



GE VERNOVA

Industrial Managed Services Guide – Q2 2024

INDUSTRIAL MANAGED SERVICES

Industrial Managed Services are expertise-based, ongoing consulting services provided in a subscription format to help customers reach their expected return on investment. Industrial Managed Services include the following support:

- Drives selected workflows on behalf of the customer.
- Collaborates on selected workflows with the customer.
- Coaches the customer on best practices for operating the software and leads a transition plan to ensure customers can successfully adopt the solution.

Industrial Managed Services support customers in developing people and processes necessary to get maximum value from GE Vernova solutions. Industrial Managed Services provides different subscription levels to meet your unique path, pace, and choice of service needs.

Results Service

GE Vernova Industrial Managed Services offers to deliver the full value of GE Vernova solutions by using the solution on behalf of the customer and driving selected workflows. By providing this service, we help you focus on the incorporation of GE Vernova solutions into your core business processes and to maximize your value. During the subscription period, you will be coached on best practices for software operation and be lead through a transition plan, culminating in adoption of day-to-day software operation.

Enablement Service

Industrial Managed Services offers to support usage of GE Vernova solutions by collaborating on selected workflows. This focused service level is for customers who have adequate internal staffing and expertise and want their staff focused on operational issues.

Key Activities	Results <i>Using the software on your behalf to ensure outcomes</i>	Enablement <i>Collaboration and support your usage of the software</i>
Aggregated Content Access	✓	✓
Quarterly Activity Review	✓	✓
Named Industry Expert	✓	✓
High Priority Response	✓	✓
Configuration Optimization	✓	✓
Transition Coaching	✓	
Regular Detailed Operations Review	✓	
Proactive Results Assessment	✓	

INDUSTRIAL MANAGED SERVICES

AGGREGATED CONTENT ACCESS

Goals & Objectives

Access and use industry validated, technical knowledge templates for updating and/or application within the customer's program. This provides customers the ability to benefit from continually refreshed, aggregated expertise across a wide industrial user base.

Requirements & Customer Involvement

- Appropriate system access and permissions
- Up-to-date software and support agreements

Deliverables

Varying according to selected module and asset coverage, and may include:

- Dashboards
- Rounds Templates
- Calibration Templates
- Example Policies
- Trending Analytics
- Predictive Blueprints
- Root Cause Templates
- Strategy Templates
- Inspection Methods
- Risk Analyses

Activities & Consultation

- If the Enablement Level is selected, named subject matter expert available for template Q&A.
- If the Results Level is selected, GE Vernova will apply selected templates within the customer's Solution.
- Support is intended for hands-on APM users.

Follow-Up

If the Results Level is selected, we will tune and optimize the selected templates overtime.

CONFIGURATION OPTIMIZATION

Goals & Objectives

We will provide ongoing configuration refinement within the solution. This service assures the customer's solution configuration remains best-in-class.

Requirements & Customer Involvement

- Customer accepts Industrial Managed Services best practice templates as the starting point for their installation with continuous improvement and refinement to be delivered over time.
- Customer will provide references as needed (FMEAs, criticality analyses, workflows, data histories, P&IDs, DCS screenshots, specification sheets, alarm setpoints, tag list etc.) for solution optimization in selected modules on selected assets.
- Appropriate system access and permissions
- Up-to-date software and service agreements.

Deliverables

Configuration and content will be continuously reviewed and optimized as needed to assure the customer's program stays up to date with the latest industry knowledge and best practices. Solution upkeep may include items such as policy modifications, strategy refinements, rounds improvements, alerting limits, model data additions, tag management and other maintenance using a continuous improvement model. Customization beyond best practices will be charged as a separate project.

Activities & Consultation

Our staff will include configuration topics in weekly or monthly calls as appropriate and request customer technical staff to attend as needed.

Follow-Up

The need for further optimization will be guided by Solution results and the availability of new knowledge templates.

HIGH PRIORITY RESPONSE

Goals & Objectives

We offer to monitor and review all high priority alerts from the solution with dedicated communication and support to assure timely customer awareness of emerging critical issues.

Requirements & Customer Involvement

- Assets that can generate High Priority Alerts are only those with Predictive Diagnostics or specific priority policies implemented
- Customer must also set up a dedicated recipient for high priority notifications
- Appropriate system access and permissions
- Up-to-date software and support agreements

Deliverables

- A reliability engineer hotline to our staff outside of communication rhythm
- An experienced reliability engineer reviews all high priority alerts that have fired in the last 24 hours and that triggers an incident management workflow
- Emerging concerns are reported to customer via email as part of the incident management workflow (maximum time 36 hours)

Activities & Consultation

- 24x7 hotline
- AMERICAS: 630-796-7369
- EUROPE: 420-296-181-510
- APAC: 65-315-79698

Follow-Up

Additional diagnosis and recommendation support as needed.

QUARTERLY ACTIVITY REVIEW

Goals & Objectives

We will conduct a leadership review including activity summaries, long term issues, configurations in progress, and opportunities to better serve the customer.

Requirements & Customer Involvement

- Attendance by customer functional leaders
- Appropriate system access and permissions
- Up-to-date software and support agreements

Deliverables

Management review of:

- Solution activity
- Issues requiring leadership follow-up
- Continuous improvement efforts
- Activity value estimates
- Regular Predictive Analytic Sensor Health Reporting
 - Missing values based on specified poll rate
 - Flatlined data
 - Out-of-range value

Activities & Consultation

Regularly scheduled quarterly video conference call, discussing scope of subscription coverage. We will lead the call with expert attendance as needed to support customer leadership in managing their program.

Follow-Up

As needed and as discussed, possibly including:

- Additional solution tracking
- Details of follow-up actions
- Additional improvement efforts
- Refinement of value estimates

NAMED INDUSTRY EXPERT

Goals & Objectives

A named industry expert will be assigned that will supervise and provide overall guidance on the customer's program and any detailed issues that may arise. This named resource will bring significant and applicable industry knowledge to maximize program effectiveness and deliver business outcomes.

Requirements & Customer Involvement

- Appropriate system access and permissions
- Up-to-date software and support agreements

Deliverables

An on call, remote subject matter expert available for issue review and consultation as needed.

Activities & Consultation

- Attendance at quarterly calls
- Attendance at operations call when indicated by a complex issue

Follow-Up

Answer questions and provide detail as requested:

- Additional diagnostic review
- Modification of knowledge templates
- Refinement of policies
- Program coaching and guidance

PROACTIVE RESULTS ASSESSMENTS

Goals & Objectives

We will proactively review alerts, health indicators, policy outputs, work statuses, reliability triggers, and/or other notifications. This activity assures timely awareness and action of system visible conditions.

Requirements & Customer Involvement

- Appropriate system access and permissions
- Up-to-date software and support agreements

Deliverables

- Team will review and disposition alerts
- Create cases and/or recommendations for action including technical description and initial diagnosis
- Associated work recommendation and implementation notes

Activities & Consultation

Cases and recommendations will be compiled for discussion during the scheduled operations review. High priority cases will be immediately referred to the appropriate team for action.

Follow-Up

Support operations review and priority team as needed.

TRANSITION COACHING

Goals & Objectives

We will coach the customer on best practices for operating the software. We will create and lead a transition plan that takes the customer through each service activity in detail as we coach customers through solution adoption

Requirements & Customer Involvement

- Attendance by customer engineers
- Customer nominee solution training is complete
- Transition timeline will start after customer personnel training on each required activity and after nine months IMS service delivery.
- Appropriate system access and permissions
- Up-to-date software and support agreements

Deliverables

- Transition activities will be added to operations review calls per mutual availability
- This on-the-job coaching will deliver job guides and additional materials for assigned personnel to prepare for successful turnover by the end of the service period

Activities & Consultation

Our staff will include transition topics in weekly or monthly calls as appropriate and request customer technical staff to transition tasks in between calls.

Follow-Up

The need for additional training will be guided through a transition process according to agreed timelines.

REGULAR DETAILED OPERATIONS REVIEW

Goals & Objectives

We provide customers with a biweekly review of current results from the solution. We will host a biweekly conference call to review solution results and outstanding issues.

Requirements & Customer Involvement

- Attendance by customer technicians and engineers
- Appropriate system access and permissions
- Up-to-date software and support agreements

Deliverables

A regularly scheduled collaborative review will drive customer outcomes and respond to needs for re-configuration or updates to the existing templates. The call will include technical review of:

- New issues since last call
- Follow-up on short-term issues
- Review of priorities and recommendations

Activities & Consultation

- Regularly scheduled weekly or bi-monthly conference calls, depending on scope of subscription coverage. Our analysts will lead the call with expert attendance as needed to support customer technical and operations staff.

Follow-Up

As needed and as discussed, possibly including:

- Additional diagnostic information
- Setting of modified limits for monitoring
- Modification of APM policies
- Kick-off of analyses

INDUSTRIAL MANAGED SERVICES FOR PERFORMANCE INTELLIGENCE

Industrial Managed Services for Performance Intelligence (IMS for PI) are expertise-based, ongoing consulting services provided in a subscription format to help customers reach their expected return on investment in their APM Performance Intelligence solution. Industrial Managed Services for Performance Intelligence include the following support:

- Drives APM Performance Intelligence workflows on behalf of the customer
- Helps transition the customer to full self-sufficiency

Industrial Managed Services for Performance Intelligence support customers in developing people and processes necessary to get maximum value from their solutions. By providing this service, we help you focus on the incorporation of APM Performance Intelligence into your core business processes and to maximize your value. During the subscription period, you will be coached on best practices for software operation and be lead through a transition plan, culminating in adoption of day-to-day software operation.

Industrial Managed Services for Performance Intelligence includes the following deliverables:

Key Activities	Industrial Managed Services for Performance Intelligence
Performance Intelligence Processing Verification	✓
Performance Intelligence Alert Review and Case Management	✓
Performance Intelligence Review Call	✓
Performance Intelligence Thermal Performance Report	✓
Performance Intelligence Transition Coaching	✓

Industrial Managed Services for Performance Intelligence requires APM Performance Intelligence software version 5.1.2.0.0 or later.

Performance Intelligence Alert Review and Case Management can only be delivered if analytic templates and analytics are properly deployed.

The following deliverables are out of scope of Industrial Managed Services for Performance Intelligence. This list is not exhaustive.

- Model Maintenance – any work required to update the APM PI model(s) is not entitled by IMS for PI subscription. Model maintenance for APM PI is entitled by the Acceleration Plan.
- Analysis done outside of APM PI software – no offline thermal performance analysis will be performed as part of IMS for PI. No analysis will be performed using data, software, or tools that are not part of the APM PI software package.
- Model accuracy analysis – no investigation, report, or analysis regarding the accuracy of APM PI models will be performed as part of IMS for PI.

INDUSTRIAL MANAGED SERVICES FOR PERFORMANCE INTELLIGENCE

PERFORMANCE INTELLIGENCE PROCESSING VERIFICATION

Goals & Objectives

We will validate that APM PI software is collecting and processing data correctly on a monthly basis. We will create customer support tickets if issues are found.

Requirements & Customer Involvement

- Appropriate system access and permissions
- Up-to-date software and support agreements

Deliverables

Regular verification of data and calculation processing including:

- Verification that time series data used in performance calculations is available in APM PI application.
- Verification that APM PI module screens load and refresh appropriately.
- Verification that thermal performance outputs are calculating appropriately.

Activities & Consultation

As needed, tickets will be opened with GE Vernova customer support.

Follow-Up

Technical support and issue resolution consultation within limits of GE Vernova customer support scope.

PERFORMANCE INTELLIGENCE ALERT REVIEW AND CASE MANAGEMENT

Goals & Objectives

We will review and disposition all alerts generated by APM PI on a monthly basis. We will create cases for any APM PI alerts requiring customer review. Cases will be available to the customer in the Cases module in APM.

Requirements & Customer Involvement

- Appropriate system access and permissions
- Up-to-date software and support agreements
- Analytic templates and analytics are properly deployed

Deliverables

- Review and disposition alerts.
- Create cases and/or recommendations for action including technical description and initial diagnosis.

Activities & Consultation

Cases will be created and managed for discussion during the scheduled monthly review call.

Follow-Up

Cases will be managed on an ongoing basis. Any required case updates will be made to the case and available to the customer in the APM Cases module.

PERFORMANCE INTELLIGENCE REVIEW CALL

Goals & Objectives

We will host a monthly meeting to present and discuss relevant findings from APM PI.

Requirements & Customer Involvement

- Attendance by customer technicians and engineers
- Appropriate system access and permissions
- Up-to-date software and support agreements

Deliverables

A regularly scheduled collaborative review will drive customer outcomes. The call will include technical review of:

- Data and calculation processing issues if any
- PI alerts requiring discussion
- Performance and degradation review
- Additional PI module outputs if applicable
- Upcoming plant activities

Activities & Consultation

GE Vernova will lead a monthly conference call to communicate results and support customer technical staff.

Follow-Up

As needed and as discussed, possibly including:

- Additional insights from APM PI
- Ideas for future What-if analysis if applicable

PERFORMANCE INTELLIGENCE THERMAL PERFORMANCE REPORT

Goals & Objectives

We will deliver a quarterly report containing the heat rate and output degradations as detected by APM PI. Includes one What-if analysis per quarter if What-if software module is entitled.

Requirements & Customer Involvement

- Appropriate system access and permissions
- Up-to-date software and support agreements
- Entitlement to What-if analysis module required for What-if analysis reporting

Deliverables

A quarterly report containing:

- Performance recommendations
- Performance degradation summary
- Detailed performance analysis
- What-if analysis, if applicable

Activities & Consultation

Report will be created and distributed for discussion during the scheduled monthly review call.

Follow-Up

Answer questions and provide additional output detail from APM PI as requested.

PERFORMANCE INTELLIGENCE TRANSITION COACHING

Goals & Objectives

We will coach the customer on best practices for operating the APM PI software. We will create and lead a transition plan that takes the customer through each service activity in detail as we coach customers through solution adoption

Requirements & Customer Involvement

- Attendance by customer engineers
- Customer nominee solution training is complete
- Transition timeline will start after customer personnel training on each required activity and after nine months IMS for PI service delivery.
- Appropriate system access and permissions
- Up-to-date software and support agreements

Deliverables

- Transition activity coaching and review calls will be conducted per mutual availability.
- This on-the-job coaching will deliver job guides and additional materials for assigned personnel to prepare for successful turnover by the end of the service period.

Activities & Consultation

Our staff will include transition topics in weekly or monthly calls as appropriate and request customer technical staff to transition tasks in between calls.

Follow-Up

The need for additional training will be guided through a transition process according to agreed timelines.