



ME-Automation Projects

Performance. Precision. Partnership.

A Group Company of



PMSXcare

LIFETIME SUPPORT
FOR YOUR DCS

Service tailored to your needs for complete, peace-of-mind system operation.

*Reliable, Professional and
Accessible Services*

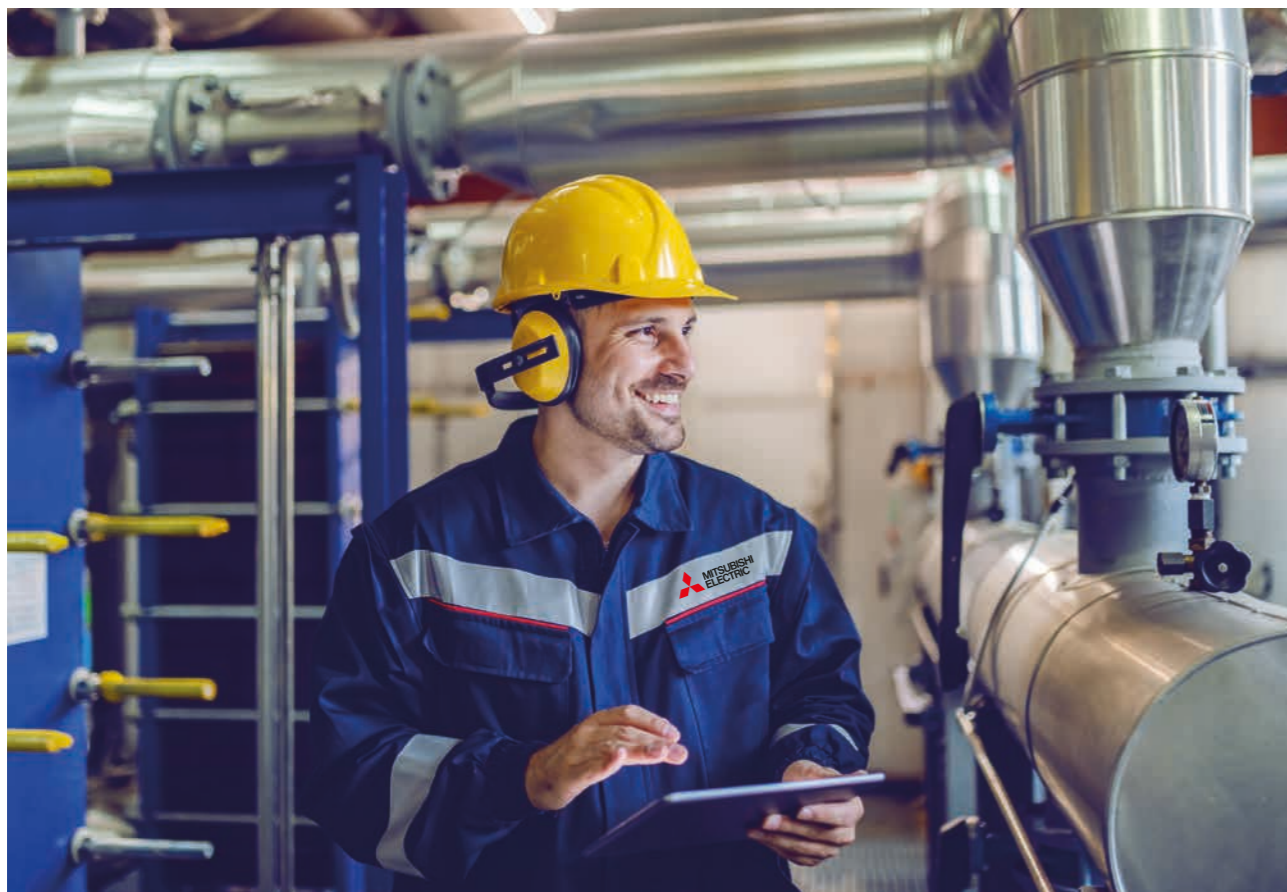


KEY FEATURES

Choose the best level of Support Services for your plant:

STANDARD, PRO or PRO+

- Dedicated Service Manager allocated to your business
- Always current, always within support, whichever option you choose
- Combination of remote as well as on-site service selectable
- Contractual response times with warranties
- Clear visibility of support services provided



OUR SUPPORT SERVICE OFFERING



Mitsubishi Electric's **PMSXpro Distributed Control System (DCS)** has proven itself over decades – providing robust and durable control of your plant. However, the world in which your business operates is not static: needs evolve, equipment ages and new functions are made available. Our first-rate **PMSXcare** support services ensure that your DCS remains operating reliably without interruption and continues to be up-to-date for the entire lifetime of your plant assets.

We provide software upgrades, hardware refreshes and functionality to keep on top of latest technologies and challenges – as an integral part of the system's purpose. **PMSXpro** is

conceived with continuous compatibility in mind, giving you the flexibility to tailor lifecycle concepts to your requirements. Innovations and technical advances are designed to be integrated without system changes – for long-term stability in a future-proof system.

Irrespective of whether you have a small or bigger team of technicians on-site, **PMSXcare** services can be matched to your exact requirements and budgets – our engineers stand behind you every step of the way, giving you absolute peace of mind that your automation system will not leave you stranded.

SERVICE CATALOGUE

Table 1: Service Catalogue

COMPONENT	SERVICE PROVIDED
EX-WORKS SUPPORT	
1. PMSXcare service desk	Provision of the support infrastructure (round-the-clock ^[1] availability of ticket system, qualified personnel, issue resolution workflows, IT and networking hardware, access to application and system experts, etc.) needed to ensure your DCS is maximally operational for the highest plant availability and productivity
2. Incident management	A structured, documented and agreed process for raising and logging incident tickets, with a single point of reference and ID, tracking the progress and providing feedback to the customer on the incident's resolution, culminating with closing the incident ticket when restored to normal service.
3. Problem management	This is an agreed process to prevent incidents happening and to minimize the impact of incidents that cannot be prevented. Proactive problem management analyses incident documentation, data collected by IT service or other customer and/or service desk processes to identify trends or significant problems. Identification of the problem source to product, engineering, operation or third party and advising customer appropriately, additionally logging incident tickets, if needed.
4. Hotline trouble-shooting support	The availability of a continuously ^[1] staffed support desk with central telephone number(s), for reporting incidents or getting answers on debugging and repairing DCS-related plant control and supervision issues – rapidly and accurately.
5. Self-service support portal	Providing a full-functioned incident ticket self-service portal for logging issues, tracking issue resolution, interacting with PMSXcare service engineers (e.g. exchanging files, downloading updates and patches, sending screenshots, etc.) all of which aids the remote issue solving process and viewing your service agreement KPIs.
6. Product support (1st line)	A team of specialists available during working hours in order to respond to queries from the customer site to promptly, accurately and efficiently provide assistance with any queries regarding PMSXpro 's operation and to give general help by making available technical information, advice and directions or recommendations on its application.
7. Remote support infrastructure	A secured remote maintenance connection enables our service engineer to immediately access the supported system and begin fault diagnosis. This approach ensures efficient and timely incident resolution, as no time is lost traveling to the site (unless on-site presence is required). The remote connection is provided by the customer.
8. On-site support	Remote support is the preferred means of incident resolution and service provision, being faster and more environmentally sustainable. However, if deemed necessary to perform the support on-site as the best way to resolve an incident (e.g. physical exchange of hardware, or to better observe the behaviour of the reported incident) then on-site work is included ^{[1], [4]} .
9. Incident resolution guarantees	PMSXcare support provides undertakings for the time-to-resolution of logged incidents, based on their agreed criticality. A record is kept of the resolution times, and should these not have met the SLA-agreed times ^[1] (assessed over a year's support period), you as customer are entitled to compensation according to an audited formula. ^{[1], [3]}

SERVICE CATALOGUE

COMPONENT	SERVICE PROVIDED
10. Spare part services	A customised spares support plan that is created specifically for the customer's needs with spares holding at customers' and Mitsubishi Electric's premises. Off-site spares inventory is dedicated to the customer and delivery will be handled within 48 working hours ^[1] or within the on-call response time where our on-call engineer is required to convey the parts and install them on site.
11. Cybersecurity – OS & firmware vulnerability	Making available a system for regularly validating operating system and firmware security vulnerability patches (checking for zero adverse impact) and subsequent installation ^{[1], [2], [5]} on the PMSXpro system, to ensure compliance with corporate or statutory cybersecurity regulations.
12. Cybersecurity – malware protection ^{[2], [5]}	Making available a system for regularly validating antivirus programmes and virus signature files for no adverse impact and subsequent installation ^{[2], [5]} on the PMSXpro system, to ensure compliance with corporate or statutory cybersecurity regulations.
13. Product support (2nd-line)	In addition to 1st-line access, this component provides access by entitled customers to named 2nd-line expert product engineers for additional advice and support related to specific products and solutions (incl. 3rd-party products) provided in relation to the PMSXpro DCS installation. Applies during office hours (8x5).
14. System reliability guarantees (max. non-availability)	PMSXcare support provides undertakings regarding the PMSXpro DCS' availability assessed over a year's support. Should this not meet the SLA-agreed times ^[1] , you as customer are entitled to compensation according to an audited formula. Available only if the Site Residency Engineer option is taken.
15. Service efficacy reporting	Periodic reports ^[1] will be issued to PMSXcare customers to inform them of the effectiveness of the service received. Included KPIs that are reported include ^[1] system availability, number of incidents and their resolution times, nuisance calls received, support calls responded to, site maintenance activities, patches and updates installed, operational security parameters, etc.

Notes:

- [1] If included or as laid down in the selected support plan (STANDARD, PRO or PRO+)
- [2] Provided free of charge, for STANDARD-plan customers to install themselves
- [3] Special quote needed if non-standard times (See Table 2)
- [4] Excl. Travel and Living costs which are charged at incurred costs plus 10%
- [5] Set-up (once-off) costs at site are quoted separately



SERVICE CATALOGUE

COMPONENT	SERVICE PROVIDED
MAINTENANCE SUPPORT	
16. Preventive maintenance	Provides on-site checking and cleaning PMSXpro hardware, verifying satisfactory OS and PMSXpro System performance (incl. feedback from operators and other users), checking PMSXpro supervisory, AS and networking hardware, visual integrity inspection of all PMSXpro -related panels and issuing a full report with any corrections carried out/deemed necessary.
17. Operational readiness	Extending the DCS' resilience functions with operational health sensors to provide early warning - and needed intervention - of approaching performance issues before they turn into a major future failure. Includes regular non-intrusive, non-interruptive automated surveillance of critical DCS components (incl. network traffic, CPU loading, core temperatures, free memory, HDD state, log files scraping and control system-generated errors), backing-up critical data, and verifying routine fail-over – all to ensure a continuously stable control system.
LIFECYCLE SUPPORT	
18. Continuity management	This includes periodic joint customer and PMSXcare management meetings to determine potential issues (business impact analysis-based) and recovery requirements, assessing risks and risk mitigation strategies, determining needed infrastructure/data storage extensions as well as training, implementing and testing of PMSXpro backup and recovery techniques.
19. System disaster recovery management	This system is designed to develop, implement, document and maintain the processes and infrastructure for a disaster recovery environment in the event of a major malfunction or unavailability of one or more components. It ensures the restoration of the PMSXpro system as a whole, as well as specific services and systems, to an operational state. This includes recovering data to a known and consistent condition and defining agreed-upon procedures for system configuration and data backups before and after the implementation of upgrades or patches.
20. Cybersecurity exposure audit	Comprehensive audit of the customer's PMSXpro DCS environment to assess existing cybersecurity threats and risks (and to develop sustainable and effective procedures for identifying and assessing these). Recommend actions needed to secure assets from attempted cyber intrusions, to detect IT assets and systems being compromised, and plan a response in anticipation of a data breach or security compromise as well as planning and implementing a recovery plan for recovering breached, unavailable, stolen/lost assets.
21. Site residency engineer	This option allows PMSXcare customers to have the benefit of a permanent PMSXpro specialist on their site to attend to all needed maintenance, extension and modifications to the system – without the need for an own fulltime PMSXpro technical staff complement. This engineer acts as a regular customer engineer reporting to customer management structures, but at the same time enjoys access to the full technical knowledge base and personnel cadre of a Mitsubishi Electric employee.

COMPONENT	SERVICE PROVIDED
22. PMSXpro releases	Provides future PMSXpro software releases as upgrades to active PMSXcare clients, thus ensuring that your DCS is always current and benefitting your organisation with new and enhanced functions. Includes both major and minor (or dot) releases ^[1] . For some PMSXpro releases, hardware upgrades are needed too – these may be acquired through the 'Lifecycle – Hardware refresh' service or purchased only when needed. The associated adaptation of the application technology is offered separately, if necessary.
23. PMSXpro patches	PMSXpro is constantly being improved to add new functions, increase performance and to eliminate software issues that may be uncovered from time to time throughout its wide user base. PMSXcare customers get the benefit of these incremental improvements via periodic software builds (3-6 months cadence) that combine all such patches since the previous build cycle, provided cost-free and installed ^{[1], [2]} on their PMSXpro systems.
24. Hardware refresh (supervisory level)	PMSXpro like all DCSs consists of 2 levels – the supervisory and automation level hardware. This service item covers the refresh for qualifying PMSXcare customers of supervisory (mainly server- or PC-based) hardware every 6 years, including installing and checking the software to leave the system in exactly the pre-refresh state.
25. Hardware refresh (automation level)	PMSXpro like all DCSs consists of 2 levels, the supervisory and automation level hardware. This service item covers the periodic ^[1] refresh for qualifying PMSXcare customers of the complete automation hardware every 15 years, including re-installing and checking the application programs to leave the system in exactly the pre-refresh state. Any associated application adaptations and enhancement engineering is separately invoiced.
26. Hardware refresh (3rd-party equipment)	A modern DCS employs a sizeable number of commercial-off-the-shelf (COTS) components, e.g. network-access storage (NAS), network switches, firewalls, UPSs, CCTV/video media servers, etc. This option covers the service of these components too, including replacement of failed parts according to the strategy in '10. Spare part services'. Any associated application adaptations and enhancement engineering is separately invoiced.

Notes:

- [1] If included or as laid down in the selected support plan (STANDARD, PRO or PRO+)
- [2] Provided free of charge, for STANDARD-plan customers to install themselves
- [3] Special quote needed if non-standard times (See Table 2)
- [4] Excl. Travel and Living costs which are charged at incurred costs plus 10%
- [5] Set-up (once-off) costs at site are quoted separately



SERVICE CATALOGUE

COMPONENT	SERVICE PROVIDED
EXTENDED SUPPORT	
27. Engineer hours included	Every DCS needs adaptation as your business continuously evolves – with each PMSXcare contract comes a number of engineering hours which customers can consume to implement application extensions they wish.
28. Engineer vetting	Allows customers to review PMSXcare engineers’ curriculum vitae and select their preferred service or site residency engineer as applicable. Alternatively, customers with this component can ask for an engineer with unsatisfactory performance to be replaced for their future incident handling.
29. Service credits	In the event that PMSXcare incident resolution or system availability targets are missed, then compensation is made to the customer via service credits, i.e. a reduction of the charges payable for services to reflect the reduced value received by the customer from the services. In addition, a percentage of any unused Engineer hours are carried over to the new PMSXcare cycle.
30. Premium hotline	This provides a direct escalation mechanism ^[1] via a 24/7 contact number of a senior Mitsubishi Electric manager in case of urgency (critical situation, regular hotline not reachable, etc.).



Notes:
 [1] If included or as laid down in the selected support plan (STANDARD, PRO or PRO+)
 [2] Provided free of charge, for STANDARD-plan customers to install themselves
 [3] Special quote needed if non-standard times (See Table 2)
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SELECTING THE RIGHT LEVEL OF PMSXcare SUPPORT

PMSXcare – ENSURING THAT YOUR PLANT KEEPS RUNNING ...

First, choose the **PMSXcare** level that best reflects your support requirements – **STANDARD, PRO OR PRO+**. Then adjust “your needed” items below – our Service Department will be more than happy to adapt the scope of the support to meet your exact needs:

Table 2: Service Levels

COMPONENT	STANDARD	PRO	PRO+	YOUR NEED
WORKS SUPPORT				
1. PMSXcare service desk	Y	Y	Y	
2. Incident management	Y	Y	Y	
3. Problem management	Y	Y	Y	
4. Hotline troubleshooting support	8x5	24x7	24x7	
5. Self-service support portal	0	Y	Y	
6. Product support (1st line)	0	8x5	24x7	
7. Remote support infrastructure	Y	Y	Y	
8. On-site support	Best effort	8x5	24x7	
9. Incident resolution guarantees (see Table 3)	Best effort	Per SLA (Pro)	Per SLA (Pro+)	
10. Spare part services	Best effort	4 working days	2 working days	
11. Cybersecurity – OS & firmware vulnerability	12-monthly	6-monthly	6-monthly	
12. Cybersecurity – malware protection	6-monthly	6-monthly	3-monthly	
13. Product support (2nd line)	0	0	Y	
14. System reliability guarantees	Best effort	98.3% (150h)	98.86% (100h)	
15. Service efficacy reporting	12-monthly	6-monthly	6-monthly	
MAINTENANCE SUPPORT				
16. Preventive maintenance	12-monthly	9-monthly	6-monthly	
17. Operational readiness	0	Y	Y	
SYSTEM LIFECYCLE SUPPORT				
18. Lifecycle consultancy / Continuity management	0	24-monthly	12-monthly	
19. System disaster recovery management	0	12-monthly	6-monthly	
20. Cybersecurity exposure audit	0	36-monthly	12-monthly	
21. Site residency engineer	N	0	0	
22. Lifecycle – PMSXpro releases	0	0	Y	
23. Lifecycle – PMSXpro patches	Y	Y	Y	
24. Lifecycle – Hardware refresh (supervisory level)	0	0	Y	
25. Lifecycle – Hardware refresh (automation level)	0	0	Y	
26. Lifecycle – Hardware refresh (3rd-party eqpt.)	0	0	Y	
EXTENDED SUPPORT				
27. Engineer hours included	10	50	100	
28. Engineer vetting	0	0	Y	
29. Service credits (% carry-over)	N	Y (40%)	Y (80%)	
30. Premium hotline	0	0	Y	

Y = Included, O = Optional, N = Not included

INCIDENT PRIORITIES

Incidents and their severity are adjudged jointly with customers in terms of their impact on the operations to reflect the priority with which a resolution must be found. The priority definitions are as shown below.

PRIORITY	SITUATION
P1 – Urgent	Major PMSXpro failure or malfunction with critical impact on the customer’s ability to operate entire business processes and production. No work-around or manual process available. The problem must be resolved immediately.
P2 – High	Minor PMSXpro failure or malfunction causing impact on the customer’s ability to operate significant business processes or production. No work-around or manual process available.
P3 – Moderate	PMSXpro component failure or malfunction not causing impact on the customer’s ability to operate significant business processes or production. Work-around or manual processes are available.

INCIDENT RESOLUTION TARGETS

Together with an incident’s priority, **PMSXcare** undertakes to find a resolution (i.e. a restoration to normal/acceptable operation of the **PMSXpro** system) within the following target times, depending on the customer’s selected level of support.

Table 3: Incident resolution times

PARAMETER	STANDARD	PRO	PRO+
Incident resolution metrics	Best Possible Effort	P1: 1 working day ¹ P2: 2 working days P3: 4 working days	P1: 12 hours ^{1,2} P2: 24 working hours P3: 2 working days

¹ With optional “work to resolution” clause if this target is not met for an incident.

² If site work is needed, excl. travel time



PEACE OF MIND, KNOWING YOUR DCS IS IN THE BEST HANDS ...

Market forces relentlessly compel you to become more competitive, dynamic and leaner, meaning there is no room for production downtime – maximum plant availability and throughput is critical. At Mitsubishi Electric, we recognize this and place utmost emphasis on providing the services you

need for the timely and correct maintenance of your DCS system – to keep it running smoothly. When problems occur, we do everything possible to get your DCS – and plant – back to 100% performance.



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