

SmartSignal 6.2 from GE Digital



Industry's predictive maintenance benchmark—increases your availability, reliability, efficiency, and profitability

Fix small issues before they become big problems—and move towards no unplanned downtime

For more than 16 years, industry leaders have picked [SmartSignal from GE Digital](#) to protect critical assets. SmartSignal now monitors more than 16,000 assets worth approximately \$37B across industries and around the world.

SmartSignal works by leveraging existing data and infrastructure to provide early and actionable warnings of impending equipment and process problems—thus allowing your workforce to move from reactive to proactive maintenance and from looking for problems to fixing them. The software provides actionable notifications of anomalies, along with diagnostics and prioritizations.

Outcomes

SmartSignal helps:

- Reduce maintenance costs by turning unplanned downtime to planned downtime and reducing overall maintenance needs
- Reduce overtime and equipment-replacement costs
- Reduce damage to critical equipment
- Avoid unexpected shutdowns and catastrophic failures
- Overcome challenges of inexperienced and aging workforces, aging equipment, limited budgets, and data overload
- Increase availability, reliability, efficiency, and profitability
- Keep operations safe and productive



01 Simple yet proven empirical modeling

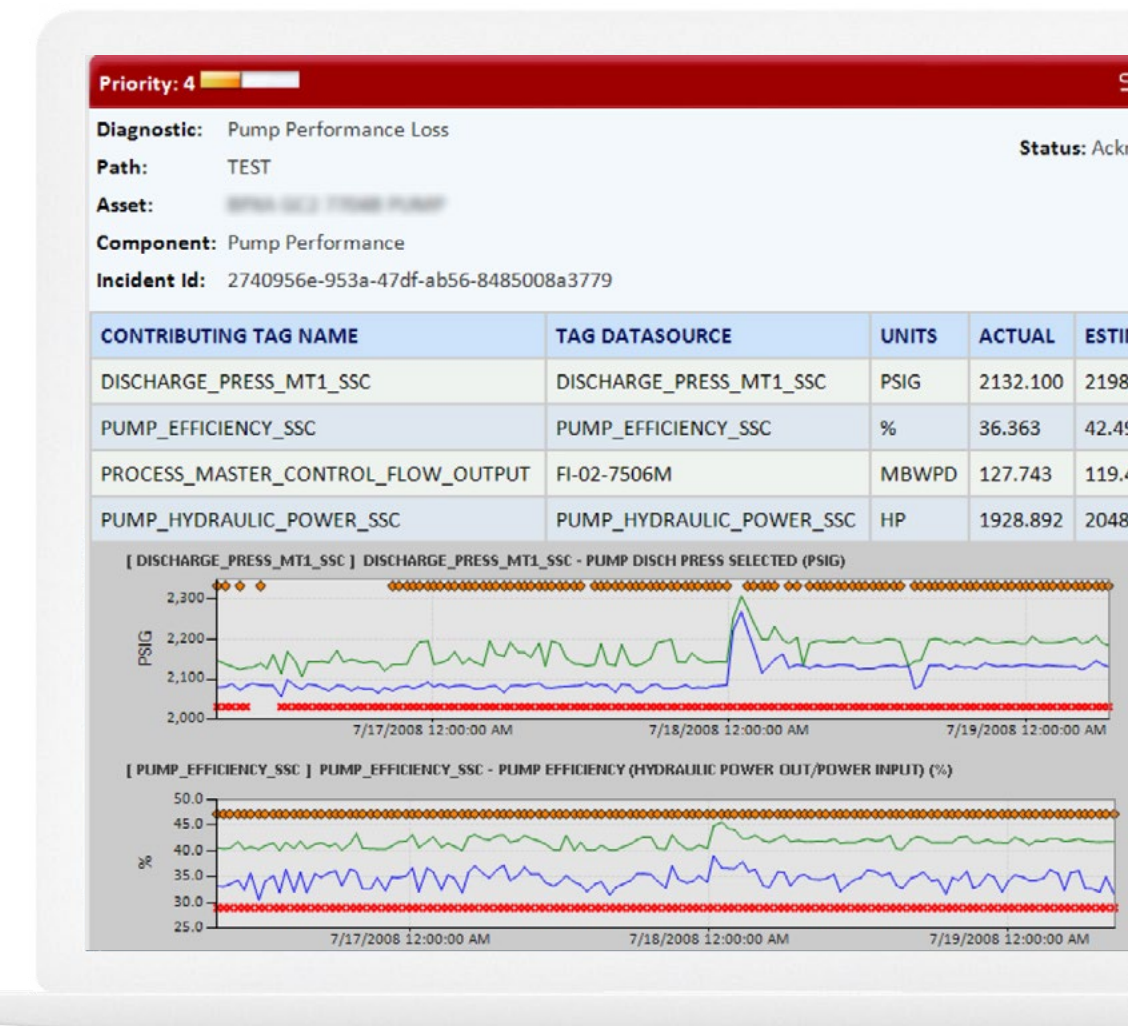
SmartSignal models are built off historical data; users need only select segments based on the normal range of operating conditions. No specific equipment expertise, deep knowledge of statistics, or physics is required to train data and keep the models tuned.

02 Workflow to effectively disposition alerts

A range of status and fault characterization options are augmented by workflow support that lets users clearly tag chain-of-command and the current state of the mitigation lifecycle. This lets the team focus attention where it's truly needed without issues slipping through the cracks.

03 Powerful, flexible analysis

Dynamic charting offers a large number of options for formatting and presentation of data. Highlights include not just tag-level violations and trending options, which normalize out expected variations leaving pure indications of deviations, but data quality and modeling indications, as well. Charts can be added to the view on-the-fly, multi-chart views can be saved for later recall, and blueprint/diagnostic-centric chart groups are defined in the product and ready for any user to leverage.



Proactive notification contains key advisory details, including diagnosis of the anomaly and contributing charts.

"It's like having your best operator on 24/7, looking at every piece of equipment in the fleet every five minutes."

Keith Christianson, Project Coordinator,
Generation Operations, TransAlta

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Features

- Equipment agnostic; works on both GE and non-GE equipment, across industries
- Identifies a broad range of problems across a wide variety of rotating and processing assets, load ranges, and failure modes—across the plant and across the fleet
- Easy to implement, no need to build from scratch, with more than 125 unique blueprints*
- Includes optional advanced blueprints* for incremental value
- Readily scalable due to GE Digital's data-driven approach to modeling and configurable model templates
- Can be deployed at the edge or as a cloud offering as part of GE Digital's Reliability Management
- Includes model-maintenance and monitoring services available through GE Digital's Industrial Performance & Reliability Center

* Repeatedly applicable equipment template types, including comprehensive diagnostic failure mode coverage.

Hardware requirements

SmartSignal is implemented in a Service Oriented Architecture, which features a:

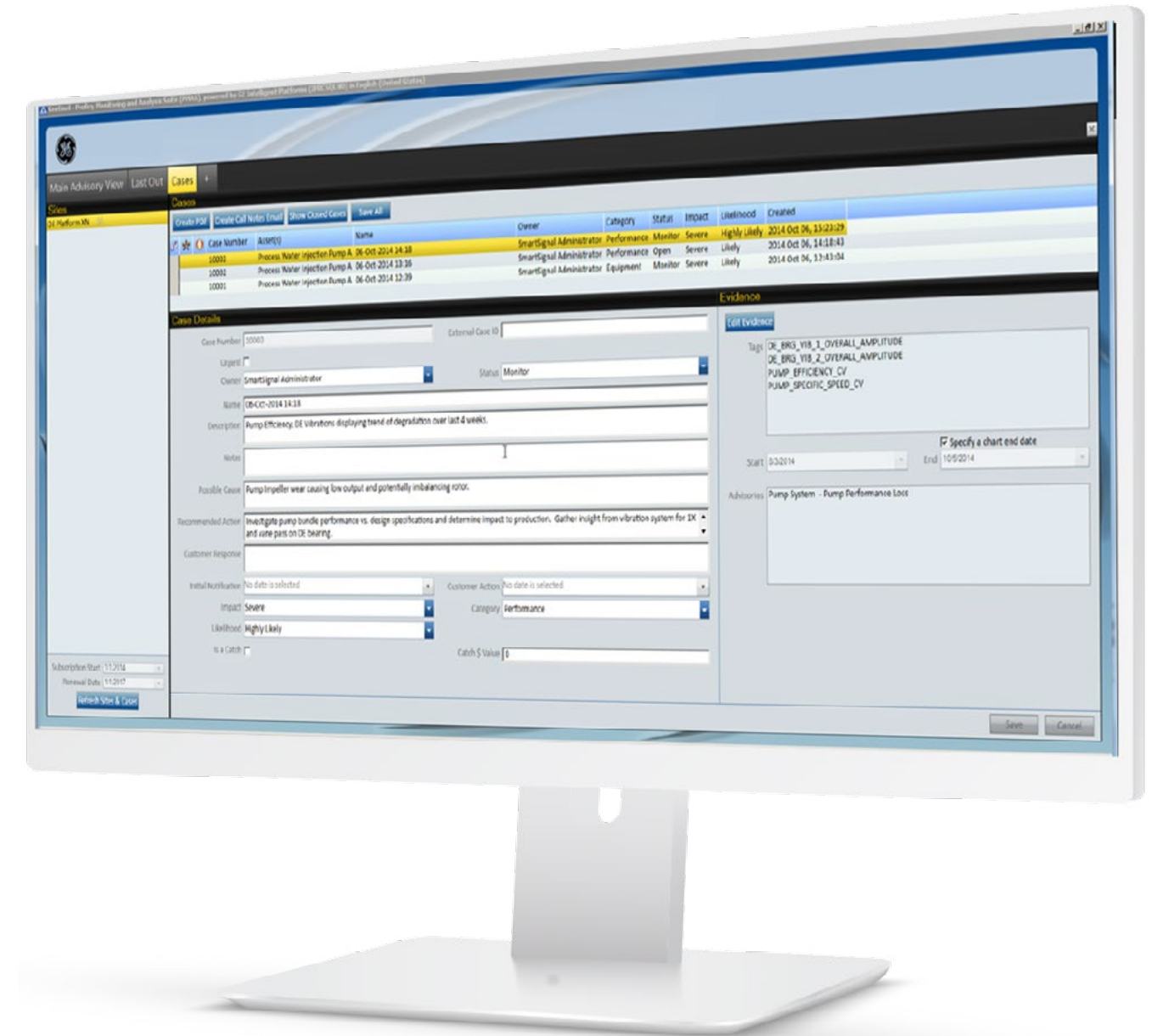
- Core application and database server
- Web server with services for client interaction to database
- Engineer desktop with network-enabled client applications

Optionally, the database can be split out to its own separate machine.

Hardware and software requirements are representative and may vary by customer deployment. Please consult the product documentation for more details.

Software requirements

SmartSignal is implemented on a common Microsoft-based infrastructure, including Windows Server Operating Systems, a SQL database, IIS and WCF for network communications, and standard SOAP messaging. Client application updates are maintained through flexible, easy-to-manage ClickOnce technology. Various integrations to Microsoft Applications are provided, and data can be read from collector interfaces for GE Digital's Historian, OSI PI, OPC DA, or ASCII.



Collaborative Case Management captures threat evidence and expert interpretation.

SmartSignal has been helping industry leaders protect critical assets and improve availability, reliability, efficiency, and profitability for more than 15 years.

LEARN MORE

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Services

In the world of Industrial Internet of Things (IIoT), organizations are able to optimize productivity, reduce costs, and achieve Operational Excellence. While this is an exciting time for opportunity and growth, it can also bring on new challenges, questions, and uncertainty. No matter where you are on your IIoT journey, GE Digital has the right services offering for you.

[Advisory Services](#) We can help you plan and start your IIoT journey in a way that aligns to your specific business outcomes.

[Managed Services](#) We can help you maintain your critical machines from one of our remote locations around the world using model-based predictive-analytic technology.

[Implementation Services](#) Our team will help develop a collaborative, multi-generational plan that will marry your existing investments to the right process enhancements and technology.

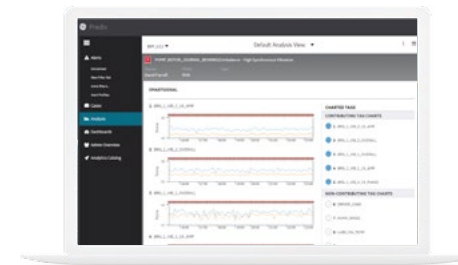
[Education Services](#) We specialize in education services to ensure that you're leveraging our solutions to the fullest extent with our training and certificate programs.

[GlobalCare Support Services](#) Let us help by ensuring that your business continues to operate at its highest efficiency, all while mitigating risks to your investments.

[Worldtech Security Services](#) Our solutions provide industrial-grade security for a wide range of OT network and application topologies.

Related products

GE Digital's [Asset Performance Management](#) suite helps you move from reactive to proactive maintenance to reduce unplanned downtime, minimize maintenance costs, improve efficiency, and extend asset life.



PREDIX

[Reliability Management](#) →

Detect and diagnose equipment problems before they happen, and reduce unplanned downtime and maintenance costs.

[Predix](#) →

Innovate and transform your business with the cloud-based operating system for the Industrial Internet, purpose-built for industry.

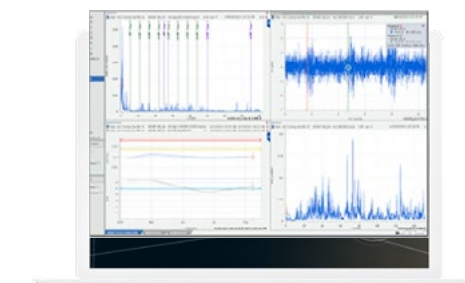
Continue your IIoT journey

Transforming your business requires innovative foundational solutions that lay the groundwork for optimized performance.



[Historian](#) →

Optimize asset and plant performance through time-series industrial data collection and aggregation, leveraging Predix IIoT connectivity.



[System 1](#) →

Identify changes in equipment performance to understand the root causes and drive corrective action.



[Maintenance Optimization](#) →

Use data to rethink how maintenance is planned and executed.

About GE

GE (NYSE: GE) is the world's Digital Industrial Company, transforming industry with software-defined machines and solutions that are connected, responsive and predictive. GE is organized around a global exchange of knowledge, the "GE Store," through which each business shares and accesses the same technology, markets, structure and intellect. Each invention further fuels innovation and application across our industrial sectors. With people, services, technology and scale, GE delivers better outcomes for customers by speaking the language of industry.

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