Journey to the Intelligent Enterprise
Why Conversion from Cognos/Business Objects to MicroStrategy Might be Right for You

Prasanna Anantharaj, Senior Technical Program Manager
MicroStrategy has developed a comprehensive set of best practices, tools, and processes that deliver effective conversions and accelerate business benefits.

We do not simply replicate legacy reports.
We optimize the design of your best reports to leverage the capabilities of the MicroStrategy platform.

Our recommendations reduce the number of legacy reports by 50-80%, providing an effective alternative to report proliferation seen on legacy platforms.

This reduces conversion cost and future maintenance costs.
What BO customers are interested in knowing

- SAP will eventually end support to BOBJ 4.2 by 2024 and yet to provide any detail on the functional differences and new capabilities in BOBJ 4.3 release planned for end of 2019.

- Migration of on-prem content to SAP Cloud will remain a challenge.

- It is very unfortunate that SAP Lumira Discovery will not get innovated any further.

- The BOBJ ROLAP engine provides limited capabilities to generate multi-pass SQL statements.

- SAP BusinessObjects' cloud does not connect to most data sources.

- Limited mobile capabilities compared to the latest BI tools like MicroStrategy.

- MicroStrategy is the only comprehensive analytics vendor that supports big data analytics with native connectors to HDFS to access petabytes of data in real time.
SAP Business Objects Limitations

- BusinessObjects SQL engine does not support automatic aggregate awareness.

- Technically speaking SAP does NOT have a single version of truth: metadata is modeled in several different layers: Universes, HANA views, BW – all of which are completely different.

- Security must often be defined in at least three tools.

- SAP BO can deliver analytics to a large number of users but requires expensive hardware and multiple servers for heavier needs.

- Lumira does not inherit all the SAP BusinessObjects Enterprise platform capabilities.

- SAP has announced the "end of the road" for SAP Lumira. There will be no new releases of Lumira Discovery after 2018 and no new releases of Lumira Designer after 2019.
Benefits in converting to MicroStrategy

➢ Platform/Optimization
  • MicroStrategy platform can support analytical reporting needs of 100s of thousands of users across the enterprise.
  • The platform can create multiple parallel threads to the database, increasing the speed at which data is fetched from the warehouse.
  • The platform is based on an in-memory architecture that can partition cubes and process data in parallel.

➢ Reusability
  • MicroStrategy offers a centralized metadata repository it contains objects as defined by developers that can be reused across the BI project.

➢ Reusable Model
  • MicroStrategy delivers sophisticated distribution capabilities that make it possible to publish data and insights across the organization.

➢ Cloud/Big Data
  • MicroStrategy is the only comprehensive analytics vendor that supports big data analytics with native connectors to HDFS to access petabytes of data in real time.
  • Partnering with AWS MicroStrategy allows organizations around the world to spin up instances for enterprise analytics and mobility in minutes.
  • Pre-configured environments in the cloud can be created, managed, maintained, and upgraded with self-service consoles enabling extremely low TCOs.
Benefits in converting to MicroStrategy

➢ Visualization/Dashboarding

• Dashboards are built on the metadata model so they are secure and personalized for each user and offline consumption can be delivered in any desired format.

• MicroStrategy natively supports the R open source statistical language, best R integration in the industry.

• MicroStrategy has key advantages such as a more mature and functional mobile product as well as capabilities that don’t exist in the Analytics Cloud / BOBJ stack such as transactions.

• Mobile capabilities are fully integrated into the MicroStrategy platform, so it’s easy to leverage existing visualizations, reports, and dashboards to instantly deploy them via the MicroStrategy Mobile app.

• MicroStrategy Mobile enhances the mobile experience on iOS and Android.

• The Mobile SDK provides app developers with a multitude of customization options.
Key Takeaway: MicroStrategy is 100% Organically Designed

MicroStrategy is built on a single metadata, single server, single code

<table>
<thead>
<tr>
<th>BOBJ</th>
<th>MicroStrategy</th>
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<tbody>
<tr>
<td>Lumira</td>
<td>Organic architecture</td>
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<tr>
<td>Dashboards</td>
<td>No acquisitions</td>
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<tr>
<td>Design Studio</td>
<td>Single metadata</td>
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<td>Crystal Reports</td>
<td>Single admin &amp; security architecture</td>
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<td>Analysis MS Office</td>
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<td>BI Platform</td>
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<td>Mobile</td>
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<td>Etc</td>
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- Multiple technology acquisitions
- Multiple product UIs
- Multiple metadata's
- Multiple migrations
Business Objects Customers are Facing Too Many Unknowns

Ever changing roadmap paints an uncertain picture for core BOBJ customer

1. If they choose to migrate to SAC (a SaaS solution), Business Objects customers will surrender control to SAP on how to run their BI environment.

2. Should they choose to remain on-premises, BusinessObjects customers may not be taking full advantage of new product innovations which have now shifted to the SAP cloud.

3. SAP Analytics Cloud still lacks the level of maturity, performance, and functionality that BOBJ customers have come to expect of their BI systems.

4. Rebuilding BOBJ content in SAC (which uses a different code-base platform) can be a massive, expensive and disruptive undertaking.

5. A compromise hybrid approach to running BusinessObjects applications on-premises and in the cloud to preserve functional parity will run up costs and impact bottom line.

6. SAP Analytics Cloud is yet to fully bring to market modern, integrated solutions such as comprehensive mobile, geospatial, etc.
# MSTR vs. Cognos: 5 Things to Remember

<table>
<thead>
<tr>
<th>Category</th>
<th>MicroStrategy</th>
<th>Cognos</th>
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<tbody>
<tr>
<td><strong>Platform Parity</strong></td>
<td>Regardless of deployment method, users are given access to the same capabilities and features of the MSTR platform.</td>
<td>SaaS, Dedicated Cloud, and on-prem Cognos Analytics deployments do not share the same range of product features.</td>
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<tr>
<td><strong>Federated Analytics</strong></td>
<td>The Enterprise Semantic Graph abstracts all enterprise assets into a common business glossary for the tools users know and love. MSTR empowers anyone to use their tool of choice to build trusted analytics and mobile applications.</td>
<td>Cognos does not work with other data discovery tools; it does not enable other popular BI tools (Qlik, Power, Tableau, etc.) to integrate natively with its semantic layer.</td>
</tr>
<tr>
<td><strong>Mobile Productivity</strong></td>
<td>The MSTR mobile app, capable of data manipulation, write-back, and more, can be used across all iOS and Android devices. MSTR empowers users to create apps fully integrated with MSTR and tailored to any function or role.</td>
<td>Depending on the use case, Cognos Analytics users must choose between a native app and a browser UI (ex. Native app only supports Active Reports). Neither the native app nor the web UI can support write-back / transactions.</td>
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<tr>
<td><strong>Mobile White Labeling</strong></td>
<td>The Mobile SDK provides a code-free approach to white-labeling and rebranding MSTR Mobile apps. The MSTR Web SDK enables developers to customize web applications.</td>
<td>Cognos cannot build custom applications for a mobile workforce. There is no support for mobile SDK and cannot create highly customized iOS and Android applications to bring actionable analytics to a mobile workforce.</td>
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<tr>
<td><strong>Connectivity</strong></td>
<td>MSTR natively supports 100s of the most popular data sources. Organizations can also build their own connectors to custom data assets with APIs.</td>
<td>Cognos has gaps in its connectivity portfolio such as certain cloud drive sources (Dropbox, OneDrive, etc.) and CRM systems (i.e. Sugar CRM), and does not allow users to create custom connectors.</td>
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Rationalize and Optimize – *Right Size the Conversion*

Our recommendations often reduce the number of legacy reports by 50% to 80%

<table>
<thead>
<tr>
<th>Shift</th>
<th>Optimize time-to-value with improved capabilities</th>
<th>Optimize</th>
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<tbody>
<tr>
<td>Recreate &quot;as-is&quot; maintaining existing functionality</td>
<td>Consolidate &amp; eliminate, Selective optimization</td>
<td>Redesign for optimized user experience and improved maintenance</td>
</tr>
</tbody>
</table>
| "As-is" Reporting application functionality | • Consolidate & eliminate reports where possible, removing redundancies  
• Maintain essential reporting application functionality  
• Selective optimization where most valuable | • Redesigned and optimized functionality  
• Leverage added-value MicroStrategy capabilities (e.g. Mobile, Dashboards) |
| Closely matched to legacy reports | | |
| BI Content | | |
| "As-is" meta data design / import  
Existing data sources  
Closely matched to legacy models | • Eliminate redundant or unnecessary elements  
• Leverage MicroStrategy metadata features where appropriate  
• Closely matched to legacy models | • Redesigned and optimized metadata  
• Streamline multi-dimensional business layer |
| Meta Data | | |

Considerations:

- May recreate poor report designs  
- May recreate a poor meta data model  
- May retain report maintenance inefficiency  
- Selective report design improvements  
- Moderate meta data improvements  
- Moderate report maintenance improvements  
- Major report design improvements  
- Reduced maintenance  
- Time needed to redesign reports  
- Time needed to redesign meta data
Rationalize and Optimize – *Right Size the Conversion*

Typical report reduction ratio is 7:1 to 10:1 depending on complexity of your environment.
Typical Cognos Conversion Approaches
MicroStrategy follows two basic approaches

**Direct Conversion**

Work Entailed:

- Recreation of Cognos catalogs
- Recreation of Cognos reports
- Used mainly for proof-of-concept purposes

Benefits:

- Faster conversion of small environments
- Reduced cumulative effort

**Optimized Conversion**

Work Entailed:

- Detailed report analysis to eliminate redundancies
- Recreation of Cognos reports
- Revision of data model to improve performance

Benefits:

- More efficient environment that fits requirements
- Capitalization on MicroStrategy platform strengths
BOBJ Conversion Startup Program Key Benefits
Convert to MicroStrategy to Enable the Intelligent Enterprise

Conversion Methodology
Proven methodology in a three week engagement that will:

- Assess current BOBJ Reports, Universes, and Platform and suggest opportunities for reduction in the numbers of reports and universes as well as new capabilities using MicroStrategy
- Stand up a proof environment either on premise or in the cloud giving your users an opportunity to see and feel the conversion first hand
- Deliver a roadmap for full conversion including milestones and key benefits at each stage

ROI Calculation for Conversion
A quantitative measurement of the cost savings possible with a MicroStrategy conversion including:

- Comparison of ongoing maintenance and operational cost savings
- Estimate of the potential for reduction in the number of reports (up to 10:1) and universes (up to 30:1) thus saving cost
- Estimate of business benefit of new analytics workflows possible with unique MicroStrategy capabilities

Dedicated and Experienced Personnel
Deep Experience in both MicroStrategy and SAP Business Objects
IBM Cognos Conversion Startup Program Key Benefits
Convert to MicroStrategy to Enable the Intelligent Enterprise

Conversion Methodology
Proven methodology in a three week engagement that will:

- Assess current Cognos Platform and suggest opportunities for reduction in the numbers of reports and packages as well as implement new capabilities using MicroStrategy
- Set up a proof environment either on premise or in the cloud giving your users an opportunity to see and feel the conversion first hand
- Deliver a roadmap for full conversion including milestones and key benefits at each stage

ROI Calculation for Conversion
A quantitative measurement of the cost savings possible with a MicroStrategy conversion including:

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Dedicated and Experienced Personnel
Deep Experience in both MicroStrategy and IBM Cognos
Conversion Start Up for Business Objects/Cognos Overview
Experience the MicroStrategy advantage and create your BOBJ/Cognos conversion roadmap.

During the BusinessObjects/Cognos Conversion Start Up, MicroStrategy provides an expert delivery team over three weeks to:

- Analyze your business requirements and existing BI BusinessObjects/Cognos reports to determine conversion objectives and priorities
- Assess the usage of your current BOBJ/Cognos assets to see which reports can be deprecated, and which reports can be combined for better analytic efficiency
- Redesign and optimize your BusinessObjects/Cognos reports leveraging the comprehensive suite of MicroStrategy capabilities
- Develop a future state pilot that demonstrates the enterprise-ready value of the MicroStrategy Intelligence Platform and validates the optimal conversion roadmap for your organization

Outcomes include:

- Optimized conversion strategy that replaces BusinessObjects/Cognos reports with a streamlined and enhanced MicroStrategy solution
- Quantitative ROI calculation for a conversion from BOBJ/Cognos to MicroStrategy
- Customized future state pilot with enhanced capabilities applied to your BI workflows

<table>
<thead>
<tr>
<th>Weekly Activity</th>
<th>Week 1</th>
<th>Week 2</th>
<th>Week 3</th>
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<tr>
<td><strong>ANALYTICS ARCHITECT</strong></td>
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<tr>
<td><strong>APPLICATION ARCHITECT</strong></td>
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<td><strong>ENTERPRISE ARCHITECT</strong></td>
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<tr>
<td><strong>ENGAGEMENT MANAGER</strong></td>
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Step 1: Analyze and Prioritization
Step 2: In-Depth Analysis
Step 3: Future State Pilot
MicroStrategy Conversion Approach Overview

Assess
- Business Strategy
- User Interviews
- BI Rationalization
- In depth assessments

Advise
- Identify priorities
- Plan phases
- Define testing and validation plans
- Define milestones

Architect
- MicroStrategy installation
- Conduct future state pilot

Adopt
- MicroStrategy Education
- MicroStrategy Conversion Implementation

Solution benefits realization
- Shortened time to value
- Increased self-sufficiency
- Accelerated adoption

Startup (Assessment + Pilot)

Implementation

Scale
MicroStrategy’s Approach and Benefits

1. Plan
   • Review existing implementation and identify and establish scope
   • Reduce report proliferation by up to 10:1
   • Consolidate universes into wider schemas for larger self service scope
   • Identify areas to expand to the workforce with mobility, identity management, and writeback

2. Implement
   • Deploy development, test, and production environments
   • Train Developers and end Users (Adoption is key to success)
   • Continuous communication with key stakeholders

3. Optimize
   • Track usage and monitor environment after production implementation
   • Plan for long-term support, Optimization and Governance
   • Optimization is an on-going process as usage evolves
Implementation approach
Establish a solid foundation to develop all your Analytics applications

Based on the information & knowledge collected during the conversion assessment our recommendation is:

➢ Use “Consolidate & Eliminate. Selective optimization” strategy for the conversion.
  ❖ Consolidate & eliminate reports where possible, removing redundancies
  ❖ Maintain essential reporting application functionality
  ❖ Selective optimization where most valuable
  ❖ Eliminate redundant or unnecessary elements
  ❖ Leverage MicroStrategy metadata features where appropriate
  ❖ Closely matched to legacy models
ROI / Business Value Justification
Business Objects Conversion Program
BOBJ Conversion: Projected Annual ROI When Switching to MSTR
For the cost of the annual SAP maintenance fees, customers can take advantage of a modern analytics platform.

At Customer X, BOBJ used for 10 plus years but is seen by business users as legacy and in need of upgrade/replacement. Data Warehouse created in 1990’s on SQL Server. Reports need to be consolidated/reduced and new modern features adopted.

Currently there are 2,000 users, 10,000 reports, 250 Universes, running Webi, Lumira and Crystal Reports.

At 22% maintenance fees, BOBJ customer pays roughly $1 million annually to SAP services.

For the cost of 1 year BOBJ maintenance, MSTR will provide a package of software, support services, migration services and training, including:

- Licenses: 2,000 user package for $600,000 (like for like) – with an upsell potential for additional products like Mobile, collaboration, geospatial etc
- Maintenance (FYF): @20% of license fee - $120,000
- Consulting Services (Conversion assessment and phase 1 migration/conversion services) - $250,000
- Education Services (Developer training + Power Up) - $30,000

At 22% maintenance fees, BOBJ customer pays roughly $1 million annually to SAP services.
### BOBJ Conversion: Estimated Annual Cost Avoidance

Reducing BOBJ running costs by up to 80% YoY while leveraging a modern enterprise analytics platform

<table>
<thead>
<tr>
<th>Benefit Area</th>
<th>Description</th>
<th>Value (Per Annum)</th>
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<tbody>
<tr>
<td>Annual Cost Avoidance - BI Consolidation</td>
<td>Elimination of SAP BOBJ Annual Running/Support Costs (22% service fee on $1 mil in BOBJ products)</td>
<td>$250,000</td>
</tr>
<tr>
<td>Annual Cost Avoidance - BI Consolidation</td>
<td>Avoidance of SAP BOBJ Upgrade to Cloud Analytics Consulting Fees</td>
<td>$400,000</td>
</tr>
<tr>
<td>Annual Cost Avoidance - BI Consolidation</td>
<td>Reduction of Labor Costs (FTE’s) by 4 Dedicated to SAP BOBJ (@$120,000 Fully Loaded Cost per FTE per annum)</td>
<td>$480,000</td>
</tr>
<tr>
<td>Annual Cost Avoidance - BI Consolidation</td>
<td>Reduction in no. of reports by 10:1 @ $500 per report per annum - 2000 reports</td>
<td>$100,000</td>
</tr>
<tr>
<td>Annual Cost Avoidance - BI Consolidation</td>
<td>Reduction in no. of Universes by 5:1 @ cost of $10,000 per Universe per annum - 100 Universes</td>
<td>$200,000</td>
</tr>
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**Annual estimated savings:** $1,430,000
Thank You