leaplogic

An Impetus Product

Solution Brief

Automated data warehouse, ETL, analytics, and Hadoop modernization to AWS

Also available on aws marketplace

Modernizing legacy workloads has become a strategic imperative for enterprises to drive the speed, scale, and agility needed to gain a competitive edge. Moving legacy data architecture to AWS can help them enhance operational resiliency, improve productivity, enable faster innovation, and fuel growth.

While AWS addresses these drivers to support enterprises' cloud modernization goals, migrating years of legacy business code, logic, and workloads to AWS has its challenges like:

- Risk of business disruption
- Inadequate, out-of-sync, or missing documentation of legacy systems
- No insight into usage, complexity, and dependencies across workloads and environments
- Uninformed decision-making without proper data-driven assessment and recommendations
- Risk of losing business logic and legacy code during conversion
- Meeting the SLAs using AWS services while keeping the price-performance ratio in control
- Huge manual effort that turns costly with overruns and inefficiency

LeapLogic, an Impetus product for automated workload transformation, addresses all these concerns. Its intelligent grammar engine identifies optimization opportunities at schema, code, and execution levels and automatically converts all types of workloads, logic, and workflows to AWS-native stack.

Key Benefits

Up to 95% automation

50-75% reduced time-to-market

90% reduction in risk

2x cheaper

1.5x faster validation

100% preservation of investment in business logic

What's possible?

For data warehouse

- Plan a phased migration instead of a 'big bang'
- Mitigate risks beforehand with no downtime
- Handle proprietary code formats like BTEQs efficiently
- Ensure optimization to meet production SLAs
- Consider all workloads in totality
- Stabilize fast with a minimal parallel run period
- Cut over and retire your legacy data warehouse
- Strategize for people and processes

For ETL

- Assess code complexity, usage patterns, etc.
- Identify and analyze complex interdependencies. For example, for Informatica, it can be from XML files to workflows and then to mappings and transformations. Similarly, for DataStage, identify and analyze all jobs and components for each script and job activity, sequencer, lookup, aggregator, Transformer stage, join, etc.
- Transform core business logic to AWS-equivalent format
- Package for production-ready jobs
- Validate scripts for AWS-equivalence of all use cases

For analytics and reporting workloads

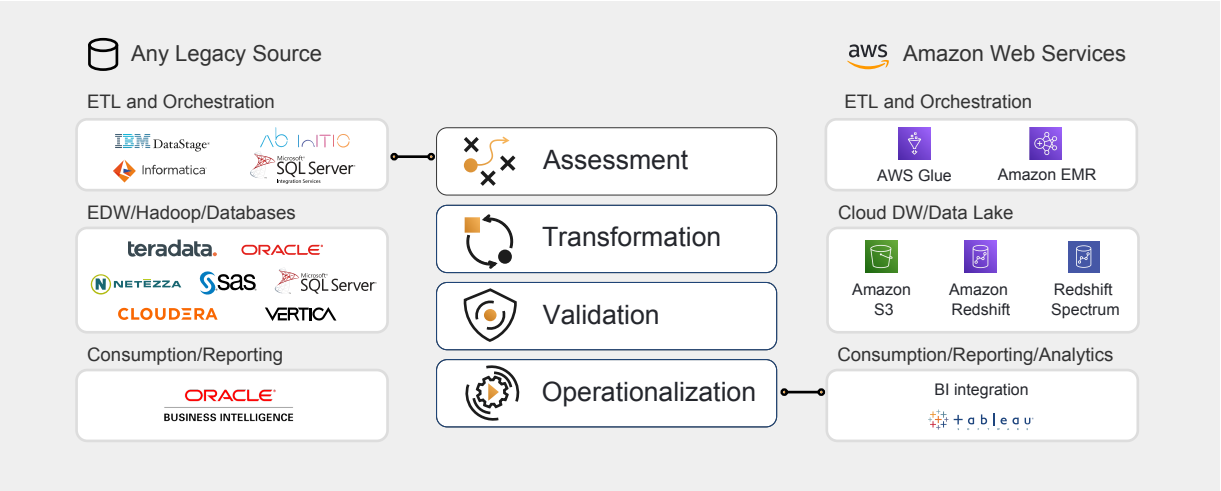
- Assess usage patterns with automation accelerators E.g.,
  - SAS ETL – mostly SQL + some SAS procedural
  - SAS procedural – mostly statistical
  - SAS advanced algorithms
- Convert code to AWS-native stacks
- Map the conversion target for each usage pattern
- Enable datasets and migrate them as cloud stores or access them via JDBC
- Use a staggered approach to convert and validate scripts for AWS-equivalence across all use cases
- Execute thorough integration testing on staging
- Execute on production

For Hadoop

- Assess infrastructure and workload inventory
- Map infrastructure and workloads on AWS
- Assess TCO and forecast for AWS
- Detect and optimize patterns
- Navigate complexities and risks
- Migrate efficiently at scale
- Assure quality through technology mapping
- Save cost and time with automation
- Convert workloads to AWS-native equivalent
- Optimize for AWS
- Ensure validation equivalence and acceptance
- Provision through infrastructure as code

How it works

LeapLogic enables end-to-end transformation, operationalization, and transitioning of workloads in four steps:



STEP 1: Assessment

- Integrated assessment for several workload types
- Comprehensive inventory listing
- Workload prioritization as per the business use case
- Dependency analysis
- Advanced blueprint of AWS stack
- Optimization opportunities for schema, code, and orchestration
- Prescriptive recommendations
- Phased migration plan with timelines and cost estimates

STEP 2: Transformation

- Intelligent grammar engine supporting a variety of workloads and formats
- End-to-end transformation, packaging, and orchestration to AWS-native format
- Notebook-based inline editor for query optimizations
- Delivers a verified, executable package with performance SLAs met
- Extensible, repeatable, and verifiable methodology

STEP 3: Validation

- Pipeline-based automated validation
  - Sample or customer data-based code validation
- Auto-generation of reconciliation scripts
- Automated SQL/query and business level validation
- Cell-to-cell validation reports
- Data type and entity-level matching

STEP 4: Operationalization

- Productionization and go-live
- Infrastructure as code
- Execution using cloud-native orchestrators
- Automated DevOps, including CI/CD, etc.
- Target environment stabilization
- Smooth cut-over

Enterprise success stories

LeapLogic has helped several large enterprises transform their workloads to AWS while preserving years of business logic, workflows, and execution rules.

Data platform modernization to AWS significantly reduces passenger wait time for United Airlines

End-to-end transformation of workloads enabling batch and real-time feeds, data catalog, and governance. Serverless pipelines for easy scalability

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Automated migration from Netezza to AWS for a Fortune 500 mortgage lender

Lowered operational cost and improved data visibility across the enterprise

READ MORE

Automated assessment and transformation of Informatica workflows and Oracle EDW to AWS

~80% auto-conversion to save 50% cost and time compared to the manual transformation

READ MORE

Sample LeapLogic demos

- Teradata to Amazon Redshift
- Hadoop to Amazon EMR
- Informatica to AWS Glue

Start your end-to-end workload transformation journey today!
To learn more, write to us at **info@leaplogic.io**

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LeapLogic, an Impetus product, automates the transformation of legacy data warehouse, ETL, analytics, and Hadoop to native cloud platforms. LeapLogic has helped several Fortune 500 customers accelerate time-to-market, reduce the risks associated with manual migration, and bring in more accuracy with zero business disruption. Impetus Technologies solves the data, AI, and cloud puzzle, by combining unmatched expertise in cloud and data engineering. Impetus offers data platform engineering, AI/ML, DevOps, application modernization, and more. For over a decade, Impetus has been the 'Partner of Choice' for several Fortune 500 enterprises in transforming their digital nuclei and driving unmatched innovation and growth.

To learn more, visit **www.leaplogic.io** or **info@leaplogic.io**