

# MANDÍK Cloud

Full control of MANDÍK air-handling units anywhere  
and from wherever you want.



MANDÍK Cloud is a comprehensive service portfolio allowing you full control of all your air-handling units operated by Climatix regulators Siemens from wherever you find yourself. Monitoring and control of air-handling units with the help of MANDÍK Cloud, including associated devices, is very simple and is carried out with the help of the web browser in your computer, tablet or smart phone.

## INTENDED FOR

- End user (monitoring and control).
- Supplier company (commissioning including final regulation).
- Service company (regular maintenance, remote service and supervision).



**MANDÍK®**

## INTELLIGENT FUNCTIONS

- Most advanced technology available.
- 24/7 professional service.
- Very good data securing with this technology.
- Measurable - the service provision is automatically monitored.
- Fast installation on the unit without labour costs.
- Very flexible - fast service provision to cover the instant need.
- Fast comprehensive information on the unit status.
- No service administration and maintenance needed.
- The user pays only for the units which are actually monitored.
- Self-operable - full adaptation of the diagram and tile screen to the user's needs.



- Fast visualization of the data point history in a diagram including slow motion and export to a file.
- Own combinations of data points visualized in the diagram possible.
- The user can fully adapt the diagram and tile screen.
- Setting of all service parameters with the help of HMI@WEB.
- All technical documentation can be saved and accessed directly in the Cloud service.
- Device data storage. All data are recorded to be used as base for future services.
- Provides functions for administration of devices, users, tenants and access levels.
- Error messages sent to predefined e-mail recipients.
- Software update in Climatix regulator directly through the Cloud service.
- 21 languages supported: EN, FR, DE, IT, HU, NL, JP, RO, CZ, PL, RU, FI, SE, NO, DK, EE, LV, LT, GR, ES, PT, SK, TR, CN, UK, KR.
- Cooperation with INTHOUSE mobile application with intuitive user operation.

## BENEFITS

### 1. Benefits for END USERS

- The service is always available wherever you have access to the Internet.
- All units are monitored and controlled from one point.
- High-quality internal climate in your environment at any time.
- Setting or change of time program from anywhere and at any time.
- Monitoring and control of other devices (fire dampers, external fans, airflow regulators, industrial heating, destratifiers, gate screens, etc.).
- The service includes visualization of the whole process.
- Monitoring and saving of all important parameters (temperature, humidity, air quality, outputs of individual components, failures, etc.) for further processing.



- Trend visualization - data point history in a diagram including slow motion and export to a file.
- Fast information on alarms in your computer, tablet or smart phone.
- Monitoring of energy intensity and operation quality of the unit.

- Cost saving for operation, maintenance and services.
- Cooperation with INTHOUSE mobile application with intuitive user operation.
- Potential external provision of all services related to administration, maintenance and service.
- Potential regular remote update of unit firmware with all benefits and improvements.
- Direct access to technical documentation in Cloud service.
- Online support by MANDÍK.

## 2. Benefits for SUPPLIERS

- Fast comprehensive overview of all units connected.
- Remote supervision of simultaneous commissioning of multiple units.
- Monitoring of sequence, quality and work speed at commissioning.
- All regulator settings as if you are next to the regulator.
- Actual information of available system at any time.
- Comprehensive view of regulation of multiple units in case of mutual interaction.
- Retrospective assessment of efficiency of commissioning and regulation.
- Completion of unit regulation report with values recorded by the service (diagrams, charts).
- Cost savings at commissioning.
- Potential customer agreements for remote supervision.
- Storage of unit technical documentation including access is a part of the Cloud service.
- Online support by MANDÍK at commissioning.



## 3. Benefits for SERVICE COMPANIES

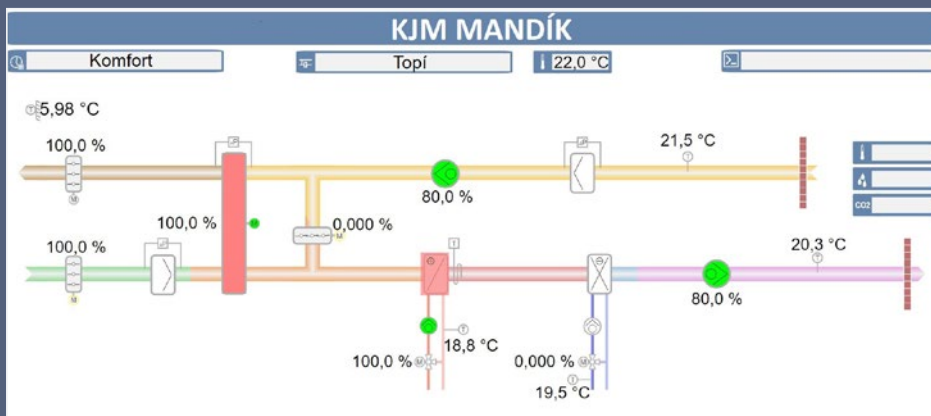
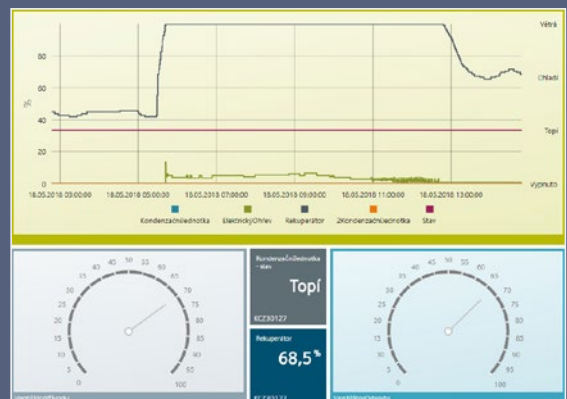
- Fast comprehensive overview of the map of all units connected.
- All serviced units are monitored and controlled from one point (office, ...).
- Fast information on status and alarms of the units in your computer, tablet or smart phone.
- In case of failure, fast analysis allows instant efficient service intervention (trip with a prepared spare part).
- Potential customer agreements for remote service.
- Timely planning of unit service and maintenance.
- Cost savings for service for the building owner and for the service company. Reduced costs for trips.
- Potential provision of regular history data reports (foodstuffs, raw materials, things with prescribed storage conditions). Shall be also monitored by legislation.
- Potential watching over data. Information to the customer in case of a value deviation from the standard. Fast detection of energy leakage and of loss of money.
- Storage of service and intervention reports for the unit is a part of Cloud service.
- Online support by MANDÍK at service interventions.

# EXAMPLES OF CLOUD SCREENS

	Název	Země	Město	Tele	Adresa	Pos
Client: Mandík						
Popis:	Установка кондиционирования воздуха, Renault, Минск					
	KBY30000 PV2	BY (Belarus)	Минск		Улица Машин...	
	KBY30000 PV1	BY (Belarus)	Минск		Улица Машин...	
Popis:	Týlex Boskovice					
Popis:	Testovací zařízení v sídle firmy					
Popis:	Strojírny Znojmo					
	KCZ30168	CZ (Czech Re...)	Znojmo			
Popis:	Sklad nafturaru, Franklin Electric					
	KCZ90135	CZ (Czech Re...)	Brno		Hviezdoslavov...	62700
Popis:	Siemens-BT-Praha					
Popis:	Restaurace u Slámů					
Popis:	ND Bohumin, Pod Zeleným dubem - kuchyně					
Popis:	KCZ30167					
	Bicel Paskov	CZ (Czech Re...)	Paskov	6...	Místečka 762	73921
Popis:	JACOBS DOUWE EGBERTS CZ s.r.o.					
	KCZ20061 master	CZ (Czech Re...)	Valašské Meziříčí		Sokolská 85	757 01
	KCZ20061 slave	CZ (Czech Re...)	Valašské Meziříčí		Sokolská 85	757 01



The intelligent function of the map provides you with a fast overview of the status of your devices.  
Great variability at creation of your own diagram and value screens.



The technological diagram provides you with an overview of the status of the devices and of the internal climate, allowing you to evaluate the situation and quickly act as needed.



## COMMISSIONING

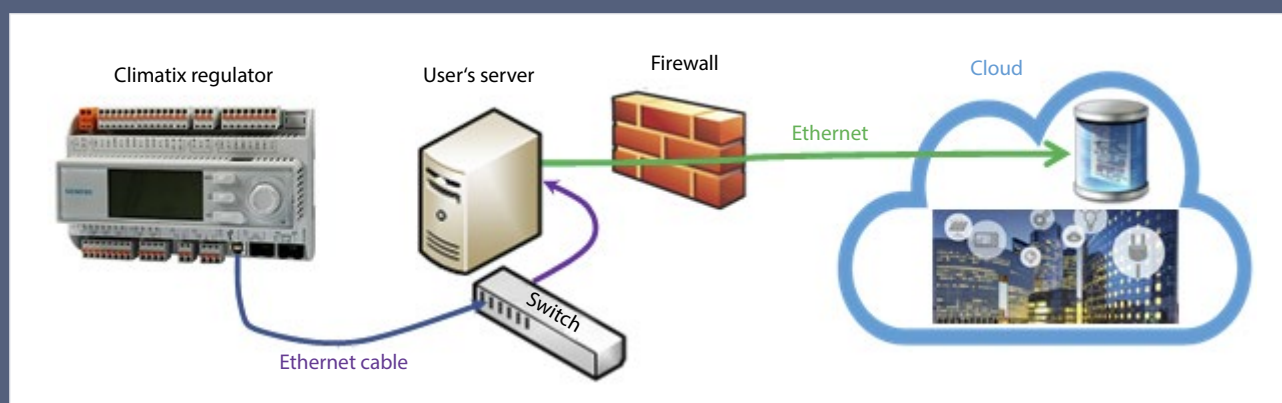
To connect the air-handling units to MANDÍK Cloud, the Climatix regulator needs access to the Internet. If an agreement is concluded with MANDÍK, a.s. about renting the MANDÍK Cloud and the Internet connection is implemented in one of the following methods, you can monitor and control the air-handling units from your computer, tablet or mobile phone.

## CONNECTION METHODS

### A) Through the user's internal network

To connect the Climatix regulator to MANDÍK Cloud, you can use the user's internal computer network, unless it is prevented by the network protection. In such case, there are no costs related with installation and data transfer. The network can have multiple regulators connected.

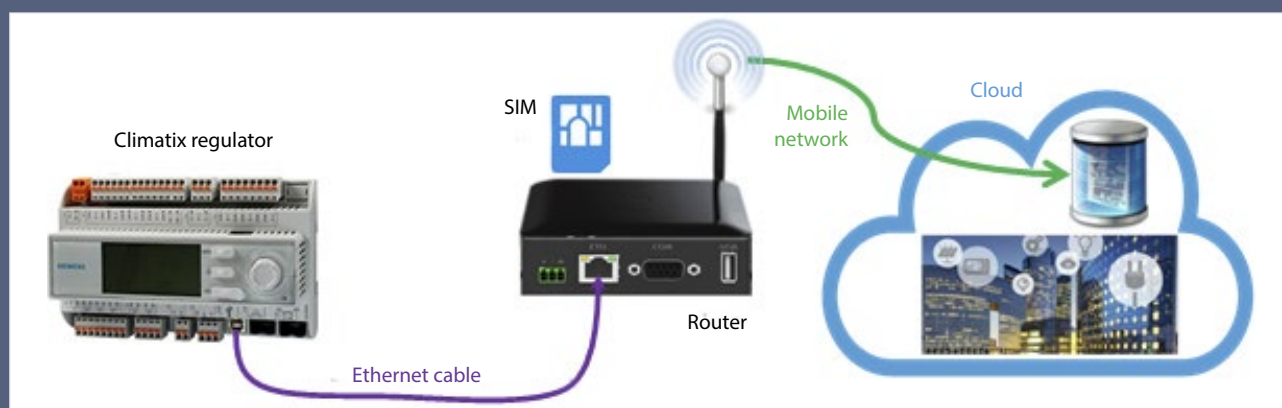
*Costs: Purchase of any of the MANDÍK Cloud service packages.*



### B) Through GSM router with data SIM card

The connection of the Climatix regulator to MANDÍK Cloud through the GSM router is suitable in places where the connection to the user's local network is impossible because of high protection, use of proxy server, etc. The connection is conditioned by the data signal coverage of a local mobile operators at the place of installation. In such case, there are costs related with installation and data transfer. The number of regulators connected through the router may be limited by the size of the prepaid data volume on the SIM card and by the type of the router.

*Costs: Rental or purchase of GSM router, monthly payments for the use of SIM card with a data tariff and purchase of any of the MANDÍK Cloud service packages.*



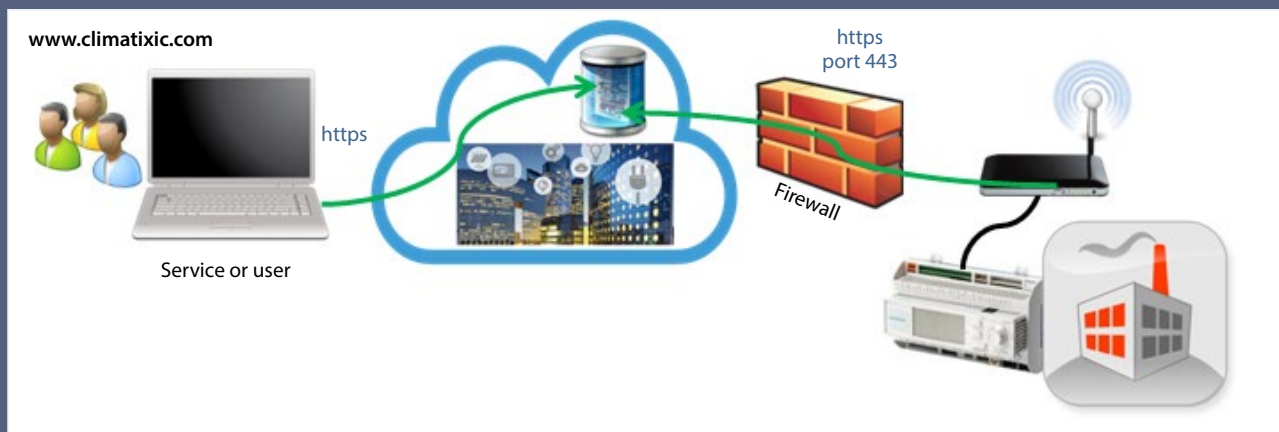
## CONNECTION PARAMETERS

- The Climatix regulator initiates the connection to the server address, controls it each minute and updates the data with the help of the COV mechanism (change of value).
- Device connection through port 443, protocol HTTPS TLS1.1.
- The firewall gate must not be open for the incoming transmission.
- The proxy server environment is not supported.
- When using a static IP address, a valid address of a DNS server must be configured, e.g. public DNS server Google 8.8.8.8 or 8.8.4.4.
- Web portal through https encryption, certificate SHA-256.
- The supported browser types are: the latest versions of the Firefox and Chrome browser. The Climatix regulator is not eligible for direct connection to the Internet. It must be connected through firewall gate. Firewall must be configured to allow outgoing connection only. The incoming connections must be suppressed.



## PROTECTION

- All connections are encrypted – „HTTPS“ – to prevent wire-tapping and „man-in-the-middle“ attacks.
- Safety attest of Siemens CSA SAL1.
- Private data protection in compliance with EU private data protection, Section 5.
- Geo-redundant data saving from Northern Europe (primary) (Ireland) to Western Europe (secondary) (Holland).



## PRICES

There are two options for getting the GSM router:

- **Purchase**
  - RUT240 (industrial variant)
  - DWR-118/TM (office variant)
- **Rental of RUT240 (industrial variant)**
  - 1 month
  - 3 months
  - 6 months
  - 12 months
  - 24 months

There are two types of MANDÍK Cloud service packages:

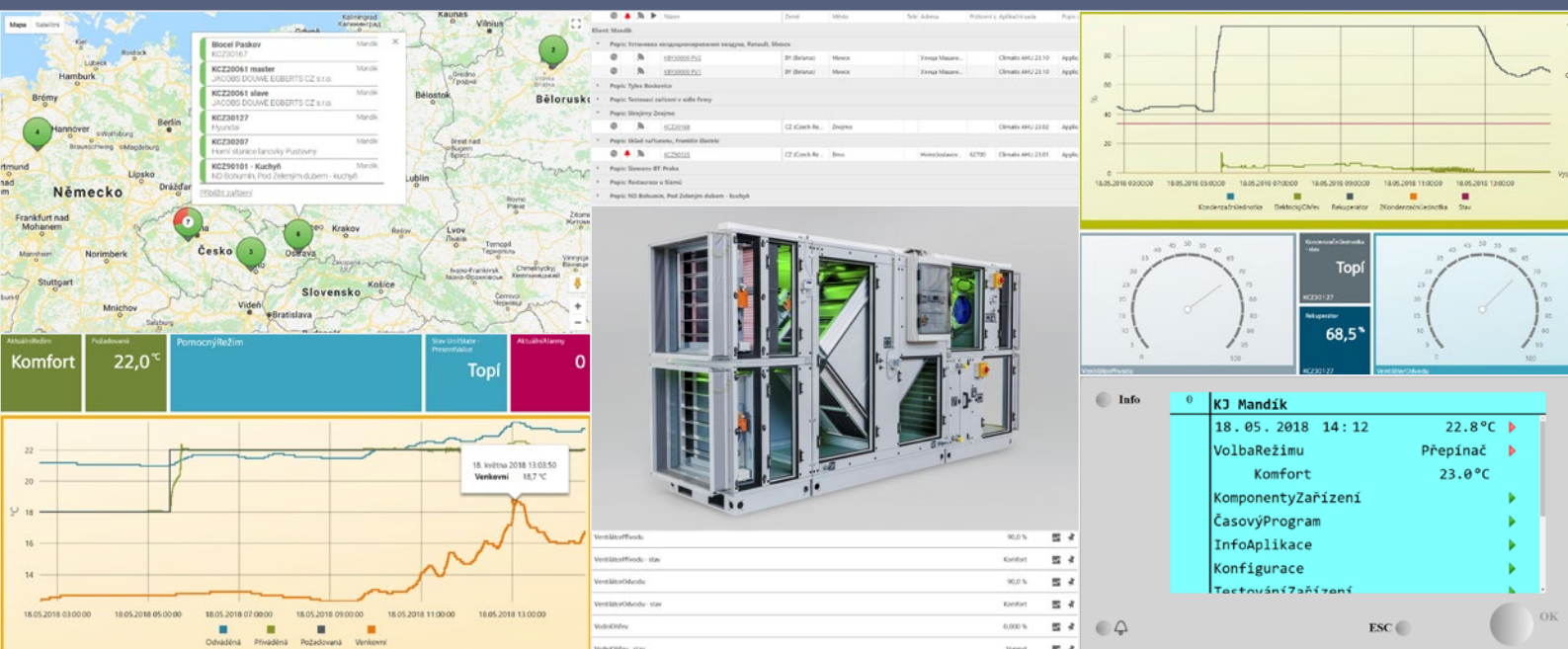
- **START package**, intended for short-term monitoring for 1 or 3 months. The package is suitable for unit commissioning, regulation, etc. The monitoring and control can be also accessible to the end user.
- **SERVICE package**, intended for long-term monitoring for 6, 12 or 24 months. It is suitable for service company, supplier company, building administrator, investor, etc. The purchaser carries out the monitoring, control and service of the units independently in such case. The control and monitoring is also accessible to the end user.

Types of START packages:

- START-1 package
- START-3 package

Types of SERVICE packages:

- SERVICE-6 package
- SERVICE-12 package
- SERVICE-24 package



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