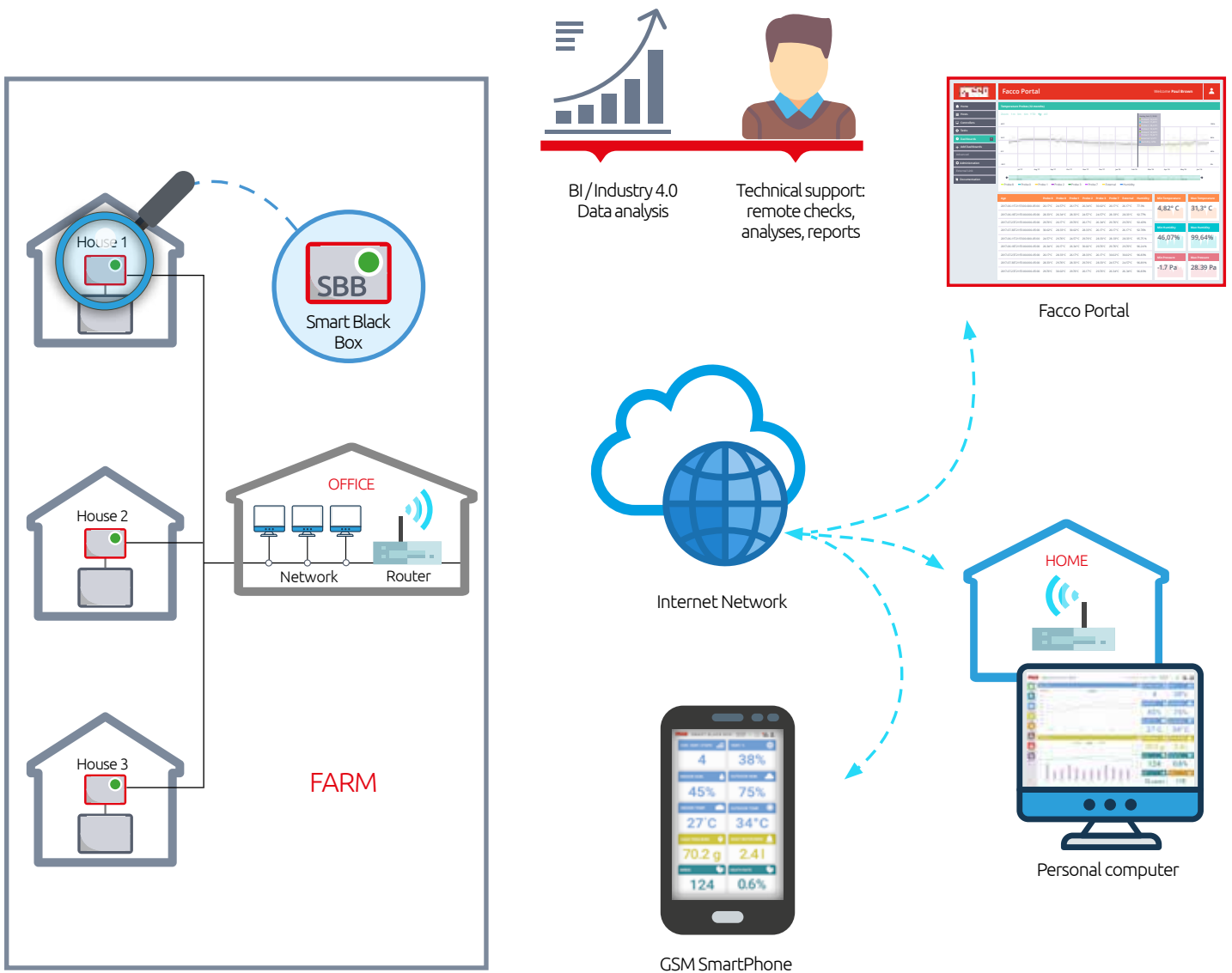


SMART BLACK BOX

the key to IoT

Smart Black Box is a plug and play device that allows to view and manage the control unit remotely, including active alarms. The system can be monitored via a simple and intuitive web page accessible from any device, including mobile phones, tablets or computers.

Smart Black Box also opens the door to the Smart Services dedicated to Facco customers via the Facco Portal.



Prerequisites

Smart Black Box must be connected to a Facco control unit (SmartOne, SmartOne Color or Smart2) and to the farm's business data network.

Once Smart Black Box is connected to the customer's data network, it can be accessed from any device connected to the same network, via Wi-Fi or cable.

Users can access the various Smart Black Boxes through the dedicated web page.

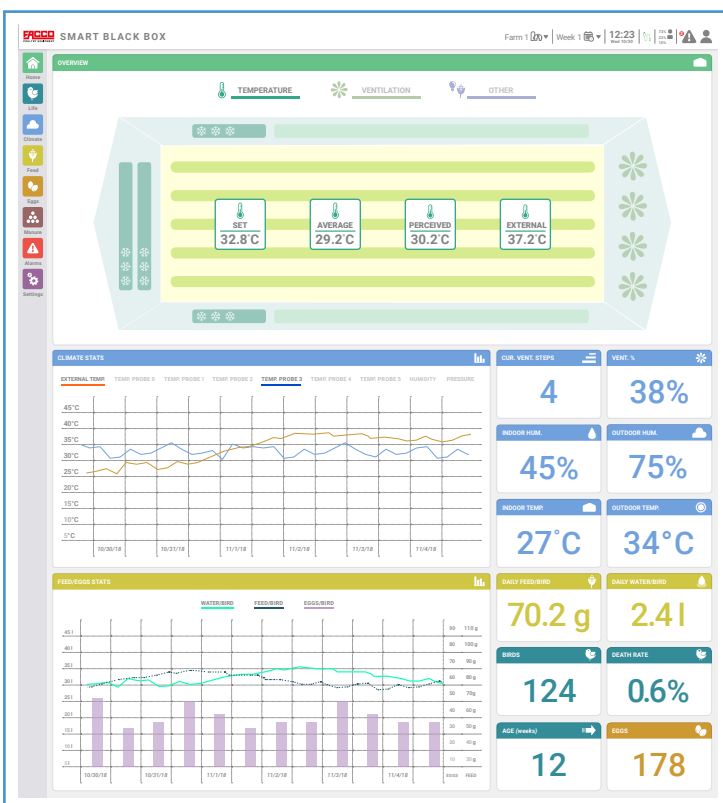
Also, if Smart Black Box is connected to the internet, it can be reached from any device outside the network, allowing to manage the system remotely from anywhere.

Monitoring

The status of the system can be monitored in real time through intuitive analytical tools, which provide both the current values and the historical trends of the system.

The dashboards, organized by category, display charts, tables, and KPIs.

Smart Black Box also allows to remotely manage the settings of the system.



Security

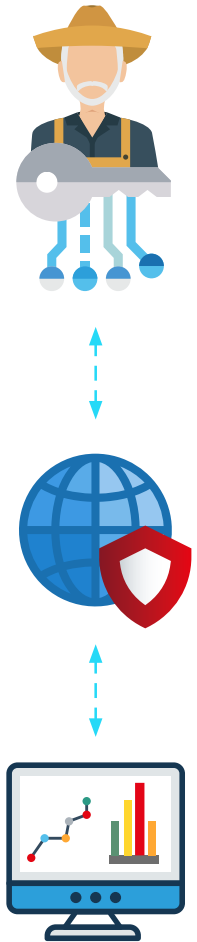
Smart Black Box introduces three significant features to improve the system's security, including saving and restoring configurations of control units, tracking events, and finally, reporting alarms via email.

The saving and restoring configurations feature allows the user to save all the control unit parameters into one file.

As an example, this can be used to configure the control unit in case it is replaced, or to restore a configuration in case it is accidentally modified.

The tracking events feature provides the user with an archive of records containing: the modified parameter, the user who modified it and the time it was modified. Using this tracking feature, the user can see the order in which the events took place.

The alarms reporting feature, uses the internet connection to notify a configurable group of users of the alarms going off in the system.



Facco Portal

By connecting Smart Black Box to the internet, the user can register the system on the Facco Portal. The portal can be used to view a list of all the registered systems and to access them in a quick and easy way.

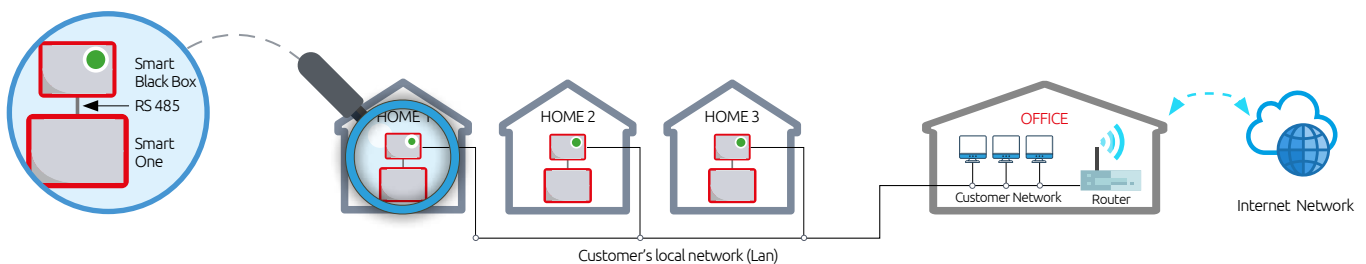
By registering the system, short-term data and all data related to past cycles are saved into the Facco Portal, creating a database of the entire history of the Farm.

Smart Black Box can also be backed-up and restored in case of device replacement.

By registering the system, the remote support from Facco staff is also available.

Installation

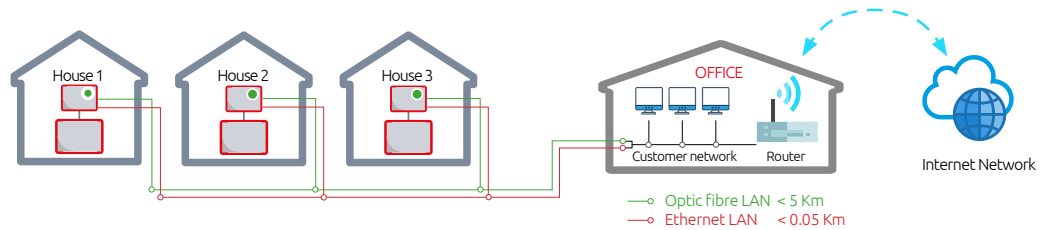
Smart Black Box is a "Plug and Play" device, easy to install and to use: it simply needs to be connected to a Facco control unit, i.e. SmartOne, SmartOne Color or Smart2, and to the company's data network.



Connecting to the company network via cable

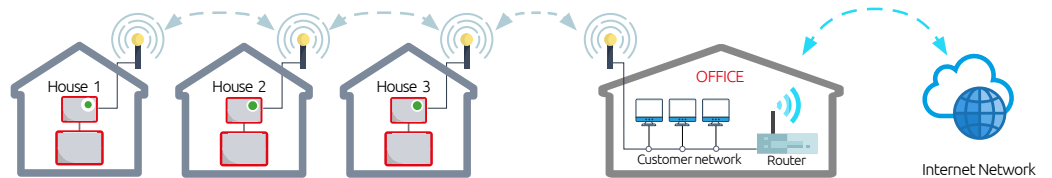
Smart Black Box can be connected to the company's data network through an Ethernet cable that should not exceed 50 meters in length, or alternatively, through an optic fibre connection that should not exceed 5 kilometers in distance.

It is recommended that the installation is carried out by a professional local company.



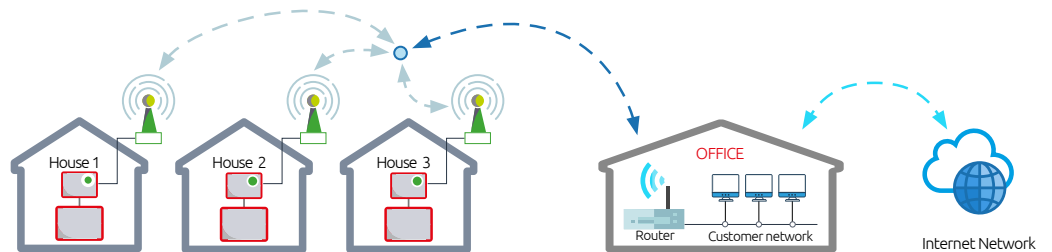
Connecting to the company network via radio antenna

Smart Black Box can be connected to the company's data network via radio antenna supplied directly by Facco. The antennas should not be more than 2 kilometers apart and they must be "visible" to each other without interfering with sources of electromagnetic fields or other radio antennas.



Connecting to the company network via cellular network

It is possible to link systems together via 2G, 3G and 4G cellular networks. Facco will provide the modem for the connection, while the data transmission card with dedicated data plan shall be purchased directly by the customer.



Product Features
✓ Plug and play
✓ Dedicated web page
✓ Can be viewed via any device
✓ Supports different languages* and units of measurement
✓ Manages users with different privileges
✓ Allows the user to set configuration parameters
✓ History of environmental data
✓ Alarms reported via email
✓ Provides analytical tools, such as charts, tables and overviews
✓ Exports data to Excel sheets (CSV)
✓ Compatible with SmartOne, SmartOne Color, and Smart2

Technical features of Smart Black Box	
✓ Power supply	110-230 VAC
✓ Processor speed	1200 MHz
✓ Number of processors	4
✓ RAM size	1 GB
✓ Supports Wi-Fi	Si
✓ Supports Ethernet connection	Si
✓ SmartOne communication protocol	RS485
✓ Smart 2 communication protocol	OPC UA
✓ Weight of item	350 g

*Available in Italian, English, Spanish, French, Portuguese, Chinese, Japanese, Russian.

Your Smart Farm Made in Facco

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