



INTELLIGENT PIPELINE SOLUTION

The Intelligent Pipeline Solution (IPS) provides a comprehensive view of your pipeline operations. By aggregating and analyzing multiple streams of data, IPS increases situational awareness for more informed, proactive decisions—improving safety, asset optimization and resource allocation.



ENHANCE INTEGRITY & SAFETY:

Improved data and risk management reduces the likelihood of high consequence of failure and enhances regulatory compliance.



OPTIMIZE O&M SPEND:

Modern management tools enable efficient capital and human resource allocation and improved maintenance decisions.



IMPROVE THROUGHPUT & UPTIME:

State-of-the-art technologies and digital knowledge transfer help resolve critical industry challenges impacting reliability.

Environmental Factor & Asset Visualization

IPS enhances geographic information systems (GIS) with insights on the linear asset and external factors accurately aligned to the pipeline centerline.

FEATURE	DESCRIPTION
Digital Asset Reference	Complete representation of pipeline assets with traditional and satellite views Includes anomalies, work orders, compressor stations, valves, mainline valves and high consequence areas
Search / Filter	Robust search, filtering and indexing capabilities—enabling users to quickly search and pinpoint any asset data within IPS
Layering	Thorough on-demand visual contextualization of key asset, maintenance, environmental and geospatial features on or around the pipeline asset

Active Risk Monitoring

IPS features monitoring capabilities, decision support tools and functionality for the enhancement of integrity management processes, as well as dynamic assessment of the condition of linear assets.

FEATURE	DESCRIPTION
Dynamic Risk Assessment	Validated semi-quantitative risk algorithm and cloud computing capabilities for daily calculations of network pipeline risks
Active Risk Reporting	In-depth reports for high consequence areas, mainline valve segments, dynamic risk segments and threat matrices
Risk Notifications	Risk profiles highlight changing threat categories Change notification tables track pipelines with the greatest variance of change and the corresponding threat factors

Data Analytics & Enhanced Reporting

Utilizing Predix™, GE's technology platform for the Industrial Internet, IPS delivers a series of in-depth, near real-time analytics capabilities—allowing for new assessments and reports that can be used as evaluation tools or real-time enablers of dynamic inputs to the risk model. GE and Accenture will work with you to identify your greatest business needs and challenges, then develop analytics specifically designed to improve your pipeline operations.

IPS Analytic Focus Areas:



Data completeness and deviation to standards to support and prioritize data initiatives



Feature and condition clustering to quickly identify similar scenarios across the whole network, driving improved efficiencies on integrity assessment and remediation



Dynamic analysis of risk factors such as weather and outside force, as well as correlation to historical leak records—enabling the identification of a potential risk before it occurs

TECHNICAL REQUIREMENTS	
Data Sources	IPS supports integration with major GIS, order management and operational stores and databases, as well as custom operator-specific internal data sources. Systems include, but are not limited to: Esri™, SmallWorld™, Oracle®, Maximo®, SAP®, OSIsoft PI™ and PI Historian™
Data Formats	IPS supports major data standard formats such as XML, CSV, JSON, KML and SOAP, as well as some preparatory formats such as shape files (Esri™)
User Access & Security	Integration with customer systems using SAML and OAuth 2.0
Hosting	Secure GE cloud hosted solution with customer-controlled user access and 24/7 service provider monitoring
Web Browsers	Accessible using Microsoft® Internet Explorer® 10 (or later) and Google Chrome™ web browsers

Contact a sales representative for more information.

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