Map of the Intelligent Enterprise™ for the CISO

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.

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MAP OF THE INTELLIGENT ENTERPRISE FOR THE CISO

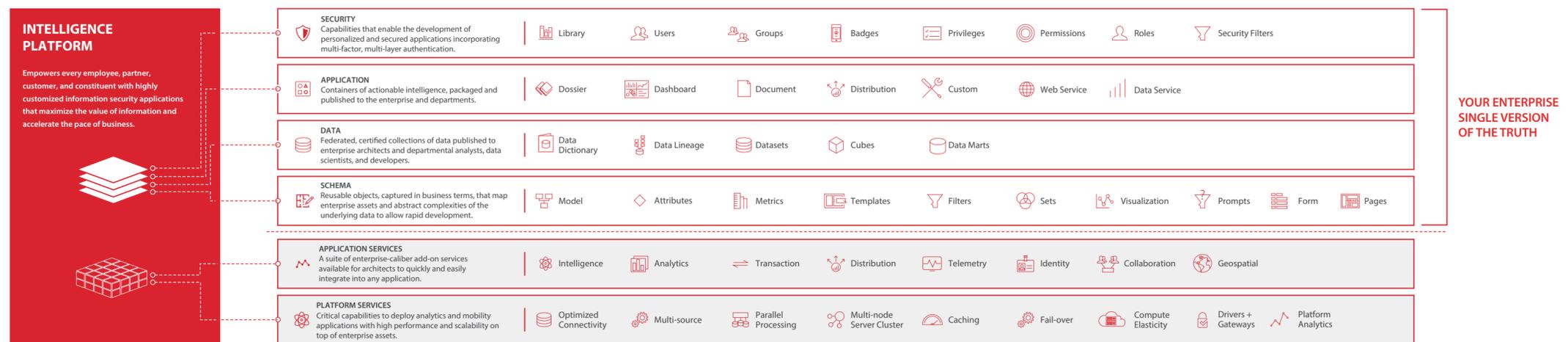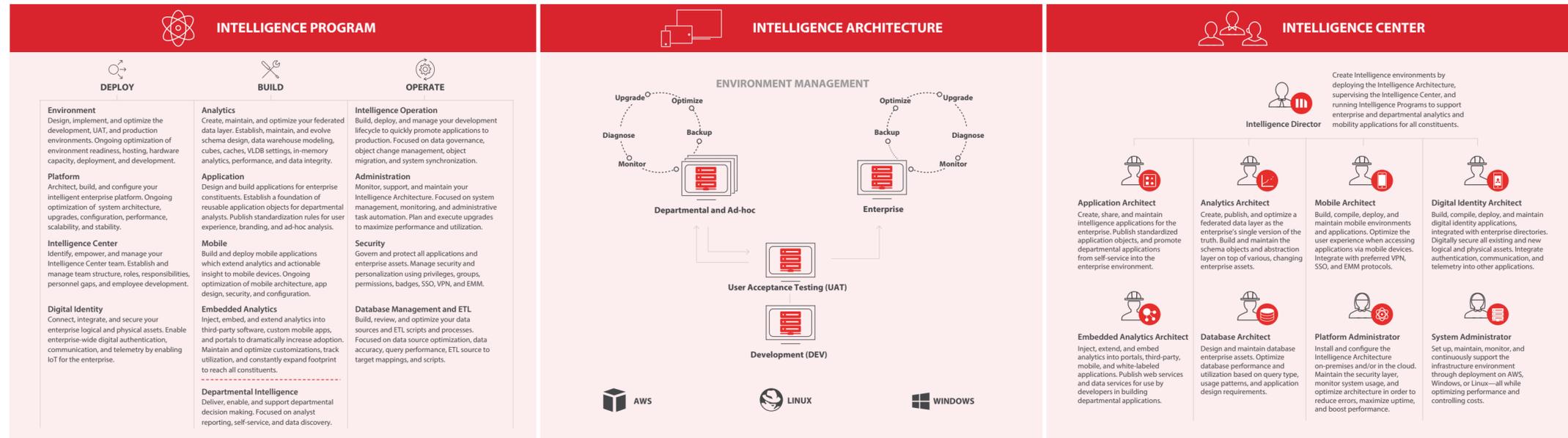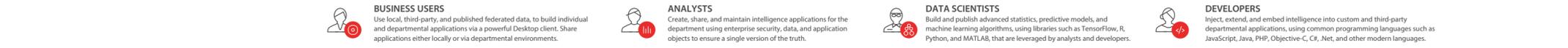## TECHNOLOGY

HARNESS INNOVATION, PROTECT DATA

CISOs are challenged to leverage new technologies including AI, machine learning, robotics, and blockchain. Their organizations demand that such innovations enhance internal applications and operations. However, early adoption to these technologies comes with inherent risk that must be responsibly mitigated. CISOs are tasked to balance these counteractive technological forces to maintain governance and compliance while promoting growth and opportunities across the enterprise.

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

MARKET

BUSINESS ENABLEMENT FOR ANY LOCATION

Empower your business users with the data and insights they need—whether at the office or in the field. By harnessing today's technologies and ensuring the safeguards necessary to deliver mobile capabilities, the CISO directly contributes to the business' success: removing traditional boundaries and pushing productivity to new heights. Evaluating emerging technologies, such as VR or medical IoT devices, is quickly becoming the domain of the CISO—assessing risks while determining how to harness innovations to drive growth.

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

CONSTITUENTS

- Chief Information Security Officer
- IT
- Sales
- Services
- Legal
- HR
- Analysts
- Vendors
- Auditors

DEVICES

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

INTELLIGENCE APPLICATIONS FOR FINANCE

- 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

DEPARTMENTAL ANALYTICS AND MOBILITY

- Security Operations
- Identity Managment
- Business Enablement
- Governance
- Risk Management
- Legal and HR
- Compliance and Audits
- Security Architecture
- Budget
- Business Intelligence

BUSINESS USERS
Use local, third-party, and published federated data, to build individual and departmental applications via a powerful Desktop client. Share applications either locally or via departmental environments.

ANALYSTS
Create, share, and maintain intelligence applications for the department using enterprise security, data, and application objects to 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 departmental applications, using common programming languages such as JavaScript, Java, PHP, Objective-C, C#, .Net, and other modern languages.

⚛ INTELLIGENCE PROGRAM

DEPLOY

Environment
Design, implement, and optimize the development, UAT, and production environments. Ongoing optimization of environment readiness, hosting, hardware capacity, deployment, and development.

Platform
Architect, build, and configure your intelligent enterprise platform. Ongoing optimization of system architecture, upgrades, configuration, performance, scalability, and stability.

Intelligence Center
Identify, empower, and manage your Intelligence Center team. Establish and manage team structure, roles, responsibilities, personnel gaps, and employee development.

Digital Identity
Connect, integrate, and secure your enterprise logical and physical assets. Enable enterprise-wide digital authentication, communication, and telemetry by enabling IoT for the enterprise.

BUILD

Analytics
Create, maintain, and optimize your federated data layer. Establish, maintain, and evolve schema design, data warehouse modeling, cubes, caches, VLDB settings, in-memory analytics, performance, and data integrity.

Application
Design and build applications for enterprise constituents. Establish a foundation of reusable application objects for departmental analysts. Publish standardization rules for user experience, branding, and ad-hoc analysis.

Mobile
Build and deploy mobile applications which extend analytics and actionable insight to mobile devices. Ongoing optimization of mobile architecture, app design, security, and configuration.

Embedded Analytics
Inject, embed, and extend analytics into third-party software, custom mobile apps, and portals to dramatically increase adoption. Maintain and optimize customizations, track utilization, and constantly expand footprint to reach all constituents.

Departmental Intelligence
Deliver, enable, and support departmental decision making. Focused on analyst reporting, self-service, and data discovery.

OPERATE

Intelligence Operation
Build, deploy, and manage your development lifecycle to quickly promote applications to production. Focused on data governance, object change management, object migration, and system synchronization.

Administration
Monitor, support, and maintain your Intelligence Architecture. Focused on system management, monitoring, and administrative task automation. Plan and execute upgrades to maximize performance and utilization.

Security
Govern and protect all applications and enterprise assets. Manage security and personalization using privileges, groups, permissions, badges, SSO, VPN, and EMM.

Database Management and ETL
Build, review, and optimize your data sources and ETL scripts and processes. Focused on data source optimization, data accuracy, query performance, ETL source to target mappings, and scripts.

💻 INTELLIGENCE ARCHITECTURE

ENVIRONMENT MANAGEMENT

Upgrade · Optimize · Backup · Diagnose · Monitor

Departmental and Ad-hoc

Upgrade · Optimize · Backup · Diagnose · Monitor

Enterprise

User Acceptance Testing (UAT)

Development (DEV)

- AWS
- LINUX
- WINDOWS

👥 INTELLIGENCE CENTER

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.

Digital 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.

Embedded Analytics Architect
Inject, extend, and embed analytics into portals, third-party, mobile, and white-labeled applications. Publish web 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

Empowers every employee, partner, customer, and constituent with highly customized information security applications that maximize the value of information and accelerate the pace of business.

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

APPLICATION
Containers of actionable intelligence, packaged and published to the enterprise and departments.
- Dossier
- Dashboard
- Document
- Distribution
- Custom
- Web Service
- Data Service

DATA
Federated, certified collections of data published to enterprise architects and departmental analysts, data scientists, and developers.
- Data Dictionary
- Data Lineage
- Datasets
- Cubes
- Data Marts

SCHEMA
Reusable objects, captured in business terms, that map enterprise assets and abstract complexities of the underlying data to allow rapid development.
- Model
- Attributes
- Metrics
- Templates
- Filters
- Sets
- Visualization
- Prompts
- Form
- Pages

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

PLATFORM SERVICES
Critical capabilities to deploy and mobility applications with high performance and scalability on top of enterprise assets.
- Optimized Connectivity
- Multi-source
- Parallel Processing
- Multi-node Server Cluster
- Caching
- Fail-over
- Compute Elasticity
- Drivers + Gateways
- Platform Analytics

YOUR ENTERPRISE SINGLE VERSION OF THE TRUTH

ENTERPRISE ASSETS

DATA
- RDBMS
- OLAP
- Big Data
- Local Files
- Cloud Data
- Real-time Streams

APPS
- Enterprise BI
- ERP
- Cloud Apps

SERVICES
- Statistical
- Charting
- Mapping
- Media
- Machine Learning
- Natural Language

PROTOCOLS
- VPN
- Directories
- PACS
- EMM

REGULATORY

ENSURE COMPLIANCE IN COMPLEX ECOSYSTEMS

With no room for error, CISOs are challenged to navigate the complexities of ever-evolving privacy and security regulations. Mandates related to GDPR, HIPAA, ISO 27001, PCI DSS, SOX, FISMA, and GLBA dictate precise requirements and safeguards when interacting with sensitive data. But with an Intelligence Program, Architecture, and Center in place, CISOs can easily unlock the power of proprietary data while ensuring that all precautions are addressed and compliance measures fulfilled.

- Data Privacy and Security
- M&A
- Corporate Governance
- Employment and Labor
- Financial

ORGANIZATION

MONITOR BUSINESS ACTIVITY IN REAL TIME

Go beyond simple safeguards and control lists. The Intelligent Enterprise allows CISOs to keep their finger on the pulse of the business by monitoring data and user behavior as it happens. With detailed access into the telemetry data generated by all machines in an organization—where they are, what they are doing, and who is using them—CISOs can pre-emptively address potential security gaps, bolster existing data vulnerabilities, and ensure that the user base and corporate posture is positioned to optimize the business and its resources.

- Digital Identity
- Internet of Things
- Capabilities
- Skills
- Security
- Cost Component

Analytics & Mobility

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