In today’s hyper-competitive business, disruption is increasingly common. Will your organization be disrupted, or will you disrupt others? Data-driven digital transformation improves customer experiences, drives efficiencies, and enables new business models.

Innovate your data management with Hitachi’s Lumada DataOps. Collaborative and automated data operations provide the right data, at the right place, at the right time — with the right quality.
Get Your Data to the Right Place at the Right Time – With the Right Quality

As a data leader you need data operations to be frictionless. You need to create consistent experiences, empower your business with the right data at the right time, and connect apps, processes and people with trusted data. And, do it all while optimizing for cost take-out and protecting sensitive data.

DataOps is here to help. It unlocks business value by operationalizing data management with automation and collaboration. It brings agile principles to data by improving cross-functional collaboration, integration, governance and automation with the right quality. It delivers the right data to the right place at the right time.

Hitachi’s Lumada product portfolio works with your chosen cloud hyperscalers, and your data lakes, data warehouses, and databases. With DataOps you modernize your data tools and processes without disrupting your day-to-day business operations.

**Simplify Data Management**

Lumada DataOps automates DataOps for infrastructure, data engineering, governance and analytics. The software manages data pipelines at enterprise scale and optimizes data movements and tiering across edge, data center and any cloud. It discovers metadata and helps protect sensitive data. And DataOps simplifies data discovery and analytics to fuel your business operations.

“DataOps (data operations) is an agile, process-oriented methodology for developing and delivering analytics. It brings together DevOps teams with data engineers and data scientists to provide the tools, processes and organizational structures to support the data-focused enterprise.”

Source: CIO.com, What is DataOps? Collaborative, cross-functional analysis, Thor Olavsrud, November 30, 2020
Lumada DataOps: Modular, Automated and Collaborative Approach to DataOps

Lumada DataOps provides a metadata-driven path toward intelligent DataOps at enterprise scale, using intelligent automation, data team collaboration and flexible run times. Working with your existing data infrastructure, Lumada software removes frequent bottlenecks in the DataOps life cycle to drive simplicity and governance, and to enable data-driven outcomes.

Packaged Data Products, Fast To Deploy
Unlike proprietary do-it-yourself (DIY) approaches tying up developer talent and creating hard-to-maintain silos, Lumada software products are packaged, prevalidated and ready to deploy. Low- and no-code environments engage business users and data managers, alike.

Deploy solutions in days or weeks, rather than months. Realize faster returns on your investments. Build a sustainable data infrastructure that scales with your needs.

Automated, Intelligent and Collaborative
The combination of rule-based systems, machine learning (ML) and processing engines automates formerly manual tasks, such as metadata tagging or artificial intelligence (AI) model testing. And, collaboration features drive cross-team engagement and trust in data.

Make the power of AI and social-media type collaboration work for you. Intelligent engines and collaboration-friendly user experiences drive productivity and foster trust and user engagement.

Enterprise Scale and Security
Metadata-driven templates, load-adaptive execution logic, and multicluster deployment options let you manage data at scale. Versioning simplifies change management, and data flow monitoring drives operational rigor. Integrate with your access control and security products.

From startup to Fortune 500 enterprise, Lumada portfolio products are deployed and trusted by thousands of customers worldwide, including for some of the most demanding production data operations.

Open Architecture: Better Together
Hitachi’s Lumada portfolio offers data products that integrate with your systems through open APIs and hundreds of prebuilt integration adapters. It provides multiple runtime engines, including open source Spark and Kettle. The Lumada platform isn’t monolithic: It works with your systems, to build your data fabric.

Manage an intelligent edge-to-cloud data fabric that incorporates your systems, clouds and applications, and your users’ favorite analytics, data science and business intelligence (BI) tools.

Deploy in the Cloud, On Premises or at the Edge
Lumada data products commonly are deployed in the public cloud (such as Amazon Web Services, Microsoft Azure or Google Cloud Platform), the private cloud or data center, and even the IoT edge. Hitachi Vantara even provides prequalified storage and hyperconverged infrastructure systems.

Run Lumada data products wherever you want, including hybrid cloud. Lumada products support flexible deployment options, including cloud, data center, branch office or IoT edge.

Trusted Partner for Innovation
Hitachi Vantara is your trusted partner for data-driven innovation, and digital transformation. We assist you through every step of your journey, from business strategy to data strategy and solutions implementation. And, Hitachi Vantara partners with other leaders and innovators in the industry to deliver on your specific needs.

Partner with Hitachi Vantara or one of our many partners to accelerate and safeguard your journey for digital transformation.
Get Targeted Answers to Your Data Needs With Lumada Solutions

Manage your multicloud data fabric, drive governance and data protection, and implement a modern analytics and data science infrastructure. Deploy intelligent DataOps and start innovating with data. Or, select only the components you need to address your immediate needs.

Integrate Clouds and Synchronize Apps
Ingest, cleanse, transform and deliver data. Easily connect any system, from cloud to mainframe. Stream, batch or trickle feed data. And, with the optional Hitachi Content Intelligence component, even process unstructured content, such as business documents.

Govern Your Cloud Data Lakes and Data Warehouses
Onboard data for your cloud data systems rapidly, while validating for quality and compliance. Cost-optimize your Hadoop clusters with smart data tiering, your SQL databases with no-SQL migrations, and your cloud data warehouses by routing only the right data to the right places.

Protect Sensitive Data and Deliver Compliance
Automatically discover sensitive data across your data infrastructure, such as personally identifiable information (PII) to comply with mandates like GDPR¹ and CCPA². Deploy intelligent data flows that filter or anonymize data to improve visibility while delivering compliance.

Manage ML Data Flows and Embed Analytics
Simplify data science tasks related to ML by automating the tasks for data onboarding and model training with data pipelines. Intelligently automate your data flows with ML models. And, deploy production-ready analytics, reports and dashboards to production.

Gain 360-Views of Customers, Products and Assets
Build cloud data hubs to access and share validated records and documents, and to enrich business processes with trusted information. Move data discovery and preparation to the front line of the business with collaborative data self-service.

¹ GDPR = the EU’s General Data Protection Regulation
² CCPA = California Consumer Privacy Act
## DataOps: Select the Right Capabilities for Your Lumada DataOps Solution

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<th>Data Catalog</th>
<th>Data Integration&lt;sup&gt;3&lt;/sup&gt;</th>
<th>Analytics&lt;sup&gt;4&lt;/sup&gt;</th>
<th>Data Optimizer for Hadoop</th>
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</thead>
<tbody>
<tr>
<td>Integrate Clouds and Synchronize Apps</td>
<td>Automatically inventory and govern all data.</td>
<td>Onboard and migrate any data across any system.</td>
<td>n/a</td>
</tr>
<tr>
<td>Master the IoT Edge With Real-Time Analytics</td>
<td>Catalog, cleanse and discover IoT data.</td>
<td>Fuse and integrate IoT and other application data.</td>
<td>Embed IoT insights into your business apps and processes.</td>
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<tr>
<td>Govern Your Data Lakes and Data Warehouses</td>
<td>Use AI to automate governance for your data systems.</td>
<td>Onboard and prepare data; ingest and distribute data.</td>
<td>Build powerful analytics for your data foundation.</td>
</tr>
<tr>
<td>Protect Sensitive Data and Deliver Compliance</td>
<td>Automatically detect sensitive and privacy-relevant data.</td>
<td>De-risk your business; filter and protect sensitive data.</td>
<td>Report sensitive data, and safely build actionable analytics.</td>
</tr>
<tr>
<td>Manage ML Data Flows and Embed Analytics</td>
<td>Enable self-service data discovery.</td>
<td>Orchestrate data flows for ML training and operation.</td>
<td>Deploy interactive analytics, reports and dashboards.</td>
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<tr>
<td>Gain 360-Degree Views of Customers, Products and Assets</td>
<td>Autodiscover metadata to drive data governance.</td>
<td>Build a trusted, enriched data foundation.</td>
<td>Visualize and analyze information across systems.</td>
</tr>
</tbody>
</table>

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3.4 Data Integration and Analytics are delivered by Pentaho Enterprise Edition.
Hitachi Understands Intelligent Business Automation

At Hitachi, we understand intelligent automation. Hitachi has automated supply chains and production processes, transportation systems and healthcare solutions. And now, with Lumada DataOps, Hitachi also automates intelligent data operations (DataOps) to drive faster insights and process automation through data.

- Proven, enterprise-class DataOps products to simplify your data operations.
- Deep industry and business know-how, in almost every industry and any country.
- World-class professional and managed services, and global enterprise support.
- Flexible edge-to-cloud deployment options, and integration with your systems.