MicroStrategy 10.4

New features overview.
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What’s new in 10.4

Version 10.4 introduces several new features that provide better performance and scalability enhancing the overall user experience. In addition, the release introduces a host of new features across the analytics, mobility and security platform, allowing users to build applications faster.
MicroStrategy 10.4 delivers high performance and scalability

Server clusters scale up to eight nodes

Today's analytics deployments deal with a tremendous amount of data and support hundreds of users who expect speed-of-thought response times. MicroStrategy has tools for clustering, load balancing, and job prioritization that help organizations manage multiple applications. With version 10.4 we've gone a step further, doubling the number of servers you can have in a cluster, and giving you the flexibility to assign dedicated resources to specific users, user groups, and types of work through work fencing.

In previous versions, MicroStrategy supported clustering of up to four nodes. Version 10.4 greatly improves the horizontal scalability of Intelligence server clusters, and organizations can now include up to eight intelligence server nodes in a cluster.

Beyond being able to further scale in volume of analytics content, this will improve overall SLA's by reorganizing large clusters for higher availability and faster service recovery, reduce TCO by consolidation multiple environments, and remove friction to deploy new applications and increase user capacity.

Work fencing

MicroStrategy 10.4 not only allows you to deploy analytics across a larger cluster of Server nodes, but also provides better means to control and manage the environment. Work Fencing, now available with version 10.4 allows administrators to ensure that there's always dedicated computing power available to support specific users, user groups, or tasks.
Targeting use cases including recurring batch jobs, premium customers with stringent SLAs, or a group of executives who demand faster response rates – work fencing guarantees performance and availability at all times. Critical dashboard applications or users no longer have to compete for resources, and organizations can deliver the highest possible quality of service, and improve the overall performance of the system.

MicroStrategy 10.4 will offer the ability to fence users/user groups and workloads. With the user fencing capability, administrators will be able to steer a certain user group and their actions to a dedicated portion of the cluster. Similarly, with workload fencing, administrators can isolate scheduled workload from other work within a cluster. This would enable an administrator to ensure that a sudden burst of scheduled activity does not cause degradation in performance for currently logged on users or in certain cases bring down the server.

In addition to supporting larger cluster nodes and providing the means to better manage and control it all with fencing options, there are several other performance related improvements across the release that improves the overall user experience.

**Faster data upload from CSV files with new parallel processing capability**

MicroStrategy 10.4 introduces performance enhancements during in-memory data upload from CSV files. With this new functionality, users are able to publish cubes from CSV files faster than before, by being able to import data using multiple threads.

CSV files have broad applications in the self-service analytics world and is heavily relied upon as a data source; thus, MicroStrategy is committed to improving the user experience on all fronts. This
feature improves user experience and response times by increasing the parallelization while loading CSV files into memory by utilizing multiple threads.

**More coverage for parallel SQL execution**

Version 10.4 expands support for parallel SQL fetch for pre/post statements. Customers would be able to leverage the parallel execution feature even for the reports containing pre/post statements, decreasing the total execution time for such reports by running certain passes in parallel.
Lower peak memory usage for incremental cube refresh

In prior versions, users would need RAM 3 the size of the cube in order to publish a cube. With incremental refresh, the requirement for previous versions goes up to 4x RAM, as the original cube stays loaded in memory. Starting 10.4, performance enhancements introduced in this version will lower the memory usage for incremental refresh of cubes, improving average peak memory usage by up to 20%.

Beyond performance and scalability improvements, the latest release continues to invest in making the workflows, especially for business users and dashboard designers, easier than ever before.
Ease of use enhancements

Conditional formatting on attributes

With version 10.4, analysts and dashboard designers can take advantage of even more formatting capabilities. Previous versions only supported thresholding on metric values. MicroStrategy 10.4 allows users to create conditional thresholds to attribute elements.

This is now possible in dashboards, reports, and documents, making it a lot easier to consume information and identify trends. If a user wants to highlight a specific item category or row in a grid, like the top revenue performers, they can define rules, and even cascading rules, to format attributes.

Easy access to third-party visualizations

MicroStrategy Desktop 10.4 introduces a new workflow, with a new menu option in the visualization gallery to be able to more quickly include new visualizations from a MicroStrategy public library of pre-configured custom visualizations. Users can now quickly expand their options and go beyond the out-of-the-box charts and graphs, with 1000s of custom visualizations via open-sourced visualization libraries.

This growing MicroStrategy public library contains several custom D3.js visualizations and Google charts that any MicroStrategy user can load into their existing data discovery dashboards and use on top of their data.

Related to this, with version 10.4 users can remove the custom plugins for new visualizations from MicroStrategy Desktop gallery.
Easy-to-develop custom visualizations

MicroStrategy 10.4 allows developers to use the Desktop interface to develop custom visualizations. Using a visualization builder tool plugin with MicroStrategy Desktop (Mac or Windows), developers are now able to create new custom visualization plugins more easily with this offline interface. The visualization builder tool can simplify the management of common details such as file structures and functions, while guiding developers to leverage best-practices for visualization design.

Color by attributes on custom visualizations

In version 10.3, the ability to add thresholds on metrics was made available in custom visualizations. Version 10.4 now supports the ability to color-by attribute. This requires an API that needs to be included within the custom visualizations in order to design these plug-ins.

Easily swap to custom visualizations

With version 10.4, when a user switches a native visualization (that has objects within the drop zones on the dashboard interface) to a custom visualization (D3.js, Google charts etc.), the visualization will retain all the attributes and metrics included in its drop zones. This was not possible in version 10.3,
and users previously had to rebuild the visualization when they switched to a custom visualization. To do this, an API is needed that lets developers implement a logic to persist the objects and not reset them each time a user switches to a custom visualization.

**Smart defaults**

With version 10.4, MicroStrategy provides a more modern appearance and enhances the default options for various visualizations and layouts while building a dashboard or performing data discovery. This greatly reduces the time analysts and designers spend on improving the appearance and readability of visualizations.

**Add dynamic links to grid reports**

MicroStrategy 10.4 allows users to link the cell-level information with configurable dynamic links within a visualization. This improves the overall storytelling capabilities by providing investigative or drill-down workflows with the added ability to access external content.

Users will be able to include dynamic hyperlinks to a grid report in MicroStrategy Desktop and Web to access content on external systems from MicroStrategy.
Certified driver detection

MicroStrategy 10.4 makes it easy for developers and analysts to quickly and easily identify the installed drivers on a particular machine. With the improved driver detection logic users can create DSN-less connections to various sources. Also it is helpful that the latest version recognizes if a newer version of a driver for a database is available.

Secure URL data access

With version 10.4, administrators can securely gate the external URLs or the locations from which data is imported into MicroStrategy. When users use File://<url> to access data, there are always security concerns. MicroStrategy 10.4 allows administrators to control URL data access through an “Allowed URLs list” which only permits URLs in the list, for both data access options, file from URL connector and public data connectors.

Combine multiple dashboards and collaborate faster

With MicroStrategy 10.4, business users can tell better stories and collaborate faster with others by instantly being able to embed new dashboards into existing dashboard applications in both MicroStrategy Web and Desktop. This feature allows users to import existing dashboards and it will automatically be added into the dashboard as an additional sheet. This feature was introduced in version 10.3 for MicroStrategy Desktop only, and is now also available in MicroStrategy Web.
Easier attribute relationship creation and management

When creating and managing schema relationships, MicroStrategy exposes how relationships are managed in the metadata. Users are able to control whether the schema relationships are managed manually or automatically. Version 10.4 validates all the defined relationships and, informs the user of any discrepancies.
MicroStrategy Platform 10.4

Support Kerberos authentication for XQuery

MicroStrategy 10.4 provides more robust Kerberos authentication support for XQuery in order to allow enterprise users to access web services. With version 10.4, MicroStrategy supports both pass-through Kerberos authentication and standalone Kerberos authentication when using XQuery reports.

Silent installation of MicroStrategy Enterprise platform

With version 10.4, administrators can now easily install MicroStrategy Enterprise platform. With the new silent install that is available with the Express option in Windows, it is now possible to deploy the MicroStrategy platform across the network through the Microsoft System Management Server (SMS) or its equivalent (for example, IBM Trivoli). In addition, OEM customers can also embed the MicroStrategy platform within third-party custom applications and other installation routines – making it very easy to get started with the latest version of the enterprise platform.

Improved mobile experience for MicroStrategy Demo app (Tutorial)

MicroStrategy 10.3 introduced a new landing page for MicroStrategy Tutorial in Web. With version 10.4, a similar experience is now available on Mobile as well. The Express install auto-configures mobile links, and the Tutorial project is designed for smartphones and tablets for both, iOS and Android.
New certifications and updated drivers

The following certifications were completed in version 10.4:

- SparkSQL 1.6
- MemSQL 4.x
- SAP Hana 11
- Presto driver 0.143
- Support for SIMBA driver for Hive. This will provide a vastly improved user experience, reliability, and performance. The driver is supported for Windows and Linux.

Universal MicroStrategy 10 license key

MicroStrategy 10.4 introduces a single, permanent MicroStrategy 10 license key—customers no longer need to request a new license key for each upgrade. Starting with version 10.4, customers can use this permanent key to install 10.4 or any later release on version 10. This enables customers to easily upgrade to the latest version immediately, and only need to download the latest version.

Customers on version 10.3 can use the same license key to upgrade to version 10.4 and beyond. On versions prior to 10.3 customers will need to request a new MicroStrategy 10 license key, which they can use for version 10.4 and beyond.

The process to install the software will remain the same, and customers will still need to download the latest versions. A new license key may be requested to add new users/CPUs or to change configuration.
Increased interactivity for graphs in documents

With version 10.4, we now support drilling and sorting on graphs in documents, while in presentation mode. This was previously only available on grids, and with the current release, there is more interactivity possible on documents, while still in presentation mode.

Column re-sizing for grids in document presentation mode

Users can now resize grid columns in a RSD document by dragging column borders when running the document in presentation mode. This will get us closer to parity with the deprecated interactive mode and provide users with a more consistent experience across both documents and dashboards.
Custom home page

Administrators can now publish custom home pages to users and user groups, which can consist of news/announcements, links to documents, and pin popular reports and folders. New in version 10.4, administrators can drive this out to larger user communities.
Early adopter preview features

Hierarchy Reports

Starting in 10.4, users can now create hierarchy reports that offer ragged hierarchies, and commonly used for financial reporting. This version supports data from MDX sources (MSAS and Essbase), and is currently being made available as a preview feature.

Within the product, this manifests as a new hierarchical attribute object that users can include within dashboards in MicroStrategy Web. Users can then perform ad-hoc analysis such as tree display for hierarchies, hierarchy aware sorting, and hierarchy filtering.

JSON data API

As a preview feature and new in version 10.4, we have exposed a programmatic way to easily access and extract data that can be leveraged by other applications. MicroStrategy 10.4 supports a RESTful API to extract subsets of preprocessed data which can be easily used by external applications, very commonly used across OEM customers and large enterprises.
Parallel cube re-partitioning

With version 10.1, MicroStrategy tightly integrated its in-memory architecture with data access and visualizations engines for enhanced performance. Customers could partition/re-partition their cubes without having to re-upload the data using only one processor core.

With version 10.4, as part of the improvements around performance and scalability, MicroStrategy offers the ability to repartition cubes using same number of cores as cube publishing.
MicroStrategy Mobile 10.4

iOS

Support for multi-layers on maps
Layer different datasets on the same map for quick comparison and visual correlation. Each layer can leverage different data visualizations including markers, bubbles, density, and more. Use the interactive filters to hide and show the multiple layers.

Ability to export reports to Excel
Export reports directly from your mobile device for further analysis in Excel. Share exported reports via email.
Conditional formatting of attributes

As in MicroStrategy Web 10.4, users can now conditionally format attribute elements, qualifications on other attributes, and qualifications on metrics on iOS devices.

Thresholds and filtering in custom visualizations

In 10.4, custom visualizations (i.e. D3) can target or be targeted by other visualizations. It is now also possible to set custom thresholds on D3 visualizations as could be done on Web previously.

Easy access to ‘My Reports’ folder

Conveniently access ‘My Reports’ folder from the toolbar. Users can access personal views of reports, documents, and dashboards. Users can view ‘My Reports’ for single or multiple projects.
Enterprise Mobility Management (EMM)

AppConfig (formerly known as ACE) support in iOS.

In addition to our native integration support with AirWatch, MobileIron, and Good Dynamics, MicroStrategy now provides native integration to configure and secure apps on iOS based on AppConfig guidelines.

The integration with AppConfig will result in more consistent, open, and simple ways to configure and secure mobile apps.

Android

Personalized alerts via push notifications

Set up custom alerts based on changes in metric values and leverage push notifications to send personalized alerts to Android users. Users can tap on the notifications directly to open relevant reports or documents.
D3 visualization support on Android

Mobile users can now access the widely popular D3 custom visualizations on their favorite Android devices.
MicroStrategy Security 10.4

FastBadge: Mac lock

Last quarter, MicroStrategy released the ability to unlock a Mac computer using proximity-based detection from your iPhone. With this quarter comes the ability to lock a Mac based on the same proximity-based detection. This capability will provide enhanced user security by locking a computer when a user picks up his/her phone and walk away from their computer. And of course, when the user comes back to his/her desk, Usher will unlock the computer. For users with Windows machines or Android devices, Technology continues to work to deliver the same lock / unlock capabilities. Stay tuned for more information regarding these features in 10.5 and 10.6.

FastBadge: Web application single sign-on via Bluetooth proximity

Furthering our intent to provide seamless user experience, Usher logical access has been enhanced to enable single sign-on to web applications. Once a user has logged on using Usher, he/she can directly access Usherized applications like Rally and Salesforce using the Usher credentials as an extension of their identity without having to input application-specific credentials. This process ensures that access to web applications is both easy and simple, while also being secure.
Usher Deployment: Push notifications for on-premise deployments

Customers deploying Usher on premise with 10.4 can leverage the full suite of Usher features that rely on mobile application push notification concepts (APNS and GCM). Many Usher features rely on remote mobile app notifications, such as VPN and Web login, workstation lock/unlock, and Usher Professional messaging.

Usher deployment: customized administration fields

New in 10.4, organizations can link to their own terms of use and privacy policy as well as make badge usage conditional upon the user accepting one or both. Being able to specify terms of use and privacy policy applicable to a specific Usher deployment allows for meeting the most stringent legal and privacy requirements. Organizations can also set their own support email and phone number to display in the Usher Security mobile application.

Usher deployment: server list stored in keychain

The list of servers a user is connected to is stored in the iOS/Android keychains. If a user deletes and re-installs the Usher Security app, they won’t need to find out how to reconnect to their organizations’ Usher servers.

Usher deployment: high availability

The most critical deployments demand a 99.999% SLA. 10.4 includes infrastructure improvements to allow Usher deployments with disaster recovery and service continuity support.
Usher Professional: real-time telemetry services

One of the critical foundations under development for Usher Professional has been to enable a more real-time visibility to the Usher-enabled telemetry. As part of 10.4, Usher Professional will ship a new ETL model based on the Kafka architectural model for streaming system and statistics logging. In addition to monitoring and alerting for Usher deployments, the real-time stream of data will allow for customer-driven workflows where specific events or patterns can trigger specific behaviors. This new ETL will allow Usher to provide immediate insight for a wide variety of use cases and business needs that require real-time decision-making at scale.

Usher Professional: brand new workforce management reports

With Mac lock being introduced in Version 10.4, there is a corresponding ETL and data schema update to reflect this additional gateway. Furthermore, there are pre-built reports to support workforce management OOTB in ways such as monitoring time and attendance as well as auditing individual-level access. There is also a new pre-packaged demo database for use in POCs.
Usher Mobile client-side SDK

The Usher Mobile client-side SDK was enhanced to expose Bluetooth-based beacon support in iOS and Android. This allows third-party applications to have custom workflows leveraging beacons as a trigger mechanism.