Supporting Service Solutions

Bently Nevada Asset Condition Monitoring

Proactive care for your production assets and their condition monitoring systems
Imagine...

- your peace of mind if medical experts could remotely monitor your health, alerting you to developing problems—even before you became aware of symptoms.
- the improvement in your prognosis if these problems could be addressed promptly—by a visit from a highly qualified specialist directly to your door.
- the convenience you’d enjoy if treatment could often be administered remotely—with the same effectiveness as a house call.
- that this approach to healthcare was available for your machinery—and for the Bentley Nevada* systems monitoring that machinery.

We call it a Supporting Services Agreement (SSA)—a suite of proactive asset care services tailored to your individual needs and designed to help you harness the full potential of your installed condition monitoring systems.

Real solutions with real benefits

You need to get the most out of your production assets. Your goal is to meet production commitments while lowering operating and maintenance expenses. We’ll work with you to accomplish this. A Supporting Service Agreement from BHGE is a customized asset care service program designed to maximize the value of your investment in asset condition monitoring technology. We’ll help ensure that your system is properly maintained and being used to its full potential.

Your service agreement is designed to deliver:

- Proactive problem management – focus effort where it’s needed, manage by exception.
- Actionable Information* – ensuring the right people have the right information in time to make the right decisions.
- Speed of response and resolution – value realized.
- Continuous improvement – solving new problems, achieving new objectives.

And we’re flexible. Whatever your need, we’ll work with you to tailor a solution that meets your business objectives.
Blood pressure rising?
We can help!

Regardless of your industry, an SSA can be structured to meet your business objectives related to asset health. Below are typical SSA scenarios from just three of the many dozens of industries that rely upon our condition monitoring products.

"Help me focus my efforts..."
I’m a rotating machinery engineer responsible for ten offshore platforms with 60 key assets, but simply don’t have time to analyze 60 sets of condition monitoring data. I’m measured on asset availability and my time needs to be spent fixing identified problems – not looking for them. I need trusted expertise that tells me where to focus, quantifies the urgency and isolates the root cause, allowing me to resolve issues quickly, before production is interrupted.

We can structure an SSA to remotely monitor your data, to assist you in proactively detecting problems, diagnosing root causes and recommending corrective actions.

"Help me extend outage intervals..."
As the maintenance manager for a 150 MBPD refinery, I’m counted on to reduce cost and downtime by extending the intervals between planned outages, but without jeopardizing our critical assets and the processes they run.

We can structure an SSA to deliver Actionable Information, helping you to decide when maintenance is necessary and when machines can safely run until the next scheduled outage.

"Help me improve efficiency..."
As the plant manager for a 400 MW gas-fired facility, I need help running my gas turbines at maximum efficiency to lower fuel costs and optimize the timing of compressor washes.

We can structure an SSA that remotely monitors the thermodynamic performance of your turbines, providing information that lets you make better operating and maintenance decisions, such as when a compressor wash to restore lost efficiency would be less expensive than the additional fuel consumption.

Individual fit for individual needs.

Every customer faces different challenges. Whether your concern is protection, maintenance, operations, performance or all of the above, we’ll craft a solution that provides precisely the level of support you need.

Be on call
We’ll work with you to help ensure that your asset condition monitoring system is there when you need it. And when there’s a problem, we can perform diagnostics, and then advise on the cause and how to fix it. Whether quarterly, monthly or on-demand, we can serve you.

Consult a specialist
We’ll support your in-house rotating equipment physicians. We can give these experts the process support, integration and tools they need to make the diagnosis and prescribe the solution. And when there’s an especially difficult problem to solve, we’ll leverage our global team of experts to assist.

Full coverage
We’ll partner with you to maintain and use your asset condition monitoring system to monitor, perform advanced diagnostics and apply our combined expertise to solve new problems. We’ll make the rounds for you...remotely if possible.

Regardless of your needs, we’ve got an asset condition monitoring Supporting Service Solution for you. Count on us. We’ve got you covered.
Individualized Solutions. Maximized Value.

As unique as each customer, every SSA is an individualized suite of services, drawing from ten standard categories—as needed—to address the specific requirements of a particular site. Each building block in your individualized suite of services is designed to provide value in four key dimensions: protection, operation, maintenance and performance.

1. System Commissioning
   More than installation and integration; we help you determine what to measure, how to measure it and establish and document a baseline.

2. Hardware Maintenance
   We maintain your asset condition monitoring equipment and keep it performing to specification and to your requirements.

3. Software Maintenance
   It’s all about availability of your System 1 software. We can ensure that your systems are connected to the network and that your servers are healthy. We can also manage your database so that your data is available when you need it to make informed decisions.

4. Product Technical Support
   When you need an answer related to hardware or software, we’re available 24/7/365 via phone, e-mail and the web.

5. IT Security
   We can help you integrate your asset condition monitoring system with business processes and applications; all while maintaining IT compliance. We treat server and security event notification the same as machine event notification.

6. Process Support
   Established Best Practice processes to get the results you need today and to help ensure continued success. We can help integrate asset condition monitoring into your operations, develop work process definitions and documentation, implement a change management process, and implement improved maintenance procedures.

7. Alarm and Event Management
   We help you establish alarm credibility and manage by exception. This enables specialists to focus on critical data to identify and resolve problems more quickly. This service is available on a continuous or periodic basis, on site or remotely.

8. Machine Health Audits
   With advance and accurate information on machine condition you’ll save time and money by planning repairs, minimizing secondary damage, extending time-based maintenance and taking preventative measures to keep the machine safely online. Machine audits can be done on-site or remotely.

9. Training
   We’ll transform your staff into confident System 1 software users. We offer classroom-based training at your site or at one of our global Customer Application Centers. Your team will also benefit from on-the-job mentoring.

10. Remote Monitoring
    By eliminating travel expense and delays, you can achieve faster and better results at lower cost. Remote connectivity is available through our HQ-based Remote Monitoring Center and our fully-equipped Regional Technical Support Centers. All facilities are staffed by technicians with substantial hands-on field and product experience to help you expeditiously diagnose and correct your issue.

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**Influence On Plant Operations**

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<thead>
<tr>
<th>PROTECTION</th>
<th>OPERATION</th>
<th>MAINTENANCE</th>
<th>PERFORMANCE</th>
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<td>Reduce Unplanned Downtime</td>
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First ensure your condition monitoring systems are properly configured and available.

Then use your condition monitoring systems to their full potential.

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Influence On Plant Operations

- Reduce Machine Damage
- Reduce Unplanned Downtime
- Reduce Unnecessary Machine Trips
- Support Regulatory Compliance
- Extend Run Time
- Extend Time Between Planned Outages
- Fast Problem Resolution
- Early Failure Detection
- Reduce Time-Based Maintenance
- Optimize Outage Planning
- Improve Inventory Management
- Increase MTBF
- Reduce Maintenance Costs
- Reduce Unplanned Downtime
- Reduce Problem Resolution
- Reduce Operating Speed
- Enable Production Quality

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Our service mission is to apply the finest resources—asset condition monitoring expertise, process excellence and best-in-class technology—to ensure the health of your production assets.

**Best-in-Class Condition Monitoring Technology**

From machine protection to remote monitoring, we put more than 50 years of asset condition monitoring expertise behind Bently Nevada products and services. System 1 software is the foundation for Supporting Service Solutions, providing a rich repository of plant-wide information and powerful visualization/diagnostic tools.

**Partner Our Expertise with Your People**

Every Supporting Service Agreement comes with a dedicated Site Lead—a single point of contact that knows your operation. Your Site Lead is backed locally by a global field service organization, and centrally through our Remote Monitoring Center and Technical Support team. You’ll see in-house capability and confidence grow as our expertise is transferred to your staff.

**Process Excellence**

Sound processes ensure you get the most value from technology. We work with you to establish processes that drive proactive problem management from diagnosis to resolution, ensure consistency, increase efficiency, and promote continuous improvement.
Numbers that speak for themselves...

- 50+ years of condition monitoring experience
- 70+ machinery diagnostic engineers worldwide
- 2 million+ monitoring points installed worldwide
- 60,000+ product service jobs performed
- 15,000+ machinery diagnostic projects completed
- 300+ sales and service points-of-presence across 50+ countries
- 250+ service engineers around the globe

Bently Nevada Asset Condition Monitoring Service and Expertise...Delivered*.
Services and support

Design and Installation
Let our experts help retrofit or modify your existing machinery (such as turbines, compressors, and fans) for the installation of monitoring systems or transducers. By combining our services with our hardware and software, Bently Nevada delivers fully installed, fully engineered solutions tailored to your specific requirements. We have completed more than 1,000 design and installation project retrofits to rotating and reciprocating machinery.

Maintenance and Support Agreements
A one-year renewable Maintenance and Support Agreements (M&S Agreements) is automatically included with every product we sell. Its structure consolidates all products installed at your site under a single agreement for ease of administration and entitles you to phone, email, and Web-based support from our global network of experienced support experts.

Supporting Services Agreements
A supporting services agreement (SSA) is a custom-tailored combination of individual remote and site-based service offerings that addresses the unique needs of your site and your installation. We work with you to help your instrumentation to perform well and to provide hands-on assistance that allows you to realize the full potential of your condition monitoring system.

Your SSA can include remote monitoring and diagnostic (RM&D) services to help your facility managers and operators recognize problems before they occur. Our dedicated team of global engineers is available 24/7 in our Remote Monitoring Centers to provide timely machine health information, analysis, and collaborative resolutions that help you realize lower project costs, reduce your outage costs, and improve your bottom line.

Machinery and Diagnostics Services (MDS)
Our more than 70 machinery diagnostic engineers around the world are recognized globally for their expertise in gathering and analyzing data to document baseline conditions and troubleshoot even the most complex machinery problems. They can work onsite, offsite, and in our Remote Monitoring Centers.

Training
Our customers routinely praise our in-depth technical training for its highly effective “learn by doing” labs coupled with classroom-style instruction. A comprehensive suite of product training courses is augmented by coursework in the fundamentals of rotating machinery behavior and diagnostic techniques. Our courses can be provided at any of our 50 global training centers or even brought to your site.

www.measurementandcontrols.com/bently-nevada