The Enterprise Semantic Graph™

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The Intelligent Enterprise™
Some challenges...
Multiple versions of the truth

Multiple tools

High cost resulting from redundancies
Organization resistance

Varying skillsets

Not contextual or personalized
Inability to scale with big data

Complex system management

Consistent definitions and trust
The Enterprise Semantic Graph™
A trusted, learning, open and scalable index of your enterprise data assets

1. **Language of the business** - provide data access in terms users understand.

2. **360 degree view** - break down departmental silos and provide enterprise-wide data access.

3. **Object Reusability** - for rapid application development, scalability, and to lower TCO.

4. **Trust and Governance** - #nofakedata

5. **Usage Telemetry** - to deliver contextual recommendations and personalized insights.

6. **Open** - to the tools your users love.
The Enterprise Semantic Graph™
A 30 year journey

Semantic Layer 1.0 (1989)
Semantic Layer 2.0 (1999)
Semantic Layer 3.0 (2009)
Semantic Graph 1.0 (2019)
The Enterprise Semantic Graph™
Rich Metadata

Last 30 Years:
- Attributes
- Metrics
- Custom Groups
- Consolidations
- Filters
- Prompts
- Derived Attributes
- Derived Metrics
- Reports
- Visualizations
- Documents
- Dashboards
- Data Sets
- Projects
- Geography
- Images
- ACLs
- Security

MicroStrategy 2019:
- Dossiers
- Certification
- Synonyms
- Usage
- Collaboration
- HyperCards
- Bookmarks
- Presence
- Hierarchical Attributes

Future:
- People
- Data Sensitivity (PII)
- Voice metadata
- Currency
- Actions
- Workflows
- Ratings
- Units of Measure
- Time

Future functionality subject to change
The Enterprise Semantic Graph™
New capabilities in MicroStrategy 2019

**EXPERIENCES**
Optimized experiences to deliver personalized insight for all users.

**EMBEDDED**
Seamlessly integrates with applications and presents generated insights in context.

**HYPERINTELLIGENCE**
Overlays (augments) applications with personalized insights with zero clicks.

**LIBRARY**
Unified hub for all users to access and collaborate on analytics.

**AUTHOR AND DISCOVER**
Data preparation and visualization experiences.

**ORCHESTRATE**
System management and process orchestration

**INTELLIGENCE SERVICES**
Provides personalized insights based on the user context.

**RECOMMENDATION ENGINE**
Recommends content or users based on user context.

**INSIGHT ENGINE**
Automatically recognizes patterns, generates insight and models based on user context.

**PLATFORM OPTIMIZATION ENGINE**
Optimizes the BI platform by automatically adjusting nodes and settings based on telemetry.

**EXPERT FRAMEWORK**
Enables integration of expert predictive AI capabilities. Predict, Prescribe, Anticipate.

**ENTERPRISE SEMANTIC GRAPH**
Captures the relationships of all your business information, processes, and people.

**INDEX**

**DESCRIPTIVE METADATA**
Attributes, Metrics, Entities, Elements, Security, ACL, Model, Calculations, …

**CONTENT**
Analytical Reports, Dossiers, and Apps.

**USAGE TELEMETRY**
Content, data, and user events.

**SYSTEM TELEMETRY**
System events, availability, and query execution.

Future functionality subject to change.
Library Recommendations
Dossier recommendations in library based on meta-data affinity
Content Recommendations in Library

Meta-data driven content recommendation for end users

Governance for Non-Governed Data

Power of enterprise BI comes in with the need to industrialize datasets. Business users can import and manipulate data on the fly. MicroStrategy helps customer getting the valuable dashboard business users produce back in the data governance world.

Other items like this

- Financial executive bii...
- Monte Carlo Simulation
- Data API
- PRML Integration
- Vitana Charts
- Impala (Live FF) - SQL...
Insight Generation
Natural Language In Content Creation

Use natural language to create visualizations in Desktop

$430,469
The Enterprise Semantic Graph™
Smart Data Preparation
Federated Analytics
Leveraging and contributing to the Enterprise Semantic Graph
Predictive patient bed management
Expert framework enabled ML integration

1. Get data
2. Make predictions
3. Add predictions to MicroStrategy via REST API

Problems solved
- More patients served with fewer disruptions due to surgery cancellations
- Patient recovery predictions integrated in executive reporting provides a holistic view of hospital operations
- For data scientists: easily refresh in-memory cubes from external models
The Enterprise Semantic Graph™
Your trusted hub for Federated Analytics

TOOLS YOU LOVE
Optimized experiences to deliver personalized insight for all users.

- Power BI
- Tableau
- Office 365
- Python
- Qlik

Hundreds of optimized data connectors

Office 365 is future functionality
Future functionality subject to change
AI needs an Enterprise Semantic Graph

Diversity of data – silos of departmental data isn’t diverse enough.

Rich metadata – to know what is what.

Usage telemetry – to know what matters to whom.
thank you