MAP OF THE INTELLIGENT ENTERPRISE™

TECHNOLOGY OPPORTUNITIES

- Cloud Computing
- Machine Learning
- Mobile Computing
- Blockchain
- Big Data
- Internet of Things
- Digital Identity

MARKET DISRUPTORS

- Apple
- Amazon
- Google
- Facebook
- Alibaba
- Twitter
- Microsoft

USERS

Executives · Management · Sales Reps · Workforce · Vendors · Influencers · VIP Clientele · Customers · Citizens

FUNCTIONS

Sales · Marketing · Customer Service · Manufacturing · Field Service · Finance · HR · IT · Facilities · Vendors · Customers

DEVICES

Wall · TV · Desktop · Web · Tablet · Phone · Watch · Voice

APPLICATIONS

Enterprise Analytics · Enterprise Reporting · Big Data · Data Discovery · Embedded Analytics · Enterprise Mobility · Mobile Analytics · Mobile Productivity · External Apps · Mobile Identity, Security, and Communications · Mobile Telemetry and IoT

TOOLS

Email · Google Search · Excel · PowerPoint · Power BI · Qlik · Tableau · Alteryx · Paxata · Trifacta · Datawatch · Jupyter · Matlab · R Studio · SAS · SPSS · SPSS · Eclipse · Python IDE · Visual Studio · xCode

ROLES

EXECUTIVES
The Business Executive sets the analytics and mobility strategy for the function. They establish the function's priorities, programs, budget, and plan, while maintaining justification for the platform assets and resources by tracking and publishing adoption, impact, and return-on-investment.

BUSINESS USERS
Explore and interact with published analytics. Enhance applications using self-service data discovery to create custom groups, derived metrics, and dynamic filters. Foster adoption through collaboration and sharing.

ANALYSTS
Create, share, and maintain intelligence applications for the department using enterprise security, data, and application objects to help ensure a single version of the truth.

DATA SCIENTISTS
Build and publish advanced statistics, predictive models, and machine learning algorithms using libraries such as TensorFlow, R, Python, and MATLAB, that are leveraged by Analysts and Developers.

DEVELOPERS
Inject, extend, and embed intelligence into custom and third-party applications using programming languages such as JavaScript, Java, PHP, Python, SWIFT, Objective-C, C#, .Net, and other common languages.

INTELLIGENCE CENTER

PROGRAMS

DEVELOPMENT

Applications
Publish an application framework and best practices that enable all functions to build consistently impactful applications. Establish a foundation of shared components to speed departmental application development.

Mobility
Establish a framework, discipline, and architecture so Analysts and Developers can build and deploy mobile applications. Establish processes, protocols, and programs so the Intelligent Enterprise can consume apps on mobile devices.

Intelligence
Inject artificial intelligence, machine learning, deep learning, and predictive analytics algorithms into enterprise applications and federated datasets. Publish and curate a library of models for Analysts and departmental Data Scientists.

Services
Convert datasets and application components into published services for Developers to inject intelligence into their custom applications. Publish samples and documentation and empower Developers to use their preferred programming tools and languages.

Departmental
Empower departments to rapidly build applications on federated trusted data using MicroStrategy or other tools (i.e. Tableau, Power BI, Excel). Orchestrate collaboration with the Intelligence Center so datasets are continually appraised, optimized, and updated.

Enterprise
Harness the power of your other BI investments and extend the value to all constituents on various devices. Migrate legacy SAP BusinessObjects and IBM Cognos applications onto a modern platform.

FOUNDATION

Platforms
Architect, install, configure, and deploy the Intelligent Enterprise architecture. Design the optimum architecture to deliver security, stability, scalability, and economy by combining platform capabilities with on-premises, cloud, and/or hybrid services.

Analytics
Design the optimal federated enterprise data layer and publish it to Analysts, Data Scientists, Developers, and Architects. Work with Departments to evolve the data architecture to meet changing business needs.

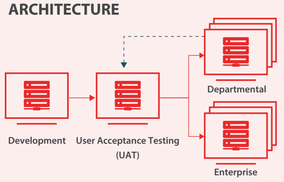
Administration
Monitor, support, and maintain the Intelligent Enterprise architecture to facilitate ongoing security, stability, and economy. Monitor system use, automate tasks, and implement upgrades to help ensure an optimal, reliable, and modern user experience.

Identity
Design and publish a digital identity architecture that enables enterprise-wide, multi-factor, geo-specific digital authentication for internal and external users. Implement the digital identity architecture and gateways on top of all logical and physical assets.

Database
Configure the intelligence platform to optimize performance against various database technologies (i.e. Oracle, SQL, Snowflake, HDFS), including relational, OLAP, big data, unstructured, vector, and streaming platforms. Track throughput and performance, and provide architecture design and optimization recommendations to the database administrator.

Systems
Integrate data from enterprise systems (i.e. ERP, CRM, MRP, HR) and blend with other data sources to build custom analytics and mobility applications. Design, implement, and optimize an integrated architecture to overcome the reporting limitations and extend the capabilities of enterprise systems of record.

ARCHITECTURE



- On-premises, cloud, or hybrid
- Environments deployed in minutes
- Vertical and horizontal scaling
- Multi-node clustering
- Multi-region support
- Hot, warm, and cold failover
- Reliable drag-and-drop promotion
- Integrity testing of apps and upgrades
- 360 degree monitoring built in

DEPLOYMENT

Amazon Web Services · On-Premises · Microsoft Azure

Alibaba Cloud · CenturyLink · Google Cloud · IBM Cloud · Oracle Cloud · Rackspace

Docker · Kubernetes · vmware

Linux · Windows

PERSONAS

Intelligence Director
Create Intelligence environments by deploying the Intelligence Architecture, supervising the Intelligence Center, and running Intelligence Programs to support enterprise and departmental analytics and mobility applications for all constituents.

Application Architect
Create, share, and maintain intelligence applications for the enterprise. Publish standardized application objects, and promote departmental applications from self-service into the enterprise environment.

Analytics Architect
Create, publish, and optimize a federated data layer as the enterprise's single version of the truth. Build and maintain the schema objects and abstraction layer on top of various, changing enterprise assets.

Mobile Architect
Build, compile, deploy, and maintain mobile environments and applications. Optimize the user experience when accessing applications via mobile devices. Integrate with preferred VPN, SSO, and EMM protocols.

Identity Architect
Build, compile, deploy, and maintain digital identity applications, integrated with enterprise directories. Digitally secure all existing and new logical and physical assets. Integrate authentication, communication, and telemetry into other applications.

Services Architect
Inject, extend, and embed analytics into portals, third-party, mobile, and white-labeled applications. Publish web services and data services for use by Developers in building departmental applications.

Database Architect
Design and maintain database enterprise assets. Optimize database performance and utilization based on query type, usage patterns, and application design requirements.

Platform Administrator
Install and configure the Intelligence Architecture on-premises and/or in the cloud. Maintain the security layer, monitor system usage, and optimize architecture in order to reduce errors, maximize uptime, and boost performance.

System Administrator
Set up, maintain, monitor, and continuously support the infrastructure environment through deployment on AWS, Windows, or Linux, all while optimizing performance and controlling costs.

INTELLIGENCE PLATFORM

An Intelligence Platform helps make every device, application, and person more intelligent.

It creates an **enterprise semantic graph** that connects, indexes, abstracts, and federates your organization's data, telemetry, and usage. Users can rapidly build **contextual applications** and deploy them anywhere, anytime, and on any standard device—delivering **trusted answers** to constituents based on who they are, where they are, and what they need.

METADATA

SERVICES

CLIENT PRODUCTS
Clients that enable intuitive, fast, and enjoyable analytics and mobility experiences across web, desktop, and mobile interfaces.
Architect · Desktop · Web · Reporter · Mobile · Communicator · Badge · Hyper · Application

SECURITY
Capabilities that enable the development of personalized and secured applications incorporating multi-factor, multi-layer authentication.
Libraries · Users · Groups · Badges · Privileges · Permissions · Roles · Security Filters

APPLICATION
Containers of actionable intelligence, packaged and published to the enterprise and departments.
Dossiers · Dashboards · Documents · Distributions · Custom Apps · Web Services · Data Services · Cards

DATA
Federated, certified collections of data published to enterprise architects and departmental Analysts, Data Scientists, and Developers.
Dictionaries · Lineage · Views · Cubes · Marts

SCHEMA
A semantic graph containing reusable objects, captured in business terms, that map to enterprise assets, and abstract complexities of the underlying data.
Models · Attributes · Metrics · Templates · Filters · Sets · Visualizations · Prompts · Forms

APPLICATION SERVICES
A suite of enterprise-caliber add-on cognitive services available for architects to quickly and easily integrate into any application.
Intelligence · Analytics · Transaction · Distribution · Telemetry · Identity · Collaboration · Geospatial · Language

PLATFORM SERVICES
Critical capabilities to deploy analytics and mobility applications with high performance and scalability on top of enterprise assets.
Optimized Multi-Source Connectivity · Parallel Processing · Multi-Node Server Cluster · Multi-Level Caching · Dynamic Sourcing · Platform Analytics · Multi-Tenancy · Usage Telemetry · Compute Elasticity

DRIVERS AND GATEWAYS
Out-of-the-box gateways and drivers that make it easy to connect to almost any enterprise information resource.
Relational · OLAP · Big Data · EMM · PACS · Logical · Application

ENTERPRISE ASSETS (150+ DRIVERS and GATEWAYS)

SQL: IBM DB2 · AWS RDS · Oracle 12c · MySQL · Google BigQuery · SAP HANA · Teradata · PostgreSQL · Microsoft SQL Server

MDX: Cognos TM1 · SAP BW · Essbase · Microsoft SQL Server Analysis Services

HADOOP: Amazon EMR · cloudera · Hortonworks · MAPR Data Technologies

NOSQL: mongoDB. · cassandra · HBASE · MarkLogic

APPLICATIONS: SAP · Oracle · salesforce · workday · Marketo · Microsoft · Adobe · aws · Google · facebook · Atlassian · slack · cisco

HIERARCHY OF NEEDS

Functionality
Enable Business Users, Analysts, and Developers to perform all tasks (build, deploy, analyze, share) across various devices (desktop, web, mobile, voice) without restriction or limitation.

Popularity
Surface integrated collaboration and sharing capabilities within applications that promote viral adoption and usage by design.

Economy
Manage multiple enterprise environments using a single powerful workstation tool for one-tap deployment, task automation, architecture management, and system monitoring.

Simplicity
Deliver user experiences, like voice, chatbots, and natural language, that feel familiar and effortless even upon first use, supported with tools that require zero training.

Scalability
Share sophisticated personalized applications, built on billions of rows of data, with 100,000s users while maintaining sub-second responses.

Stability
Deploy applications on a robust architecture with hot, warm, and cold failover strategies, clustering, and reliable governors combining to avert system crashes under peak usage and data loads.

Security
Facilitate seamless managed access to enterprise assets, controlled via a granular security model, via convenient multi-factor digital credentials.

REGULATORY REQUIREMENTS

- Data Privacy and Security
- Advertising and Marketing
- Corporate Governance
- Employment and Labor
- Financial
- Environmental
- Health and Safety

COMPETITIVE FORCES

- New Entrants
- Supplier Bargaining Power
- Buyer Bargaining Power
- Threat of Substitute Products
- Intensity of Rivalry among Competitors

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Analytics and Mobility

Let's Make Every Enterprise a More Intelligent Enterprise

MicroStrategy

Map of the Intelligent Enterprise™

MicroStrategy
Analytics and Mobility

The Intelligent Enterprise™ is the ultimate data-driven organization. It anticipates constantly evolving regulatory, technological, market, and competitive challenges and turns them into opportunity and profit. It delivers a single version of the truth *and* agility. Scalability *and* speed. AI *and* data discovery. Enterprise analytics *and* mobility. It connects to any data *and* distributes reports to thousands. An Intelligent Enterprise goes beyond business intelligence, delivering transformative insight to every user, constituent, and partner.

Becoming an Intelligent Enterprise is a journey, but you can get up and running faster than you think. **Let's get started.**

1
EVALUATE

Assess how external forces impact your organization and incorporate them into your enterprise strategy and roadmap.

2
CATALOG

Categorize your enterprise assets and identify constituents who would benefit from access to information and enterprise systems.

3
EMPOWER

Arm individuals and teams with powerful tools to explore data on their terms, while establishing a foundation for a single version of the truth across the enterprise.

4
PLOT A COURSE

Map out the people, processes, and architecture required to build an Intelligent Enterprise and launch your journey.