INDUSTRY **4.0**

MODULA
CLOUD

Modula Cloud

Think Vertical, Think Modula

YOUR SMART DATA ANALYST

MODULA

Your Modula systems under control
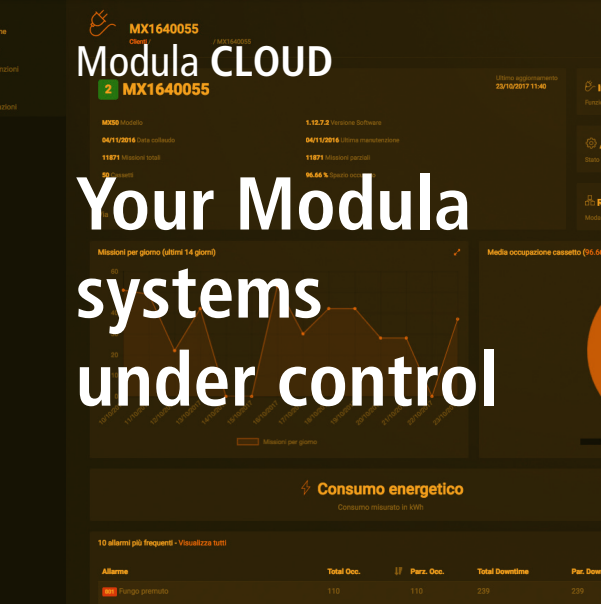
Modula Cloud is the portal that Modula offers its clients to allow them to view and report on all information relating to warehouse activities. Including:

- system registry data
- warehouse status (online - offline - error)
- consumption
- occupation (weight - volume - surfaces)
- tasks
- maintenance
- opening assistance ticket
- trays
- machine log and much more.

How does the Modula Cloud work?

The platform lets you connect the Modula vertical warehouses managed by Modula WMS software to the Modula Cloud portal. Modula WMS **collects and processes the information and activities from the warehouses,** then transfers them to the Modula Cloud, which allows them to be viewed on an internet site that is accessed via personal authentication.
The only prerequisite your IT department needs to be able to use the Modula Cloud is a stable, continuous internet connection from the Modula Server PC workstation.

Where can you view the data?

The data that Modula Cloud collects is accessible at a **specific web address** protected with unequivocal credentials. Portal users are authenticated via personal username and password and can view all Modula activities, even if they are located in **plants, departments or different premises anywhere in the world.** An interactive map lets you see all the points where Modula is operating, and when you click on the map, you can access the individual units and decide what to view.
You can create users with diverse permission to monitor different DATASET and interfaces for each company user. You will be able to gain access from any device that has a web browser: **PC, smartphone or tablet.**

Data security

The Modula Cloud has been entirely developed with Microsoft technology and hosted on the Microsoft Azure cloud platform, equipped with, among others, the following certifications:
- ISO/IEC 27001, Management systems for information security
- ISO/IEC 27017, Code of conduct for security checks of information based on ISO/IEC 27002 for services in the cloud
- ISO/IEC 27018, Code of conduct for protection of personal information and identification (PII) in public clouds that act as PII processors.

The system uses the latest cryptographic systems for authentication and exchange data between WMS and Cloud: authentication is via the HTTPS/TLS protocol with RSA encryption at 2048 bits; sending data occurs through the AMQP protocol.

Cloud system architecture


AMQP
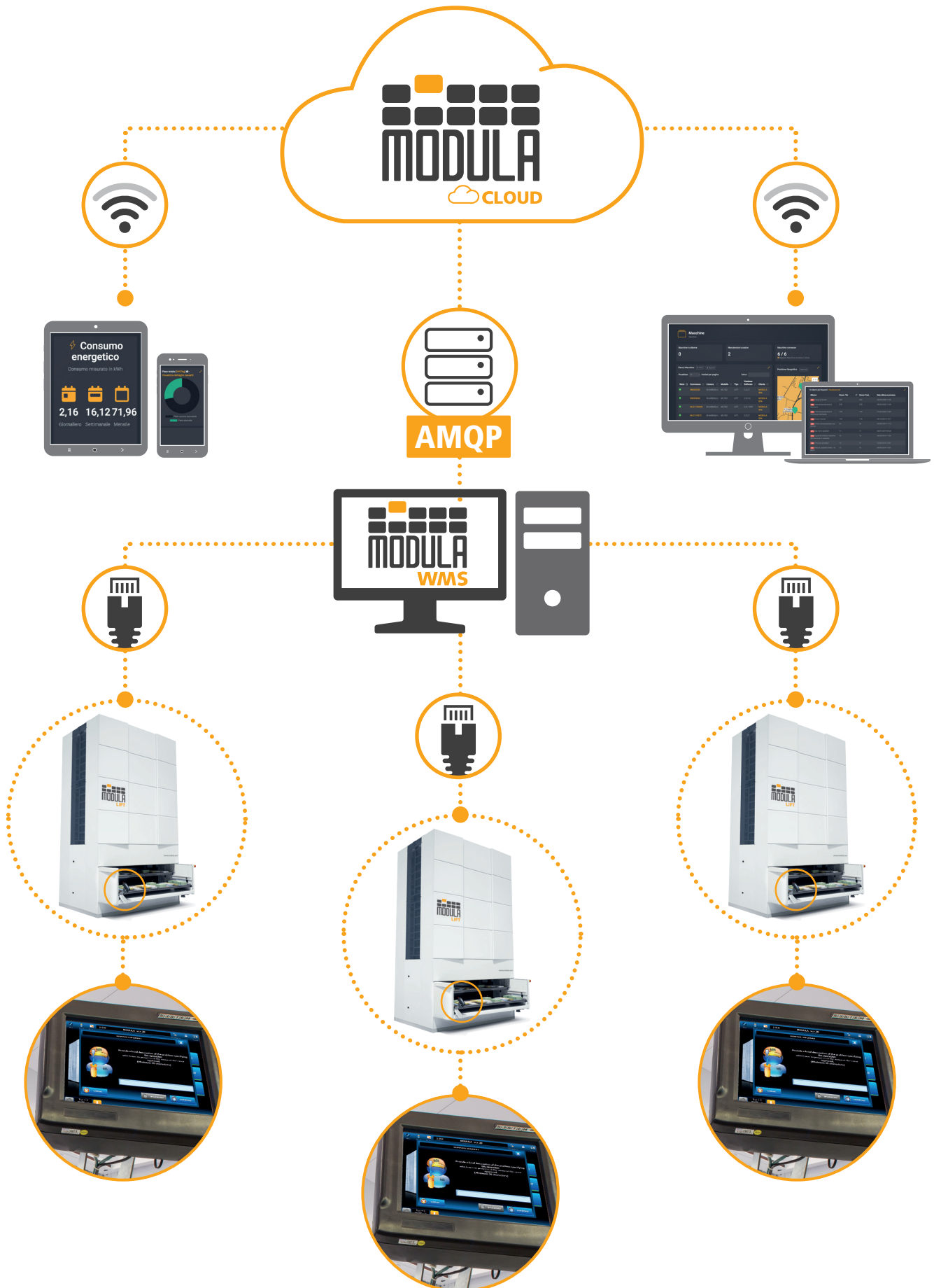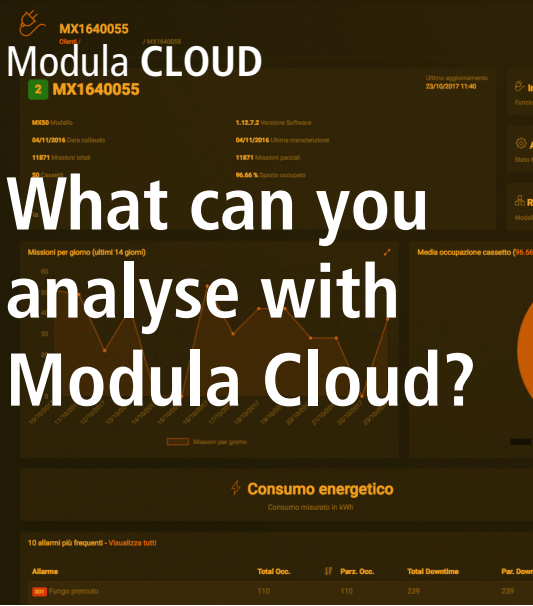
Modula **CLOUD**

What can you analyse with Modula Cloud?

Modula Cloud is a valuable source of information to manage activities relating to:
- machine
- trays
- operations
- reports.

MACHINE INFORMATION VIEW

- SYSTEM REGISTRY DATA
- WAREHOUSE STATUS
- WARNING LIGHTS AND ALARMS
- ALARM REPORTS
- ENERGY CONSUMPTION
- TOTAL WEIGHT STORED
- VIEWING SATURATION **VOLUME**
- NUMBER OF TASKS PER DAY OR PER PERIOD
- MAINTENANCE COUNTDOWNS
- MAINTENANCE HISTORY
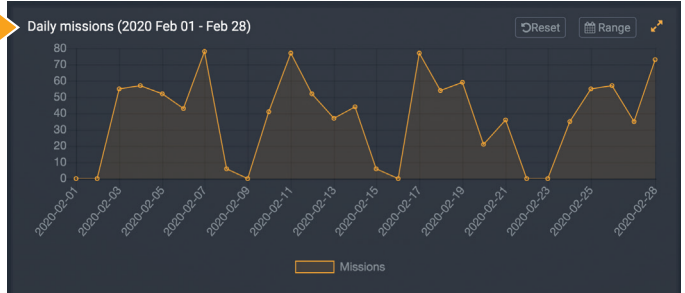
INDIVIDUAL TRAY VIEW

- SURFACE OCCUPIED
- EFFECTIVE WEIGHT
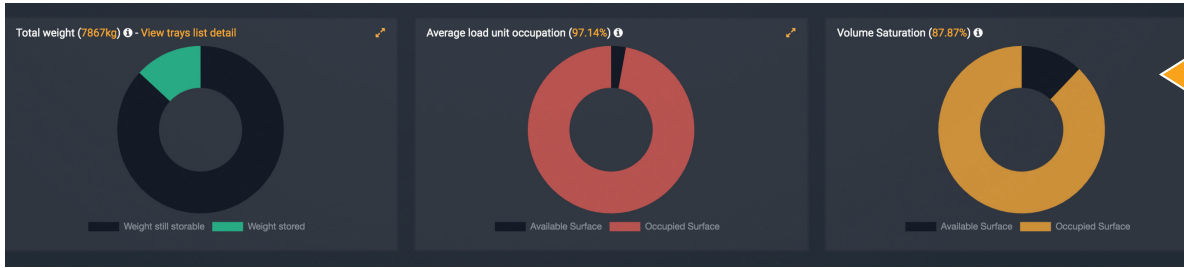- THEORETICAL WEIGHT
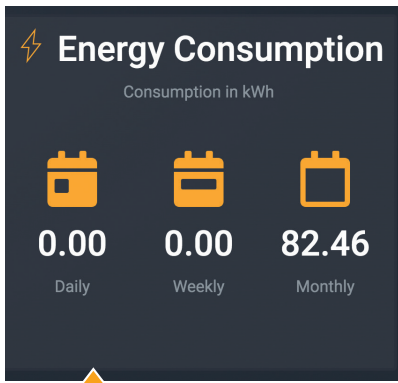- CLASSES ABC
- HEIGHT OF STORED MATERIAL

OPERATIONS

- REMOTE MODULA OS UPDATING
- DOWNLOAD MACHINE BACK-UP
- TRAY CALCULATIONS
- OPEN ASSISTANCE TICKET FROM COPILOT

REPORTS AND CONTROL PANELS

MODULA CLOUD

SATURATION

Total weight (7867kg) ⓘ - View trays list detail

Weight still storable | Weight stored

Average load unit occupation (97.14%) ⓘ

Available Surface | Occupied Surface

Volume Saturation (87.87%) ⓘ

Available Surface | Occupied Surface

MACHINES

Devices
Devices

Devices in alarm	Expired maintenances	Connected Machines
0	4	0 / 6
		ⓘ Connected Machines vs Tot

ENERGY CONSUMPTION

⚡ **Energy Consumption**
Consumption in kWh

📅	📅	📅
0.00	0.00	82.46
Daily	Weekly	Monthly

Device List ▼ Filter   ⬇ Export

Show [25] entries   Search [   ]

| State	Order	License	Model	Type	Software Version	Customer	Factory
●	0M000330	BHABBABJU	ML75D	LIFT	2.0.2.1	MODULA SPA	MODULA SPA (Rep. IMP. I908) Via San Lorenzo, 41, 42013 Salvaterra di Casalgrande RE, Italia
●	0M000694	BHABBABJU	ML75D	LIFT	2.0.2.4	MODULA SPA	MODULA SPA (Rep. IMP. I908) Via San Lorenzo, 41, 42013 Salvaterra di Casalgrande RE, Italia
●	MLD174040A	BHABBABJU	ML75D	LIFT	2.0.1.999	MODULA SPA	MODULA SPA (Rep. IMP. I908) Via San Lorenzo, 41, 42013 Salvaterra di Casalgrande RE, Italia
●	MLD174572	BHABBABJU	ML10D	LIFT	2.0.2.1	MODULA SPA	MODULA SPA (Rep. IMP. I908) Via San Lorenzo, 41, 42013 Salvaterra di Casalgrande RE, Italia
●	MXD174240	BHABBABJU	MX75D	LIFT	2.0.2.2	MODULA SPA	MODULA SPA (Rep. IMP. I908) Via San Lorenzo, 41, 42013 Salvaterra di Casalgrande RE, Italia
●	MXD174241	BHABBABJU	MX75D	LIFT	2.0.2.4	MODULA SPA	MODULA SPA (Rep. IMP. I908) Via San Lorenzo, 41, 42013 Salvaterra di Casalgrande RE, Italia

Geographical Position

Case Primo Maggio

Google   Dati mappa

10 Most frequent alarms - Show all

Alarm	Total Occ.	Parz. Occ.	Last occurrence date
001 Emergency button pressed	556	556	12/03/2020 09:02
016 Intermediate safety barrier intervened	485	485	12/03/2020 09:02
006 Safety barrier intervened	382	382	09/03/2020 11:56
103 Inverter error	72	72	20/02/2020 18:27
030 Side doors safety microswitch of bay error 1	56	56	25/12/2019 13:16
206 Bay 1 Level 2 not in position	9	9	15/01/2018 15:53

ALARMS

MAINTENANCE

MXD174241 Maintenance history

Detected	Missions	Group	Priority	Executed	Missions (final)
07/02/2020 03:00	43721	Preventative Maintenance			
08/03/2019 13:20	-1	Preventative Maintenance		08/03/2019 13:20	33097
16/01/2019 03:00	30759	Preventative Maintenance		08/03/2019 01:00	33097
15/02/2018 01:00	-1	Preventative Maintenance		15/02/2018 01:00	16824
18/01/2018 03:00	15207	Preventative Maintenance		15/02/2018 16:37	16824

Entries from 1 to 5 of 5 entries   First ‹ 1 › Last
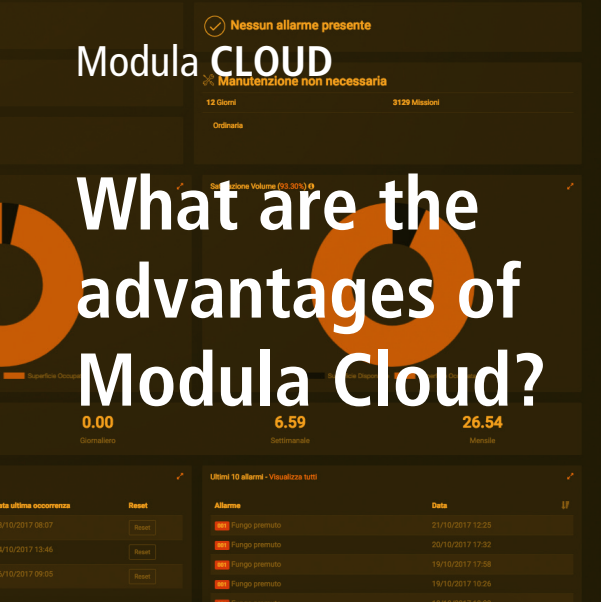
What are the advantages of Modula Cloud?

Supervision and control

Modula Cloud allows **global supervision** of all the Modula warehouses connected to a specific client:
this means you have control over your warehouses even if they have been installed in different departments or buildings.

You will know if the warehouses are operating or on alert, how saturated they are in terms of **volume, weight and surface,** how many **cycles** they have done how many **orders** your operators have filled in a certain time period, **alarm history, energy consumption** and other relevant data.

Preventive, intelligent maintenance

Modula Cloud is an essential element for guaranteeing your warehouse more targeted, efficient service, not just because you can monitor malfunctions in real time, but predictive maintenance algorithms can be more easily generated thanks to statistical data analysis.

Being able to anticipate breakdowns gives our clients a concrete opportunity to improve processes, **prevent unexpected production stoppages** and reduce management costs to a minimum.
It also maximises the maintenance plan efficiency by eliminating all unnecessary and wasteful activities.

The software platform acquires data while the warehouses are functioning, processing them via mathematical models designed to identify any deviations from the norm and reporting such anomalies.

| ACQUISITION EXCHANGE | CONNECTION TO THE PLATFORM | STORAGE | ANALYSIS OF THE DATA | MONITORING ACTIONS |

Result:
you will always have optimal programming of the maintenance of your warehouses!

Direct line to Customer Care

How many times have your technicians and operators spent hours on the phone, struggling to explain malfunctions?
Diagnoses from afar can be very complicated: with Modula Cloud, remote access to the warehouse **makes understanding problems easier** along with solving them quickly.
Because of the exclusive "call from Copilot" function, you will also no longer need to phone or send an email to contact our customer care service: just one click from the warehouse and you send all the information needed to analyse the malfunction; you will be called back with a fast solution.

Our technicians will thus be able to guide the operator in front of the machine so he just has to confirm on the Copilot console with simple commands to restore the machine to operability. **Statistically, 80% of machine stoppages can be resolved this way, without on-site interventions.**

Analyses, reports and dashboards

A Modula automatic warehouse is an investment that guarantees many advantages: saving space and time, greater accuracy in filling orders, more inventory precision and much more.

With Modula Cloud, you have everything under control, with data that can be customised so it relates to you: do you want a dashboard with order lines filled on a certain day? Do you want reports sent directly to your email address with aggregate data on all your machines to check on their productivity?
You can set this and much more up in just a few steps.

Modula in the world

Map labels: SWEDEN, CZECH REPUBLIC, POLAND, GERMANY, FINLAND, DENMARK, BALTIC COUNTRIES, BENELUX, RUSSIA, IRELAND, BIELORUSSIA, UK, FRANCE, SLOVAKIA, HUNGARY, ROMANIA, PORTUGAL, ITALY, SPAIN, BULGARIA, TURKEY, SLOVENIA, SERBIA, MONTENEGRO, CROATIA, ISRAEL, CANADA, USA-ME, USA-OH, MEXICO, COLOMBIA, ECUADOR, PERU, BRAZIL, PARAGUAY, ARGENTINA, URUGUAY, CHILE, CHINA, SOUTH KOREA, PAKISTAN, BANGLADESH, TAIWAN, THAILAND, VIETNAM, PHILIPPINES, INDIA, MALAYSIA, SINGAPORE, INDONESIA, AUSTRALIA, SOUTH AFRICA

Modula is present in 5 continents with dealers and branches located in over 50 countries

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