

# Automated transformation of BI and reporting workloads to cloud-native stack

Enterprises grappling with massive volumes of unstructured and rapid data from diverse sources are recognizing the strategic necessity of modernizing their BI/reporting tasks on cloud-native platforms. Drivers like high ownership costs, data silos, technical bottlenecks, and limited analytics capabilities push for the transition from outdated reporting tools. Moreover, the modern platform's self-service features, ad hoc analysis, parallel and in-memory calculations, serverless autoscaling, embedded analytics, and deeper data insights have further intensified this transition.

LeapLogic, Impetus' automated cloud accelerator, effectively addresses these concerns while capitalizing on cloud-native advantages. With its intelligent, pattern-based grammar engine, LeapLogic effortlessly converts legacy BI/reporting tasks into the cloud-native stack of your preference.

## How it works

LeapLogic automates, de-risks, and simplifies the end-to-end transformation of your enterprise BI reports to a cloud-native stack. It enables end-to-end transformation, operationalization, and transitioning of workloads with up to 80% automation in the first iteration in four steps:

### Key Benefits

Compared to traditional approaches, LeapLogic enables:

**4x** faster transformation

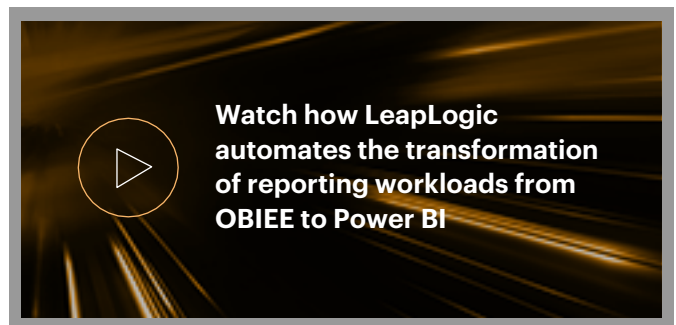
**1.5x** faster validation

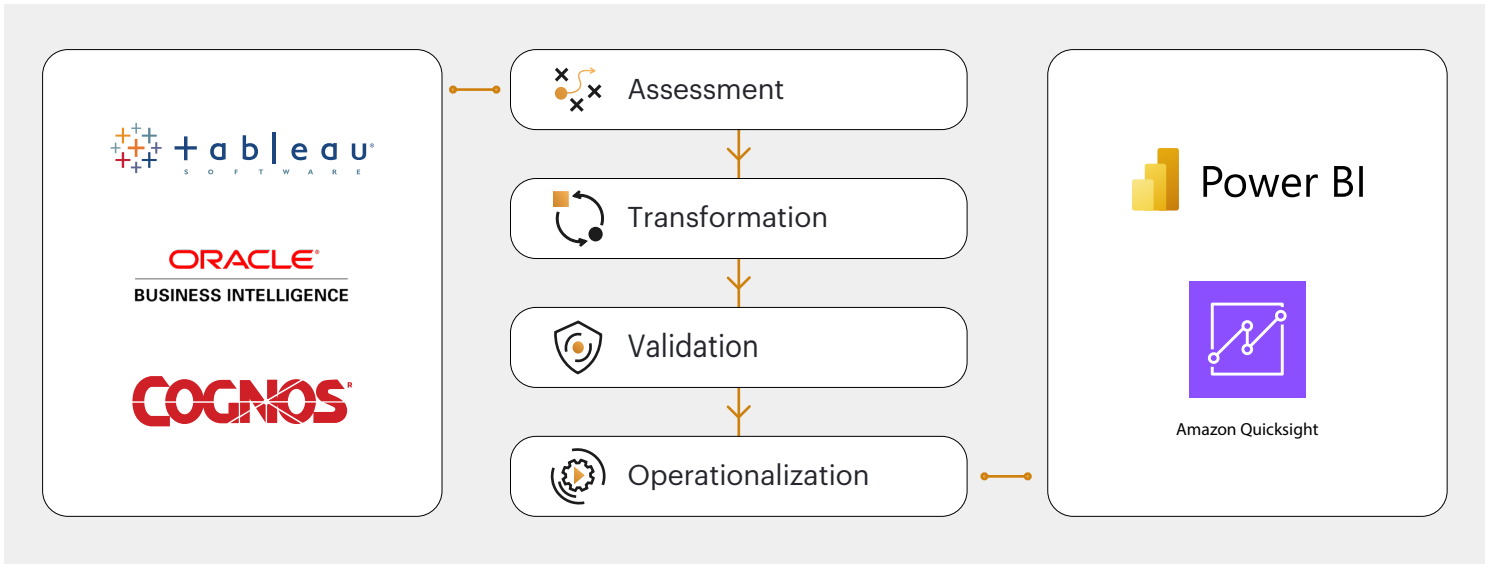
**2x** cheaper than manual migration

**50%** migration acceleration

**100%** risk compliant

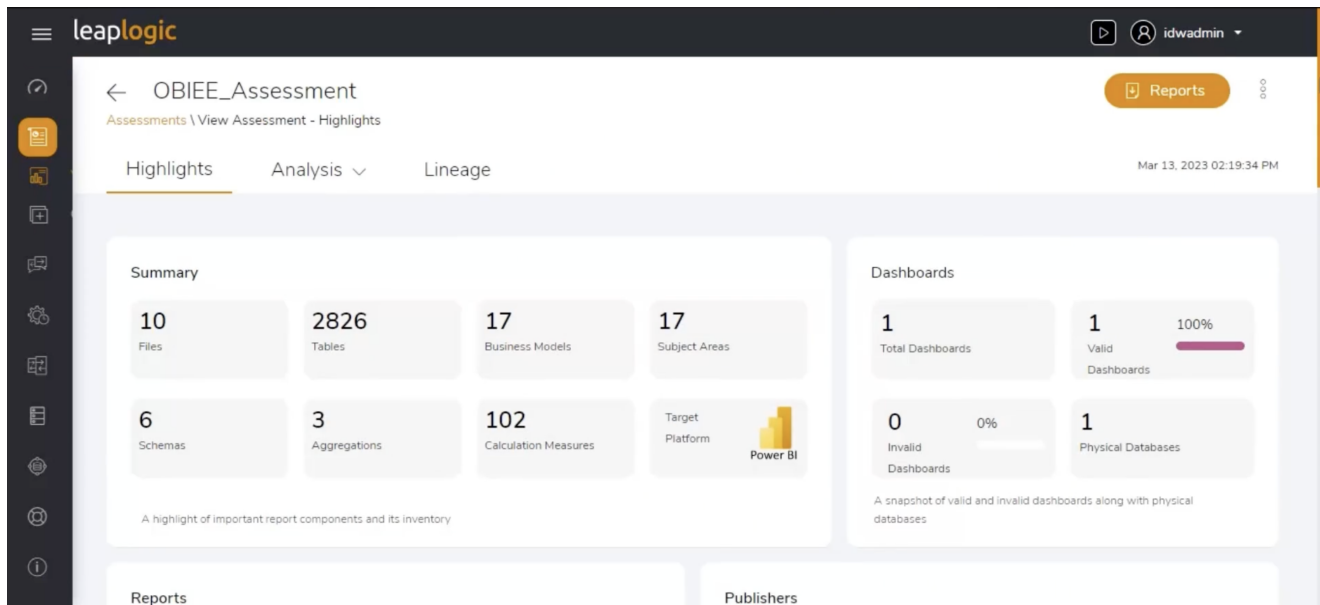
**100%** SLA adherence





## STEP 1: Assessment

- Integrated assessment for several workload types along with BI reports and dashboards
- Comprehensive inventory listing
  - **OBIEE:** Business models, subject areas, schemas, calculation measures, aggregations, dashboards, publisher models, presentation/logical/physical tables, filters, agents, etc.
  - **Tableau:** Data sources, sets, dashboards, worksheets, visualizations, dashboards, columns, actions, filters, entities, etc.
  - **Cognos:** Reports, pages, visualizations, visualization objects, calculated columns, queries, columns, filters, entities, etc.
- Extensive interdependency analysis between various workloads
- Workload prioritization as per the business use case
- Prescriptive actionable recommendations
- Phased migration plan with cost estimates
- Extensive workload complexity analysis



*Automated assessment of OBIEE workloads*

## STEP 2: Transformation

- Intelligent transformation engine supporting a variety of workloads and source code formats
- Cloud-native conversion, packaging, and orchestration as production-ready jobs
- Delivers a verified, executable package with performance SLAs met
- Preservation as well as optimization of core business logic
- Extensible, repeatable, and verifiable methodology

### Unique transformation methodology – e.g., OBIEE to Power BI

- Begin with exported OBIEE reports (RPD files) containing extensive data models
- Consider the entire presentation layer for comprehensive end-to-end utilization
- Incorporate BI publisher reports (daily, weekly, monthly, etc.) with smaller data models
- Employ automated assessment for in-depth analysis of relationships, calculations, subject areas, aggregations, dashboards, etc.
- Reduce table count and expand data models as needed, depending on complexity
- Avoid loops to prevent report ambiguity; apply conditional loops in Power BI (with caution)
- Segment data models by use cases, e.g., separate inventory from frequently updated sales data
- Utilize automated BI transformation to convert OBIEE BI reports and dashboards to Power BI equivalents
- Validate data models and datasets for report consistency and parity (covered in detail in the next step - Validation)

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← Demo\_OBIEE\_PowerBI\_Conversion Execute

Pipelines \ No. of executions ( 1 ) \ Jul 13, 2023 6:18:17 PM

Stages Pipeline **Output** Logs

Stage Name: BI Conversion

**BI Conversion**

Summary

Total Tables: 7 ( Success: 7 | Failed: 0 )

Status: Completed

Description: The BI datasets and reporting queries are transformed to target equivalent datasets successfully. A detailed report is provided.

Conversion Success Rate: 100%

Transformation Time: 1sec 529ms

Conversion Outcome Package

The transformed artifacts available as target equivalent datasets directly consumable on the modern BI platform.

Dataset: 1 All Tables: 7 All Queries

Table Name	Products
Generated Query	select SAMP_PRODUCTS_D.BRAND,SAMP_PRODUCTS_D.LOB,SAMP_PRODUCTS_D.PROD_DSC...

Automated transformation of OBIEE workloads

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Conversion Outcome **Package**

A detailed report of the transformed artifacts containing sh scripts, java files etc. along with executable jar file and validation report.

Search dataset.json

Files: TODO.txt, obiee\_report.xlsx, dataset.json

```

[[
  {
    "datasetName": "Sample Sales",
    "queryDetail": {
      "tableName": "Products",
      "query": "select SAMP_PRODUCTS_D.BRAND,SAMP_PRODUCTS_D.LOB,SAMP_PRODUCTS_D.PROD_DSC,SAMP_PRODUCTS_D.TYPE,SAMP_REVENUE_F.FA2_PROD_KEY,SAMP_REVENUE_F.FA2_BILL_QTR_KEY,SAMP_TIME_QTR.D.QTR_KEY,SAMP_REVENUE_F.EMPL_KEY,SAMP_EMPL_PARENT.CHILD_MAP_MEMBER_KEY,SAMP_REVENUE_F.BILL_DAY_DT,SAMP_TIME_DAY.D.CALENDAR_DATE,SAMP_REVENUE_F.CUST_KEY,SAMP_EMPL_PARENT.CHILD_MAP_ANCESTOR_KEY,SAMP_EMPL_D.VH.EMPLOYEE_KEY,SAMP_CUSTOMERS.D.ADDRESS_KEY,SAMP_EMPL_D.VH.POSTN_KEY from SAMP_REVENUE_F.FA2 join SAMP_PRODUCTS_D on SAMP_REVENUE_F.FA2_PROD_KEY=SAMP_PRODUCTS_D.PROD_KEY join SAMP_REVENUE_F on SAMP_REVENUE_F.PROD_KEY=SAMP_PRODUCTS_D.PROD_KEY join SAMP_TIME_QTR.D on SAMP_REVENUE_F.FA2_BILL_QTR_KEY=SAMP_TIME_QTR.D.QTR_KEY join SAMP_EMPL_PARENT.CHILD_MAP on SAMP_REVENUE_F.EMPL_KEY=SAMP_EMPL_PARENT.CHILD_MAP_MEMBER_KEY join SAMP_TIME_DAY.D on SAMP_REVENUE_F.BILL_DAY_DT=SAMP_TIME_DAY.D.CALENDAR_DATE join SAMP_PRODUCTS_DR on SAMP_REVENUE_F.PROD_KEY=SAMP_PRODUCTS_DR.PROD_KEY join SAMP_CUSTOMERS.D on SAMP_REVENUE_F.CUST_KEY=SAMP_CUSTOMERS.D.CUST_KEY join SAMP_EMPL_D.VH on SAMP_EMPL_PARENT.CHILD_MAP_ANCESTOR_KEY=SAMP_EMPL_D.VH.EMPLOYEE_KEY join SAMP_EMPL_POSTN_D on SAMP_EMPL_D.VH.POSTN_KEY=SAMP_EMPL_POSTN_D.POSTN_KEY join SAMP_ADDRESSES_D on SAMP_CUSTOMERS.D.ADDRESS_KEY=SAMP_ADDRESSES_D.ADDRESS_KEY",
      "status": true,
      "errorMessage": "",
      "columnDetails": [
        {
          "originalTableName": "SAMP_PRODUCTS_D",
          "originalColumnName": "BRAND",
          "physicalColumnName": "BRAND",
          "isDerived": false,
          "datatype": "VARCHAR",
          "calculationExpression": null,
          "presentationColumnName": "Brand"
        },
        {
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          "originalColumnName": "LOB",
          "physicalColumnName": "LOB",
          "isDerived": false,
          "datatype": "VARCHAR",
          "calculationExpression": null,
          "presentationColumnName": "LOB"
        }
      ]
    }
  }
]

```

Automated packaging of transformed business logic

### STEP 3: Validation

- Pipeline-based automated validation on diverse datasets
- Auto-generation of reconciliation scripts
- Automated data-driven validation
- Cell-to-cell validation reports
- Data type and entity-level matching
- System integration and UA testing

### STEP 4: Operationalization

- Provisioning the required cloud services and setting up policies such as auto-scaling
- Setup security protocols and policies
- Infrastructure as code
- Automated DevOps, including CI/CD, etc.
- Target platform stabilization with parallel runs
- Controlled price-performance ratio
- Documentation, training, and handholding
- Smooth cut-over

Based on a sophisticated grammar engine capable of transforming the most complex reports and dashboards, LeapLogic helps you kick-start your digital transformation journey while opening a world of advanced proactive analytics for your business.

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To automate BI reports transformation to the cloud,  
write to us at [info@leaplogic.io](mailto:info@leaplogic.io)

BOOK A DEMO ↗

**leaplogic**

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](http://www.leaplogic.io) or [www.impetus.com](http://www.impetus.com)

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