

Lenovo Intelligent Insights

with SAP® Data Intelligence

Lenovo

A scalable landscape to orchestrate, manage and drive improved decision making from data

The Data Challenge

Data sets grow rapidly. More and more data sources are being tapped, beyond the traditional enterprise data. Sensor networks, software logging, mobile devices, cameras, microphones, and other new sources of information create huge amounts of data, which holds a business opportunity. At the same time, corporate data landscapes are growing increasingly complex. Business solutions now have become federations of disparate data silos supporting different solutions on-premises and in the cloud. This makes it hard and costly to capture the maximum value from the available data - understanding it, working with it across different systems, and applying governance in an end-to-end fashion.

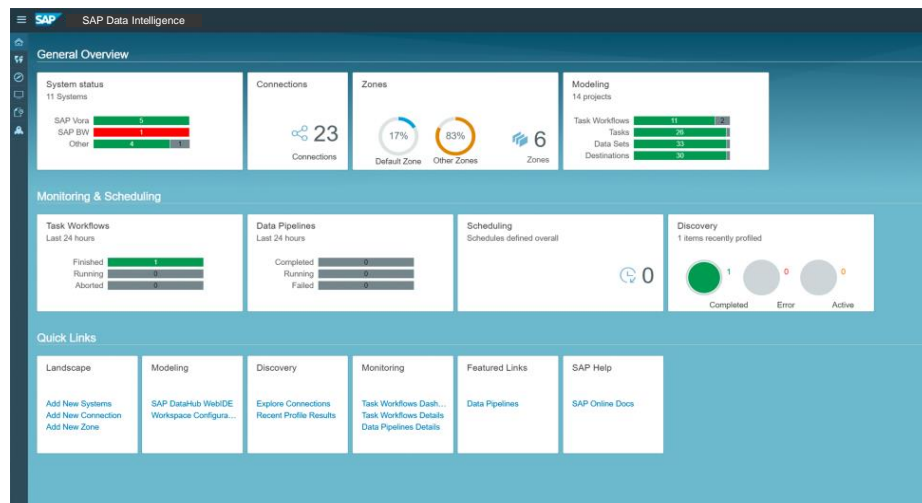
Data can be located in databases, plain files, Hadoop data lakes, data warehouses, or various forms of cloud storage. Combining data across these disparate sources is needed to unlock its value, but this process is complex, time-consuming and therefore costly. Many of today's data integration tools are point-to-point, complex to use, and highly manual making it challenging to rapidly connect and implement desired data outcomes. The increased complexity of enterprise landscapes also makes it challenging to enable appropriate and effective governance. In order to trust and rely on data accuracy, an end-to-end governance across all data sources is required. Otherwise, acting on the data, either through analytical or operational applications using the data, is at risk.

Lenovo Intelligent Insights with SAP Data Intelligence delivers a simpler, more scalable approach to managing complex data landscapes. It provides data integration, processing and governance, and provides visibility into and access across the complex network of data in the modern enterprise. Lenovo Intelligent Insights helps organizations to better understand data sources, interconnections, quality and impact by providing a broad and detailed view of the entire data landscape. It provides a single data management pane for data from various data sources, like Hadoop, cloud storage, SAP HANA®, business applications, and more. This enables enterprises to discover new business opportunities, resolve emerging data issues, and ensure data is flowing to where it needs to be.

Highlights

- Improves decision making whether data is in the cloud, on premise, in data lakes, or business systems
- Scales your data center landscape to enable new use cases and meet demanding data growth
- Prepares you for future information management needs with an extensible and open system
- Eliminates up-front acquisition expenses with TruScale IaaS pay-for-use cloud consumption model

Figure 1: SAP Data Intelligence Experience a simpler, more scalable approach to data operations and landscape management



MANAGE DATA-DRIVEN PROCESSES FOR END-TO-END BIG DATA SCENARIOS

Lenovo Intelligent Insights with SAP Data Intelligence is a Kubernetes-orchestrated, container-based offering that makes your data sources virtually available. It allows you to create powerful data pipelines in a single, visual design environment. These data pipelines can be easily created and reused to access, harmonize, transform, process, and move information from a variety of sources to a variety of destinations. Lenovo Intelligent Insights enables you to consolidate your data connection protocols and data pipeline applications development and execution in one highly scalable place.

Most of the data that Lenovo Intelligent Insights will process typically comes from non-SAP systems. It is designed to leave the source data in place (even if the aggregated data goes into SAP HANA).

Lenovo Intelligent Insights uses "push down" processing techniques to enable the source systems to process the data in place as much as possible before pushing results to the data center.

Leaving data where it is, is important. Data movement is time-consuming and expensive. It creates superfluous copies of the data, which can be a compliance nightmare.

Pipeline processing is done on SAP Vora, the data processing platform based on Apache Spark. SAP Vora has the option to store the processed data in SAP HANA if available.

The solution is run with SAP Data Intelligence, which allows organizations to:

- Operationalize Machine Learning - Manage machine learning projects and enable automation across machine learning workflows
- Improve Data Management - Use metadata to catalog data assets across your connected landscape, and maintain a history of data transformations.
- Enhance Developer Productivity - Have access to a wide range of open technologies and developer tools, prepare data using a simple and intuitive user interface, and deploy and reuse existing machine learning models.

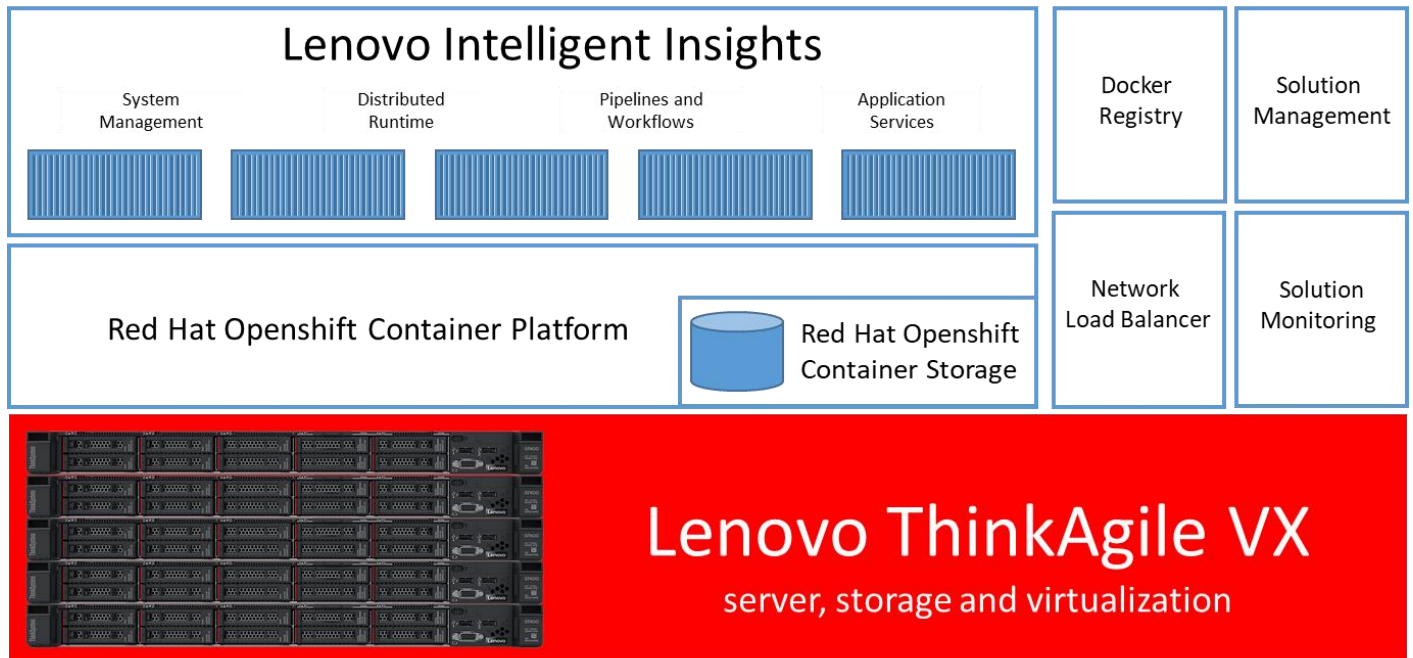


Figure 2: Operational Model for Lenovo Intelligent Insights with SAP Data Intelligence, Red Hat OpenShift, and Lenovo ThinkAgile VX

Scale Your Data Center Landscape

Lenovo Intelligent Insights is built on selected, proven-to-work components in a clustered architecture. It is highly scalable for business growth responsiveness.

The solution is run on Lenovo **ThinkAgile VX hyperconverged servers**. Based on VMware vSAN virtualization, ThinkAgile VX enables you to dramatically simplify your server, storage and virtualization deployments and pool your resources into a single virtualized infrastructure for more flexible and efficient utilization and management.

Red Hat® OpenShift Container Platform is a Docker container platform orchestrated and managed by Kubernetes on a foundation of Red Hat Enterprise Linux. It provides many enterprise-ready features like enhanced security, multitenancy, simplified application deployment, and continuous integration/continuous deployment tools.

Red Hat OpenShift Container Storage is persistent software-defined storage integrated with and optimized for Red Hat OpenShift Container Platform. It provides containerized workloads with block, file, and object storage.

The **Centerity AIOps Platform** delivers unified, enterprise-class operational analytics and system monitoring for Lenovo Intelligent Insights environments. Centerity exposes business problems, identifies performance anomalies, and provides fault isolation across applications, operating systems, infrastructure and cloud assets.

Tying It All Together

In today's rapidly-changing technology environment, empowering your data center transformation isn't just a necessity—it's also a journey.

Lenovo Professional Services provide end to end lifecycle management as well as deployment, maintenance and managed services for SAP Data Intelligence, SAP HANA and big data applications.

Lenovo works closely with SAP and System Integrator partners on Lenovo Intelligent Insights implementations. Our SI partners leverage their technology, domain and industry expertise to ensure the solution is integrated in your current environment and enables you to realize the business value of their transformation initiatives.

**Orchestrate,
manage and
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decision making
from data**

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Enabling the Intelligent Enterprise

Lenovo Intelligent Insights with SAP Data Intelligence enables organizations to:

- Improve decision making whether data is in the cloud, on premise, in data lakes, or business systems
- Employ new business use cases
- Scale to meet ever growing enterprise and big data requirements based a server infrastructure rated #1 in reliability¹

Why Lenovo

Lenovo is a leading provider of x86 servers for the data center. Featuring rack, tower, blade, dense and hyperconverged systems, the Lenovo server portfolio provides excellent performance, reliability and security for SAP applications. Lenovo has shipped more than 14,000 SAP HANA systems and also offers a full range of networking, storage, software, solutions, and comprehensive services supporting business needs throughout the IT lifecycle. With options for planning, deployment, and support, Lenovo offers expertise and services needed to deliver better service-level agreements and generate greater end-user satisfaction.

For More Information

To learn more about Lenovo Intelligent Insights with SAP Data Intelligence contact your Lenovo sales representative or Business Partner and visit: www.lenovo.com/sap



¹ ITIC Reliability Study, <https://lenovopress.com/lp1117-itic-reliability-study>

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