the alarm and the measurement values. This way the user can take the right precautions! The event is displayed in three ways:

1. In the alarm column on the left side of the software interface the user has a global overview of events with alarm type, device, and time of first notification of event.
2. On the main map the area where the alarm is generated is clearly visible with a distinctive color depending on the type of alarm. The user can zoom in on the area or device for more details on the alarm
3. Events are recorded in the "alarm log" section of the software where the event can be extensively reviewed. In the alarm log extensive details are recorded, like the time, the device, the location and measurement levels.

The user can receive email notifications of the events taking place.

Data visualization
All data is collected and stored in the database. When analyzing the data, the data is shown in easy-to-read graphs. For each measurement the following data are stored:

- Date/time
 - Detector
 - Measuring value
 - Alarm level.
- For each detector the following data is available (within a selectable period of time):
- Total number of events
 - Mean value of measurements
 - Minimum and maximum of the measurement value.

Device's configuration
Almost every device that is connected to the system can be configured remotely via the software. Parameters like alarm levels and polling interval can be changed from the central user interface.

Audit trail
All changes to the system are logged in the audit trail and can be traced when necessary.

Reporting
Since all measurement data is stored in the central database, the data can be analyzed and put into reports. This data can be exported in either graphs or in information grids.

Hardware Feature

Detection Units for the following tasks are available:

- Production monitoring (hot cell)
- Area monitoring (rooms)
- Stack monitoring (stack/hot cell/cyclotron)
- Neutron monitoring (vault)
- Cleanroom monitoring (isolator)

VRM-NP Neutron detector (KWD 2222A) with VMS-CS interface

The 2222A Neutron monitor can be used stationary (with wall mount) as well as portable



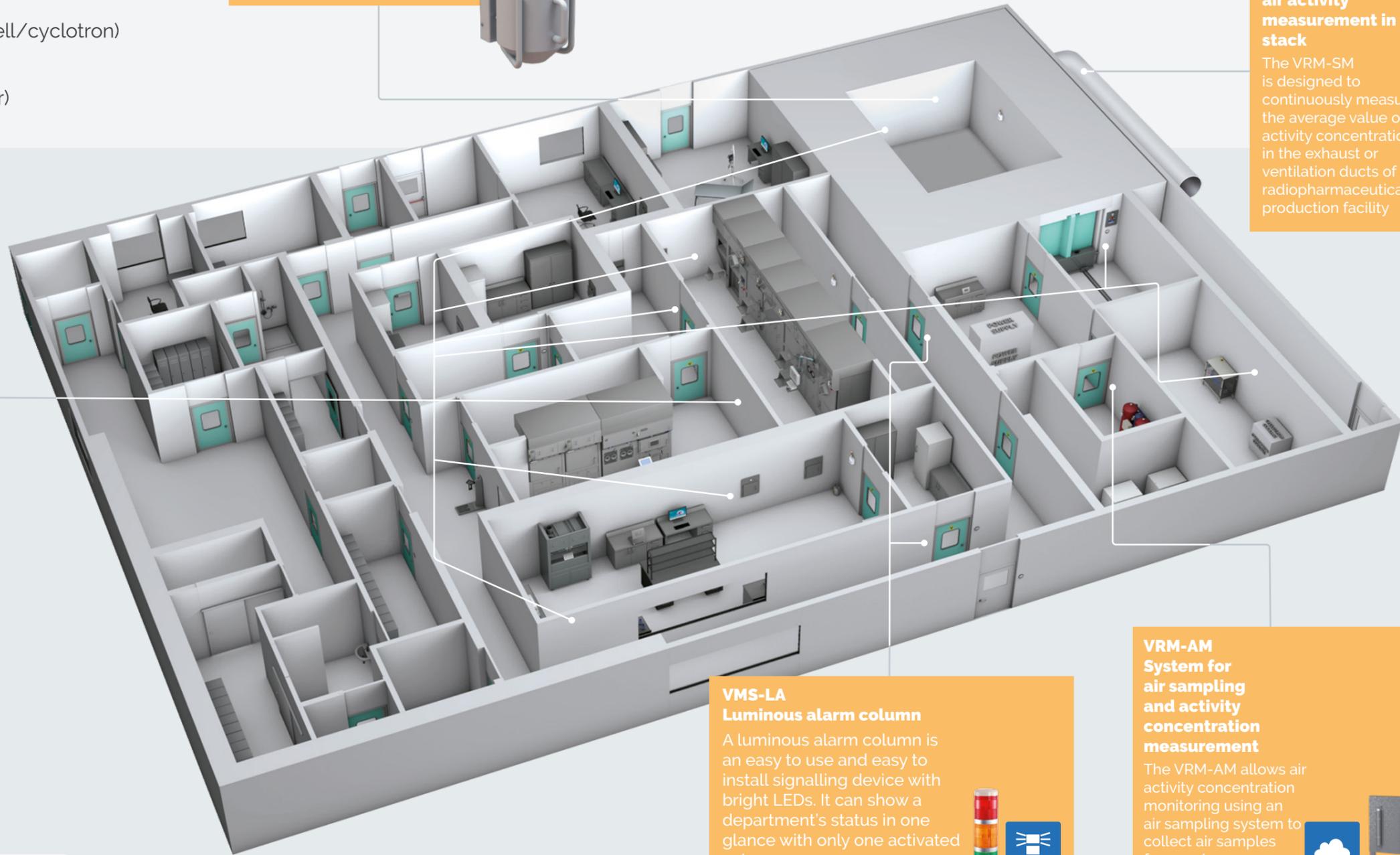
VRM-SM Stack Monitor for continuous air activity measurement in the stack

The VRM-SM is designed to continuously measure the average value of low activity concentrations in the exhaust or ventilation ducts of a radiopharmaceutical production facility



VRM-303 Detection unit with VRM-GP detector

Wall mount, wide range, energy compensated Geiger-Muller detectors



VMS-LA Luminous alarm column

A luminous alarm column is an easy to use and easy to install signalling device with bright LEDs. It can show a department's status in one glance with only one activated color



VRM-AM System for air sampling and activity concentration measurement

The VRM-AM allows air activity concentration monitoring using an air sampling system to collect air samples from various rooms



Our Service

Daily online assistance (telephone helpdesk)

Our technical helpdesk will be available online from 8:00 to 17:00 from Monday to Friday (Saturday, Sunday and bank holidays are excluded).

The remote online assistance makes it possible for our service department to perform diagnosis and troubleshooting in order to have a short resolution time.

Help Desk Support and Remote assistance

Intervention can be carried out by remote connection on Comecer equipment, and it will be performed by our service department using Team Viewer Software or using secure VPN connection.

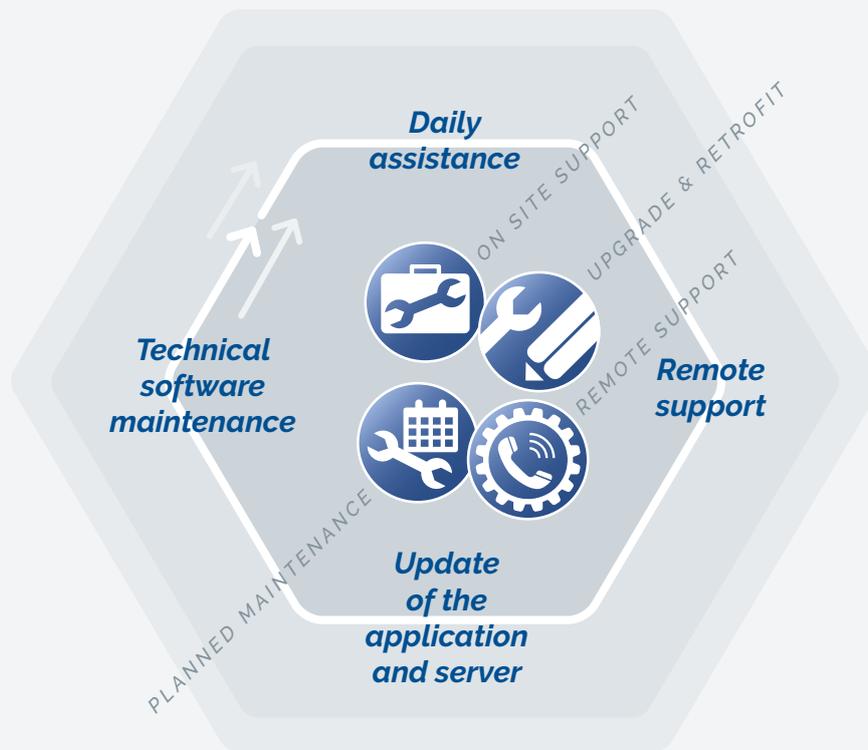
This service makes it possible for Comecer to have direct access to all functions of the machines and application software to verify the proper functioning or to fix any issue.

Update of the application and server software

With a SLA, the end-user is assured that his software will remain up to date with respect to regulatory changes, stability, performance, data integrity, functionality, and Windows compatibility. Updates of the software will be announced via a newsletter. Our technical helpdesk can provide remote assistance during the software update process.

Technical software maintenance

Via remote connection, the technical helpdesk will monitor system health of the server or computer on which the software is installed. Database maintenance will be carried out to ensure data integrity and high performance. Used disk space by the application or server software will be monitored and corrected in case this is required to guarantee the best possible performance of the system. Updates and maintenance are limited to the application or server software provided by Comecer. Microsoft Windows or third-party software updates are not carried out by Comecer within scope of the SLA.



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WE ARE YOUR PARTNER FOR LIFE

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