

MicroStrategy 10.5 Upgrade

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Version Control

Version		Date	Author	Comments
Product	Document			
MicroStrategy 9.4.x to 10 Secure Enterprise Upgrade	v1.00	7/28/2015	Vishwajeet Mishra	Base Version
		8/10/2015	Ajay Kumar	Updated
	V2.0	7/15/2016	Souvik Ghosh	Upgrade to 10.4
	V3.0	11/28/2016	Souvik Ghosh	Upgrade to 10.5

Applicability

Business/ Region affected	ALL
Platform(s)	RedHat Enterprise Linux
Operating System version	ALL
Security Model Tier	ALL
CAP	N/A
VTM ID	N/A
VTM TAPL	N/A
CATE Collaboration URL	MicroStrategy Engineering SharePoint Portal
ERBI in Citi Collaborate	https://collaborate.citi.net/groups/erbi

Certification Matrix

Technology Environment Certification Matrix

RDBMS	ALL Citi certified RDBMS
Version Control Tools	SVN
Java Version	Java 7
.NET Frame work	N/A

Introduction

CitiData Global ERBI Platform Engineering – MicroStrategy is publishing Release Notes for MicroStrategy 10.2.x & 10.4.x Secure Enterprise upgrade to version 10.5.

Intended Audience

This document is intended for the vendor software support, MicroStrategy Business Intelligence application implementation communities and anyone with a vested interest in this solution. Please email comments/questions to *CitiData Global ERBI Platform Engineering – MicroStrategy.

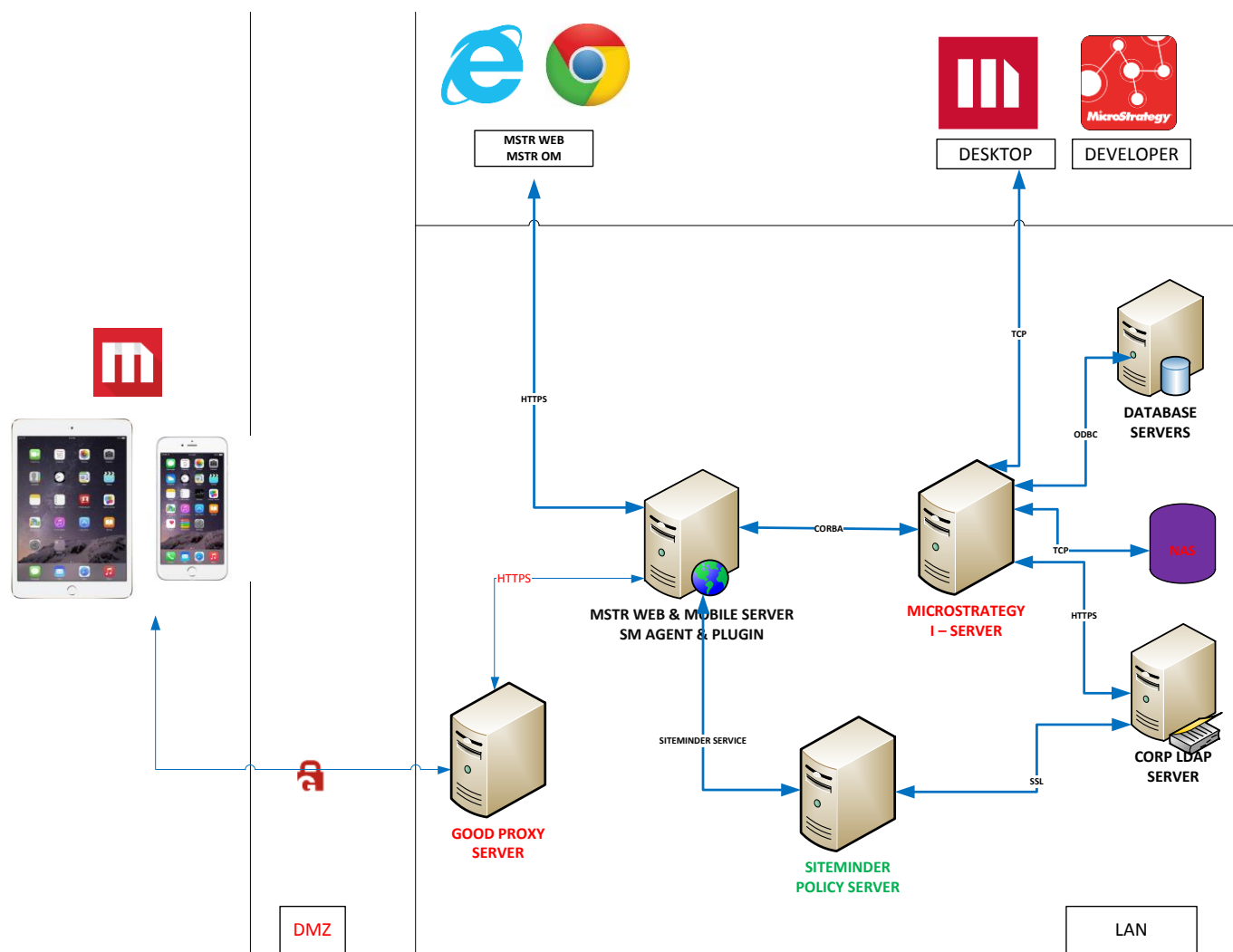
Overview

MicroStrategy Secure Enterprise Platform A.k.a MSTR 10.5 is the latest toolset introduced by MicroStrategy. This document does cover upgrade methodology and involved steps.

MicroStrategy version 9.4.1 should be upgraded to 10.2 first before upgrading to 10.5

MicroStrategy 10 Secure Enterprise

Architecture Diagram



MicroStrategy 10 Server Prerequisites

- ✓ **MicroStrategy version 9.4.1 should be upgraded to 10.2 first before upgrading to 10.5**
- ✓ Redhat Enterprise Linux 6.x Operating System.
- ✓ Functional ID access on the RHEL server where MicroStrategy is installed.
- ✓ Valid Product License Key.
- ✓ Maximum Open Cursors parameter set at least 1500 at MetaData Oracle database.
- ✓ X-11 Terminal Software installed and exported on your desktop.
- ✓ MSTR Metadata, HL, ST schema credentials.
- ✓ **Complete backup of MSTR MetaData, HL, ST and MicroStrategy Installed folder before upgrade**
- ✓ Shut down Intelligence Server on all nodes if it in the cluster before proceeding with the upgrade

Note:

- Any web customizations such as images etc need to be backed up and restored after upgrade.

MicroStrategy 10 Secure Enterprise

- If you have created any mobile device configurations, or saved any images from the MicroStrategy Photo Uploader widget, those configurations and images are deleted during the upgrade unless you manually back them up before the upgrade and restore them after the upgrade.

MicroStrategy 10.5 MetaData Upgrade approach

- ✓ **UpScale Upgrade:** In this upgrade approach you will be deactivating existing MSTR 10.2/10.4 instance and install MicroStrategy 10.5 Secure Enterprise on same folder where MSTR 10.2/10.4 was installed. Once you finish the MicroStrategy 10.5 Secure Enterprise install then follow the below outlined upgrade steps make system ready.
- ✓ **Parallel Upgrade:** In this approach you will be restoring backup of MSTR 10.2/10.4 Secure Enterprise Metadata on other database and also installing MicroStrategy 10.5 on some other server then creating new I-Server by using existing Metadata. Once both of thing is available then following below outlined upgrade steps make system ready for use as new feature provided by product

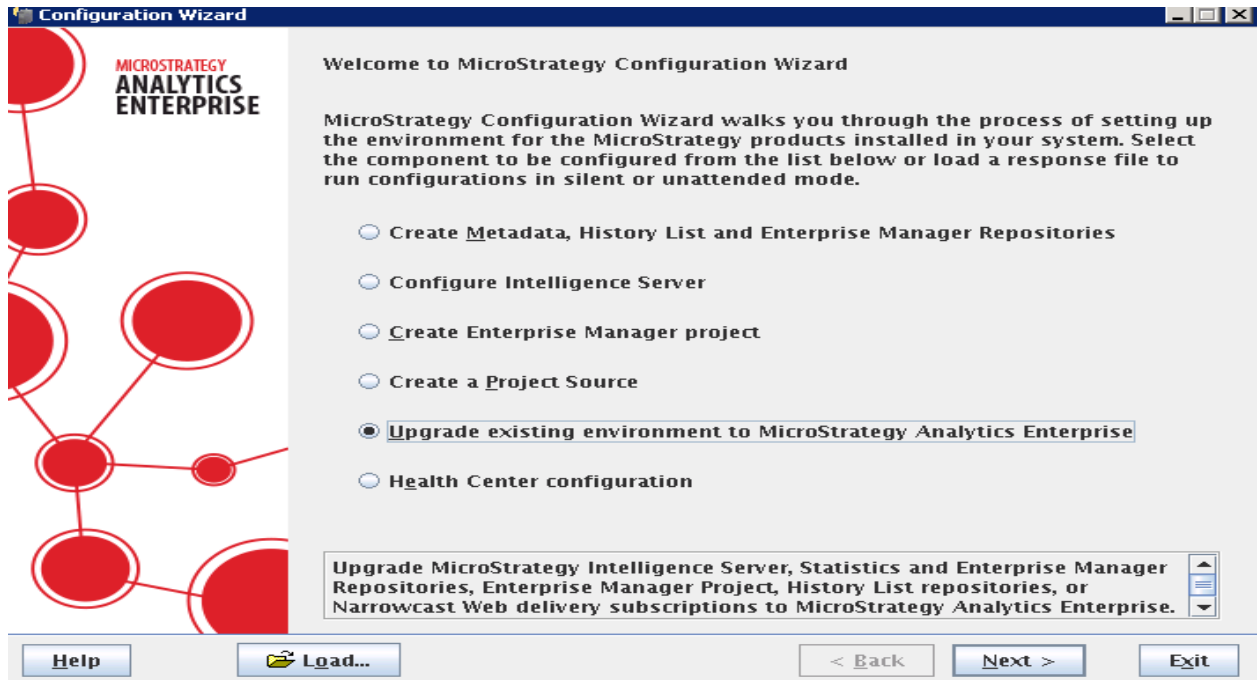
MicroStrategy 10.5 BI suite deployment

- ✓ Refer MicroStrategy 10.5 BI Platform Deployment – RedHat Linux Document available at below Sharepoint Link: [MicroStrategy 10.5 server build](#)

MicroStrategy 10.2.x/10.4.x to 10.5 MetaData Upgrade

Once binary installation of MicroStrategy 10.5 Secure Enterprise is in place by following any of approach (Upscale or Parallel) you have to update the Metadata, Projects, Statistics and History lists database. This procedure creates new tables and updates metadata tables to support new features available in MicroStrategy 10.4 Secure Enterprise.

- ✓ Ensure all projects are unlocked before proceeding with upgrade.
- ✓ Login to RHEL Server and switch to FID.
- ✓ Start X-11 Terminal software and export your display variable (export DISPLAY=IP Address:0.0).
- ✓ Navigate bin folder where MicroStrategy 10.5 Secure Enterprise installed (/<MSTR Home>/bin).
- ✓ Run command **mstrcfgwiz**, it will start Configuration Wizard then select radio button "Upgrade Existing Environment to MicroStrategy Analytics Enterprise" and press Next button as shown below.

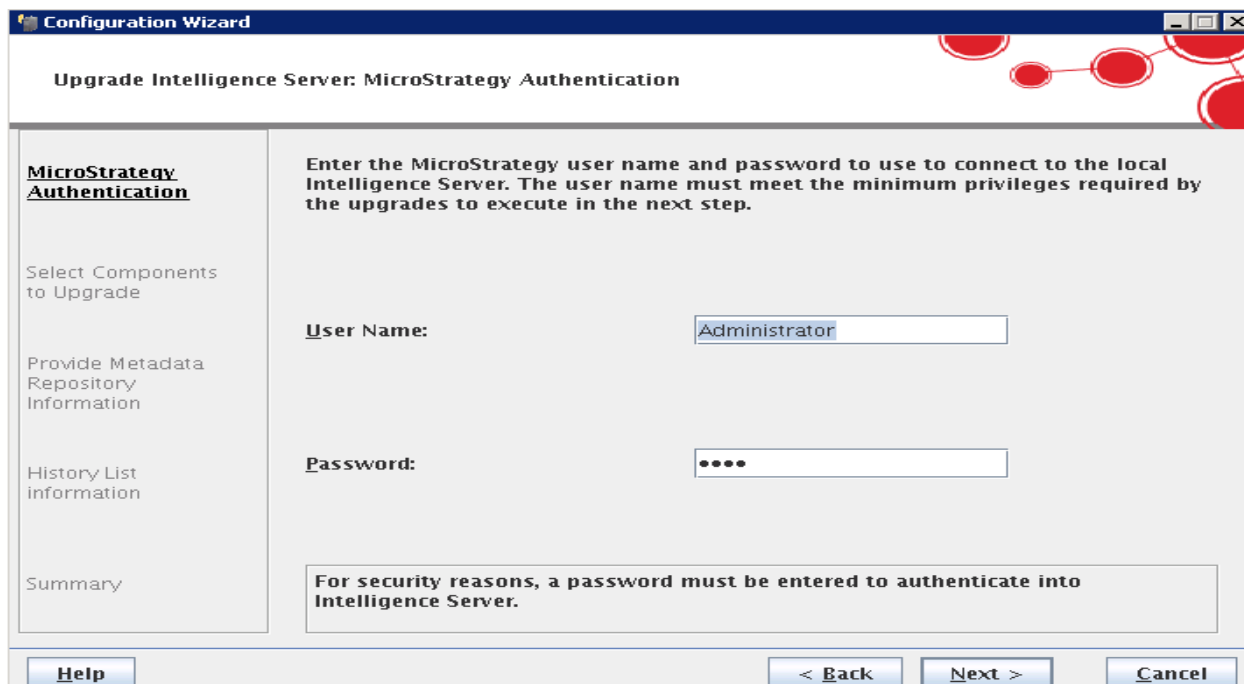


- ✓ Select radio button "Intelligent Server Component" then press Next button, as shown below.



MicroStrategy 10 Secure Enterprise

- ✓ Feed in Administrator equalient User Name and Password then press Next button, as shown below.



Configuration Wizard

Upgrade Intelligence Server: MicroStrategy Authentication

MicroStrategy Authentication

Select Components to Upgrade

Provide Metadata Repository Information

History List information

Summary

Enter the MicroStrategy user name and password to use to connect to the local Intelligence Server. The user name must meet the minimum privileges required by the upgrades to execute in the next step.

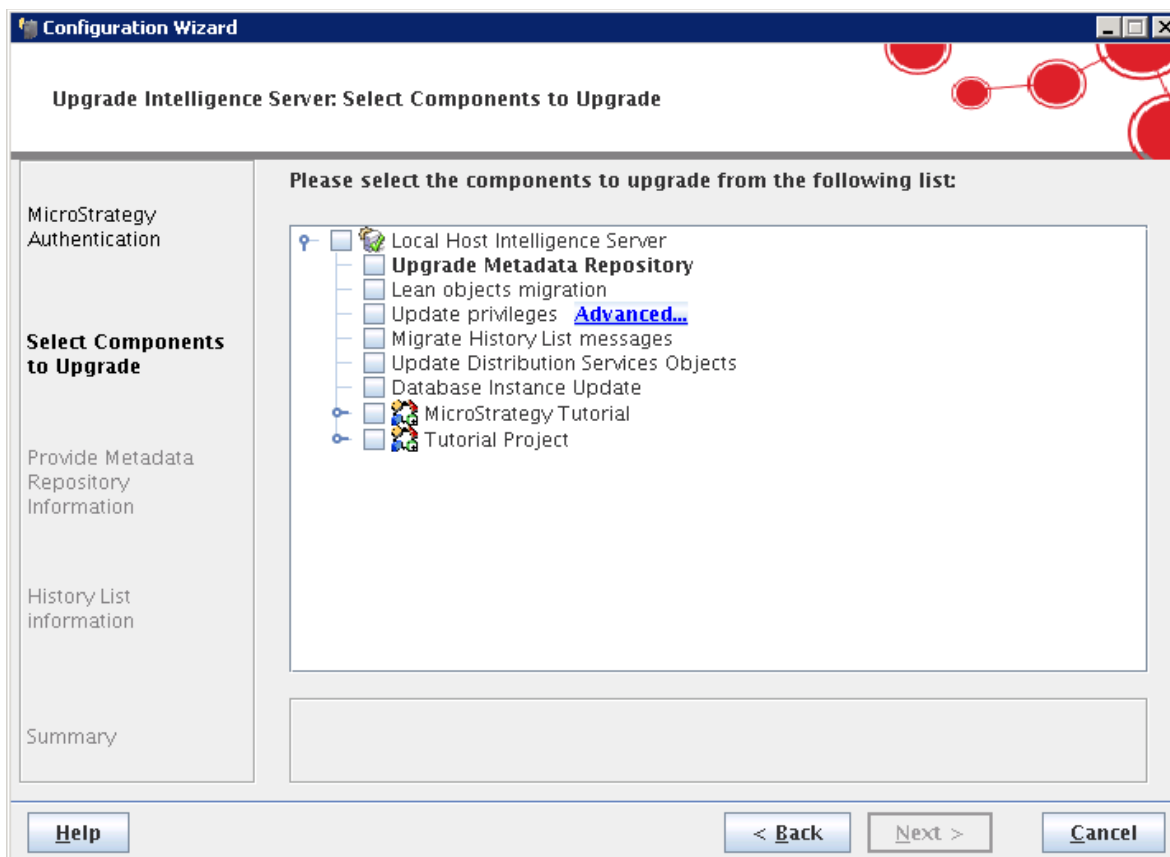
User Name: Administrator

Password:

For security reasons, a password must be entered to authenticate into Intelligence Server.

Help **< Back** **Next >** **Cancel**

- ✓ Select "Lean Object Migration" and "Update Privelege" check box then press Next button, as shown below.



Configuration Wizard

Upgrade Intelligence Server: Select Components to Upgrade

MicroStrategy Authentication

Select Components to Upgrade

Provide Metadata Repository Information

History List information

Summary

Please select the components to upgrade from the following list:

- ☐ Local Host Intelligence Server
- ☐ **Upgrade Metadata Repository**
- ☐ Lean objects migration
- ☐ Update privileges [Advanced...](#)
- ☐ Migrate History List messages
- ☐ Update Distribution Services Objects
- ☐ Database Instance Update
- ☐ MicroStrategy Tutorial
- ☐ Tutorial Project

Help **< Back** **Next >** **Cancel**

MicroStrategy 10 Secure Enterprise

- ✓ Feed password of Metadata schema then press Next button, as shown below.



Configuration Wizard

Upgrade Intelligence Server: Metadata Connection

The following DSN points to the local Intelligence Server's metadata. Please provide the proper password to be used to connect and update the tables.

Data Source Name: REPORTING

Login id: mstr10upgrade

Password: [password field]

MicroStrategy Authentication

Select Components to Upgrade

Provide Metadata Repository Information

History List information

Summary

For security issues, a password string is required to connect to the database.

Help **< Back** **Next >** **Cancel**

- ✓ Feed Inbox file location and password of History List schema, select "keep old content" check box then press Next button, as shown below.

Configuration Wizard

Upgrade Intelligence Server: History List Migration

Specify the information needed for the migration. The Intelligence Server will be restarted during this operation.

MicroStrategy Authentication

Select Components to Upgrade

Provide Metadata Repository Information

History List information

Summary

Target format: Database

Inbox File Location: a4-4e75.nam.nsroot.net_104

Hybrid central location:

DSN: REPORTING (MicroS...

User Name: mstr10hl

Password:

Advanced... >>

☐ Keep old content ☒ Use UTF-8 encoding

For security issues, a password string is required to connect to the database.

Help < Back Next > Cancel

- ✓ Please press Append button so that it will create new coloum and add data, as shown below.

Configuration Wizard

Upgrade Intelligence Server: History List Migration

Specify the information needed for the migration. The Intelligence Server will be restarted during this operation.

MicroStrategy Authentication

Select Components to Upgrade

Provide Metadata Repository Information

History List information

Summary

Target format: Database

Inbox File Location: ieServer/Inbox/IMSTRQ41AB

Advanced... >>

☐ Keep old content ☒ Use UTF-8 encoding

Specify the DSN that points to the target database where the messages will be stored. If the History List tables are not found, they will be created before this migration takes place. NOTE: The database-to-hybrid migration will use the

Help < Back Next > Cancel

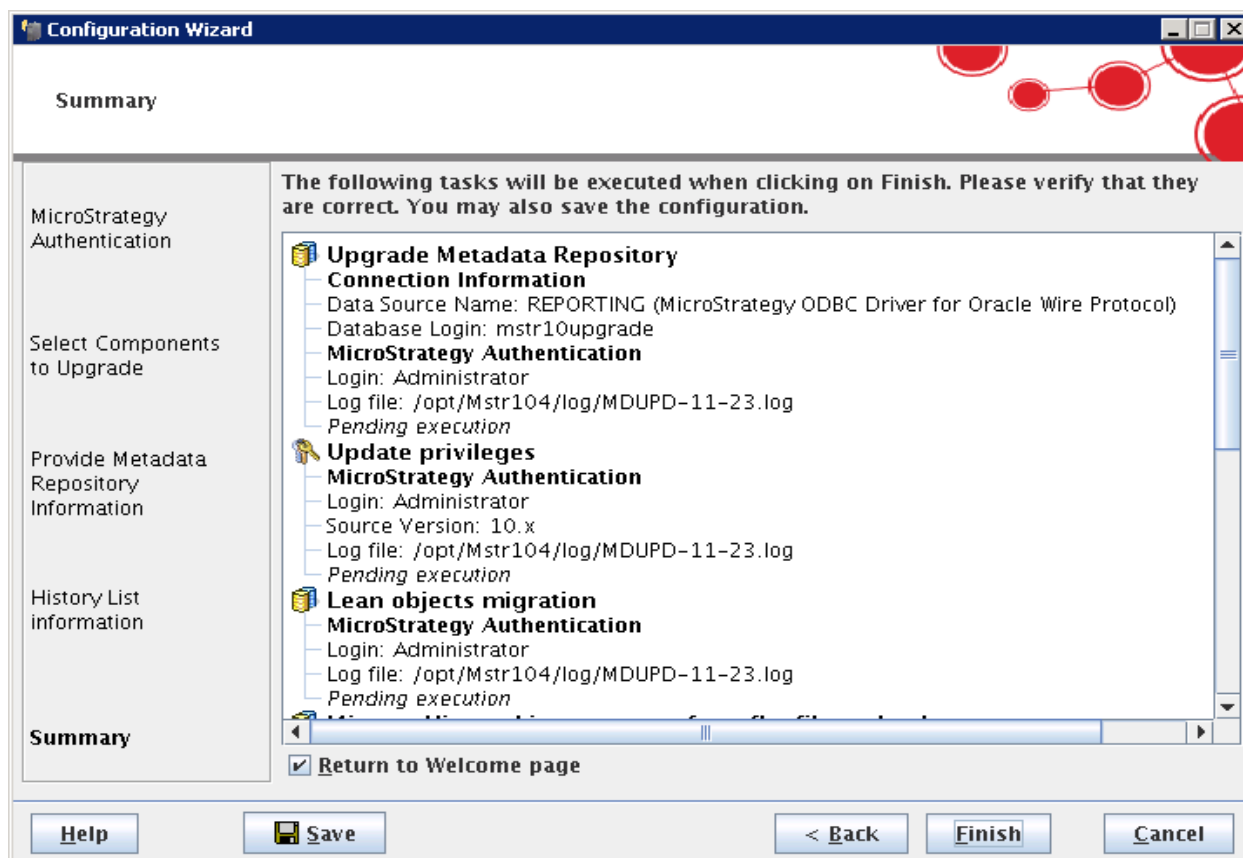
Configuration Wizard

The selected repository already contains History List tables. Please select 'Append' to append the history list messages into the existing repository or select 'Drop' to drop the existing tables and recreate them before migrating the messages.

Append Drop Cancel

MicroStrategy 10 Secure Enterprise

- ✓ Configuration Wizard will show you summary, as shown below.



- ✓ This will take 15-30 min or more depend on MetaData size then it show completed message as shown below and Return button will be highlighted.
- ✓ You can review log (/<MSTR Home>/log/MDUPD-*.log) or Keep backup copy for any further reference.

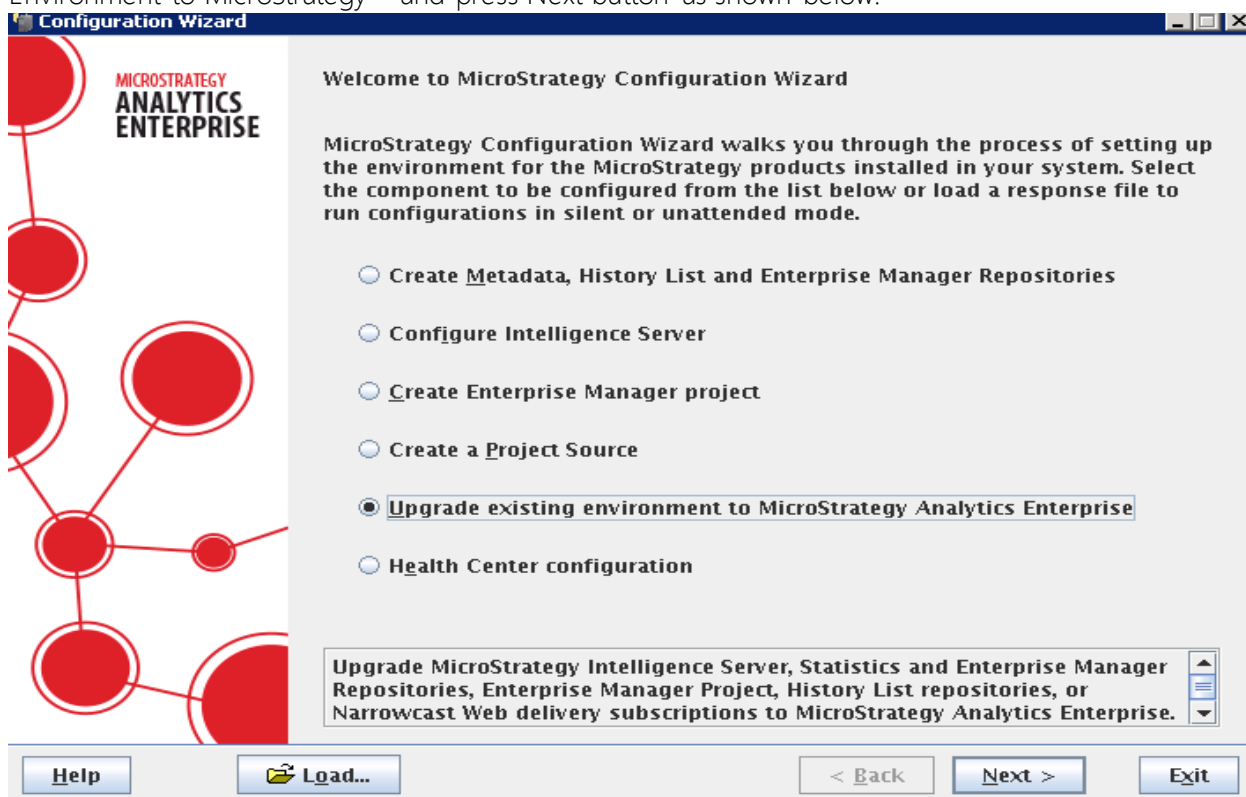
MicroStrategy 10.5 Project Upgrade

After successful completion of MSTR 10.2.x/10.4.x MetaData Upgrade you have to Upgrade all projects by performing the procedure that follows as below. This procedure creates and updates metadata tables to support new features available in MicroStrategy 10.4 Secure Enterprise.

- ✓ Login to RHEL Server and switch to FID.
- ✓ Start X-11 Terminal software and export your display (export DISPLAY=IP Address:0.0).
- ✓ Navigate bin folder where MicroStrategy 10.4 installed (/<MSTR Home>/bin).

MicroStrategy 10 Secure Enterprise

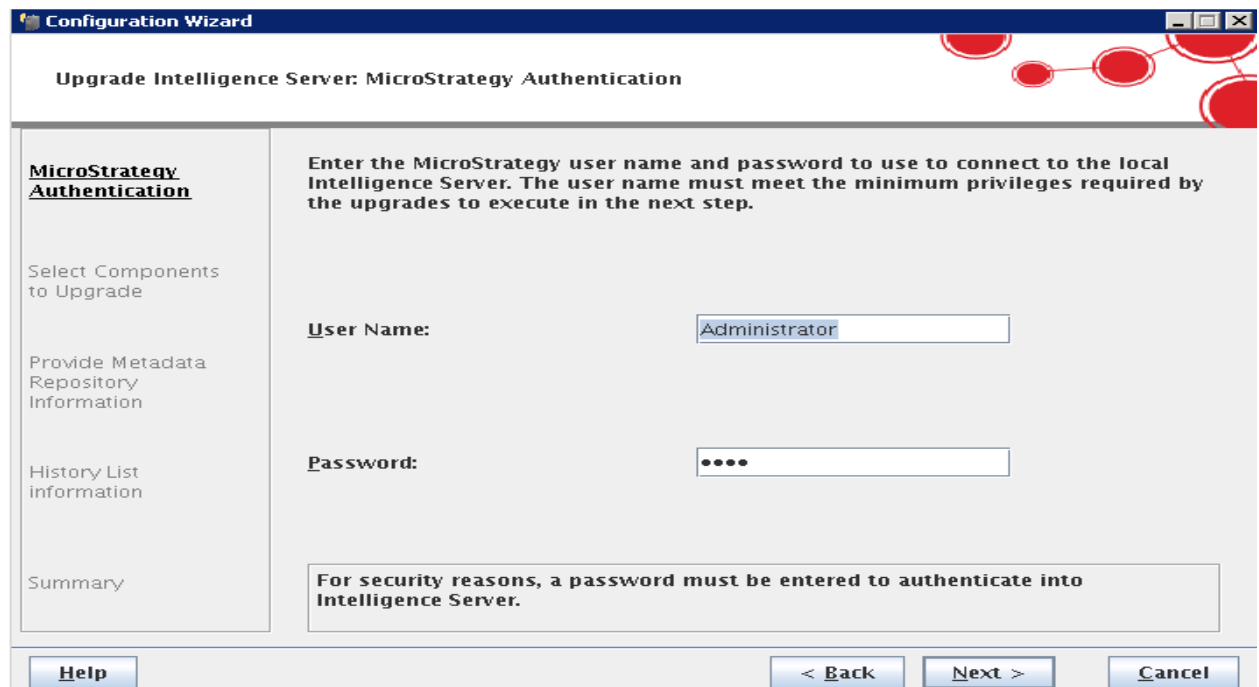
- ✓ Run command mstrcfgwiz, it will start Configuration Wizard then select radio button "Upgrade Existing Environment to MicroStrategy " and press Next button as shown below.



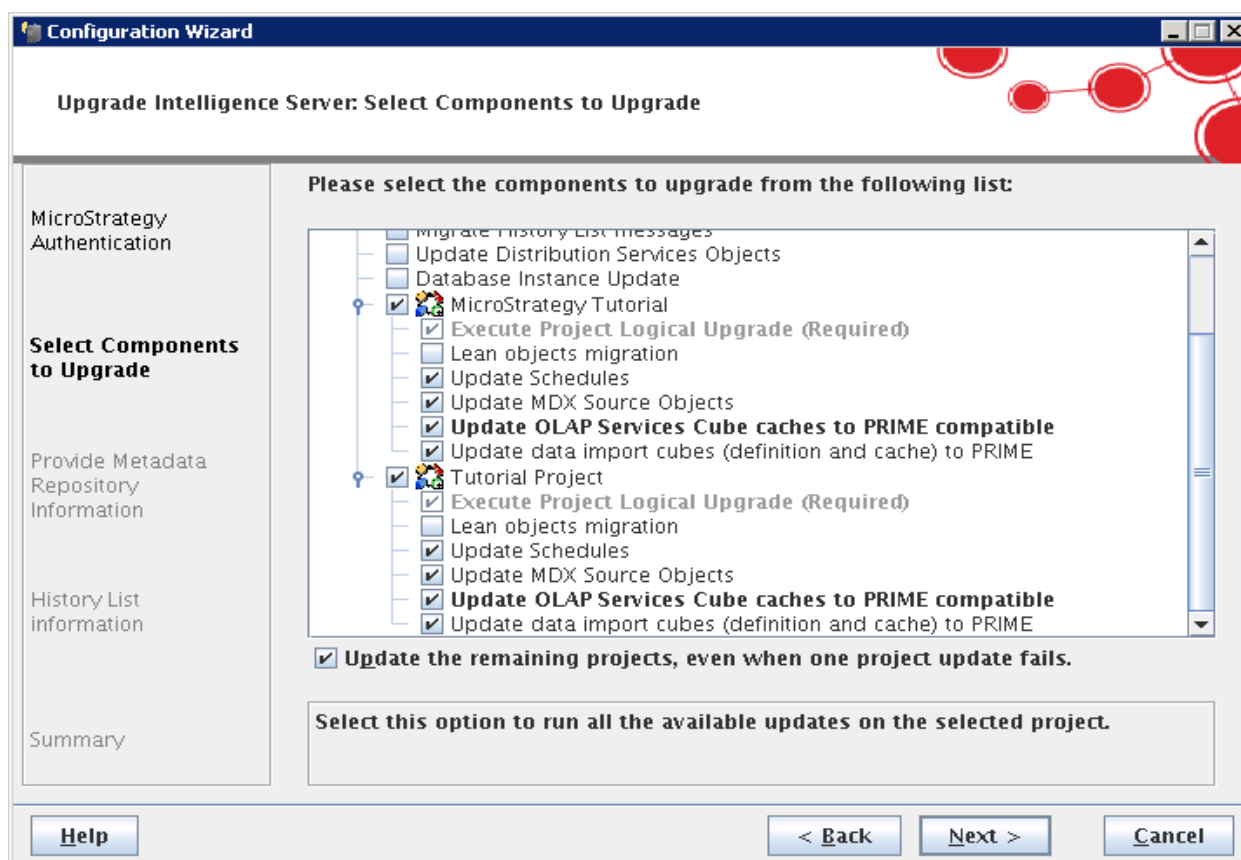
- ✓ Select radio button "Intelligent Server Component" then press Next button, as shown below.



- ✓ Feed user name and password of MicroStrategy I-Server then press Next button, as shown below.



- ✓ Select project and uncheck last two option and press next, as shown below.



- ✓ It will show summary page as per you selection of projects, press Finish button to start upgrade of projects, as shown below.
- ✓ This will take 15-30 min or more depend on Projects size then it show completed message as shown below and Return button will be highlighted.
- ✓ You can review log (MSTR Home>/log/MDUPD-*.log) or Keep backup copy for any further reference.

MicroStrategy 10.5 Secure Enterprise Client Upgrade

- ✓ Ensure all MSTR Client upgraded as same as server version in order to avoid any compatibility issue and take maximum advantage of new release feature.

MicroStrategy 10.5 Secure Enterprise Upgrade Verification

- ✓ Login on RHEL server and check I-Server process by following below steps.

```
root 22573 1 0 Nov23 ? 00:10:39
/opt/Mstr105/install/IntelligenceServer/bin/MSTRSvr -w
/opt/Mstr105/IntelligenceServer -t status-iserver.xml
/opt/Mstr105/install/lib/libMSTRSvr2.so -n CastorServer
```

- ✓ Login on RHEL server and check I-Server process by following below steps

```
$ ./mstrctl -s IntelligenceServer gs
```

- ✓ Login on RHEL server and check I-Server port by following below steps

```
$ netstat -an |grep 34952
tcp 0 0 0.0.0.0:34952 0.0.0.0:* LISTEN
$
```

- ✓ Launch MSTR Desktop client tool and login to MSTR I-Server .

MicroStrategy 10 Secure Enterprise

- ✓ Download WAR/EAR files from cross environment (/xenv/MicroStrategy/X/) and deploy MicroStrategy.war, MicroStrategyWS.war and MicroStrategyMobile.war on WebSphere application server launch MSTR Web or MSTR Web Server Admin url at browser and login

<http://<WebServerName>:8080/MicroStrategy/servlet/mstrServerAdmin>

<http://<WebServerName>:8080/MicroStrategy/servlet/mstrWeb>

MicroStrategy 10.5 upgrade Integrity Manager test

- ✓ Perform quick IM test between 10.2/10.4 and 10.5 projects to ensure the upgraded reports/dashboards have same data/formatting across 2 versions if you have earlier metadata available for test.
- ✓ While performing the test we noticed minute formatting mismatch between 10.2 and 10.5 projects which may be ignored under naked eye as IM perform pixel based comparison of both reports. This mismatch was also noted between 10.2 and 10.4 reports.

The screenshot displays the MicroStrategy Integrity Manager application window. The top section shows a 'Results Summary' table with columns for sequence, object name, path, modification date, status, and various report types (SQL, Data, Graph, Excel, PDF). The table lists 8 objects, all with a status of 'Completed'. Below the table, a status bar indicates 'Ready', 'Total: 8', 'Completed: 8', 'Errors: 0', and 'Pending: 0'.

The main area of the application shows a side-by-side comparison of two reports. The left report is titled 'INVOICE' and is a base report. The right report is also titled 'INVOICE' and is a target report. Both reports show a header with 'PLEASE REMIT TO: Acme, Inc.' and a table of items. The items table has columns for SKU, Description, Quantity, Price, and Amount Due. The items listed are: 120 Sony Handycam Video Camera, 189 The African Queen, 303 Best of Disney Volume 2, and 343 Crash.

The bottom of the window shows a status bar with 'Page 1 of 76', 'Nov 23, 2016', and '3:15 PM'.

MicroStrategy 10 Secure Enterprise

- ✓ The format mismatch is noticed only in PDF export title for dashboard and document, not in grid reports
- ✓ Vendor confirmed slight mismatch is expected to be seen.

Downgrading metadata projects

- ✓ Downgrading a MicroStrategy metadata or project to any previous product version is not supported. Once you update the project metadata to the latest version, you **CANNOT** downgrade to earlier product versions. Therefore, backing up the metadata is an essential step in the upgrade process as it allows you to revert to a backup version of the metadata, if necessary, to obtain pre-update versions of the projects it contains.

Contacts

- ✓ MicroStrategy Engineering - *CitiData ERBI Global Platform Engineering – MicroStrategy

References

- ✓ CitiData Platform Engineering – MicroStrategy SharePoint :
<https://catercollaboration.citigroup.net/domains/deveng/debi/ERBI/Microstrategy/default.aspx>