

Data Cosmos_Report Rationalizer & Converter

Metadata-Driven BI Modernization Accelerator

Part of the Coforge Data Cosmos™ Platform | Supernova™ Portfolio

Coforge Limited | Data HBU

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Solution Overview

Data Cosmos_Report Rationalizer & Converter is Coforge’s metadata-driven BI rationalization and conversion accelerator that automates report consolidation, duplication detection, ageing analysis, and migration from legacy BI tools to Microsoft Power BI. It streamlines redundant report landscapes, cuts maintenance costs by 20–50%, and accelerates modernization by leveraging automated metadata extraction and report recreation through a microservices architecture.

Enterprise BI landscapes accumulate thousands of reports over years — many duplicated, overlapping, or completely unused. Organizations spend millions maintaining this sprawl while analysts struggle to find the right report. Manual rationalization requires weeks of subjective review, and migration to modern platforms like Power BI means rebuilding logic and re-mapping data — weeks per report. The Report Rationalizer & Converter automates this entire lifecycle: extracting metadata from legacy BI tools, identifying redundancy through intelligent scoring, and auto-converting prioritized reports to Power BI with automated DAX generation and visual layout reconstruction.

Challenges Addressed

Challenge	Impact
Report Sprawl	Thousands of redundant, duplicated, or unused reports cluttering the BI ecosystem and consuming infrastructure resources
Manual Effort	Slow, error-prone lineage tracing and rationalization requiring weeks of subjective review by BI analysts
Migration Cost	Rebuilding reporting logic and re-mapping data sources for Power BI takes weeks per report with high rework rates
Lack of Visibility	Unknown duplicates, missed consolidation opportunities, and no centralized view of BI landscape health

Report Rationalizer (Rationalization Engine)

Capability	Description
Metadata Extraction Services	Extracts operational metadata (usage logs, access frequency, last modified dates, ageing) and technical metadata (structure, fields, calculations, dependencies, data sources) from BI tools such as Tableau and SSRS
Metadata Repository	Central store for deduplication scoring, lineage mapping, usage analysis, and report prioritization across the entire BI landscape
Rationalization Microservices	Automatically identifies duplicate reports (same data/different name), overlapping dashboards, unused or low-usage reports, and ageing/stale content

Rationalization Dashboards	Visual insights on usage patterns, redundancy heatmaps, ageing buckets, and a prioritized list of reports for retirement, consolidation, or migration
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Report Converter (Conversion Engine)

Capability	Description
BI Metadata Extraction	Extracts schema, calculations, filters, measures, visual types, layouts, and data source connections from legacy reports
Metadata Mapping	Maps legacy report metadata to Power BI equivalents — Tableau calculated fields to DAX measures, filters to slicers, etc.
Automated Code Conversion	Converts legacy reporting logic → Power BI DAX expressions, data model relationships, and visual configurations with validation
Report Reconstruction	Automates creation of Power BI report templates and visual layouts using extracted metadata — including page structure, chart types, and formatting

Supported Platforms & Value Delivered

Item	Details
Source Platforms	Tableau, SSRS
Target Platform	Microsoft Power BI
Tech Stack	Azure Cloud-native & Microservices Architecture
~50% Cleanup Reduction	Reduction in rationalization and consolidation effort
20–50% Cost Savings	Lower BI maintenance costs by eliminating redundant reports
Accelerated Migration	Automated conversion from Tableau/SSRS to Power BI
Centralized Governance	Metadata-driven lineage, compliance, and audit capability

Industry Applications

Banking & Financial Services

Use Case	Example
Regulatory Report Rationalization	A bank with 2,000+ Tableau reports discovers 40% are redundant or unused. The Rationalizer identifies 800 for retirement, 300 for consolidation, and 500 for migration. The Converter auto-converts top 200 risk reports to Power BI — generating DAX measures from Tableau calculated fields and reconstructing dashboard layouts. BI maintenance costs drop 45% with a unified Power BI risk reporting portal.

Executive Dashboard Modernization	C-suite dashboards consolidated from 15 overlapping Tableau workbooks into 3 Power BI executive dashboards with automated KPI mapping and drill-through conversion.
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Insurance

Use Case	Example
Claims & Underwriting Dashboard Consolidation	An insurer discovers 35% overlap between claims and underwriting dashboards. The Rationalizer identifies consolidation candidates; the Converter merges them into unified Power BI dashboards with role-based views. Report count drops from 600 to 390 with zero loss of analytical capability.
Actuarial Report Migration	Legacy SSRS actuarial reports with complex SQL logic are auto-converted to Power BI with DAX equivalents, preserving statistical calculations critical for reserve modelling.

Travel, Transportation & Hospitality

Use Case	Example
Revenue & Booking Report Modernization	A global airline identifies 200+ stale booking reports through ageing analysis. 150 active revenue reports are converted to Power BI with auto-generated DAX for yield optimization metrics, seat load factors, and ancillary revenue tracking.
Loyalty Program Dashboard Refresh	Legacy loyalty reports consolidated from 3 overlapping Tableau workbooks into a single Power BI loyalty analytics dashboard with automated tier progression and redemption metrics.

Healthcare & Life Sciences

Use Case	Example
Clinical Reporting Rationalization	A healthcare provider discovers 500+ unused SSRS reports. The Rationalizer retires 60% as stale, identifies 80 active clinical quality reports for Power BI migration. The Converter preserves complex SQL for CMS quality measures (HEDIS, CAHPS) while reconstructing layouts.
Research Analytics Modernization	Research team Tableau reports consolidated and migrated to Power BI with automated conversion of clinical trial enrollment metrics and outcome tracking visualizations.

Target Audience

- BI Teams
- Data Analytics Leads
- CIOs / CTOs

- Report Developers
- BI Governance Teams
- Enterprise Architecture Teams

Azure Compatibility

Report Rationalizer & Converter is built on Azure Cloud-native microservices architecture. Target platform is Microsoft Power BI with integration to Azure SQL Database for metadata repository. Part of the Coforge Data Cosmos Supernova portfolio for BI/analytics modernization and cloud migration.