

Smart multi-site control solution

Modern and scalable energy management for your
Heating & Cooling Solutions



Smart multi-site control solution

One screen endless possibilities.

The new Smart multi-site control solution from Panasonic allows you to have complete control of all your installations. With a simple click, all your units from several locations, receive status updates in real-time preventing breakdowns and optimising costs.



Panasonic AC Smart Cloud

Centralise control of your business premises, from wherever you are, 24/7/365.

The AC Smart Cloud system from Panasonic allows you to have complete control of all your installations from your tablet or from your computer. In a simple click, receive status updates, from all of your installations wherever the location, reducing potential breakdowns and optimising costs.



Panasonic AC Service Cloud

New solution for service and maintenance companies.

Panasonic AC Service Cloud provides maintenance companies a unique tool to deliver advanced service and maintenance features, decreasing response times, reduce sites visits and better allocate resources.



Installation.

Easy installation and configuration.



Connectivity.

A standard LAN connection with internet access (fibre or mobile).



Reliability.

24/7/365 days connection.



Use.

Real-time control from anywhere.



Roles & Permission.

Easily configure different access roles for each user.



Security.

Highly secure communication and complaint with GDPR.

What Panasonic provides you?



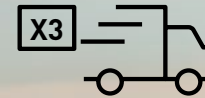
Energy savings

AC can be between 40-60% of the total electricity bill. Even small setting changes can provide a huge impact in savings for your buildings. Panasonic AC Smart Cloud provides you energy consumption data of your site and energy saving functions such as control setting limitation, auto off, scheduling, temperature range limits, etc.



Healthy comfort

How to secure a comfortable environment by avoiding incorrect AC operation? Incorrect temperature settings can create discomfort for users as well as an unhealthy environment for employees, visitors or customers. Analyse the set point and room temperature history, and fix the right mode and temperature for each room.



Service speed

On average, 2-3 AC technician' visits are required on site when an error/issue appears in an AC system. Avoid wasted site visits, analysing the behavior of the AC system remotely without the need of a technician visit on site.



Downtime

System "downtime" can impact the customers buying experience/productivity. Keep your business running, reducing the risk of system downtime. Detecting potential failures in advance or fixing them quicker if it happens.



Maintenance

A proper maintenance schedule prevents future malfunctions and reduces energy consumption. Remotely check all the advanced parameters of the system and plan the maintenance properly. Assigning the right engineer for the required task.



Life of system

Replacing HVAC is a huge impact on investment. Making good use of the system, taking earlier action when abnormal signal occurs and keeping regular maintenance will expand the life your system, but also will keep the expected performance operation.

Full multi-site and user control

Panasonic Smart and Service Cloud is based on location, each location can allow access for multiple users whether in the same building or via remote access. The scalability allows addition of multiple sites and customise the access of your team and the access of your trusted service.



Owner

Easy management of roles and access permissions.



Maintenance

Maintenance companies can get access to each site after owners allow permission with a simple click.



Owner.

Manage all sites.

Country/region manager.

Manage all the sites within a region.

Country/region manager.

Manage all the sites within a region.

Site manager.

Manage specific site.

Site manager.

Manage specific site.

Site manager.

Manage specific site.

Other user.

Limited access.

Other user.

Limited access.

Other user.

Limited access.

Other user.

Limited access.

Other user.

Limited access.

Other user.

Limited access.



Maintenance.



Owner 1

Panasonic AC Smart Cloud

Owner 2

Panasonic AC Smart Cloud

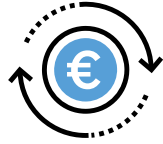
Owner N

Panasonic AC Smart Cloud

AC Smart Cloud



Take control of your business and optimise heating and cooling operation



1 Comfort
Keep the comfort of workers, visitors, and customers to increase satisfaction and productivity.

2 Return on investment
Optimizing the operation of your heating and cooling system and the possibility to monitor remotely can expand the life of your assets.

3 Lower running cost
Controlling settings in real-time and monitoring energy consumption contributes to reducing your energy bill.

More than a centralized control.

Using AC Smart Cloud alleviates the restrictions of single centralized control devices. Allowing the access from different areas in your building and even giving access from remote locations.

More than BMS.

Unlike typical BMS, there is full control of the heating and cooling system and its internal parameters. Operation costs can be improved with e-cut function* which are 5 advanced energy saving settings. It expands the possibilities of optimize the comfort and operational cost.

* Detailed explanation is in page 9.



Flexibility that grows with you

The scalable, flexible, expandable solution with location licensing (not user).

Great advantages for single site installation but even better for multi-sites, the solution is adapting to your grow with just limited initial investment per site.

Free license user management.

You decide who is having access to what and what actions each profile can do. Define profiles and assign to multiple users without additional fees.

Empower your maintenance.

You know who is the best at taking care of your HVAC installations in each of your sites. Empower each of them giving access to AC Service Cloud, professional heating and cooling portal to your installations. Select which level of access you allow them to have.

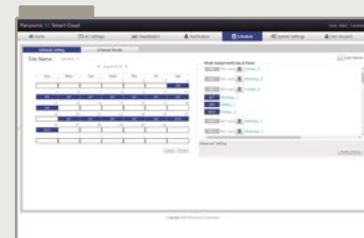
Key functions and uniqueness



Multi-site monitoring.
· It doesn't matter how many sites you have. It is easy to manage, operate, compare sites, locations and rooms.



Powerful statistics for energy savings.
· Power consumption, capacity and efficiency level can be compared with different parameters (Yearly / monthly / weekly / daily basis)



Schedule setting.
· Set yearly / weekly / holidays timers as you please



Maintenance notification.
Receive an error notification by email with floor layout:
· Maintenance notification of ECOi / ECO G outdoor units
· Remote service checker function

AC Smart Cloud



Central controller one site

With AC Smart Cloud, you can manage the heating and cooling settings, fix yearly scheduling, set up energy saving modes and see statistics directly, or giving full or limited access to different users.



Users and profiles.

- Customised roles: Define different roles that can be assigned to different users. Allow different levels of control to each role
- Unlimited users. Create as many users as necessary and assign the appropriate role
- Zone assignment. Assign the users to a group of units they are allowed to manage. This can be a part of building or even an individual unit

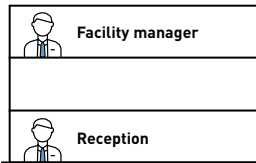


Your maintenance partner.

- AC Service Cloud is a high class maintenance portal to empower maintenance to fix any issue quicker than ever
- Give your trusted heating and cooling maintenance partner Access to AC Service Cloud



- Owner**
- Remote building control
 - All heating and cooling parameters
 - Scheduling
 - Individual control limitations
 - Define profiles and create users without additional fees



Different users from different places in the building can access the heating and cooling system. Having access to limited areas and/or functions.



- Maintenance company**
- Optionally give access to your preferred maintenance company.

Mapping.

- Group and name the units and different building areas freely
- Include the floor map of a building for a more intuitive view



"The AC Smart Cloud is giving me a lot of flexibility for my hotel with one solution, I can easily adapt the heating and cooling according to the level of occupation and at the same time, act quickly if some issue occur."

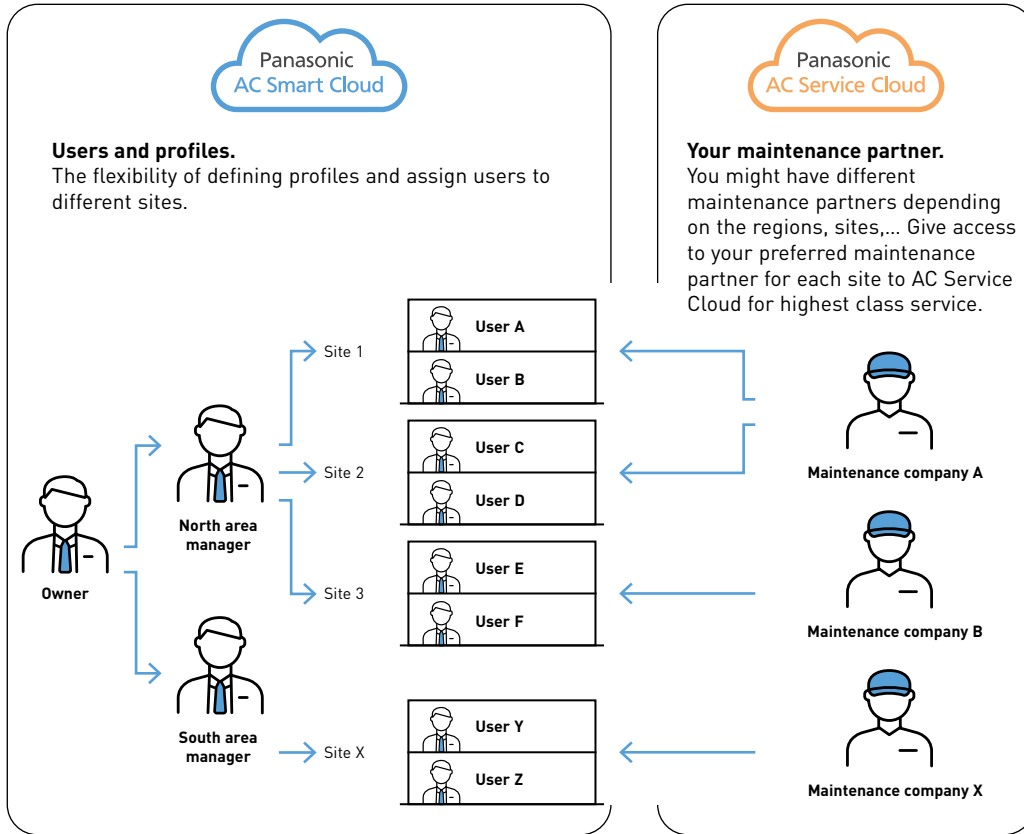


AC Smart Cloud



Controller multi-site

Include all the advantages of single site control, AC Smart Cloud scalability offers you an excellent tool for multi-site management.



"This solution brings me a new view of the shops that I had not had before. Empowering me to improve the running cost and ensuring the comfort of our customers at the same time."

Location map and view.
See a geographic map of all the sites you control, see details with one simple click, and name and group the sites in different regions.

The screenshot shows the AC Smart Cloud interface with a map of sites, a list of site details, and several data visualization charts including a bar chart and a line graph.



AC Service Cloud



Empower your maintenance service

Panasonic AC Service Cloud provides your maintenance staff or company a unique tool to deliver advanced maintenance, increasing response time, reduce sites visits and better allocate resources. This advance and unique tool is available for service and maintenance professionals.

Remote matters.

For service and maintenance time matters, remote access to installation status monitoring and analysis of all unit parameters makes the difference in resolution speed and at same time saving unnecessary trips to site.

More than BMS.

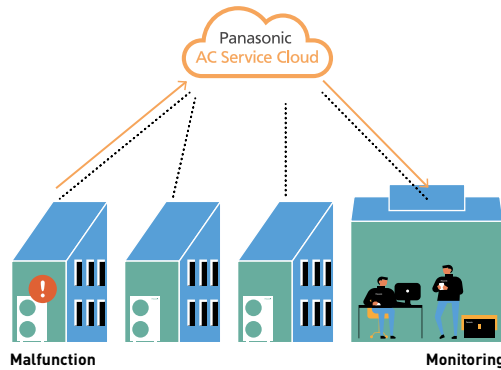
Data provided for standard HVAC BMS can provide only some basic information. Panasonic CAC Service Cloud offers all Panasonic data in a powerful tool to easily maintain the system.

System health check function

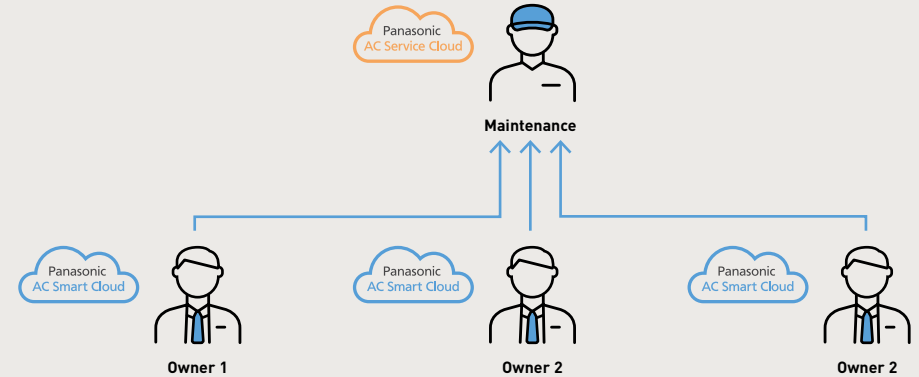
Self diagnosis function is available in the AC Service Cloud. It automatically predicts potential malfunctions and helps to speed up your service process.

- Consecutive automatic monitoring at 15 minute intervals
- Key notifications in the event potential malfunction is detected
- 2D graph display to help with detailed analysis
- Threshold values can be easily adjusted

* For compatible models, please contact an authorized Panasonic dealer.



Maintenance companies can get access for each site after owners give permission with a simple click.



Increase service level agreement with your customer whilst optimising your resources usage

Response time and zero down time.

Providing technical information about abnormalities and checker functions* enables the AC installer and maintainer to remotely identify and fix issues more quickly, even before it occurs.

Reduce unnecessary trips.

It reduces the cost of unnecessary trips, reducing the CO₂ emissions associated with transport.

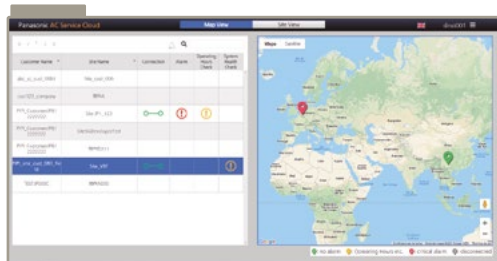
Maintenance planning.

With a simple click, easily identify the nature of potential issues, enabling issue classification, prioritisation of resources and better planned site visits, through assigning the right engineer for the job.

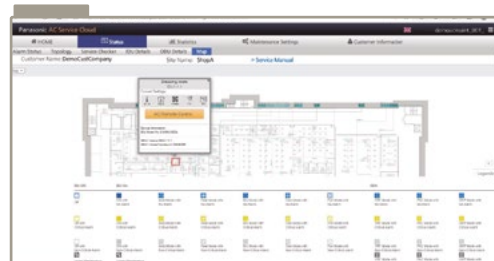
All at a glance with scalability.

Remotely view all sites requiring maintenance of Panasonic HVAC. Increase the number of sites maintained, taking advantage of future updates and features of the Panasonic AC Service Cloud.

* Detailed explanation is in page 9.



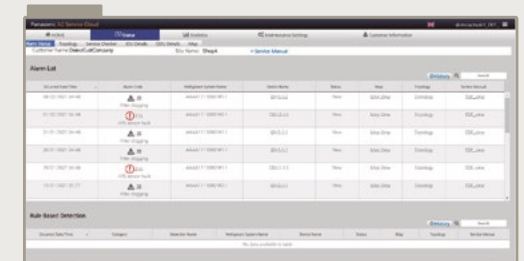
All sites at a glance.



Floor map view.



Topology.



Alarm status.

Special features highlight

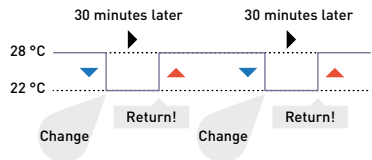
e-CUT Advance energy saving functions

e-CUT functions are available in Panasonic AC Smart Cloud. 5 energy saving settings automatically reduces energy consumption.



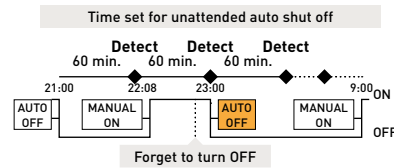
1. Set temperature auto return.

When you want to return to the set temperature after a certain time even if the temperature is changed.



2. Unattended auto shut off.

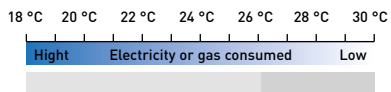
When you want to operate outside of a schedule but to monitor and stop automatically.



3. Set temperature range limit.

When you want to limit the temperatures that can be set.

Example in cooling operation

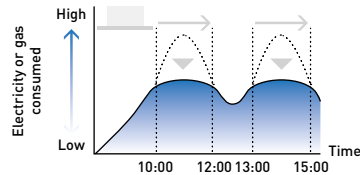


Reduced consumption of electricity or gas by over cooling.

Set temperature restricted to the range between 26 °C and 30 °C.

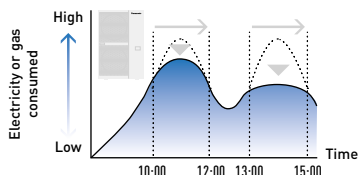
4. Energy saving timer / efficient operation setting.

Specify time slots when you want operation capacity reduced.



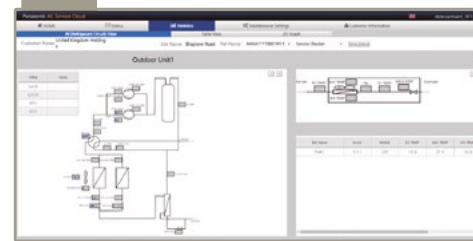
5. Demand / peak shaving settings/ peak cut settings.

Specify time slots when you want operation capacity of the outdoor units reduced.



Remote service checker function

Service checker function helps service and maintenance companies to analyse malfunctions effectively and flexibly. All parameters in HVAC systems and even refrigeration circuit are available on the cloud portal to check in detail.



Available measurements highlight

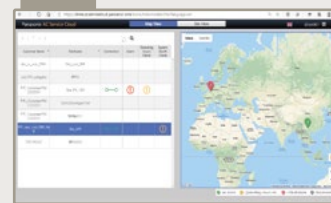
Measurement method	Countdown scheduling (incl. start now)
Data duration	Max. 24h
Data interval	10 - 90 sec.
Test run control	Yes
Refrigeration circuit	Yes
Export data	CSV file available for your records / deeper analysis

System health check function

The system health check function is a self diagnosis function which predicts potential malfunction automatically.

Consecutive automatic monitoring at 15 minute intervals.

- No action is required by users for the daily detection
- Result of the detection is displayed in home screen, alarm status screen, and history screen
- Record up to 2 weeks
- Threshold values can be easily adjusted



Home screen.



History screen.



Graph screen.

2D graph display to help with detailed analysis.

- The parameters are selectable
- Time range on X axis is adjustable with 3hours/6hours/Day/Week

* About available parameters, please contact an authorized Panasonic dealer.

List of features

AC Smart Cloud Features	Functionalities
Home screen	Overview of: operating status, location map, weather information, notification, energy consumption, efficiency, eco-friendly building list
AC settings	Indoor unit monitoring and remote control, outdoor unit details, cloud adapter details, floor map view, maintenance notification (installer)
Visualization	Statistical data regarding energy consumption, capacity and efficiency ranking; per indoor unit, unit group or refrigerant circuit
Notification	Warnings and alarms, maintenance intervals
Schedule	Schedule settings and results
Energy saving	Temperature range limits, unattended auto shutoff, temperature auto return, energy saving timer, demand/peak shaving
Demand control	Indoor unit and outdoor unit demand settings
Event control	Control inputs: alarms, digital inputs, indoor units. Control outputs: digital outputs, indoor units
System settings	CO ₂ factor, distribution groups, area allocation, cut-off requests, site management, group display, site location, software version
User account	New user registration, updating users, user lists, user roles
Floor map editor	Floor map import and unit assignment
Help	Installer information, alarm mail setting, user data, account management, company / customer information, terms of use, privacy notice, cookie policy, user manual, FAQ. For installers: user manual, technical data, installation instructions
Additional functions for installers	Cloud adapter installation process, remote service checker data recording and download, remote cloud adapter firmware update

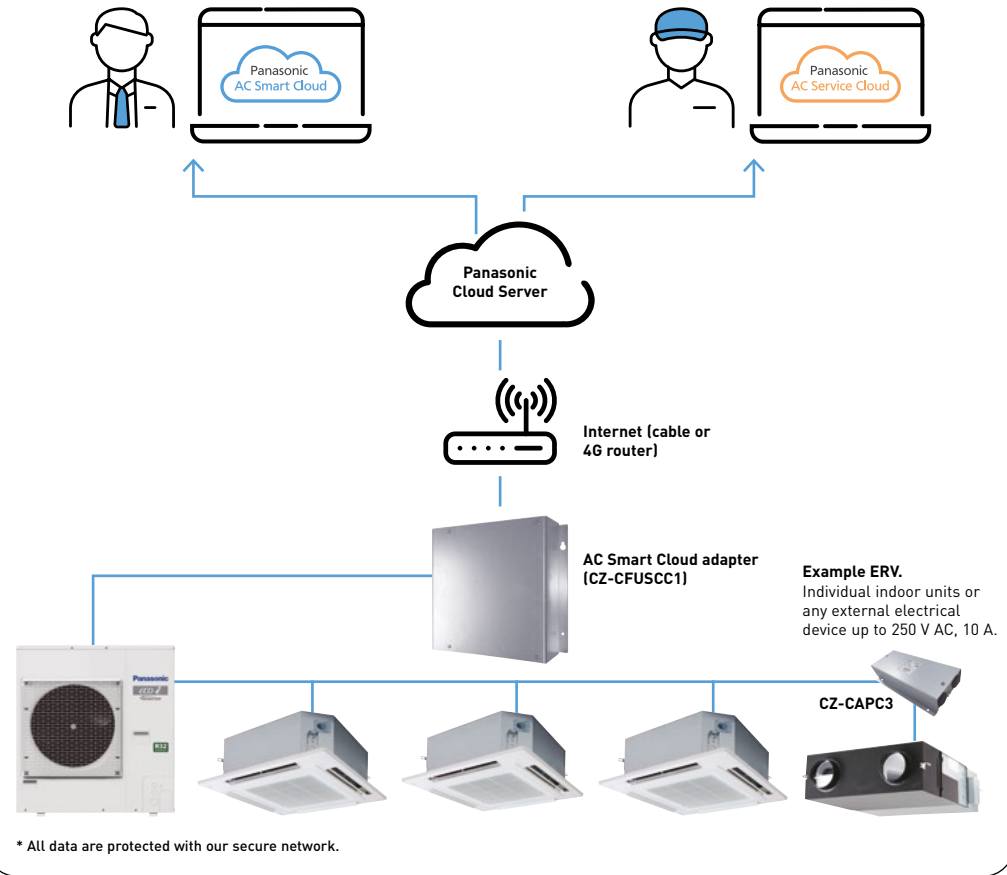


AC Service Cloud Features	Functionalities
Home screen	Map view and site view with site names, connection status and alarm status
Status	Alarm status, site topology, remote service checker, indoor unit monitoring and remote control, outdoor unit details, floor map view with service manual download
Statistics	Refrigerant circuit view (current data and recorded data), data table view, 2D graph view
Maintenance settings	Notifications and alarms, maintenance intervals setting (operating hours)
Customer list	List of connected customers, requests to access customer sites
Cloud adapter	Cloud adapter installation wizard, remote firmware update
Floor map editor	Floor map import and unit assignment
Help	Alarm mail setting, user data, account management, company / customer information, terms of use, privacy notice, cookie policy, user manual, user manual, technical data, installation instructions, FAQ
System health check function*	Self diagnosis function is available in the Panasonic AC Service Cloud. It automatically predicts potential malfunctions and helps to speed up your service process



* Optional.

Scheme example.



Technical requirements:

- CZ-CFUSCC1 – AC Smart Cloud adaptor
- Internet connection via: LAN with access to internet

Optional hardware:

- CZ-CAPRA1 – integration of RAC systems
- Pulse meters (supplied by others): up to 3 pulse meters (gas or power meters) can be connected to the cloud adapter, extendable by additional communication adapters [CZ-CFUSCC2]
- CZ-CAPC3 - ON / OFF monitor and control

Systems supported by AC Smart Cloud adapter:

- ECOi
- ECO G
- PACi / PACi NX
- RAC (an interface CZ-CAPRA1 is required)
- ERV (an interface CZ-CAPC3 is required)

1 Panasonic AC Smart Cloud packages

Get the cloud base kit (CZ-CFUSCC1 + start up) and register to one of the subscription periods (1, 3 or 5 years)

	Items	Reference	Description
Up to 32 indoor units	Cloud base kit	CZ-CFUSCC1	Cloud adapter for PACi, ECOi and ECO G ¹⁾
	KIT-ACSCBASE32	SR-ACSCSTART32	Panasonic AC Smart Cloud start up
	AC Smart Cloud access	SR-ACSC1Y32	Access for 1 year
		SR-ACSC3Y32	Access for 3 years
Up to 64 indoor units	Cloud base kit	CZ-CFUSCC1	Cloud adapter for PACi, ECOi and ECO G ¹⁾
	KIT-ACSCBASE64	SR-ACSCSTART64	Panasonic AC Smart Cloud start up
	AC Smart Cloud access	SR-ACSC1Y64	Access for 1 year
		SR-ACSC3Y64	Access for 3 years
Up to 128 indoor units ²⁾	Cloud base kit	CZ-CFUSCC1	Cloud adapter for PACi, ECOi and ECO G ¹⁾
	KIT-ACSCBASE128	SR-ACSCSTART128	Panasonic AC Smart Cloud start up
	AC Smart Cloud access	SR-ACSC1Y128	Access for 1 year
		SR-ACSC3Y128	Access for 3 years
Up to 512 indoor units	Cloud base kit	4x CZ-CFUSCC1	Cloud adapter for PACi, ECOi and ECO G ¹⁾
	KIT-ACSCBASE512	SR-ACSCSTART512	Panasonic AC Smart Cloud start up
	AC Smart Cloud access	SR-ACSC1Y512	Access for 1 year
		SR-ACSC3Y512	Access for 3 years
		SR-ACSC5Y512	Access for 5 years

1) Only together with start up. 2) Model references up to 192/256/320 indoor units are also available. One cloud adapter is required per 128 indoor units.

2 Panasonic AC Service Cloud

Items	Reference	Description
Panasonic AC Service Cloud	SR-ACSC1Y32M	Panasonic AC Service Cloud 1 year fee
Service function		
System health check function ³⁾	SR-ACSC1Y32SHC	System health check function access for 1 year up to 32 indoor units

3) AC Service Cloud is required to use this function.

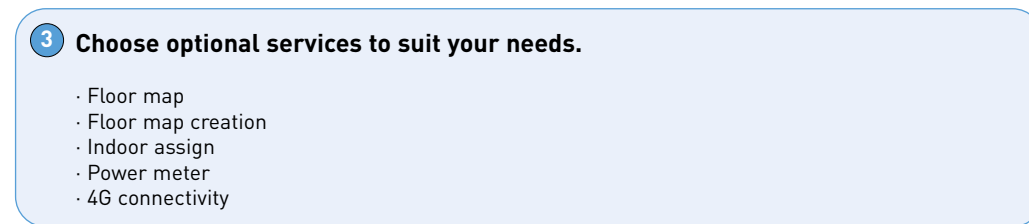
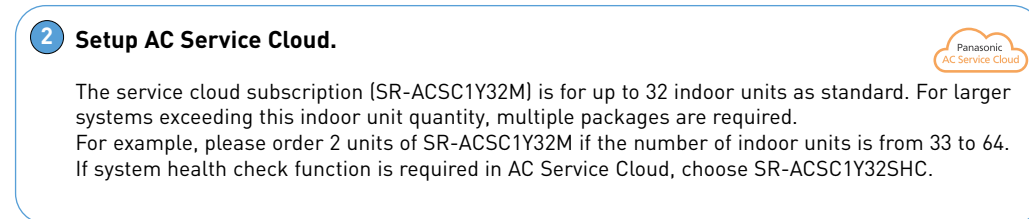
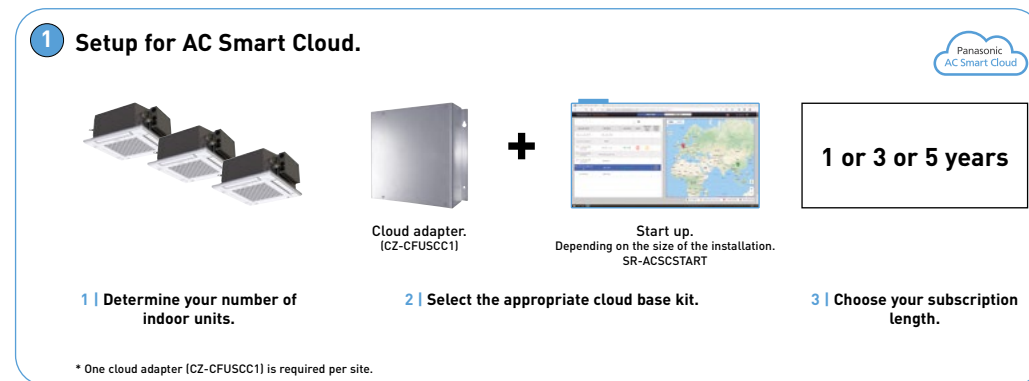
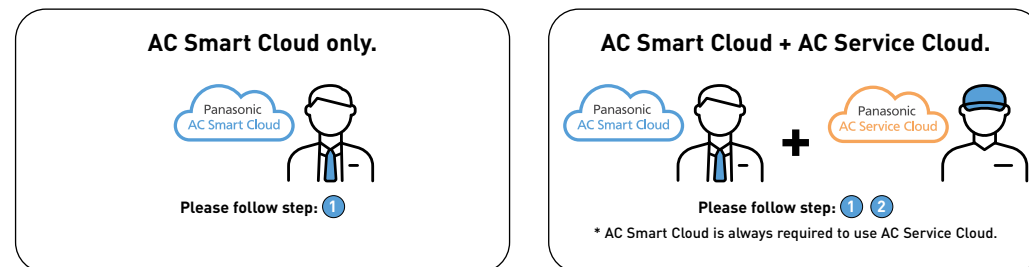
3 Optional services

Items	Reference	Description
Floor map ⁴⁾	SR-ACSC1FLRUP	Upload 1 floor map or maximum 32 units
Floor map ⁴⁾	SR-ACSC1FLRCR	Create 1 floor map or maximum 32 units
Indoor assign ⁴⁾	SR-ACSC32ASSIGN	Assign indoors up to 32 units
Power meter		For power meter hardware, please discuss with your local sales representative
4G Router	PAW-ACSCRTR4G	4G Router for Panasonic AC Smart Cloud
SIM card	PAW-ACSCSIM	SIM card without data amount
Data amount of SIM card	PAW-ACSCDAT32	Data amount 1 year fee
4G connectivity kit ⁵⁾	KIT-ACSC4GCNT	4G connection kit including 4G Router and SIM card

4) Floor map and indoor assignments can be done by customer without additional charge. 5) Data amount of SIM card is not included.

Selection steps.

What service do you need? There are 2 options as follows.



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