



# Driving Business Agility through DataOps: Governance, Automation, and Observability with Informatica

Jesse Garcia

Solution Architect – Healthcare Industry



# Your Speaker



**Jesse Garcia**

Pre Sales Solution Architect at  
Informatica

# Agenda

1 Overview of All the Ops

2 DataOps Capabilities and Building Blocks

3 DataOps + MLOps

4 Driving DataOps and MLOps Success with Informatica

5 Key Takeaways

6 Q&A

# It's an "Ops" world ... making sense of the terminology

Data  
Ops

ML  
Ops

DevSec  
Ops

Dev  
Ops

AI Ops

# What the Ops!?!?!?

	Goal (Increase Agility Of)	People (Improve Collaboration For)	Process (Accelerate)	Technology (Enterprise Class)
DevOps	Combines software development and IT operations to <b>speed up delivery</b>	Development, QA, Operations	Plan → Code → Build → Test → Release → Deploy → Operate → Monitor	CI/CD for apps: SDLC, configuration management, incident tracking and collaboration tools
DataOps	<b>Optimizes</b> rapid data pipeline deployment	Data analysts, Data engineers, IT ops	Catalog → Govern → Integrate → Cleanse → Orchestrate → Monitor → Collaboration & Governance → Delivery	CI/CD for data: Data cataloging, data integration, data engineering, data quality, automation & orchestration, collaboration & data governance, and data delivery
MLOps	<b>Operationalizes</b> scalable, reproducible, <b>continuously monitored</b> ML deployments	Data scientists, Business owner, Data engineers, Data ops	Understand → Govern → Acquire → Develop → Deploy → Monitor	DevOps, DataOps, data science productivity, AI governance, model performance

# What the Ops!?!?!?

	Goal (Increase Agility Of)	People (Improve Collaboration For)	Process (Accelerate)	Technology (Enterprise Class)
AIOps	Leverages AI and ML to <b>automate, optimize,</b> and <b>enhance</b> IT operations	IT ops, Sec ops, Dev ops, Application Support Teams	Detect → Analyze → Automate → Respond → Optimize → Monitor	Observability platforms, log analytics, correlation engines, anomaly detection
InfoSecOps	Reduce risk of <b>sensitive data</b> security breach and regulatory non-compliance	Office of CISO, Security analysts	Identify → Map → Assess → Prioritize → Remediate → Track → Audit	Data access management, data masking, data encryption

Key Capabilities

# DataOps: The Foundational Building Blocks



# From Scattered Blocks to a Strong, Unified Structure

The Challenge: Fragmented Data and Disjointed Systems

Fragmented Data  
Disconnected  
Systems  
Inconsistent Quality  
Limited Visibility  
Data Chaos



Foundation: Data  
Integration  
Sturdy Walls: Data  
Quality  
Inspection: Data  
Governance & Data  
Observability  
Open Doors: Data  
Democratization,  
Unified, Trusted Data

Creating a Structured, Trusted Data Environment

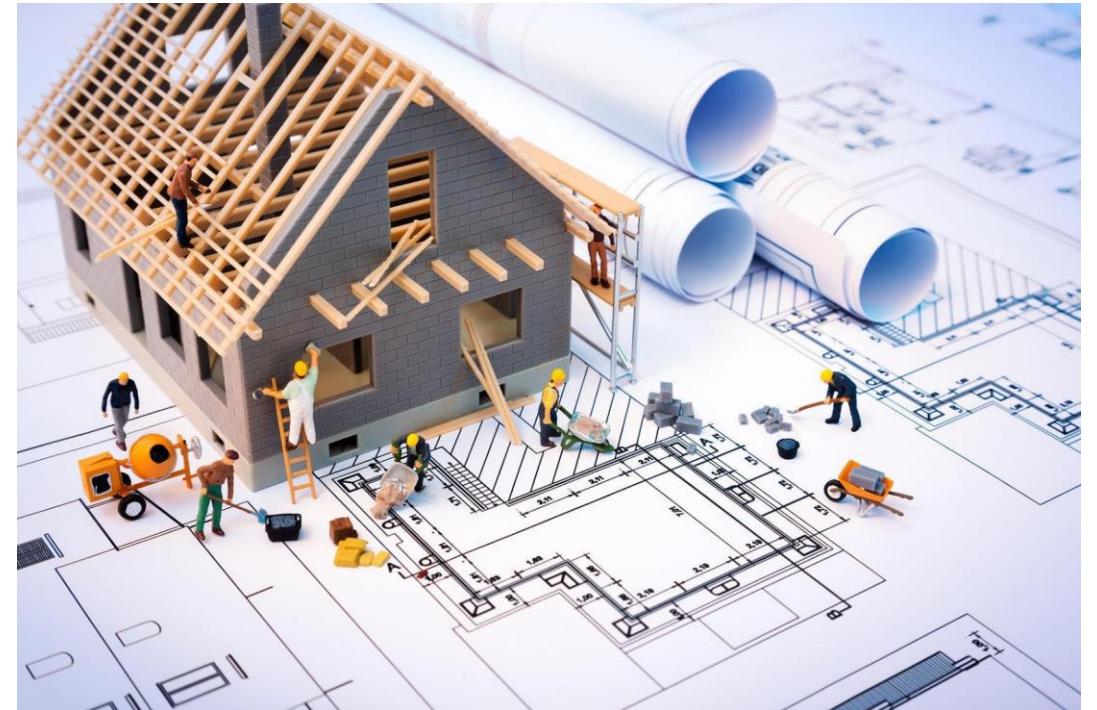


# DataOps: Powering the Future of Data Management

## Building the Foundation

### Data Integration

- Automated data ingestion
- Batch and real-time integration
- Robust set of connectivity
- Scalable Data Pipelines
- Pipeline Orchestration and Automation
- Data Transformation
- Monitoring and Error Handling
- Secure Data Transfers



# DataOps: Powering the Future of Data Management

## Building Sturdy, Flawless Walls for your Data

### Data Quality

- Data Profiling
- Data Validation
- Data Cleansing
- Standardization
- Data Enrichment
- Automated Quality Checks
- Root Cause Analysis
- Quality Metrics and Reporting
- Integration with Data Pipelines



# DataOps: Powering the Future of Data Management

## Inspecting the Rooms and Watching the House

### Data Governance and Data Observability

- Policy Management
- Data Stewardship
- Data Cataloging
- Access Controls
- Audit Trails
- Regulatory Compliance
- Metadata Management
- Data Lineage
- Real-time Monitoring
- End-to-End Visibility
- Alerting Systems
- Anomaly Detection
- Root Cause Analysis
- Performance Metrics
- Data Freshness Tracking
- Dashboarding & Reporting





# DataOps: Powering the Future of Data Management

## Opening the Doors for Everyone to Access Insights

### Data Delivery/Democratization

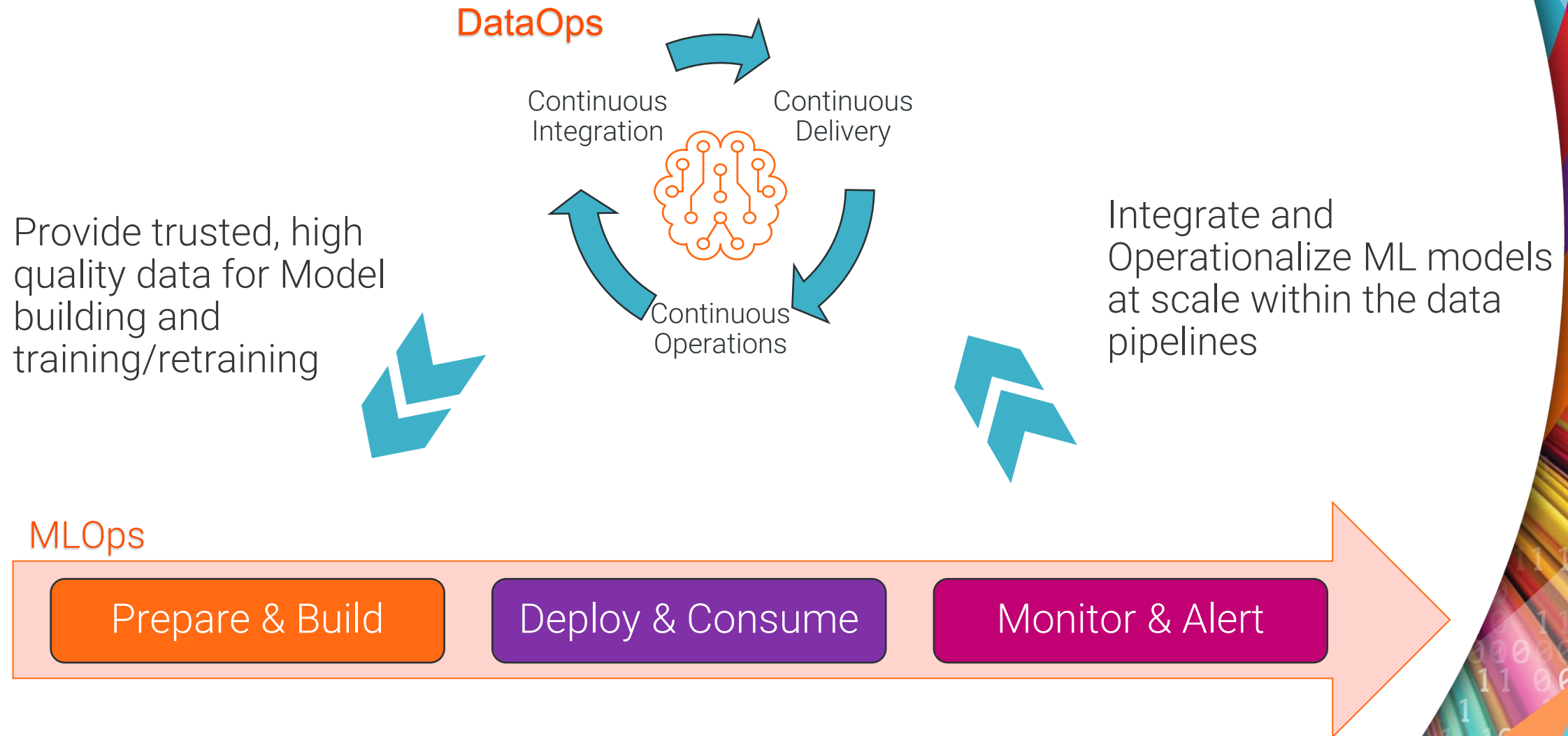
- Self-Service Access
- Data Catalogs and Marketplaces
- Role-Based Access Control
- Data APIs and Interfaces
- Data Transformation for Usability
- Data Sharing and Collaboration
- Automated Data Delivery
- Monitoring Usage and Adoption



Driving Intelligent Automation with DataOps and MLOps

# DataOps + MLOps

# DataOps goes hand in hand with MLOps





# It's an "Ops" World: Operationalize to Increase Agility

## Technology

CI/CD for Apps: SDLC, configuration management, incident tracking and collaboration tools.

Dev Ops

## Technology

CI/CD for Data: Data cataloging, data integration, data engineering, data quality, data provisioning, data governance, collaboration and monitoring tools

DataOps

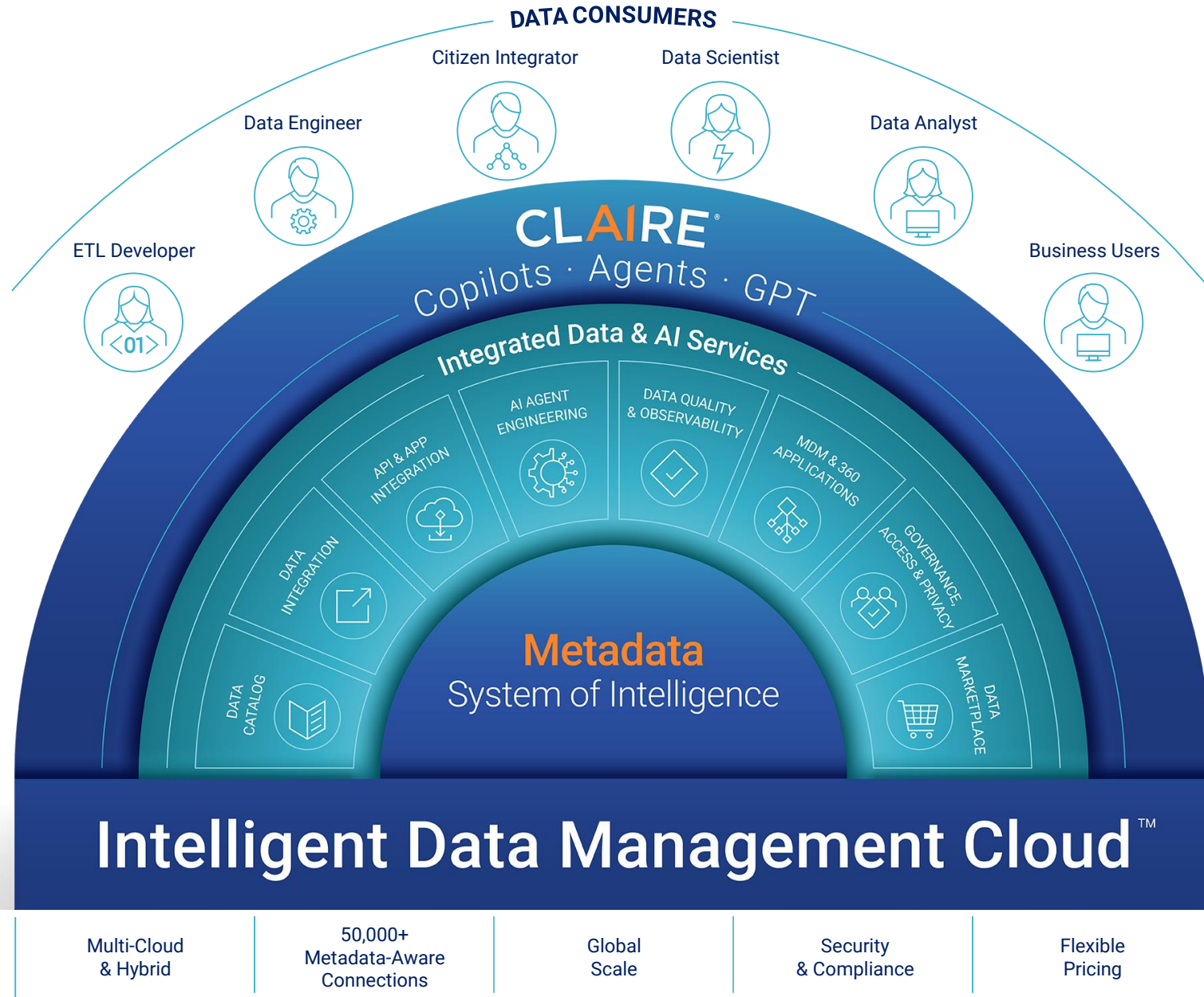
## Technology

CI/CD for AI: DevOps, DataOps, data science productivity, AI governance, model performance.

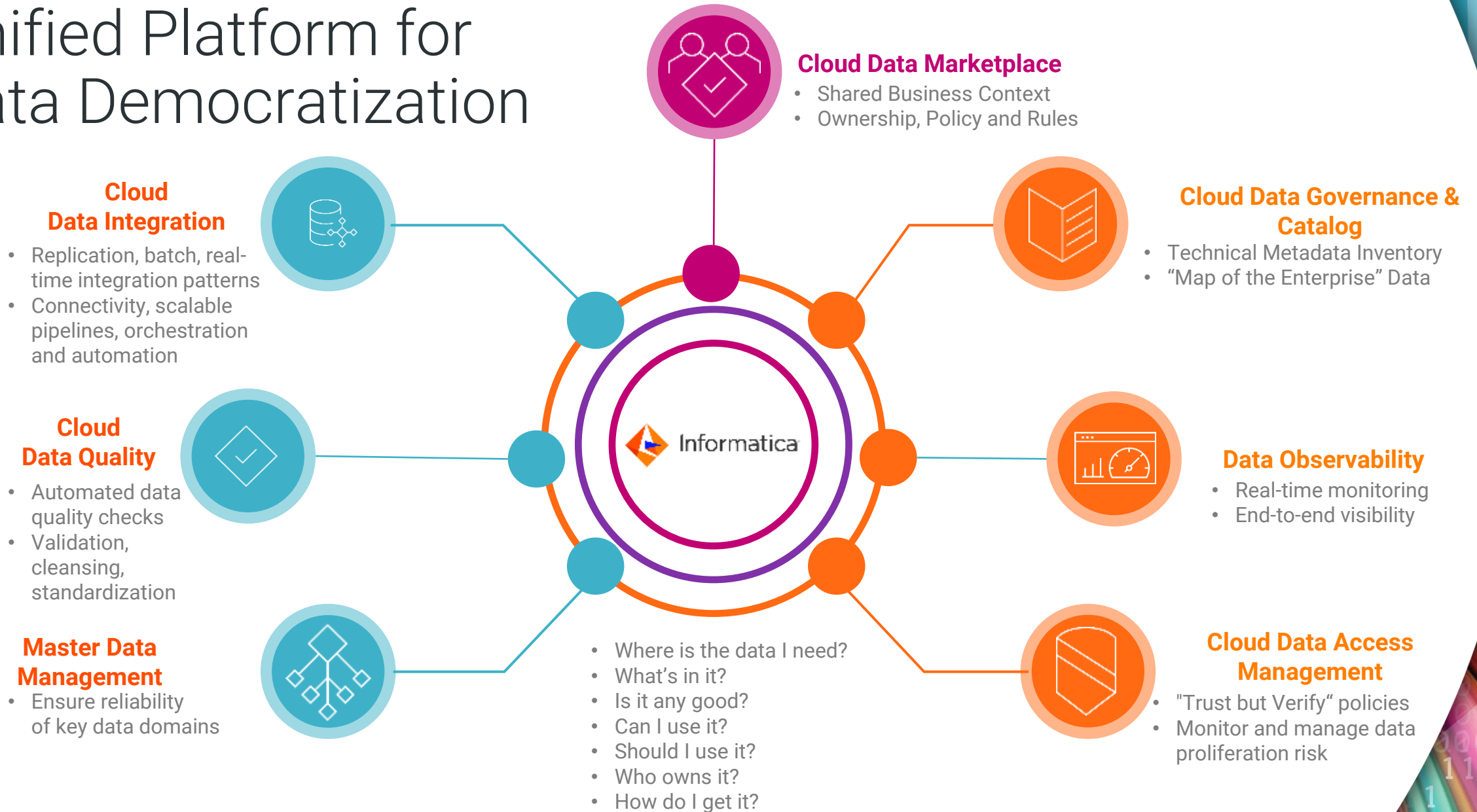
MLOps

Enabling Scalable DataOps with Informatica

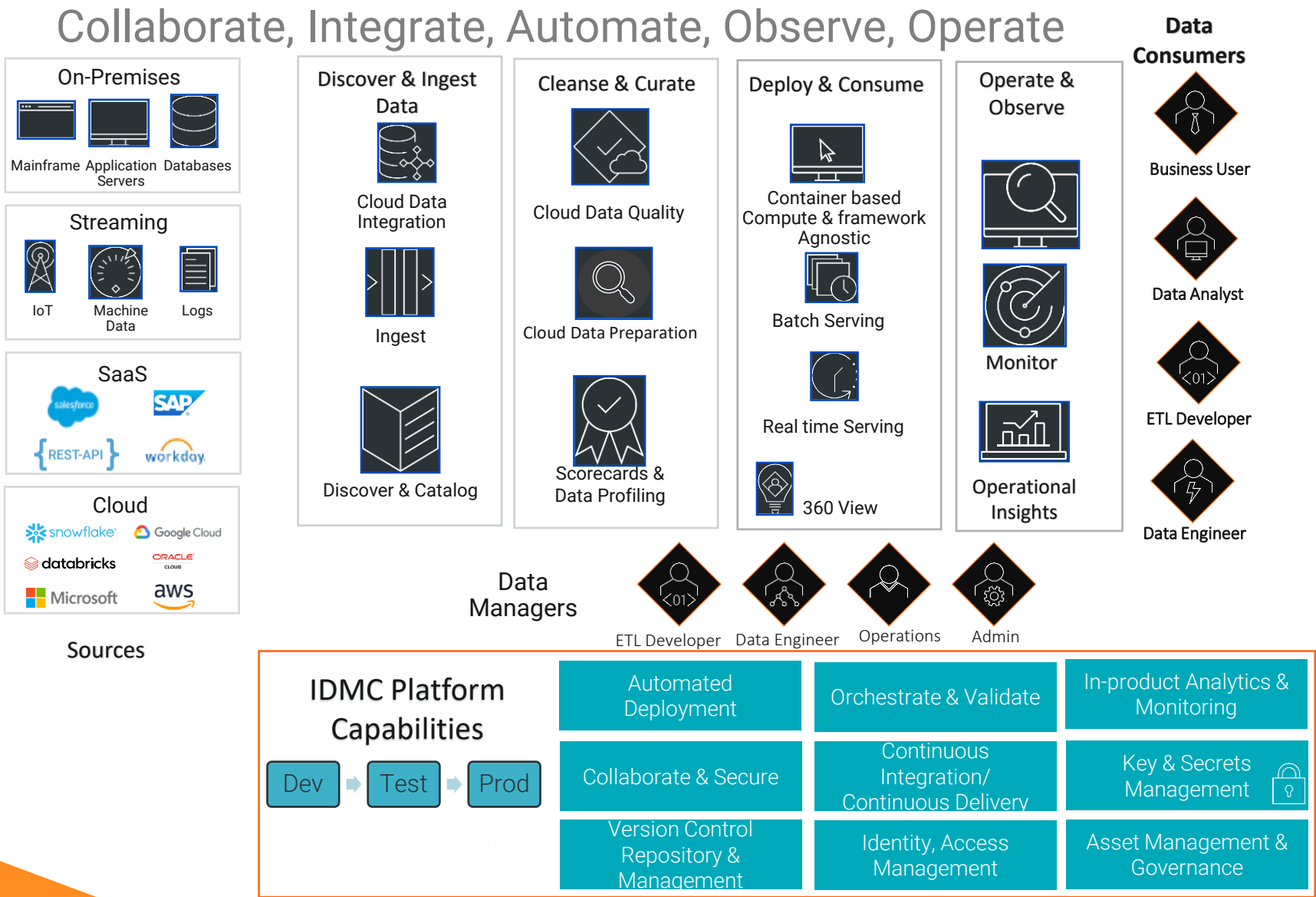
# Harnessing the Power of Intelligent Data Management



# Unified Platform for Data Democratization



# It's an "Ops" World: Intelligent Data Management with IDMC Accelerates Outcomes



## Enabling Robust DataOps Practice with

- Platform-wide Data Governance
- Built-in DevOps and CI/CD
- Automated Deployment
- Orchestration & Validation
- Infrastructure Performance visibility
- Operational Observability
- SLA Tracking
- Continuous Data Scoring & Cleansing

# Collaboration



## Collaborate

- Develop data pipelines in a way that promotes and automates collaboration and instant adaptation to change
- Collaboration with built in support for authorizations and approvals Workflow
- Democratized Data Integration
- Extensive support for Version control integration
- Infrastructure as code provisioning templates for runtime environment
- Connect data producers and sources with consumers

Application Integration ▾

Event-Snowflake-GCP-Azure-AWS-Oracle ▾



### Pull

1 Select Project(s)

2 Select Git Version

3 Review Selection

< Back

Next >

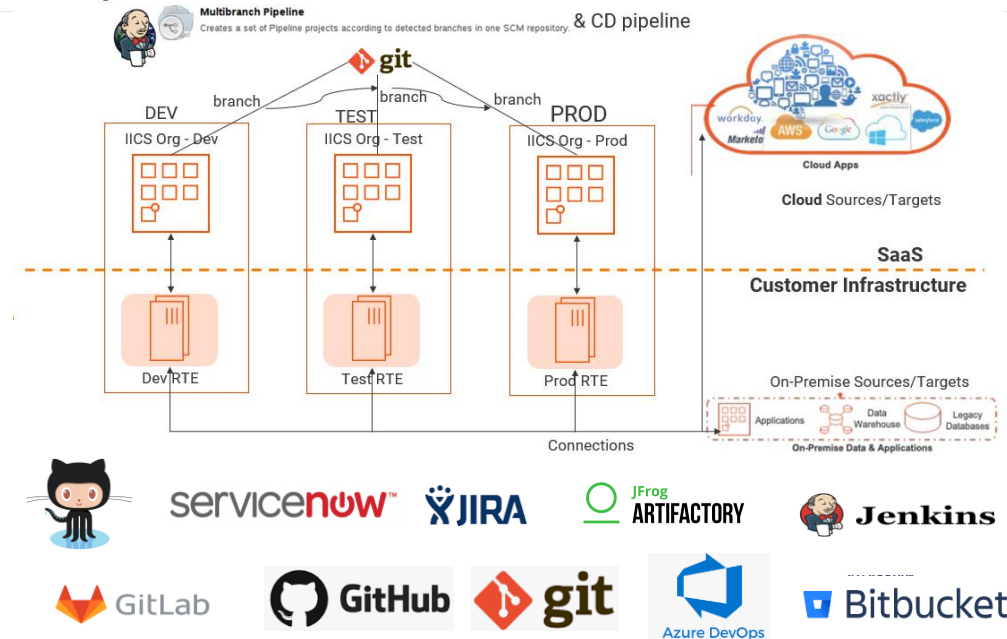


Select the project(s) you'd like to pull from the global git repository. Projects present in global repository but currently configured with a project-level repository won't be selectable.

#### Projects

<input type="checkbox"/> Project Name	Last Check In	Git Hash	Git User Name	Git Summary
<input type="checkbox"/> Abstract Agents	Mar 30, 2025, 9:37 AM	195dc75	bmantha	Check in after guide modifications for add ...
<input type="checkbox"/> Array	Jul 31, 2025, 7:47 AM	3ae27b4	bmantha	check in of array
<input type="checkbox"/> Ecosystem Wrapper	Jul 27, 2025, 11:45 AM	f0b798f	bmantha	check in before routing it to Agentforce
<input type="checkbox"/> INFA Agents	Apr 7, 2025, 9:42 PM	189f7f8	bmantha	Check in after R&D demo on April 7th
<input type="checkbox"/> Lead Processing	Jul 19, 2025, 6:48 AM	ba00461	bmantha	check in after creating new user
<input type="checkbox"/> MCP-CDMP-OrderFulfillmen				heckin
<input type="checkbox"/> MCP-LeadProcessing				OFRE OFFICE HOUR CHANGES

### Fully automated CI/CD with Git + Jenkins





# Integrate



## Integrate

- Orchestrate complex pipelines and task flows
- Collaboration with built in support for authorizations and approvals Workflow
- Programmatically create, schedule, and monitor pipelines
- Provide test inputs for data pipelines for automated testing
- Extensive support for Version control integration

The screenshot displays the Informatica Application Integration Console interface, which is used for managing and executing integration processes.

**Top Panel:** Shows the Informatica logo and the title "Informatica Application Integration Console". The user is logged in as "HCLS Primary Org".

**Left Sidebar:** Contains navigation options: Home, Explore, Bundles, My Jobs, and Templates. Below these are sections for "My Processes" (Processes, Guides, APIs, Connections, Process Schedules, Logs, Server Configuration, Deployed Assets, Process Server Heal..., Process Metrics) and "My Import/Export" (p\_integrationPr...).

**Main Content Area:**

- Project List:** A table showing "All Projects (9)". The first project is "Default", updated on "May 28, 2021, 9:49 AM", with the description "Auto-generated Default Project".
- Process Design:** A detailed view of the "p\_integrationProcess-1159905102585188352" process. It shows a "Log" section with a table of execution steps (Sta, Get, Mil, Get, cus, Adk, Upk, Cre, Set, Ser, Coi, Coi, Coi, Ent) and a "Design" section showing a flowchart with various tasks and connectors.
- Process Execution:** A section titled "p\_getCustomerData - Run Using..." showing the "Test Process Input Collection" and the "Process Objects" (JSON output).

**Bottom Panel:** Displays the "Test Process Input Collection" and the "Process Objects" (JSON output).

# Automation



## Fully Automated & Self-service data delivery

- Fully Automated Dev Ops – Code migration (CI/CD)
- Automated data pipeline with Testing & Validation
- Integrated Data Quality & Governance
- API based Automation - Different modes of Data delivery based on user persona & need
- Reusable Templates – Dynamic mappings
- Automated User role-group provisioning with SAML
- Infrastructure as code provisioning templates for runtime environment

### Source Control

Configure source control repository for your assets built on Informatica Cloud Service to enable version management.

- ☒ Enable Source Control
- ☒ Enable Project Level Source Control ?

### Git Configuration

- ☒ Allow
- 1 General
- 2 Parameters
- 3 Jobs
- 4 Runtime Options

Jobs					
Job Name	Parameter Type	Parameter Name	Parameter Value	Group	Enable
Platform:	Account			Group_1	<input checked="" type="checkbox"/>
	Contact			Group_2	<input checked="" type="checkbox"/>
Repository:	Opportunity			Group_2	<input checked="" type="checkbox"/>
	Case			Group_3	<input checked="" type="checkbox"/>

✓ Backup asset tagged by release to Git < 231

Pipeline

Branch: —

39s

No changes

Commit: —

a minute ago

Started by user Sorabh Agarwal



#### VersionControl - 13s

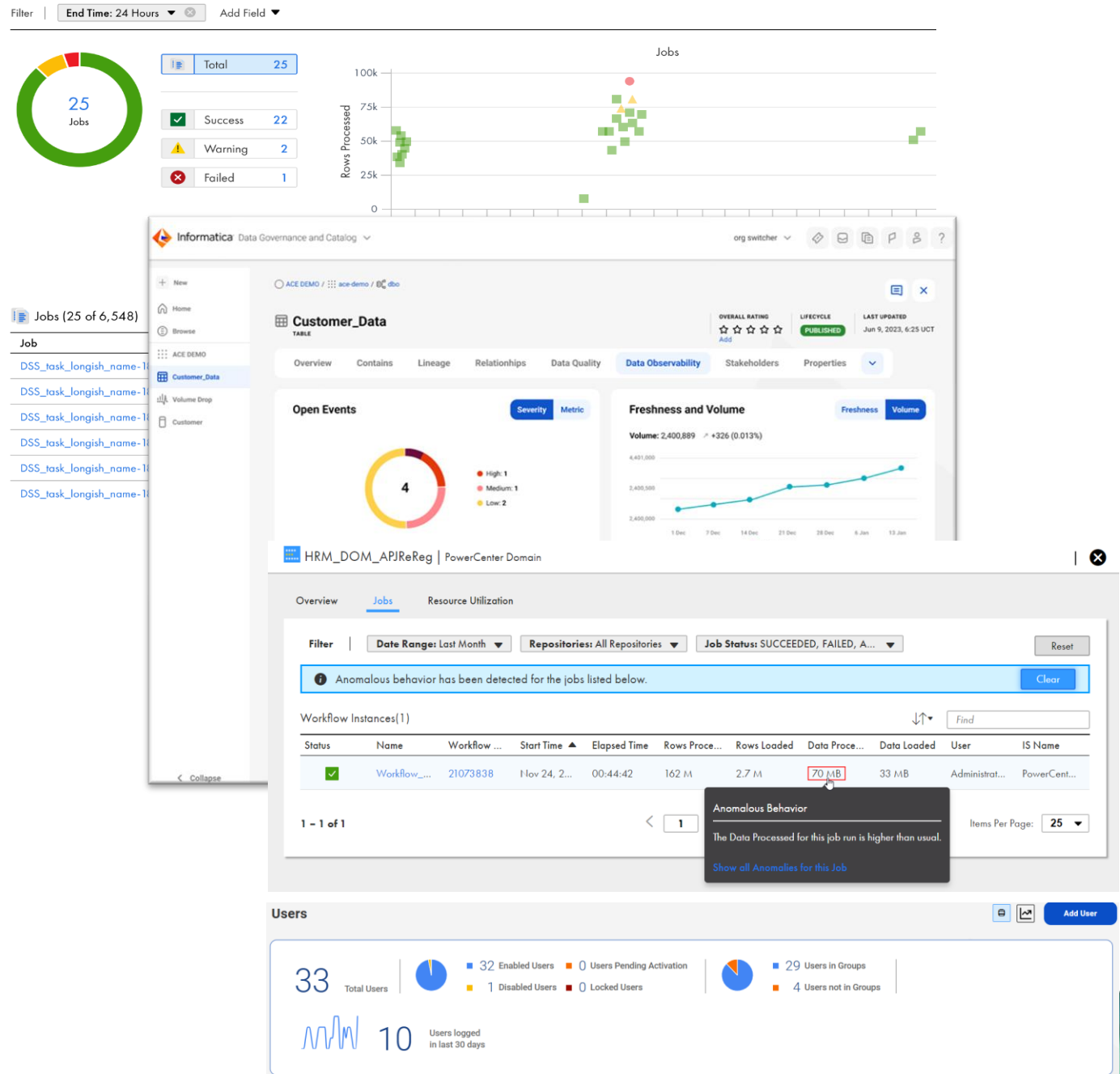
- ✓ > git add -A — Add to commit
- ✓ > git commit -am "Merged changes to master" — Commit changes to local repository
- ✓ > Push changes to remote repository
- 1 C:\Program Files (x86)\Jenkins\workspace\Backup assets tagged by release to Git>git push git@github.com:InformaticaCloudApplicationIntegration/IICS-SCM.git master:master
- 2 To github.com:InformaticaCloudApplicationIntegration/IICS-SCM.git
- 3 ee82a51..4b88769 master -> master
- ✓ > Add the release tag if does not exist already
- ✓ > Push the tags

# Observability



## Observe

- Validate data pipeline in sandbox and pre-prod environments
- Automate testing and validation in sandbox, pre-prod orgs before deploying changes in production
- Detect data quality issues and anomalies
- Get alerted and Drill down and troubleshoot jobs that contribute to resource spikes
- Visualize task runs and detect anomalies
- User and user group analytics

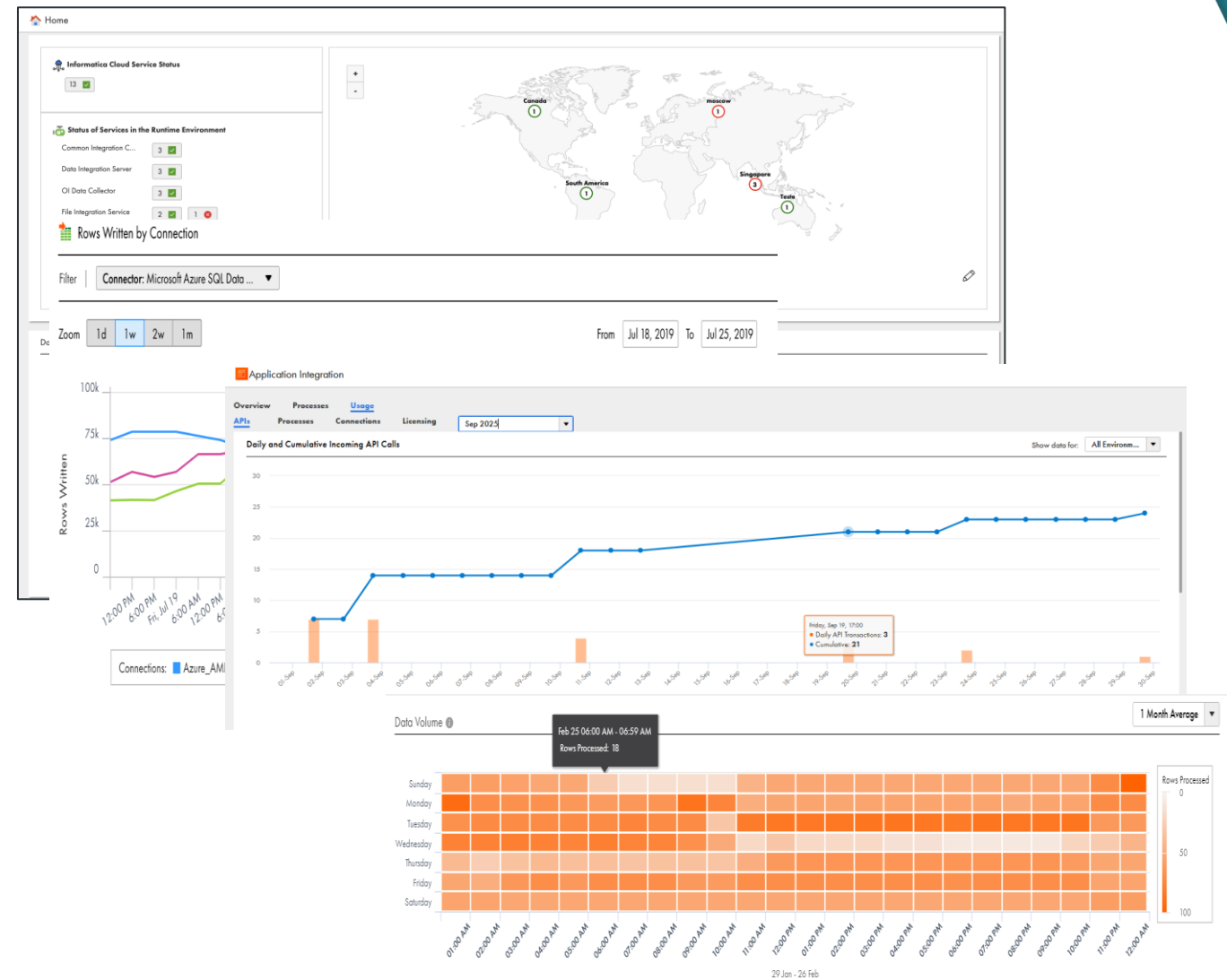


# Operate



## Continuous Operations

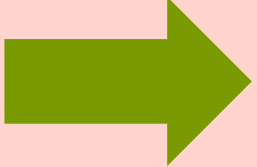
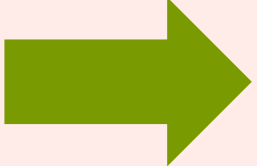
- Intelligent operational analytics
- CLAIRE powered self heal, Auto Tune, auto scale, smart shutdown
- Alerting at infrastructure, data, and service levels
- View trends across sources and connections
- Gain real-time visibility and alerts into API, data volume, job, resource, project level monitoring
- Heat map to identify critical times and peak hours for resource planning
- AI powered monitoring – built in optimization, cost governance



Driving Business Agility through DataOps

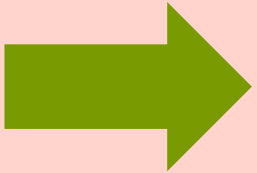
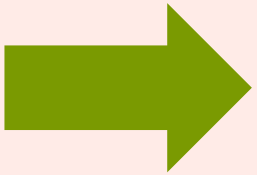
# Key Takeaways

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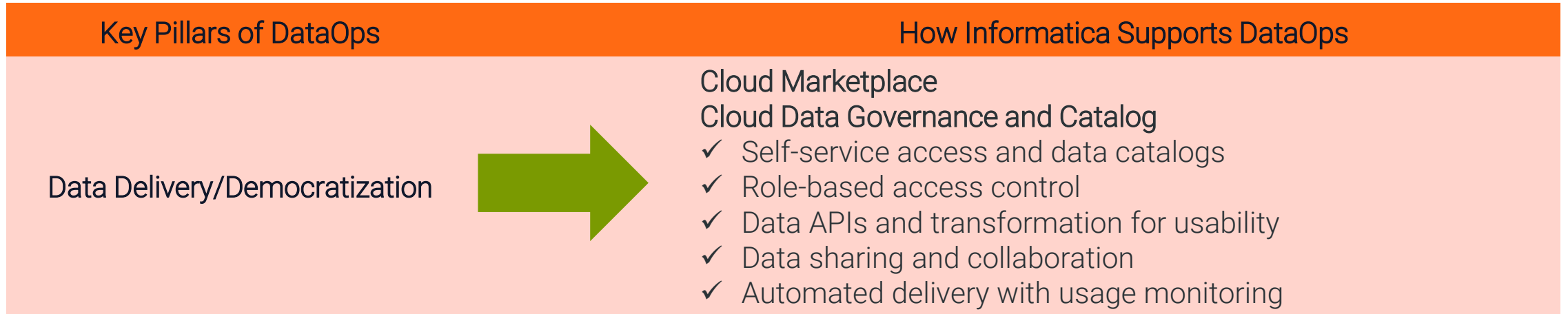
Key Pillars of DataOps		How Informatica Supports DataOps
Data Integration		<p>Cloud Data Integration and Replication Cloud Application and Integration</p> <ul style="list-style-type: none"><li>✓ Automated batch &amp; real-time ingestion</li><li>✓ Scalable connectivity &amp; pipelines</li><li>✓ Pipeline orchestration &amp; automation</li><li>✓ Data transformation</li><li>✓ Monitoring &amp; error handling</li><li>✓ Secure data transfer</li></ul>
Data Quality		<p>Cloud Data Integration and Replication Cloud Data Quality and Profiling Cloud Data Governance and Catalog</p> <ul style="list-style-type: none"><li>✓ Data profiling, validation, and cleansing</li><li>✓ Standardization and enrichment</li><li>✓ Automated quality checks</li><li>✓ Root cause analysis</li><li>✓ Quality metrics and reporting</li><li>✓ Seamless pipeline integration</li></ul>



# Key Takeaways

Key Pillars of DataOps		How Informatica Supports DataOps
Data Observability		<p>Cloud Data Governance and Catalog Cloud Data Quality</p> <ul style="list-style-type: none"><li>✓ Real-time monitoring and end-to-end visibility</li><li>✓ Alerting and anomaly detection</li><li>✓ Root cause analysis</li><li>✓ Performance and freshness metrics</li><li>✓ Dashboarding and reporting</li></ul>
Data Governance		<p>Cloud Data Governance and Catalog Cloud Data Access Management</p> <ul style="list-style-type: none"><li>✓ Policy management and stewardship</li><li>✓ Data cataloging and metadata management</li><li>✓ Access controls and audit trails</li><li>✓ Regulatory compliance</li><li>✓ Data lineage tracking</li></ul>

# Key Takeaways



# Thank You

# Where data & AI come to



Informatica®