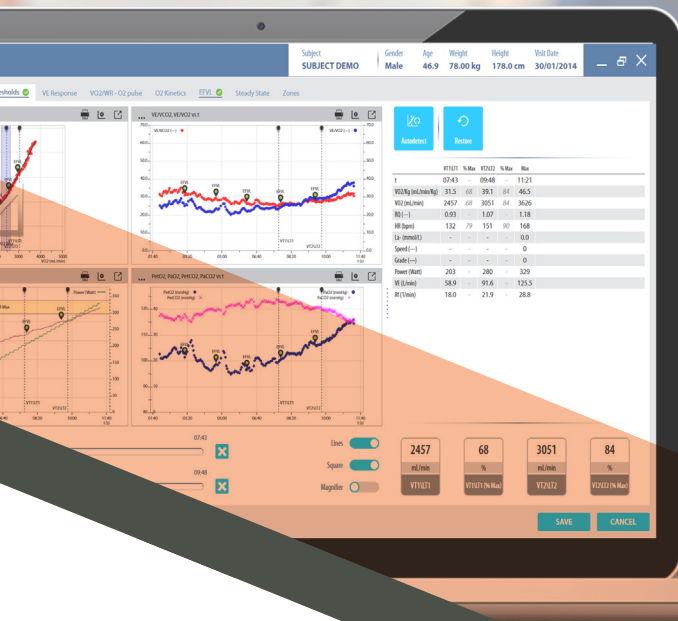


omnia

Metabolic | Lung Function | Body Composition

"When small details make a huge difference..."



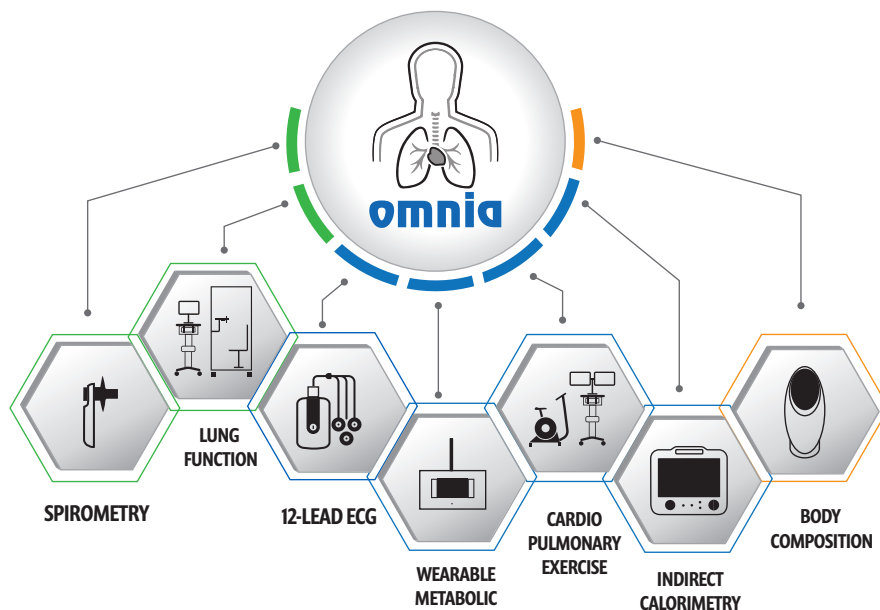
The most comprehensive Data Management Software for Metabolic, Lung Function and Body Composition



COSMED
The Metabolic Company

“The new benchmark in data management providing seamlessly usability and advanced connectivity for Metabolic, Lung Function and Body Composition Assessment”

- ▶ **Intuitive workflow, modern and innovative graphic user interface**
- ▶ **Compliant with all major scientific guidelines (ATS/ERS, AHA, ACSM etc.)**
- ▶ **Extensive customization for both clinical and research purposes**
- ▶ **One single software ecosystem for a wide selection of products**
- ▶ **Available as standalone, small or large LAN/WAN network environment**
- ▶ **Integrated with HIS/EMR systems via HL7 and DICOM**



Developed by COSMED, **OMNIA** is an advanced software platform designed to support clinicians, researchers, and healthcare professionals in delivering high-quality cardiopulmonary and metabolic care.

With over 45 years of experience in the diagnostic field, COSMED has created a solution that streamlines workflows, reduces testing time, and minimizes human error through an intuitive and intelligent interface.

At the heart of OMNIA is a **user-friendly graphical interface** featuring real-time guidance and integrated quality control, ensuring each test is both accurate and reliable. Its robust database architecture is built to protect sensitive patient information while maintaining seamless data access and integrity.

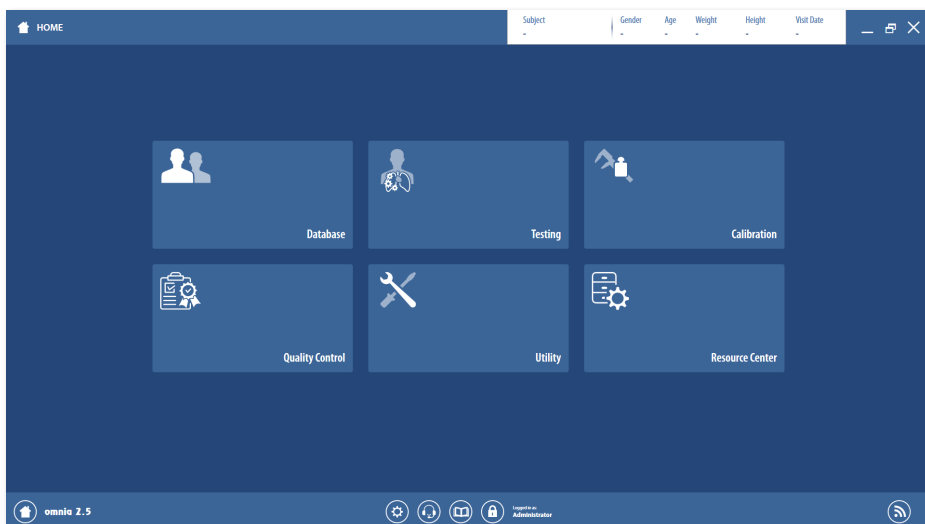
OMNIA serves as a comprehensive platform for collecting, analyzing, and sharing diagnostic data within interdisciplinary teams. It enables collaboration across both local and geographically distributed networks, with customizable user roles and permissions to fit diverse clinical environments.

Fully compatible with COSMED’s complete product line, from metabolic and pulmonary function systems to body composition analysis, OMNIA also integrates effortlessly with existing **Hospital Information Systems (HIS)**, supporting a connected and unified workflow.

The software is intuitive, saving time through a clearly guided process, and

is **compliant** with the latest international medical guidelines.

Highly customizable, OMNIA allows users to adapt the **interface, reports, and settings** to meet specific operational needs. Its modular design enables future expansion, while its secure framework ensures that patient data remains fully protected at all times.



OMNIA Home page

Main Features

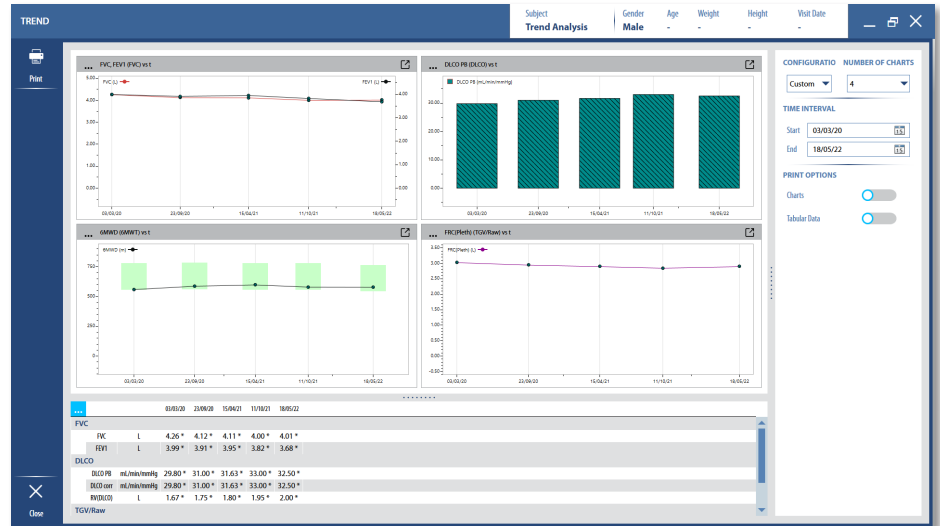
INTUITIVE

OMNIA features a **smart Graphical User Interface** that intuitively guides users through every step of their workflow, from patient data entry to test execution and interpretation, ensuring **clarity, consistency, and confidence** in daily operations.

The user-friendly design simplifies even complex tasks, transforming them into straightforward procedures. Navigation is fast and efficient thanks to built-in keyboard shortcuts, while the customizable, operator-free calibration routine minimizes downtime and optimizes productivity.

During tests, **real-time coaching tools** are available to assist both clinicians and patients, enhancing test quality and compliance. A centralized results page displays **all key test data in one place**, allowing for quick and comprehensive review and interpretation.

OMNIA also includes both manual and automated **interpretation tools**, featuring customizable phrase shortcuts (tags) and support for electronic signatures to streamline reporting. The interface is available in multiple languages, making it accessible for global teams and diverse clinical settings.



Trends

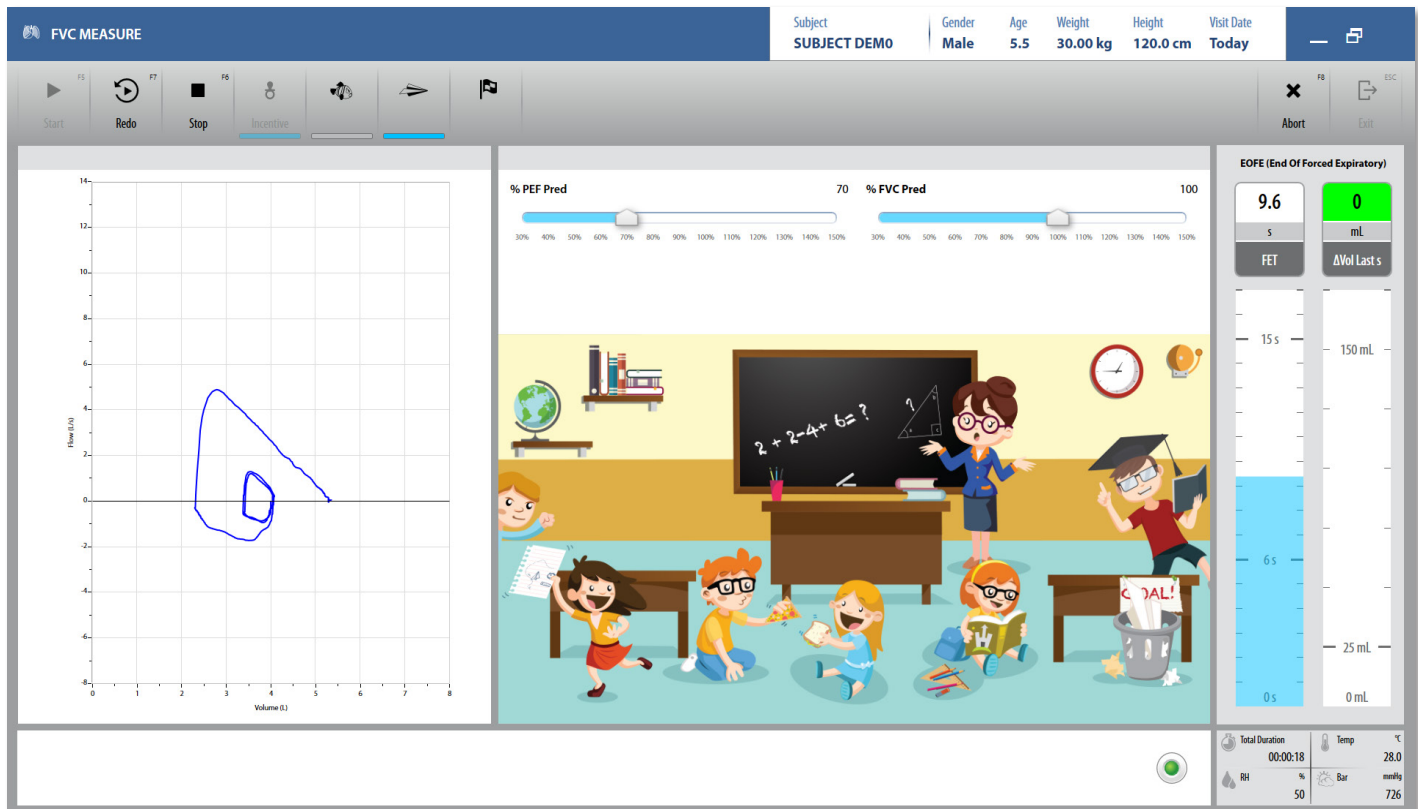
COMPLIANT

OMNIA is developed in full alignment with the **latest International Clinical Guidelines**, ensuring every test meets the highest standards of scientific and regulatory compliance.

The software adheres to key recommendations, including **ATS/ERS 2017 DLCO, 2019 Spirometry, 2021 Interpretation, and 2023 Lung Volumes guidelines**, providing clinicians with a solid framework for consistent, high-quality testing.

With access to over **100 reference predicted sets**, OMNIA supports accurate test interpretation across a wide range of populations, enhancing clinical relevance and inclusivity.

To maintain data integrity, the platform offers automated calibration prompts and **real-time quality control messages** helping users achieve reliable results with minimal effort. Additionally, simulated tests can be performed to objectively verify data quality and system performance.



Pediatric Incentive during FVC testing: the dynamic animation based on set % pred PEF and % pred FVC makes it efficient for any child or elderly people. FVC End of Test criteria bars for intuitive and immediate test quality control.

FULLY CUSTOMIZABLE

OMNIA is built to adapt, whether you're working in a small clinic, a large hospital, or a research facility. Its **flexible architecture** allows users to tailor the software to their specific needs and workflows, regardless of the size or complexity of the organization.

Users can configure **real-time parameters** and **dynamic dashboards**, with the ability to switch between different views during testing for enhanced flexibility and control. **Report layouts**, whether single test, multi-test, or trend-based, are fully customizable at any time.

Advanced tools support **personalized care and research**, including a Broncho-Challenge and Metabolic Protocol Manager for guided creation of custom testing protocols, a Training Zones tool for individualized exercise prescription, and an Energy Balance feature that calculates daily energy needs based on a subject's target weight. The Resource Center enables the creation of templates and predefined strings for interpretation and refertation, which can be easily recalled using tags.

OMNIA intelligently activates features, tests, and calibration options based on the connected devices, license level, and user settings, ensuring a tailored experience every time. Its **modular design** allows seamless expansion, making it a scalable solution for both current and future needs.

SEAMLESSLY INTEGRATED

OMNIA is designed as an **Ecosystem**, offering seamless integration with the full range of COSMED diagnostic devices and a variety of auxiliary equipment.

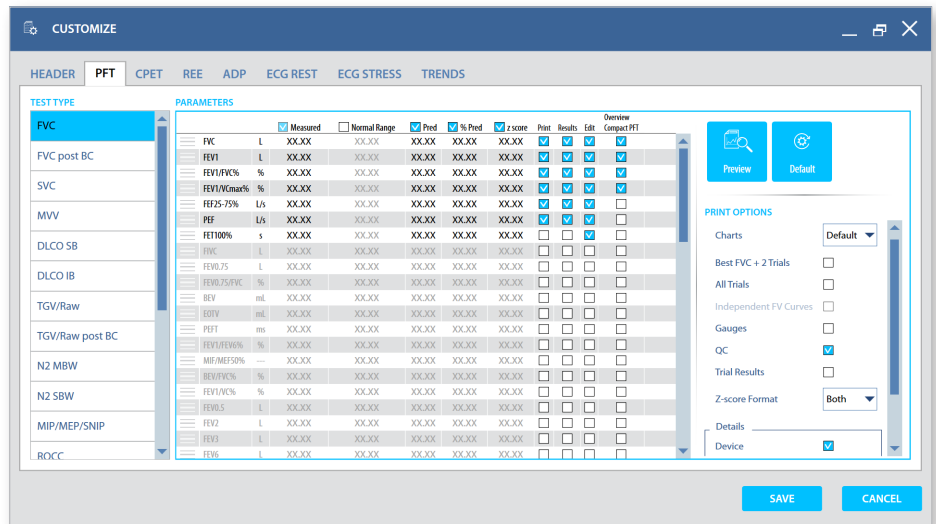
Whether for Spirometry, Lung Function Testing, Cardiopulmonary Exercise Testing (CPET), ECG, Indirect Calorimetry, and Body Composition systems, OMNIA brings everything together in **one powerful platform**.

Operators can **expand system capabilities** by adding test modules and managing multiple devices within a single environment.

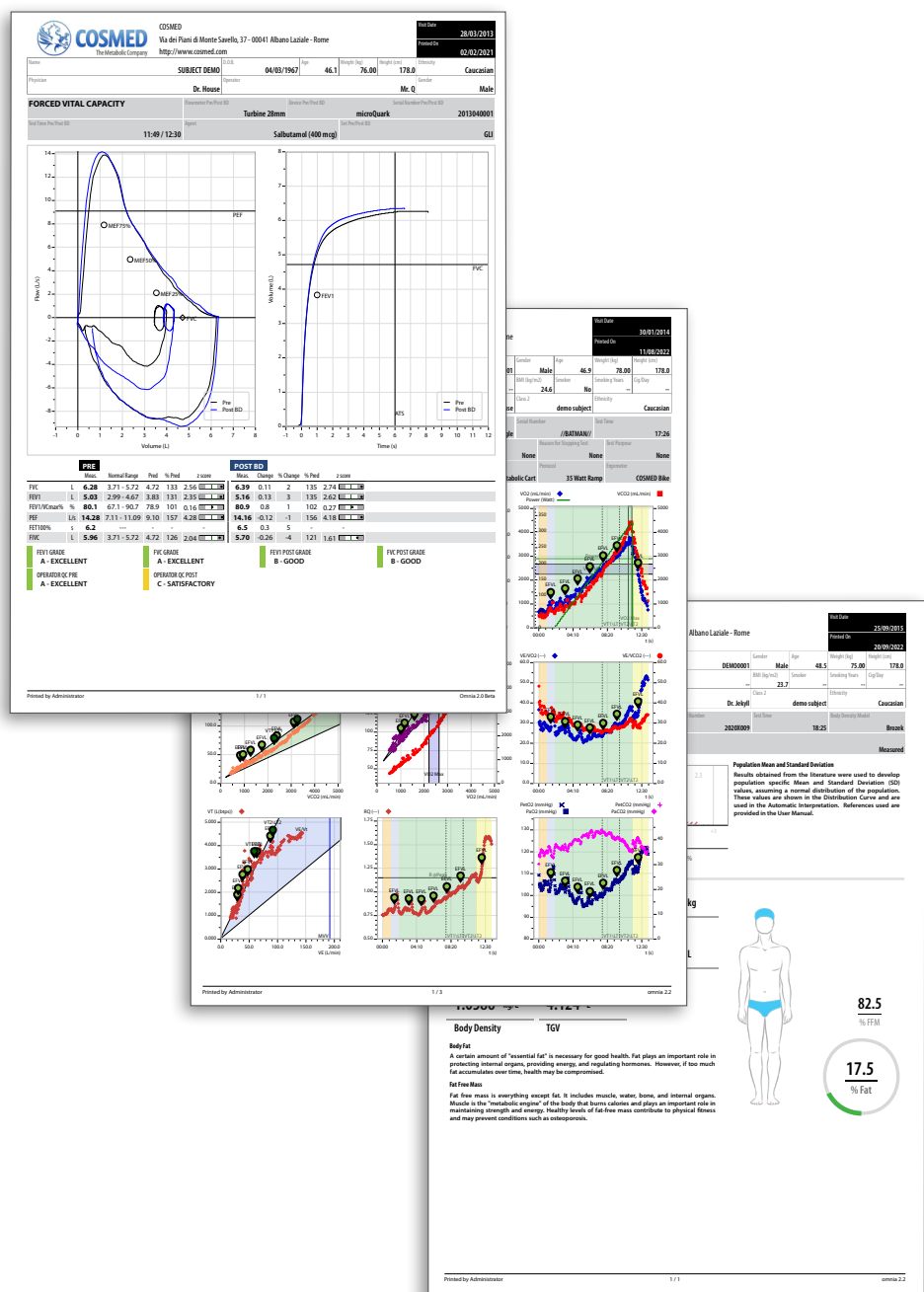
Beyond COSMED's own devices, OMNIA interfaces with a wide range of **third-party peripherals** such as ergometers, ECGs, blood pressure monitors, pulse oximeters, cardiac output monitors, arterial blood gas (ABG) analyzers, and more.

It also supports Bluetooth Low Energy (BLE) connectivity, allowing integration with modern wireless sensors including trainers, motion sensors, and ergometers.

This modular and device-friendly design makes OMNIA a **truly comprehensive and scalable solution** for any clinical or research setting.



Possibility to customize results, edit and printout views.



Clear, well-structured, and visually enhanced reports deliver a professional impression to both referring physicians and patients.

Visit Review screen shows all tests performed at a glance minimizing numbers of operations

Each test shows in evidence the most explicative chart for a quick overview

Intuitive icons for direct access to main functions



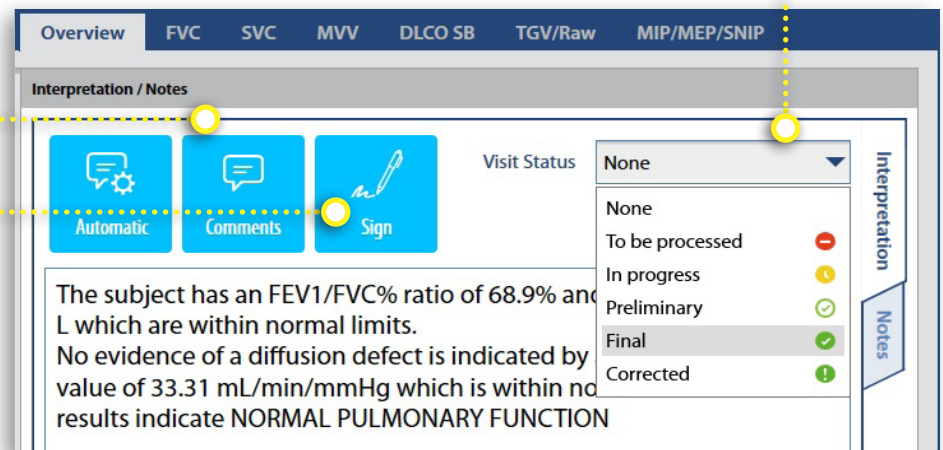
Interpretation and Notes always accessible while navigating through visit results

Quality control feedback for immediate analysis on reliability and patient compliance

Main parameters shown by means of comprehensive gauges

Direct access to custom interpretation comments, searchable by tags

Electronic signature



Visit status classification and transfer to HIS in one click



CONNECTED

OMNIA is engineered to integrate smoothly within hospital infrastructures, offering advanced networking capabilities and full interoperability with EHR/EMR systems.

This ensures complete connectivity with Hospital Information Systems (HIS) and streamlines workflows across multiple departments.

Networking Capabilities

OMNIA supports secure database sharing across local and remote workstations through a robust, scalable client-server architecture powered by SQL databases.

With Microsoft Active Directory integration, user roles and permissions are securely managed.

Remote review stations enable referring physicians to access data easily, while a unified database consolidates multi-departmental information for efficient access and analysis.

OMNIA is also compatible with virtualized environments such as Windows Virtual Desktop, Citrix, and VMware, ensuring flexibility for diverse IT infrastructures.

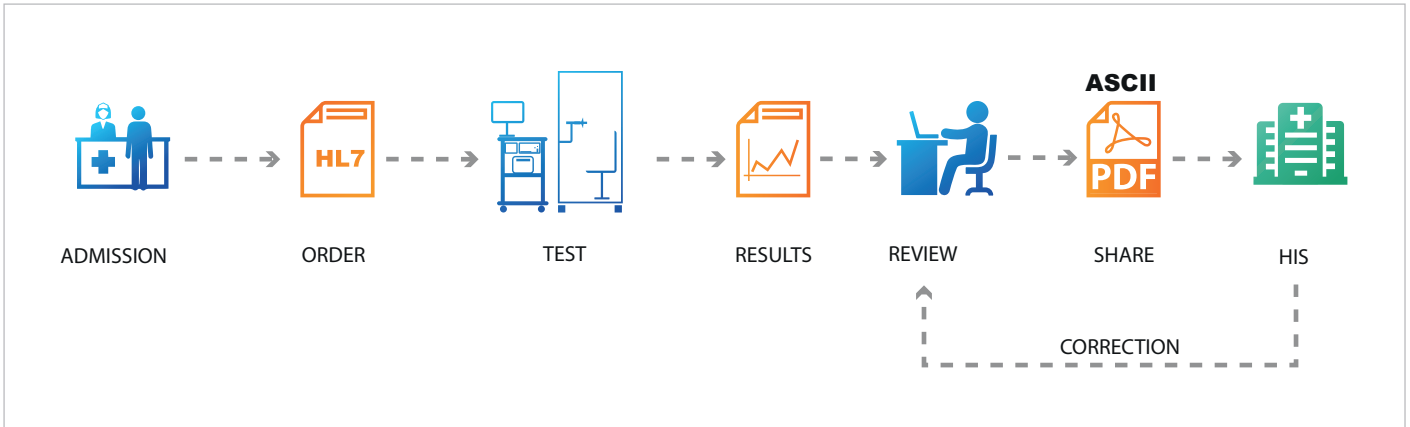
Interoperability with HIS/EHR/EMR

OMNIA Connector facilitates seamless bidirectional communication with hospital systems, eliminating data redundancy. Patient information flows smoothly from HIS into OMNIA for testing and returns test results with a single click.

The software supports all major healthcare communication standards, including HL7, GDT, and DICOM and offers a worklist feature for efficient patient and visit management.

Status	Order Date	Room	Last Name	First Name	Physician	Technician	Exams
🟡	10/05/2021	01A	Rossi	Mario	Dr. Jekyll	Mr. Hyde	FVC
🟢	12/05/2021	01A	Jessop	John	Dr. House	Mr. Q	DLCO
🟢	28/05/2021	12B	Gonzales	Laura	Dr. House	Mr. Q	BODY

OMNIA Connector enables integration with HIS workflow through HL7® protocol.



OMNIA Connector workflow

SECURE

OMNIA is designed with security and reliability at its core, ensuring patient data integrity, availability, and compliance with the strictest data protection regulations.

It includes SQL Express Edition, which supports databases up to 10 GB and can scale seamlessly to SQL Standard Edition for larger standalone or network installations, allowing virtually unlimited records.

The platform fully complies with international privacy standards such as GDPR and HIPAA and leverages Microsoft SQL Server's built-in encryption to safeguard all sensitive information.

Advanced user controls allow precise assignment of roles and group permissions, enabling customized access for viewing, editing, or managing specific software functions.

Comprehensive system logs monitor activity and trigger alerts for failed login attempts and any system anomalies.

In the event of network outages, OMNIA's Emergency Offline Mode ensures uninterrupted operation by safely storing data locally and automatically synchronizing it once connectivity is restored.

Its decoupled system design simplifies database maintenance, updates, and migration, while integrated backup scheduling and reminders help guarantee regular and secure data backups.

Feature	Standalone	Network
Microsoft® SQL Database engine (Express edition, limited to 10GB database, is included; Standard edition is recommended for intensive use)	●	●
Integration with Hospital Information System (HL7®/DICOM/GDT)	with OMNIA Connector or GDT Module	with OMNIA Connector or GDT Module
Centralized Archive	--	●
Cross Station patient information access	Manual export/import	Immediate, automatic
Concurrent Users	--	Multiple. Multistation workflows.
Centralized Configuration	--	●
Integration with Microsoft® Active Directory	Users	Users and Groups
Disaster Recovery	Local backup	Centralized Strategy
Operability during Network disruption	--	●
Scalability	--	LAN and WAN
Compatibility with virtualized environments (VVD, Citrix, VMWare etc.)	--	●

● Standard ○ Optional

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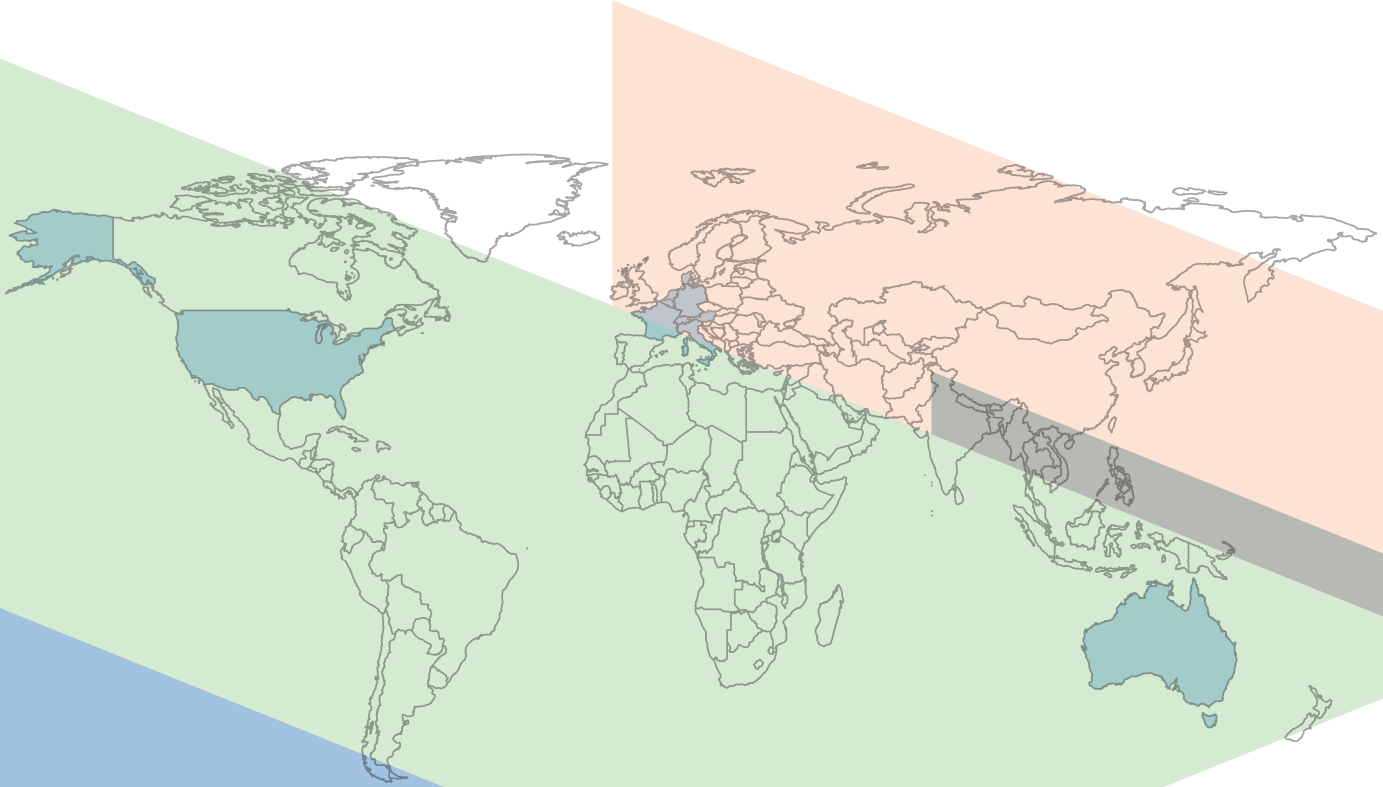
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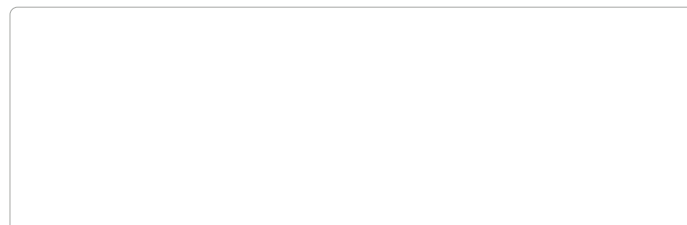


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