CONDITION-BASED MAINTENANCE SERVICES

Improve Data Collection, Reduce Downtime and Optimize Control System Effectiveness

Service Note

Honeywell Condition-Based Maintenance (CBM) Service helps customers move from reactive to proactive system maintenance.

THE CHALLENGE

Due to current global uncertainties, industrial organizations must have robust business continuity plans to mitigate risks, execute maintenance activities and ensure seamless operations without unplanned shutdowns.

Aging workforce and global health concerns impact the availability of industrial workforce. Many operating companies are looking for solutions to use technology for automation and remote maintenance.

Maintaining equipment and processes with a limited on-site workforce while operating with increased efficiency, reliability and safety has never been more difficult.

Typically, the industries with a reactive and non-preventive maintenance strategy suffer from:

- Increased frequency of incidents and operating problems, resulting in expensive unplanned corrective maintenance
- Longer “mean time to resolve”
- Frequent loss of process view or control

Organizations facing these challenges can easily benefit from a Condition-Based Maintenance (CBM) Service, optimizing the performance and sustaining the health of their Industrial Control System (ICS) assets.

THE OPPORTUNITY

Plant maintenance requirements are evolving at an unprecedented pace. Companies are trying to stay ahead of operating demands by optimizing control system performance with the latest tools and software solutions. They seek greater productivity by leveraging higher value-add support activities and global expertise. Most importantly, they’re are in search of improved profit margins and top-line growth opportunities.

Industrial organizations of all sizes benefit from technology to create a proactive and preventive maintenance model. This strategy has been shown to:

- Optimize planned preventive maintenance
- Improve resolution times for incidents and problems
- Increase the availability and productivity of valuable resources

THE SOLUTION

For a growing number of plant managers/owners/operators, there are significant benefits from a more proactive approach to site support and maintenance that monitors the actual condition of assets to decide what maintenance should be done. One of the biggest advantages of CBM is that it is non-invasive, meaning data is collected continuously while the system is still running without adjusting its operation.

A CBM service continuously monitors ICS assets to predict impending failure, so maintenance can be scheduled when it’s really needed. This monitoring gives maintenance teams enough lead time before a failure occurs or performance drops below an optimal level.

A CBM service employs a structured approach to help customers move from a reactive to proactive maintenance

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strategy. It sustains control system health through proactive alerting, actionable insights and consistent quality of delivered maintenance services. The service also increases the availability and productivity of crucial support resources, enabling on-site Field Service Staff (FSS) to prioritize execution of higher value activities.

A robust Preventive Maintenance (PM) Tool helps to standardize preventive maintenance execution and achieve effective troubleshooting and repair. In addition, a PM Data Collector Tool and Remote Connection helps to minimize onsite presence.

Honeywell's approach to condition-based maintenance addresses all aspects of our customers' system support requirements:

- Enables proactive alerting and actionable insights
- Delivers consistent quality maintenance services
- Provides knowledgeable recommendations for system compliance
- Prioritizes key tasks between skilled field specialists and off-site experts
- Allows for non-invasive tasks execution with minimum or no onsite presence

HOW IT WORKS

With Honeywell's CBM service, advanced technology is used to make the most of both on-premise and connected support resources.

The first step in deploying the CBM service is installing a specialized Data Collector tool to gather information about the site installed base, including hardware and software revisions. If the site is enabled for remote data logging, off-site experts can utilize a PM Tool to generate a maintenance task list for all installed controllers, servers and other ICS assets. The PM Tool, which can be used to automate task planning and scheduling, and standardize reporting, syncs with Honeywell's global equipment and task database. It enables the ability to trend parameters and provides auditable records of all PM tasks carried out.

Preventive maintenance tasks are categorized within two scenarios:

- Off-site Expert Analysis – Executed by Honeywell Teams
  - PM tasks are checked, recorded and validated against standards/ norms (non-invasive tasks)
  - Asset data are collected via Service Node or PM Data Collector tool
- Local Preventive Maintenance – Executed by Local Honeywell FSS/ Customer/Resident Engineer
  - Invasive tasks executed by Local Team

With Honeywell's approach, field personnel can assess and identify potential failures and plan for identified corrective maintenance. This reduces the likelihood of potential incidents and optimizes system performance with a focus on non-intrusive maintenance activities. It also ensures adequate support in cases where customers are required to reduce on-site support presence.

A detailed CBM reporting capability also separates Honeywell's service from traditional preventive maintenance programs. Reports include graphical representations of control system health and status based on inputs from both off-site and local engineers. Support personnel can review asset operating issues related to system or asset health and then implement recommendations for corrective maintenance work on specific pieces of equipment.

BENEFITS TO CUSTOMERS

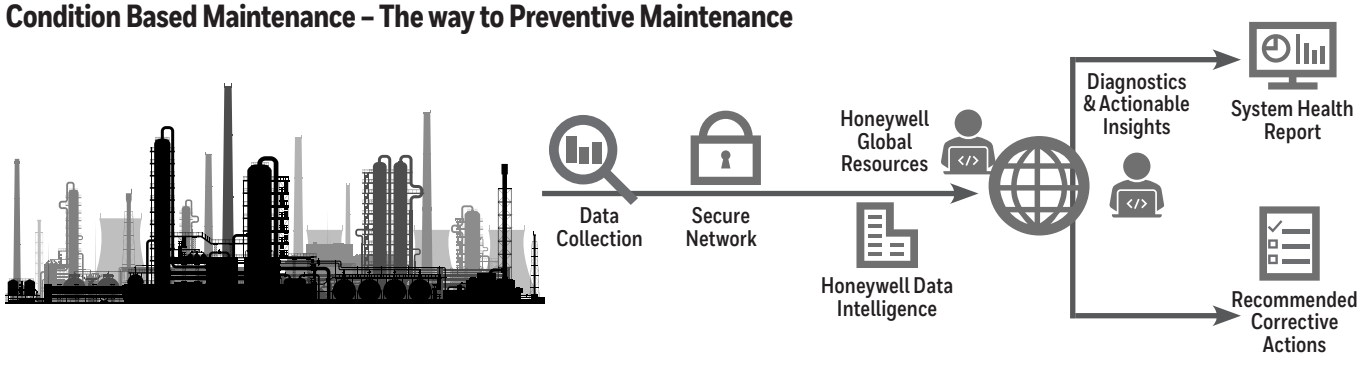
With Honeywell's CBM service, industrial operating companies can gain a full understanding of their current ICS installed base and system health status. As such, they can allocate corrective maintenance tasks between off-site experts and a local team. This increases the productivity and availability of support resources while remote services are deployed to shorten the resolution time for problems and incidents.

The advantages of the CBM service include:

- Enhance proactive system maintenance
- Increase the availability of productivity of key resources
- Separate preventive and corrective activities
- Standardize maintenance reporting
- Improve resolution time for incidents and problems
- Reduce equipment downtime
- Lower operational expenses (OPEX)

With Honeywell's assistance, industrial firms can reduce the need for onsite support presence by up to 50 percent and redirect these resources for execution of higher value activities. They can also minimize overall maintenance activities and ensure full maintenance coverage with a consistent strategy. Moreover, their sites can implement a well-organized, schedule-based maintenance program and improve resolution time for addressing a wide range of asset performance and health issues.

Condition Based Maintenance – The way to Preventive Maintenance



For More Information
To learn more about Honeywell's Condition-Based Maintenance offering, click here or contact your Honeywell Account Manager.

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