What’s new in MicroStrategy 10.11
# TABLE OF CONTENTS

**WHAT'S NEW IN MICROSTRATEGY 10.11**
- Introducing new Geospatial Services
- Enhancements for data discovery
- MicroStrategy Workstation
- Enterprise data gateways
- Hierarchy reporting
- Embedded analytics
- MicroStrategy on AWS
- Mobile
- Usher

**MICROSTRATEGY 10.4 HOTFIX 7**
What’s new in MicroStrategy 10.11

MicroStrategy 10.11 is a Feature Release that continues to add power to the 10.x product line. It delivers new capabilities, including enhanced maps for geospatial analytics with Mapbox, new out-of-the-box visualizations, intelligent recommendations for dossiers, prompts for dossiers, a new Library app for smart phones, and more.


Introducing new Geospatial Services

MicroStrategy 10.11 introduces Geospatial Services and delivers new mapping capabilities powered by native integration with Mapbox. The enhanced mapping capability is available for dossiers on all interfaces, including MicroStrategy Desktop, Workstation, Web, and Library (Mobile included). With Geospatial Services, MicroStrategy now offers advanced geospatial analytics features that allow users to get more out of their location data. This new map visualization is available in addition to out-of-the-box ESRI maps.

The new vector-based mapping option, powered by Mapbox, doubles the functionality of existing out-of-the-box ESRI maps. Vector maps are an advanced approach to mapping where features are rendered faster and smoother, providing an exceptional user experience. Users can rotate or tilt maps and zoom in or out more fluidly than before. Icons and labels adjust automatically depending on zoom levels, offering clarity from any angle.

MicroStrategy will offer two mapping options in the Visualization Gallery: Maps with ESRI (which is available out-of-the-box with the Server) and the new Geospatial Services with Mapbox, which will be available as an add-on service for the Server. Both ESRI and Geospatial Services will be available out-of-the-box with Desktop and Workstation.
Polygon shapes for every zip or postal code and for all countries

With MicroStrategy 10.11, users can leverage Geospatial Services to plot polygons on a map with global coverage down to the zip code or postal code level. Polygon shapes for maps are available for:

- More than 150 countries
- All states (US and international)
- Zip or postal codes (US and international)

Additionally, by adding a secondary geo-attribute, it is possible to easily resolve conflicts where multiple locations have identical names. If a dataset contains information for both Paris, TX, USA and Paris, France, users can easily resolve which data point is in France and which one is in the US. This feature is currently only available for area maps.

Multiple map styles for geospatial data

With the new Geospatial Services, users have multiple options for map styles. Users can select from the following style options: Basic, White, Light, Dark, Street, Topographic, Physical, Relief, Satellite and Satellite Street styles.
Enhanced mapping interactivity

Mapping with Geospatial Services is based on vector maps, ensuring faster performance and response times, even with large datasets. Analysts and consumers benefit from both added functionality and faster performance with the new map integration.

Interactivity options include:

- Options to zoom in or out and to automatically drill into data at a more granular level in any location around the world
- Multiple data selection options to highlight and select specific or multiple data points using rectangular, lasso, and circular selection tools (that allow you to change the unit from miles to kilometers)
- The ability to display tooltips with supplementary information
- The ability to layer and display multiple metrics on the same map in which each layer can leverage different graphic types, including markers, bubbles, and area charts. Users can easily toggle each of these layers and modify the order of the layers. It is also possible to hide or display layers on the map. Clusters and data labels can also be controlled at the layer level
- The ability to tilt and rotate the map to view different angles and find new perspectives
- Reset the map zoom with a reset button to reveal all the data points
More control when aggregating data into clusters

Users can now enable and disable clustering for data points on a map with more control. The screen below shows the formatting properties panel that allows authors to dynamically control zoom levels for clusters.

Dynamic display of layers based on zoom levels

With the new Geospatial Services, analysts can opt to display specified data layers at different zoom levels. This allows analysts to create maps that do not look cluttered with too many data points and only show data that is relevant to the zoom level. For example, as the user zooms in, he or she can see more granular levels of information that is not displayed when the map is zoomed out.
Color maps by attributes

With 10.11, authors can add color thresholds to attributes or dimensions, which was previously only available with metrics. With the new Geospatial Services, users can visually differentiate business dimensions on a map.

Product Comparison: MicroStrategy’s Geospatial Services vs. existing OOTB maps

<table>
<thead>
<tr>
<th>Coverage</th>
<th>ESRI OOTB</th>
<th>Geospatial Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display base map, change map styles</td>
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<td>●</td>
</tr>
<tr>
<td>Plot data as bubbles, area, markers</td>
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<td>●</td>
</tr>
<tr>
<td>Plot data as pie</td>
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<tr>
<td>Plot data as density map (based on number of data points)</td>
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<tr>
<td>Support for custom shapefiles (.kml and .shp)</td>
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<td>●</td>
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<tr>
<td>Multi-layer data visualizations</td>
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</tr>
<tr>
<td>Thresholds/Conditional formatting to the markers (color by metric)</td>
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<td>Enable/Disable clustering at layer level</td>
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</tr>
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<td>Zoom in/out or Pan (left, right, top, bottom) the map</td>
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<td>Hover over controls to view toolbar and search bar</td>
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<td>Reset Zoom/Pan/Tilt the map</td>
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<td>3 additional styles</td>
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<td>Global coverage down to postal code level (for area maps)</td>
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<td>Add thresholds/conditional formatting by attribute</td>
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<td>Same name location identifier and resolution when plotting locations with identical names</td>
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<td>New product SKU</td>
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</table>
Enhancements for data discovery

In addition to enhancing mapping options with Geospatial Services, version 10.11 introduces several advancements for data discovery across all interfaces.

Discover new insights with dossier recommendations

In MicroStrategy 10.11, dossier recommendations are available for users with MicroStrategy Desktop, Workstation, and Library. This new feature makes intelligent recommendations based on similarities and helps users discover new content and insights from dossiers created by other analysts across the organization.

Outline mode to display hierarchy data

With MicroStrategy 10.11, users can consume grid data with collapsible view options. This allows users to easily summarize multiple rows of data based on hierarchies. Users can click within the table to collapse or expand the hierarchy groups, quickly display summary rows, or reveal the details behind data for each group in a hierarchical view. This capability is now available for grids within dossiers and Report Services Documents.
New out-of-the-box visualizations

With dossiers, users can quickly visualize data with out-of-the-box grids, graphs, charts, and maps. 10.11 introduces three new visualizations with extensive use cases for scientific and marketing analyses.

**Waterfall**

This new built-in visualization can be leveraged to show the cumulative effect of sequentially introduced positive and negatives values, leading to a final value. The color on this chart shows how the initial value is affected by a series of intermediate positive and negative values. Intermediate values can either be time-based or category-based.

Like other built-in visualizations in MicroStrategy, users can format and customize the chart as needed. The properties panel offers formatting options to customize colors for positive values, negative values, or totals.

Analysts can use a waterfall chart for use cases such as visualizing revenue from a specific product type, R&D spending vs. marketing spending, profits and losses over a period of time, or a price waterfall.

![Waterfall Chart](image)

**Histogram**

The histogram visualization, available as a built-in visualization with MicroStrategy dossiers, can be used to graphically reveal the underlying frequency distribution of a metric. The data is divided into intervals, called bins. Each bin displays the number of occurrences of the values in the data set that is contained within that bin. In a histogram, the height of the bar indicates the frequency of the values in that bin.

Authors can use a histogram for the following use cases, among others: count the frequency of observations in a range of interest, or determine the most frequent value in a dataset.

![Histogram Chart](image)
Box Plot

The box plot is now available as a built-in visualization with dossiers. It is a popular way to display the distribution of data based on quartile and median values of a metric, as well as visualize outlier values.

This visual is a standardized way of displaying the distribution of data based on five data measurements: the minimum, the first quartile, the median, the third quartile, and the maximum. The boxes in a box plot are the first and third quartiles of the data with a line indicating the median value. The whiskers indicate the variability outside the upper and lower quartiles.

R Integration Pack included out-of-the-box

In MicroStrategy 10.8, R was bundled and installed with the main platform installation for an easier getting-started experience. With MicroStrategy 10.11, the R Integration Pack is enabled out-of-the-box in Desktop and Workstation. This enables analysts to get up-and-running with R without having to install the R Integration Pack separately, removing a major obstacle for leveraging R in MicroStrategy. Now, analysts can quickly and easily incorporate predictive insights from R, such as k-nearest neighbors, random forests, neural networks, and regression models in their dossiers and documents.
Prompts for dossiers

Dossiers with MicroStrategy 10.11 will support prompts for end users. By designing dossiers with prompted datasets, end users will now be able to proactively limit the data load prior to running a dossier. This not only allows for dossiers to have personalized information, but also improves performance by processing only the necessary data.

Analysts can now leverage prompted datasets when creating a dossier in any authoring interface, MicroStrategy Web, Workstation and Desktop, or while consuming from the MicroStrategy Library.

Report Services Documents that contain prompts can now be accessed via the Library with an enhanced prompting interface.
Save prompt options

Similar to Report Services Documents, authors can set the default prompt choices for dossiers and whether or not the prompts should be shown on initial execution.

In the MicroStrategy Library, an end user’s prompt selections will be retained each subsequent time the dossier is opened. Saving prompt selections helps end users as they do not need to re-enter their choices each time they run the dossier from the MicroStrategy Library. If users want to change their answers, they can simply click on the “re-prompt” or “reset” buttons, which allow the users to reset the prompt selections as needed.
Pause and resume dossier execution to improve development time

When authoring or editing a dossier, analysts drag and drop data onto the dossier. When data is added to the dossier, it is instantly visualized as a grid or chart. For larger datasets, however, because the dossier executes each time data is added to the dossier, there might be a lag between adding data to a dossier and seeing the new visualizations. This happens each time a new data point is added to the dossier.

With MicroStrategy 10.11, users can pause live queries or dossier execution while adding data to a dossier and prevent the dossier from processing or executing the visualization each time a new data point is added. This allows users to create or edit dossiers without lag, which is particularly important when working with live connections to sources, large datasets, or slow connections. Dossier execution can be resumed once all changes have been made. This also applies to situations when filters need to be modified.

The ability to pause and resume dossier execution is available as a button on the menu bar of the dossier authoring interface and is available for MicroStrategy Desktop, Web, and Workstation.
Load dossier chapters on-demand

By default, when a dossier is opened, the data for all chapters and pages is executed and loaded. With MicroStrategy 10.11, users can design dossiers that only load the initial chapter when opened. This option can be set on the dossier properties window, and is particularly helpful in improving the performance for dossiers that contain several chapters and pages.

Add direct links to other pages or to separate dossiers, reports, and documents

With MicroStrategy 10.11, analysts can now add direct links within a dossier to:

- Any external URL
- Other pages within the dossier
- Other dossiers, reports, or documents (when connected to a MicroStrategy environment)

This will help authors of dossiers embed workflows that provide consumers with options for guided analyses. Authors can add links via Desktop, Web, or Workstation.
Seamless navigation between MicroStrategy interfaces without re-authentication

With MicroStrategy 10.11, users can switch between interfaces without the need to log in multiple times. For instance, when an author logs into MicroStrategy Web and launches the MicroStrategy Library, or vice versa, no additional authentication is needed.

This seamless navigation between MicroStrategy Web, Desktop, Workstation, and MicroStrategy Library is supported across all the authentication modes: Standard, LDAP, Kerberos, Usher, SAML, Guest, and Trusted.

New onboarding experience for Library

MicroStrategy 10.11 provides new introductory windows that offer simple product walkthroughs to help new users get familiar with the layout of the MicroStrategy Library. These walkthroughs enhance user experience by helping them learn about MicroStrategy’s capabilities. The walkthroughs are available for both MicroStrategy Web and Mobile.
**MicroStrategy Workstation**

Add row and column level security to your data directly from MicroStrategy Workstation.

With MicroStrategy 10.11, administrators can create and apply security filters directly from Workstation that limit the data that users can see when accessing a dossier or dataset. Administrators and developers who use Workstation to create and publish datasets or dossiers on a Server can now personalize the content for a specific end user.

With a simple interface, administrators can now not only create users on Workstation, but can also assign and control security access to every user. Security can be assigned at the row level via security filters to control what row-level entries the end user can access.

Additionally, administrators can also assign “Object Security Access” to any user. This filter allows administrators to add security at the column level and control which attributes and metrics users are able to see.
Create new application in Workstation

With MicroStrategy Workstation 10.11, administrators can now create new applications, or Projects, on a server. Each application offers a secure environment for analytics content, like reports, datasets, dossiers, and documents. It also securely houses components like users’ objects, filters, prompts, database connections, templates, and more.

Users will need to be connected to an environment or a server in order create an application. Once an application has been created, its contents can be accessed via Workstation, Desktop, Web, Mobile, Library, and Developer.

Publish multiple dossiers or documents to the MicroStrategy Library

With version 10.11, administrators can select multiple dossiers or documents at a time from MicroStrategy Workstation and publish them to users' Libraries. Via the MicroStrategy Library, end users can access personalized dossiers and documents on a browser or on a mobile device.

Administrators can select either individual users or user groups as recipients for the dossiers or documents. Additionally, it offers the option to send an email notification to the user when the dossiers are published.
New security role for collaboration

With MicroStrategy 10.11, MicroStrategy Workstation introduces a new out-of-the-box security role – Collaborator. This new role allows users to manage the number of users that can view and collaborate on a dossier or document to which they have access. MicroStrategy Workstation provides an intuitive and easy-to-use interface to easily change and manage the security roles for a user or user groups.

The new out-of-the-box security role is available in addition to Administrator, Certifier, Analyst, and Consumer. With these security roles, administrators can control the overall governance of applications.

This new role corresponds to a new privilege that is available on the Server. The privilege ‘Use Collaboration Services’ can also be set via MicroStrategy Web and MicroStrategy Developer. This privilege will control access to collaboration capabilities with MicroStrategy Library (both on Web and Mobile Library applications).

In addition, the new collaboration panel in MicroStrategy Library allows users to immediately collaborate, communicate or connect with other users, write comments, mention other users, embed contextual information like filters in the comments, and see all the other online users.
Enterprise data gateways

New Connectors for Tableau, Qlik, and Microsoft Power BI

New connectors for Tableau, Qlik, and Microsoft Power BI help MicroStrategy promote a more powerful and open analytics ecosystem. These new connectors enable business users who rely on different data discovery tools to bridge applications across the enterprise—eliminating fragmented data silos and allowing users to benefit from a trusted single version of the truth within their existing investments.

Visit the MicroStrategy Community to learn more and download these new connectors.
New out-of-the-box data connectors

MicroStrategy provides out-of-the-box connectivity to a wide range of enterprise applications; MicroStrategy 10.11 introduces more connectors. New JDBC connectors to popular enterprise applications are shipped out-of-the-box with this latest feature release, allowing end users to quickly access, visualize, and analyze information stored in common vertical applications. The full list of new connectors is available below.

Out-of-the-box connectivity to the Microsoft ecosystem

MicroStrategy 10.11 delivers expanded connectivity and enhanced support for Microsoft data sources, which makes it easier for organizations to take advantage of their investments in Microsoft technology. This includes out-of-the-box connectors for Microsoft Azure data sources, including Azure SQL Data Warehouse, Azure Cosmos DB, and Azure HD Insights.

MicroStrategy 10.11 also certifies Microsoft SQL Server 2017 as a warehouse, metadata, and statistics database.
New connectors for Big Data

MicroStrategy 10.11 continues our work to refine and deliver optimized connectors to big data sources including Druid, MongoDB, and Pivotal Greenplum.

- **Druid** is a columnar-oriented, open source, distributed data store. It is designed to ingest massive quantities of event data and provide low latency, real-time queries on top of large datasets. Prior to MicroStrategy 10.11, Druid was supported through a custom connector available on the MicroStrategy Community. With MicroStrategy 10.11 organizations can now connect to Druid using an optimized, out-of-the-box connector.

- **MongoDB** is a NoSQL database that uses a document-oriented data model based on JSON. MicroStrategy 10.11 now supports the native MongoDB Connector for BI, in addition to the existing MongoDB ODBC driver. This new connector leverages the MySQL ODBC driver for MicroStrategy connectivity. As the connector is built by the team at MongoDB, rather than a third-party vendor, it is optimized and designed specifically to convert SQL into Mongo queries. This connector gives organizations the ability to more easily connect to their data stored in MongoDB.

- **Pivotal Greenplum** is a massively parallel processing (MPP) data platform based on the open-source Greenplum database. MicroStrategy 10.11 provides updated and enhanced support for Pivotal Greenplum and is now certified with Greenplum version 5.x.

Push-down support for derived attributes

Prior to MicroStrategy 10.11, derived attributes for live connect cubes were processed in-memory. For certain big data production scenarios, this proved to be impractical. In MicroStrategy 10.11, derived attributes are evaluated at the data source level when all required columns come from the same table. This covers most use cases and makes it more practical to create derived attributes on big data sources.
**Enhancements to the MicroStrategy Hadoop Gateway**

The MicroStrategy Hadoop Gateway, built on top of Spark, provides native connectivity to data in Hadoop and high-speed parallel data transfer between the Hadoop Distributed File System (HDFS) and the MicroStrategy Intelligence Server.

MicroStrategy 10.11 delivers significant enhancements to the MicroStrategy Hadoop Gateway, including a greatly simplified installation and deployment process and enhanced data wrangling that leverages the native Spark API.

**Simplified installation**

In prior versions of MicroStrategy, installation of the MicroStrategy Hadoop Gateway depended on three different sources: JARs provided by the cluster, Hadoop JARs, and driver-program dependent JARs. In prior versions, the administrator performing the installation needed to verify several external dependencies which varied from cluster to cluster.

In version 10.11, the Hadoop and cluster JAR file dependencies have been excluded, and all the dependent classes are stored in a single JAR file. This, coupled with a new installation script, has greatly simplified the process of deploying the MicroStrategy Hadoop Gateway. The new installation script automatically detects cluster version, validates the environment, and copies required libraries based on the specific cluster type and version of your deployment.

**Enhanced data wrangling using the native Spark API**

Starting with MicroStrategy 10.11, data wrangling functions are now processed on the Hadoop cluster when data is imported through the MicroStrategy Hadoop Gateway. Wrangling functions are now performed using native Spark API functions instead of the Spark-based OpenRefine functions used previously. This new configuration has resulted in up to six times better performance when compared to previous versions.
Proxy Support for Web sources

A proxy server acts as an intermediary between a user’s computer and the internet to prevent unexpected access for security reasons. Supporting a proxy configuration is important for customers who prefer the MicroStrategy Intelligence Server, as these users have no direct access to the internet. MicroStrategy supports several web sources like Facebook, Twitter, Salesforce, etc., where users can access data and perform analysis. In prior releases, users could only access these web sources in a non-proxy environment. With MicroStrategy 10.11, support has been added for proxy servers for several data sources like Salesforce, Twitter, Google BigQuery, Facebook, XQuery, and data from URLs.

Improved data load execution time in Enterprise Manager for Oracle database

With MicroStrategy 10.11, several enhancements have been made to the stored procedures in Oracle databases that have resulted in improved reliability and performance of the Enterprise Manager data load. Internal benchmark tests for Oracle databases have shown about a 30% decrease in data load time.

Ability to execute “one job” per subscription

Organizations use MicroStrategy’s Distribution Services capability to deliver reports and dashboards to thousands of users. In most cases, it’s the same set of reports that gets emailed to recipients. In prior releases, an individual Intelligence Server job was created for each subscription; this increased the load on the Intelligence Server unnecessarily, as recipients often routinely receive the same set of reports. With MicroStrategy 10.11, recipients are bucketed into similar groups based on their security profile, and a single job is executed for each group of users, reducing the load on the Intelligence Server and utilizing server resources in a more efficient manner.

Hierarchy reporting

MicroStrategy provides analysts with a mechanism to create and interact with hierarchy reports to visualize ragged hierarchies. The ability to build hierarchy reports is supported for MDX sources, including MSAS and Essbase.

When users connect to these sources, the product retains the hierarchies within their sources as it imports the data into MicroStrategy. The product does this by creating a new “hierarchical attribute” that can be used as any other reusable object within dossiers. The data from these sources can be used by other analysts for data discovery and by report developers to build dossiers.

We’ve continued to refine our hierarchy reporting capabilities with a focus in 10.11 on enhancing data security, allowing custom sorting and controlling calculation order of derived elements and metrics.
Data security for Hierarchy Reports

All enterprise-class BI systems must provide a mechanism to secure data so users are able to only view data they should have access to. In prior versions, administrators have used security filters to enforce data security on traditional project schema with normal attributes. In MicroStrategy 10.11, it is possible to define security filters on hierarchical attributes as well, allowing customers to deploy hierarchy reports securely and easily across their organizations.

Custom sorting of hierarchy elements

Business users require the flexibility to re-order data, irrespective of how the data architect has modeled the data. Prior to version 10.11, users were only able to sort elements in either ascending or descending order. With this release, users will have fine-grained control over the order in which data is displayed by having the ability to manually sort hierarchy elements.
Control calculation order of derived elements and metrics

When analysts view a report, the data as initially shown may not completely answer their questions. As analysts interact with the data, they may need to create new calculations between rows or columns on the fly. Without the ability to control the calculation order of derived elements and derived metrics, the value of a metric can be incorrect.

In prior releases, report developers had the ability to specify the calculation order for reports in MicroStrategy Developer. In MicroStrategy 10.11, report developers can set the order in which derived elements are calculated for hierarchy reports, helping produce numerically accurate reports.

Embedded analytics

Sorting support with JSON API

One of the greatest strengths of MicroStrategy is its centralized metadata. This metadata layer supports reports, dashboards, and analytical applications across the entire MicroStrategy environment by ensuring a trusted, single version of the truth. Organizations can use RESTful APIs to leverage MicroStrategy's semantic layer to be the single version of the truth for other 3rd party front-facing applications, as well. This can be achieved by accessing data in JSON format for their custom applications in a highly governed manner.

MicroStrategy 10.11 enhances the JSON data API by adding support for sort, so developers can sort the data before accessing it from the MicroStrategy Intelligence Server.
**MicroStrategy on AWS**

**Share environments with colleagues**

MicroStrategy on AWS now allows administrators to invite collaborators to their environments, allowing multiple people to manage an environment. Collaborators will have the ability to start, stop, resize, restart, and even schedule tasks. This will allow organizations to oversee environments in case individuals are not available.

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**Easily monitor your instances**

MicroStrategy on AWS lets administrators monitor and manage the status and performance of their instances and services from right inside the provisioning console. Administrators can now see CPU usage and memory usage on the entire instance, or at each individual service. Trends are provided so that administrators can make informed decisions on when to scale their environments up or down based on usage.
Manage MicroStrategy Services

MicroStrategy on AWS allows administrators to start, stop, or restart the entire environment or the individual instance. With version 10.11, MicroStrategy on AWS allows administrators to perform these actions at the specific services level. These services help manage the Intelligence Server, export engine, messaging services, or security services without having them interfere with other services. If administrators need to stop the collaboration service, they may do so, and all users will be unaffected and able to access the MicroStrategy Platform.

New Data Centers

As more and more organizations look to deploy MicroStrategy globally, we are always expanding our MicroStrategy on AWS global footprint. Today, organizations can deploy in two new regions, Singapore and Canada, totaling ten regions around the world:

- US East - Northern Virginia, Ohio
- US West - Oregon
- Asia Pacific - Singapore, Sydney, Tokyo
- Canada - Central
- Europe - Frankfurt, Ireland, London
**Mobile**

**MicroStrategy Library**

**MicroStrategy Library for smartphones**

Smartphones provide the ultimate utility when it comes to convenience and availability. Further leveraging MicroStrategy’s responsive design capabilities that enable dossiers to render beautifully on any device and form factor, users can now consume dossiers via apps optimized for iOS and Android smartphones.

Users can download the MicroStrategy Library app for iPhone or the MicroStrategy Library app for Android in the Apple and Google Play app stores, respectively.

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**Context-aware, touch-optimized Geospatial Services**

As specified in the Analytics section, MicroStrategy’s new Geospatial Services, powered by a native integration with Mapbox, can be leveraged in the MicroStrategy Library app with all the available features in Library on Web. In addition to the functionality available on Web, Mobile users can leverage additional capabilities as follows:

**Geolocation prompts**

The geolocation prompt filters the data and pinpoints the exact location on the map by using the device’s GPS location services. This provides users with rapid access to context-aware geospatial analysis.
**Tilt and Rotate**

Align the map with your fingertips to tilt and rotate the map view. This provides users with extensive control to position the orientation of the map.

**Native gestures for zoom and data selection**

Use native gestures such as tap, pinch, and pan to interact with the map, including displaying information windows or zooming in and out swiftly. Users can leverage the free form lasso options to select a specific map area to highlight and filter key data points.

**Home button**

Reset the zoom level using the Home button in the map to quickly return to the default zoom setting.
Prompts for quick access to relevant data

As introduced in 10.11 dossiers on Web, prompts are now supported on mobile. For efficient prompt selection on mobile, users can leverage Location Services prompts, barcode prompts, and more.

Designing dossiers with prompts on mobile can be helpful in optimizing performance and user experience. For example, a dossier on product sales that loads data for one category instead of all 15 categories will render faster. If a user wants to look at other categories, they can easily re-prompt the dossier via the re-prompt button to access the analytics for that other product category.

MicroStrategy Library and MicroStrategy Mobile

Seamlessly collapse and expand grids content with outline mode

As introduced in 10.11 for Web, Outline Mode also works across all MicroStrategy Mobile and Library apps. Outline Mode provides users with the flexibility to expand and collapse rows of data with a single tap. This is especially beneficial on mobile devices with limited screen real estate. For example, Outline Mode adds a hierarchical structure to long grids for financial data. Users can expand and collapse business groups and categories in the balance sheet to get more insights.
Face ID integration for more convenient access

iPhone X users can use Face ID as an authentication method via a native integration with MicroStrategy Mobile and Library apps. At the app level, users can use the Face ID instead of the device passcode to unlock apps. At the document level, users can be prompted to use Face ID before gaining access to certain documents and reports as an additional authentication to secure documents. This provides on-the-go business users with a quick, convenient way to access their apps and analytics.

MicroStrategy Mobile on iOS

Blurred app content for data protection

App content is now blurred within the task manager on iPad and iPhone while apps run in the background or while switching between apps. This new capability provides additional security and prevents unauthorized access and unintended views of sensitive data in the task viewer.
Log Enhancements for performance improvement

MicroStrategy Mobile iOS users can now store large amounts of log information within the app. This enhancement enriches the user experience by reducing the total time it takes to resize and display logs.

Log entries in the mobile app are now classified into different modules, such as performance, memory usage, notifications, network, preferences, EMM, restrictions, and general. End users can filter the modules and view the log entries to get a better understanding of app operations. For example, they might look at the memory usage log to understand why a large document or multimedia file didn’t load and see how much space they need on their device to load it properly. This also helps end users provide the logs to administrators to conduct further analyses and performance optimization tweaks.
Usher

**Usher localization: expanding beyond English (Usher Badge)**

Usher Badge now supports MicroStrategy-supported languages, which include German, French, Spanish (EU), Italian, Portuguese (BR), Dutch, Polish, Swedish, Danish, Korean, Japanese, Simplified Chinese (CN), and Traditional Chinese (TW). This localization includes out-of-the-box Usher labels, but it also supports Administrator-defined custom fields by allowing the Network Manager Administrator to enter their own translations for custom-defined fields. The language that is displayed in Usher is based on the phone’s language setting.
Multi-attribute search (Usher Professional)

Usher Professional now enables users to search on one or more directory attributes simultaneously, making search much more powerful. For example, a user could search for a colleague's last name within a certain division or department. Attributes in both Active Directory and non-Active Directory Usher Networks are supported.

Backup and non-smartphone access (Logical Gateways, Early Adopter)

The Backup Access feature provides an Usher authentication mechanism for single sign-on login to web applications, without the user needing a smartphone at the time of login. Whether the user simply does not have a smartphone, its battery has lost power, or it was misplaced or stolen, the user would still be able to log into single sign-on applications with MicroStrategy Usher.

The Backup Access authenticating mechanism is a one-time passcode (OTP). The OTP can be provided to the user via email or an SMS text message to an alternate mobile phone. The email address or alternate mobile phone number is preregistered by the user in the self-service portal, or can be imported from one or more Directory Gateways. A switch in Network Manager allows an administrator to enable users to update their own backup phone numbers and email addresses in the self-service portal. If not enabled, the data is only able to be updated from the automated Directory Gateway(s) synchronization process.
Multi-directory support (Directory Gateways)

Usher now supports multiple directory sources simultaneously, building a composite identity record by pulling all mapped attributes for the person from across all directories. Directories may be organized on order of precedence for when duplicate records or attribute data are discovered, and log files report all conflicts encountered for every synchronization attempt based on user name match within different directories.

Full offline desktop login via USB cable (Desktop Agent)

Enable frictionless, secure login to the operating system on a user’s computer by using a USB cable between their Usher device and their computer. This avoids the need for a Bluetooth or internet connection, ideal for high security environments (e.g., data centers, government, military) and remote environments (e.g., aircraft, vehicles, ships, field locations). **Supports MacOS desktops and iOS smart devices.**

**MicroStrategy 10.4 Hotfix 7**

Simultaneously with the release of version 10.11, the latest hotfix is available for the platform release: MicroStrategy 10.4 Hotfix 7. The latest hotfix resolves over 225+ customer reported defects and introduces several stability, performance, and security enhancements for the 10.4 platform release.

Customers can apply 10.4.7 directly on top of their existing 10.4 deployments, as this automatically includes all defects fixed in the earlier hotfixes. This hotfix will be available on Windows, Linux, AIX, and Solaris and can be downloaded from the MicroStrategy download site. This hotfix does not require a metadata update, but rather lays down the patches on top of an existing environment.