

WHITEPAPER

# Building an Interconnected Work Ecosystem with the Prometheus Platform



PROMETHEUS GROUP



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# Building an Interconnected Work Ecosystem with the Prometheus Platform

## Introduction

Asset-intensive organizations are faced with a rapidly changing business landscape and an ever-expanding list of enterprise asset management technology solutions. To remain competitive, organizations are re-evaluating work processes and technology solutions to ensure they're producing the best product on the market. As people and technology become more interconnected, organizations are dedicating a growing number of resources toward solutions that bridge, support, and improve the transmission of data between them both. Minimizing or eliminating information silos helps drive critical, intelligent decisions centered around data.

Traditionally, organizations assessed workflow or work process challenges in fragments; if an issue arose within a specific process, like lock out/tagout (LOTO), a trained worker would set aside time to assess and adjust the LOTO as it is implemented. However, with many workers beginning to age out of their professions, this leaves organizations facing a clear skill gap and a lack of resources to pass along information. Additionally, if the issue is specific to permitting, workers are only provided with a specific solution to fix that specific issue. Point solutions such as these lack scalability and flexibility. They only apply to a single problem.

### In addition, point solutions fail to provide:

1. Transparency and visibility
2. Data integrity
3. Consistent user experiences across all user groups/roles
4. Work process continuity

These are essential to improving enterprise asset management and maintenance processes. This is why so many organizations in asset-intensive industries are rethinking how to consistently and effectively improve without negatively impacting production. The answer lies in setting aside traditional point solutions and embracing a platform that takes a comprehensive approach to the entire asset management process.

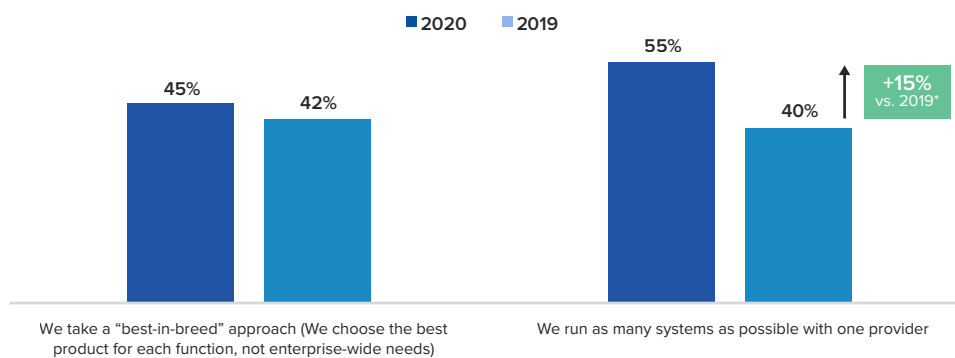
Prometheus Group has produced intuitive best-in-class solutions for asset management since 1998. This extensive experience has been leveraged to create the Prometheus Platform, developed to aid and support its customers in the asset management space.

The Prometheus Platform provides a holistic, comprehensive view of an organization's entire work process, eliminating data silos that regularly occur across teams. Instead of providing disconnected point solutions, the Prometheus Platform collects data from solutions used across different work categories — like maintenance, permitting, operations, and inventory management — and stores it in an organization's EAM, ERP, or CMMS.

Point solutions miss the opportunity to address organizational challenges. The Prometheus Platform focuses on a long-term, comprehensive strategy for asset management. Understanding how an integrated solution can help an organization achieve its future goals means realizing how the solution would fit into the daily workflow of its workers.

The decision to move away from using multiple point solutions to manage work processes is increasing among asset-heavy companies.

## Approach to Technology Vendors



Q: Which of the following best describes how your organization selects technology to use in various departments? n=625 | 443

\*Option not available in 2018  
7 \* 2020 ASUG

Figure 1. ASUG research. State of Enterprise Asset Management - May 2019.

In the table above, we see that the number of companies seeking a single provider to manage its multiple systems rose from 40 to 55 percent — a 15 percent increase in just one year. Using a single provider to combine multiple solutions under one interconnected platform drastically improves data quality, communication, and transparency.

System integration of work software solutions provide customers with a competitive edge; teams gain better insight into their data and activity which contributes to productivity growth.

The Prometheus Platform integrates directly with SAP, IBM Maximo, Oracle, and other ERP systems to enhance communication and supply better alignment among maintenance, operations, and other business units. Departmental and organizational success through this strategy can be measured, reported, and made visible to stakeholders, whether at an individual site or in the uppermost levels of an asset structure that spans the globe.

### The “Usability/Integration” Problem with Point Solutions

For many teams, workflows and processes often overlap and require a comprehensive solution to maintain and manage the overall process. Point solutions are designed to perform a specific function or task. Most teams, however, don't work in silos; they require consistent transparency and visibility into the activity/progress of other teams to efficiently complete their tasks. For example, there aren't many work orders scheduled that don't depend on work permits, or coordination of maintenance with operations to ensure permits are completed correctly.

**KEY TAKEAWAY:** *Point solutions create data silos across teams and typically require added resources to manage integration projects, creating more work for internal IT. Integrated platforms are easier to maintain and use, and allow for a plant or facility to quickly realize benefits.*

### Point Solutions Cause Visibility Loss

Since point solutions aren't interconnected to other software, teams lose visibility into the overall workflow or processes of their plant or facility. This may affect their ability to complete their own tasks.

Workers often have multiple solutions they're using to manage everything from break-ins/breakouts, work orders, and maintenance schedules to field equipment inspections, permits, and inventory tracking. This is also true during special projects like a shutdown or outage event.

#### These workers include:

- Maintenance (manager, technician, planner, or scheduler)
- Operations (operator, manager, coordinator)
- Engineering (plant, reliability, controls, etc.)
- EHS (environmental, health, and safety)
- Warehouse/inventory



In the example below, we illustrate the challenges faced by organizations using multiple solutions provided by multiple vendors.

*In this specific plant, operators spend time conducting rounds on equipment to ensure there are no issues that arise causing unplanned interruptions. Most rounds are done on paper which means either the operator must enter rounds data into a separate software system or an ERP, EAM, or CMMS – which can lead to data entry duplication. Once inputted into the plant's source of truth, they'll typically request a work order on any asset that needs repair. However, not all orders are immediately sent to maintenance.*

*The maintenance coordinator must locate, sort through, and review work order requests to determine which ones to approve for planning, if any. If the rounds and the organization's ERP, EAM, or CMMS system are not connected or set up to automate the requests, the maintenance planner must search for approved requests to create a work order and hope the operator followed the standard submission process.*

*In the planning phase, the planner lacks the time to reference back to similar, completed work orders because their current system makes it too difficult to find work order history. A planner who needs to locate parts for an asset faces hundreds of taxonomies and data duplicates. This makes it incredibly difficult and time consuming to find the right parts.*

*Once a plan is finally completed, it's sent to the scheduler. They are responsible for aligning the plan with preventive maintenance tasks, work crew*

*schedules, backlog, equipment availability, etc. Separate systems must be searched to find all this information, again taking up precious time. Any new information entered into these systems must be entered again into the EAM, ERP, or CMMS, taking up more time and introducing more possibility of data errors or duplication. This data transfer is often done via Excel. Schedules are printed and sent to supervisors who then must print work packs for their technicians.*

*If permits are required, EHS, maintenance, and operations are responsible for coordinating the submission and review of paper permit applications. This is usually done in a different system or just at the time of execution with no prior discussion.*

*They also must LO/TO equipment, leading to more delays. Maintenance technicians in the field may find that they need other documents, parts, etc., which means they'll have to journey back to a kiosk, station, or their desk to access a computer and search their ERP, EAM, or CMMS.*

*Most teams don't record data directly into their ERP, EAM, or CMMS. It's usually only recorded on paper or in an Excel sheet to be transferred later. This leaves data entry workers with the responsibility of entering all data, including work order start and stop times, into the ERP, EAM, or CMMS. Manually transferring data from paper or multiple systems into the system of record leaves room for human error and compromises data accuracy and integrity. Too many errors can lead to other additional challenges, lost resources, and unnecessary costs. In addition, the company expends a lot of labor to update all this data in-house.*





The work process for many organizations is fragmented, provides no visibility into the progress or activity of other teams, and highlights workflow efficiency and continuity issues. Because each solution or sub-process is made to fit a specific role and task, many organizations struggle with software integration issues as well as ease of use and management. Point solutions create data silos across the organization, forcing teams to spend more time trying to catch up with each other rather than completing their tasks. This results in decreased productivity and efficiency, time and cost waste, or worse, can lead to a hazardous work environment.

An interconnected platform provides for better communication within departments and across the entire organization. It creates a reliable and accurate input of data into an organization's ERP, EAM, or CMMS, and creates opportunities to engage in intelligent decision-making based on data. Each part of the platform "talks" to the other parts, allowing for a streamlined, user friendly experience while eliminating the gaps created by point solutions.

## The Prometheus Platform — One Provider, One Solution

As businesses continue to evolve with the ever modernizing and digital world, the need for comprehensive platform solutions has only grown. Our customers continue to consolidate the number of providers on which they rely. This adaptation is aligned with the current trend of businesses transitioning their systems to the cloud, not only to continue these consolidation efforts, but also to further reduce internal costs. Customer effort around implementation, support, and system maintenance is substantially reduced with hosted deployments of our solutions. Here are just a few of the tools and functionalities companies gain access to through the Prometheus Platform.

**KEY TAKEAWAY:** *The Prometheus Platform not only makes up for the shortfalls left by point solutions but also provides companies with a comprehensive solution to see, record, diagnose, remedy, and track workflow processes and asset maintenance/operations.*



A full integration between all solutions and tools.



An out-of-the-box solution with full configurability. This means your implantation perfectly suits your organization, without the need for costly and time-consuming custom development.



An Application Configuration Manager that allows clients to build a simplified user experience and user interface.



Dynamic entries that guide users through their workflow based on user inputs to optimize data collection.



Access to workflows and data even in offline mode, no matter where work is being done from.



Scalable solutions for deployment across the organization.



Automatic syncing of offline submissions.

## What is the Prometheus Platform?

The Prometheus Platform is a suite of integrated solutions designed to optimize an organization's enterprise asset management and environmental health and safety programs by streamlining data entry, increasing productivity, reducing equipment downtime, and increasing worker awareness and safety. Each solution can be delivered through a hosted environment, with the flexibility to offer on-premise deployments to meet the needs of the business. The intuitive user experience reduces training time and provides superior user adoption for immediate business impact. Each solution is designed to be flexible for multiple operating systems (Windows, Android, iOS) as well as adaptive



*Like many of our customers transitioning from a point solution to the Prometheus Platform, leveraging the tools within the platform helps to improve the workflow process and management.*

to the dynamics of various facilities and the inherent operating environment, thus streamlining workflows regardless of the facility's infrastructure.

Once the Prometheus Platform is implemented across the plant, there are typically several immediate workflow and process improvements. Operators no longer need to record data collected from rounds on paper. Prometheus Rounds—housed within our Prometheus Mobility solution—mobilizes an organization's workforce and eliminates paper checklists to ensure consistency and best practices are enforced across the plant. Safety-critical and process data is validated immediately, and the application can guide the user through alternate workflows when exceptions are recorded. Data collected from digital rounds or inspections on a mobile app is added automatically into your ERP, EAM, or CMMS, providing operators with information needed to easily create a notification or work order.

To access work order notifications, the maintenance coordinator can quickly sort through all relevant notifications or orders, with a single click report to find the right requests in the correct functional area. Once all relevant work order requests are sent to the planner, robust planning tools within Prometheus Planning & Scheduling gives the planner the option to choose from a library of task lists for corrective work. Planners can use our Master Data as a Service to maintain clean master data and find the right components. Equipped with the ability to conduct comprehensive part searches, access BOM updates, and a work order planning tool, planners can create a fluid workflow to send orders to scheduling queues.

In addition to work order planning, Prometheus gives planners the ability to indicate any (or all) potential work orders that require a permit or certificate to be routed to operations or EHS groups. The planner simply defines what work is being executed from a few broad

categories that will automatically flag the proper permit type and pre-populate several hazards and controls for EHS/operations to review. This action reduces the amount of "walk-in" permits because there is more awareness of upcoming permits and work orders.

For schedulers responsible for aligning the plan with PMs, crew schedules and more, Prometheus Planning & Scheduling provides a dynamic Gantt chart view to help lay out and simplify the amount of viewable data. Schedulers can also create their own automated scheduling processes to recommend schedules. When schedules are ready to be shared, schedulers can push them out along with all necessary resources to complete a work order using Prometheus Mobility.

Mobility integrates field work with the Prometheus Platform and an organization's ERP, EAM, or CMMS in real-time, empowering maintenance managers with the ability to assign work orders to individuals and confirm start and stop times. It also gives maintenance technicians the capacity to view work packs and enter the time spent on completing a job. A scheduler can compile the data and re-apply changes to the active schedule. Using Prometheus Reporting & Analytics, collected data can be tracked and monitored over time, providing an organization with an accurate and holistic picture of daily, weekly, monthly, and annual activity or progress.

**This can include tracking KPIs such as:**

- Number of break-ins and break outs
- Schedule PM compliance and schedule compliance
- Gross vs net available hours
- Backlog WOs and backlog hours

Our integrated platform gathers a large pool of data from within our core analytics suite, dramatically improving outcomes stemming from data-driven decisions.

With the power to improve productivity, work efficiency, communication, and drive downtime waste and unnecessary costs as a result of human error (a prevalent issue in shutdowns, turnarounds, and outage management), global companies utilize this platform to improve their competitive edge.

A global oil and gas company integrated our comprehensive and intuitive solution across their organization, starting with PM Advanced in SAP for its planners and schedulers. After a successful roll out, it expanded use of the platform to the entire suite of products:

- Prometheus Mobility
- Prometheus Shutdown, Turnaround, & Outage + Syntempo
- Prometheus Permitting & Safety
- Prometheus Reporting & Analytics
- Prometheus Planning & Scheduling

As a global leader in oil and gas production and refining, this company manages dozens of locations, thousands of employees, and massive caches of data daily. Having access to correct data can make the difference between running a productive plant free from workflow interruptions, and a reactive, disruptive one. Maintaining correct data heavily depends on how clean an organization's data is and the frequency at which it's sustained. Our Master Data as a Service (MDaaS) solution helps clean and maintain data continuously and is changing how companies manage data.

## MDaaS Enhances Your ERP, EAM, or CMMS

Migrating to a new system, like S/4HANA, provides an opportunity to cleanse and standardize data. The transition between systems is normally cost and time intensive. Once on the new system, a company must devote even more resources to sustain data. That's if they have the labor available. Many companies do not.

**KEY TAKEAWAY:** *Data standards can drastically improve functionality across multiple platform touchpoints.*

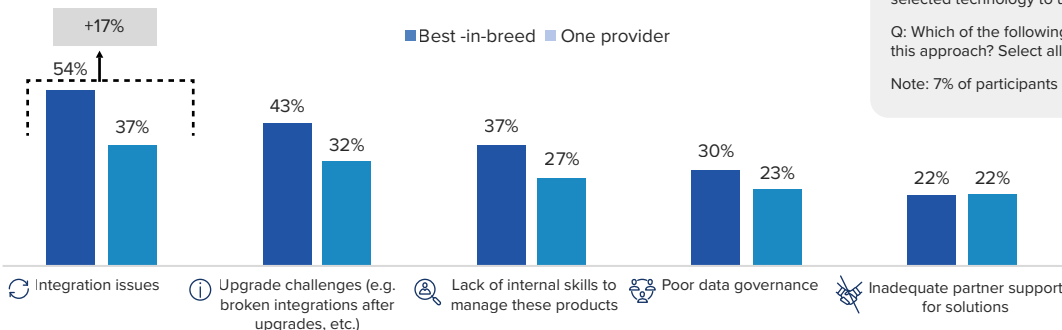
Without strong and consistent standards and personnel in place, processes and data breaks down over time. Often, teams working at different locations will create their own taxonomy and standards, leading to data duplication and confusion since the taxonomies lack standardization or consistency. Prometheus Group works with the organization to cleanse and sustain data as a continued service to create and maintain the structure and quality of data.

### Creating a Shift in How Data is Managed

A pulp and paper customer planned to migrate to S/4HANA and needed a solution that could easily connect all their plant locations to one SAP instance. Workers were using two different SAP instances, and a few weren't connected to SAP at all. Using two different instances to manage items like work orders, schedules, and permits created two fundamental issues:

1. A lack of standardization across the organization and within SAP
2. Minimal to no transparency into the work of other teams within SAP

## Technology Challenges by Vendor Approach



© 2020 ASUG. Figure 2. ASUG Research. State of Enterprise Asset Management - May 2019.



The migration to S/4HANA meant that processes, workflows, naming conventions, etc., could be standardized and streamlined across teams and plant locations, giving visibility into overall work efficiency.

The company chose to integrate the Prometheus Platform into their legacy system. They'll eventually transition the entire platform over to S/4HANA. From there, the modules of the Prometheus Platform will function as an extension of SAP, including Prometheus Planning & Scheduling, Prometheus Mobility, MDaaS, and Prometheus Reporting & Analytics (for ROI). Maintenance, operations, and safety teams will gain better insight into how an issue like an emergency equipment break-in can affect scheduling, permitting, and more.

Any work order that requires a technician to order materials can use Prometheus Group's MDaaS to standardize and organize their database taxonomy and materials list. This prevents unauthorized workers from creating their own naming conventions and standardizes material lists across locations. Standardizing master data and maintaining its taxonomy cuts down on inventory confusion and cuts down on the cost of over ordering materials.

Once the taxonomy is cleansed, Prometheus Group can consistently sustain the data and other platform modules can accurately pull data from the customer's master data. This customer will have the ability to cleanse data on their legacy platform before migrating to S/4HANA. Prometheus Group continues to sustain data, meaning the customer no longer needs to manually sustain it on their own. By using a web-based system, MDaaS automatically updates throughout the lifetime of the database.

Since each module works with the others by sharing and updating data, teams gain access to the most accurate data needed to make critical decisions. Assessing solutions based on individual functions instead of on enterprise needs causes systemic issues across teams and workflows. This doesn't apply solely to integration issues but also to system upgrades, duplicable skill transfer, and more.

When determining what kind of technology challenge created the biggest hurdle for their company, most



industry professionals said point solution integration issues. According to the chart above, 54 percent of organizations among those who take a “best-in-breed” approach to point solutions dealt with integration issues. However, this figure dropped to 37 percent among organizations who use a single provider for their solutions. Poor data governance also posed a challenge for companies using point solutions; data entry mistakes, duplications, and the lack of standardization increase the likelihood of inaccurate data entering an organization's ERP, EAM, or CMMS.

An integrated software solution can directly benefit company costs and production levels, the effectiveness of work processes, and worker efficiency. With our customer example, Prometheus Group created a holistic plan that identified weaknesses their old point solutions weren't addressing. They determined how to fold an integrated solution into their workflow processes.

Our solution helps companies like our pulp and paper customer manage system upgrade and integration challenges and creates a simplified, easy-to-follow work management system that is teachable to any new worker. This is especially important for newer generations that are more reliant on technology.

## **Generational Workforce Changes Create Opportunities to Introduce New Technology**

As mentioned earlier, skill transfer is a big challenge organizations face when training workers on point solutions. With many workers aging out of their industry, a growing number of companies are faced with a growing skills gap with the new, incoming generation of workers. Getting the best performance out of newer workers means investing in technology, like software



with mobile capabilities. Point solutions confine worker knowledge to a specific function and a certain “way of doing things,” making it difficult for an organization to streamline and duplicate it for incoming workers. According to Figure 2 on page 8, companies who used a single software solution provider struggled significantly less to find internal skills to manage multiple tasks compared to those who used multiple providers. Having an intelligent platform that serves as an extension of an organization’s ERP, EAM, or CMMS allows them to limit access to their direct source of truth, cutting down on unnecessary training on the software system.

## Conclusion

The platform maximizes investment in an ERP, EAM, or CMMS by making the full functionality and data capabilities of the system usable.

Companies that support their asset management strategy with an integrated software solution must analyze all elements of their business – from process inefficiencies to communication channels. This creates a dynamic partnership that is not driven solely by providing a vendor solution. Implementing a strategy and solution that takes in to account all business processes, makes it easier for customers to create effective and long-lasting changes that positively impact business solutions.

The Prometheus Platform offers configurable, end-to-end asset management in real-time, on any device, online or offline. Our solutions offer seamless integration with your ERP, CMMS, or EAM, delivering a powerful, simplified user-experience at every level of your organization.

*To learn more about features and functionality, visit our website platform page.*

**LEARN MORE**

## About Prometheus Group

Prometheus Group is a leading global provider of comprehensive and intuitive enterprise asset management software solutions that work within ERP systems and span the full work management life cycle for both maintenance and operations. Developed jointly with end users, Prometheus software enhances the customer experience for planning, scheduling, and executing work for both routine maintenance and shutdowns and turnarounds, all while protecting the workforce with safety solutions and electronic permit to work. Our straight-forward functionality, graphical visualization, and simple processes enable customers to increase productivity, reduce costs, and improve reporting. For more information, please visit [www.prometheusgroup.com](http://www.prometheusgroup.com).