HOW TO DEPLOY ENTERPRISE ANALYTICS AND MOBILITY ON AWS
In this workshop, you will:

- Spin up a MicroStrategy on AWS environment.
- Connect MicroStrategy Workstation to a MicroStrategy on AWS account.
- Build a dossier.
- Add a custom visualization.
- See how you can share, view, and collaborate on your dossier in MicroStrategy Library.
- Manage your MicroStrategy on AWS environment.

Prior to starting this workshop, make sure that you have Workstation installed on your PC or Mac. If you do not already have Workstation, visit LINK to download the software.

This workshop will also require you to access your email via a smartphone and web browser.

Spin up a MicroStrategy on AWS Environment

2. Login with the credentials provided to you at the beginning of this workshop.
3. Click on New Environment in the top-right corner of the page.
4. Click the Select button under Team to launch the “Team” environment.

5. Enter your information and select the following configurations options:
   - Environment Name: Sales [Your Initials]
   - MicroStrategy Version: 10.10
   - Server Instance Size: 2 vCPUs 15.25 GiB of Memory
   - Region: US East (N. Virginia)
   - Have an AWS account: [Provided by instructor]
   - Contact Information: [Your Name]
   - Email: [Email address you can use to receive cloud credentials]
   - Company: [Your company name]
**Note:** Did you remember to enter your email address in the step above? This email account is the only way you will be able to log in to your cloud environment, so please make sure that it is an email that you have access to.

6. Just checking to make sure you put in a correct, real email address. I swear there will be someone who does not…

7. After entering your information, click **Create Environment**.

![Create Environment button]

8. Your environment is now being provisioned, and you will receive an automated email when it is ready—this may take up to 30 minutes.

While that environment is being launched, let’s create a dossier.

**Linking Workstation with a MicroStrategy on AWS Account**


![MicroStrategy logo]

10. Click on **Environments**.
11. Click **Sign In**.

12. Enter the same credentials provided to you earlier, and click **Sign In**.

Once you log in, you will see the environment that you started to spin up a few minutes ago. We'll return here once the environment is provisioned, but for now let's create a dossier.
Building a Dossier in Workstation

13. Click on the sign next to Dossiers to create a new dossier.

This will launch the brand-new dossier authoring interface.

14. From the Datasets Panel, click on the Add Data icon, and select New Data from the available options.
**TIP:** Workstation connects to nearly any data source, including traditional Excel spreadsheets, cloud-based applications, big data sources, and social media sources like Facebook and Twitter. MicroStrategy 10 offers 20+ new data import options for even easier analysis.

15. For this workshop, you will be importing data from an Excel file, so select **File From Disk** from the available options.

![](image1)

The **Sales Report.xlsx** file that we’ll be using for our analysis can be found in the supporting files folder that was provided to you prior to this workshop.

16. After selecting your data type, click **Choose Files** to browse your local machine and import a spreadsheet.

17. Locate and select the **Sales Report.xlsx** file, click **Open**, and then click **Finish**.

![](image2)

**TIP:** Workstation can import multiple sheets at the same time. This allows for easy uploading of Excel workbooks so you don’t need to delete unused data. Each sheet will automatically be treated as a different table within the dataset, allowing you to create joins between tables.

For this workshop, our dossier will only have one page. To create some additional space to work with, let’s move the chapters and pages to the bottom of the interface.
18. Click on the top-right corner of the **Contents** section, select the ellipsis icon, and then choose **Tab View – Bottom**.

![Tab View - Bottom](image)

19. Drag **Customer State** from the **Datasets Panel** to the **Rows** drop zone of the **Editor Panel**.

A list of customer states will automatically appear in the grid like the image below:

![Datasets Panel](image)

20. From the **Visualization Gallery**, located on the right-hand side of the dossier interface, select the **Map** visualization.
You should now see the same data from the grid layered over a map visualization.

21. Let’s add some color to the map. Drag the Revenue metric into the Color By drop zone of the Editor Panel.

Your visualization should now look like the image below:

In order to make trends and outliers in the data stand out to other users, you want to create a threshold for the Revenue metric.

22. Right-click on the Revenue metric in the Color By drop zone, and select Thresholds.
23. In the **Threshold Editor**, select **Red-Orange-Green** in the color dropdown menu, and then click **OK**.

Your visualization should now look like the image below:
Next, let’s add another visualization. You can either add a new blank visualization, or you can duplicate the current visualization. Let’s duplicate the map visualization to create our second visualization.

24. Hover over the title bar of the map visualization, click on the ellipsis icon in the top right-hand corner, and then select **Duplicate** from the available options.

![Duplicate button](image)

This will create an identical copy of the map visualization.

25. Click on the title bar of the newly created visualization, and drag it under the original visualization.

![Visualizations](image)

26. With the bottom visualization selected, choose the **Bar Chart** visualization from the **Visualization Gallery**.
The second visualization should now display Revenue and Customer State in a bar chart. Your dossier should now look like the following:

27. In the bar chart, replace Customer State with Day by dragging the Day attribute on top of the Customer State within the horizontal drop zone.

Your dossier should now match the image below:
There are a lot of data points for Day in this dataset, which can make it difficult to get insight from this visualization. Let’s create a Month attribute based off our Day attribute to get a higher-level view of this information.

28. Right-click on the Day attribute in the Dataset Panel, and select Create Time Attributes from the available options.

29. Check Month, and then select OK.

TIP: MicroStrategy enables the on-the-fly creation of time attributes. Notice how the original attribute name still appears on the newly created time attributes to show that they have been automatically derived.

You should now see a new Day (Month) attribute on your Datasets Panel.
30. Drag and drop the newly created **Day (Month)** attribute on top of the **Day** in the drop zone so that it replaces the **Day** attribute.

Your dossier should now look like the image below:

![Image of the modified dossier](image-url)

31. Let’s add a trend line on top of the bar graph – click on the **Format tab** of Editor Panel.

![Image of Editor Panel](image-url)

32. In the primary dropdown menu, select **Trend Lines** from the available options.
33. Check the **Enable Trend Line** checkbox.
34. From **Model** dropdown, select **Linear**.

![Enable Trend Line](image1)

35. Next, click the **Enable Forecasting** checkbox.
36. We want to forecast two periods from now, so enter ‘2’ in the **Forward** section.

![Enable Forecasting](image2)

You’ll notice that your trend line automatically forecasts the next two periods based on the model you have selected.

![Visualization Trend](image3)

37. Next, choose **Shapes and Data Labels** from the primary **Format** dropdown.
38. Under **Data Labels**, select **Values**.

Your bar chart should now match the screenshot below:

39. Click the **Save** icon to save this dossier to your PC or Mac.
40. Type “Sales Dossier_[your initials]”, and click **Save**.

### Adding a Custom Visualization

41. In the **Visualization Gallery**, click on the + sign and then click **Import Visualization**.

42. Locate the **KPIWidget.zip** from the supporting files folder provided to you prior the workshop, click **Import**, and then click **OK**.

   The zip file will automatically extract to the appropriate MicroStrategy folders, making the visualization available for immediate use. A KPI Widget icon should now be displayed in the Visualization Gallery. The icon should be similar to the one below.

   ![KPI Icon](image)

   Let’s create a new visualization.

43. Click on the **Insert Visualization** button from the Workstation toolbar.

44. Drag the blank visualization to the top-left of the dossier.
Your dossier should match the image below.

45. Click on the **KPI Widget** in the **Visualization Gallery** to change this blank visualization into a KPI widget.

46. Drag the **Revenue** metric into the metric drop zone.

47. Click on the **Insert Visualization** button to create a fourth visualization.

48. Drag the blank visualization so it sits right under the other KPI visualization.

Your dossier should match the image below.
49. Click on the KPI Widget in the Visualization Gallery to change this visualization into a KPI widget.

We will now create a derived metric. Derived metrics are metrics that analysts can create based on existing metrics within a report. A derived metric performs an on-the-fly calculation with the data available in a report, without re-executing the report against the data source.

50. Select both the Revenue and Cost metric and right-click.

51. Choose Calculation, and then select Revenue-Cost from the available options.

This will create a new Revenue-Cost metric in your dataset.
52. Right-click on the new metric, and select **Rename**.

53. Rename the metric to “**Profit**”, and hit enter.

54. Drag **Profit** into the metric zone of the blank KPI widget.

Your dossier should now match the image below:
We will now clean up our dossier, by renaming or removing headers as necessary.

55. On the top-right corner of the map, click the ellipsis icon, and select **Rename**.

![Image of Rename option](image1.png)

56. Type ‘Map’, and push enter on your keyboard. You will notice that the visualization is now named ‘Map’.

![Image of renamed Map visualization](image2.png)

57. Rename the bar graph to ‘Revenue by Month’ following the same steps as above. Your bar graph will now be called ‘Revenue by Month’.

![Image of renamed Revenue by Month visualization](image3.png)
The title bars for the KPI visualizations are not necessary. We will hide these so they are not viewable.

58. On the top-right corner of Visualization 2, click the drop-down arrow, and select **Hide Titlebar**.

You will notice that the titlebar has disappeared.

59. Remove the titlebar for Visualization 3 using the same steps.

Your dossier should look similar to the one below:
With MicroStrategy Workstation, it’s possible to use one visualization as a filter for another—allowing users to create interactive workflows within their dossiers.

60. Click the top-right corner of the map, and click Select Targets….

61. Click on all the other visualizations within the dossier so that the Target icon pops up on the top-left of each visualization.

62. Click Apply.
63. Now click on any state in the map visualization - you’ll notice that the KPI widgets and bar chart change automatically depending on which state you select.

64. Re-click the state to remove the selection. (Note: you can also click anywhere else on a map that is not a state to clear the filter).

By this time, you should have received an email with credentials to your cloud environment. Make sure you save your changes.

**Accessing your cloud environment**

By now, you should have received an email with the subject line: ‘Welcome to MicroStrategy Cloud’.

65. Open the email on your smartphone. On your smartphone, click on the **Tap Here to get your Badge** link. If you do not have Usher installed on your phone, head to the Apple App Store or Google Play first, and then return to this email.

If you do not wish to install Usher on your smartphone, or do not have a smartphone, please skip to step #73. If you want to log in using Usher, please continue to the next step.
66. Click **Open**, you should now have an Usher badge on your phone.

67. Return to the main Workstation Admin page, and click on **Environments**.

68. You may notice a lot more environments now. These environments have been fully provisioned and are ready to connect to. Because you are logging in with the same account as other attendees, you will see many workshop environments. Find your cloud environment. You named it **Sales_[your initials]**

69. Right-click on your environment, and select **Connect**.
70. This will bring up a popup screen, depending on if you have configured Usher, click either **Usher** or **Standard** authentication, and then **Continue**.

71. Click **Continue**.

72. Depending on if you chose Usher or Standard, you will see the following screens.

<table>
<thead>
<tr>
<th><strong>Usher</strong></th>
<th><strong>Standard</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Usher Screen" /></td>
<td><img src="image2.png" alt="Standard Screen" /></td>
</tr>
</tbody>
</table>

- **Usher** Screen: Usher Badge, Log In, Scan QR code using Usher badge.
- **Standard** Screen: Connect to Sales SL, User Name, Password, Tip: Your environment user name and password can be found in the MicroStrategy on AWS welcome email.
To log in with Usher, go to your phone and scan the QR code by clicking on the Scanner button.

Go to your email and copy/paste or type in the username and password.

73. The Select Applications page will pop up, select MicroStrategy Tutorial from the available options, and then click OK.

You will now notice a green box around your environment, that means you have now connected it to Workstation.
Create a User

74. Click on the + sign next to Users and Groups on the left-hand side of the Workstation interface, and then select Create User.

75. The Create New User screen will now pop up. Feel free to create any username and password you would like, but make sure that you put in a valid Email Address.

76. Click Create. A user page will pop up.
77. Click on **Application Access & Roles**.

78. Under **Roles** dropdown, select the **Consumer Role**.
79. Click **OK**.

**Send Dossier to Library**

80. Click on the Dossier tab on the left

81. Locate the dossier you created earlier, right-click it, and select **Send to Libraries...**

82. On the left-hand side browse to your MicroStrategy on AWS environment name, and then select **MicroStrategy Tutorial>Public Objects>Reports**.
83. Make sure to check the **Certified Dossier** checkbox.

84. Click **Save and Send**.

85. A pop up window will now appear
86. Type in the user name you created earlier in this workshop, and select that user.

**DO NOT CLICK SEND YET.**

87. Click on the **Copy Link** button.

Copy this link to your clipboard (it may be a good idea to paste it into a Word document or .txt file).
88. You may now click on **Send**, this will trigger an email to the account you provided that will include the credentials needed to access to dossier.

**View and Collaborate with Dossier in Library**

89. Go to a web browser, and paste the link you copied above.

90. Log in with the user you just created - it will prompt you to change your password. Once you have selected a new password, click **Done**.

91. You should now see your Dossier in the MicroStrategy Library interface.
Let’s collaborate with the **MSTR User**.

92. Click on the **Chat Box** on the top-right corner of the interface to open up the chat window.

93. Using the @ command, tag the **MSTR User**, and write them a message, then click **Post**.
Manage the MicroStrategy on AWS Environment

94. Go back to https://provision.customer.cloud.microstrategy.com/.

Here you will see the cloud environment you spun up at the beginning of this workshop.

Notice the state of the environment. It is currently ‘Running’. To the right of the state, you have action buttons. These buttons manually stop, reboot, or resize the environment. Don’t click on anything just yet.

95. Click the expand + sign on the left of the environment name for more details.

96. Click on the Scheduler tab to view the current schedule.

On this Scheduler tab, users may schedule different tasks.

As of right now, the environment will shut down at 6pm EST every evening and start up again at 8am EST. Let’s clear the schedule and set up our own stop time.

97. Click on Stop on today’s date in the calendar view. A pencil and an X icon will both pop up - click on the X.
You will be prompted to ask if you want to delete the entire series from your calendar.

98. Click **Confirm** – notice that all the red stop tasks disappear from the calendar.

99. On the left-hand side in the **Schedule an Event** drop-down menu, select **Stop**.

100. Select **Once** and enter today’s date. Feel free to schedule any stop time you would like, although we currently only support Eastern Standard Time.
101. Click Add - notice a that a new task appears on your calendar.

Your environment will now stop at the time you scheduled it to, but remember that we will automatically terminate your environment at the end of the day.

This Concludes the MicroStrategy on AWS Workshop

In this workshop, you have:

- Spun up a MicroStrategy on AWS environment.
- Linked Workstation with a MicroStrategy on AWS account.
- Created a dossier in Workstation.
- Added a custom visualization.
- Sent a dossier to MicroStrategy Library.
- Collaborate with others in Library.
- Managed your MicroStrategy on AWS environment.

For more information about MicroStrategy on AWS, please visit https://www.microstrategy.com/us/platform/cloud