

Integrate Microsoft ActiveSync with EventTracker

Abstract

Exchange ActiveSync enables mobile phone users to access their e-mail, calendar, contacts, and tasks allowing them to continue to have access to this information while they are working offline. This guide provides instructions to monitor mobile devices with ActiveSync using EventTracker.

Scope

The configurations detailed in this guide are consistent with **EventTracker** version 7.X and later, and Exchange Server 2007/2010.

Audience

Exchange Server administrators who wish to monitor ActiveSync usage using EventTracker Manager.

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Introduction

Microsoft Exchange ActiveSync is a synchronization protocol that enables users of mobile devices to access email, calendar, contacts, and tasks from their organization's Microsoft Exchange server.

With EventTracker's built-in knowledge packs, administrators can monitor all servers running Microsoft Exchange ActiveSync from a single view, and generate reports on the following:

- Exchange ActiveSync activity on a user-by-user basis.
- ActiveSync usage data based on user agent information.
- Mailbox server's usage data based on mobile device clients.
- Exchange ActiveSync clients that are currently in compliance with established ActiveSync policies.
- Spot network usage trends.

Integrate Microsoft ActiveSync to EventTracker

Prerequisites

- Exchange Server 2007/2010 must be installed.
- Exchange ActiveSync must be enabled.
- PowerShell script execution must be enabled and execution policy must be set to bypass or unrestricted.
- Administrator access to Microsoft Exchange.
- IIS 7.0 and later must be installed.
- IIS logging must be enabled.

Verify IIS logging

For generating Active Sync reports, ensure IIS logging is enabled on the Exchange server.

- 1. Start Internet Information Services (IIS) Manager.
- 2. Navigate to **ServerName>Sites** to view configured websites.
- 3. Select the Exchange's **Web Site** for which logging is required to be enabled.



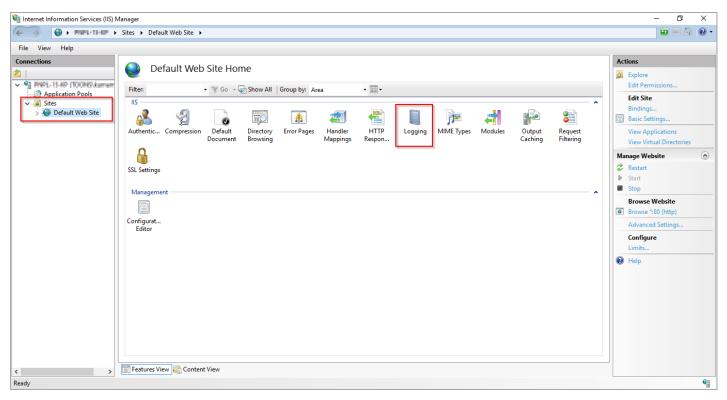


Figure 1

4. Click to select the Logging option.

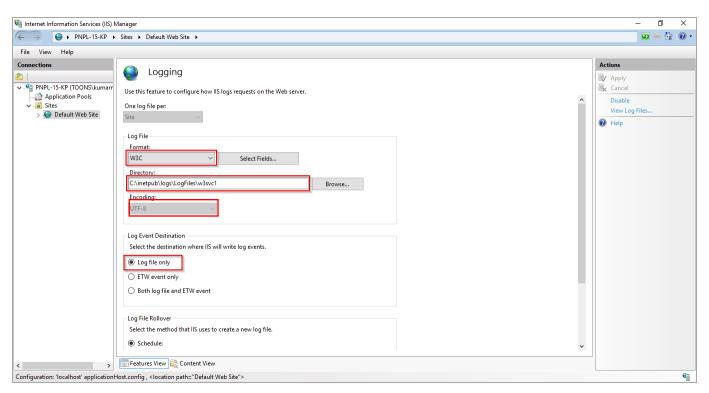


Figure 2



- 5. Verify following settings in **Logging** pane:
 - Under Log File section, W3C is selected from the Log File Format drop down.
 - Under Log File section, take a note of IIS log file directory. By default, log file path is "C:\inetpub\logs\LogFiles\W3SVCwebsiteid".
 - Under Log Event Destination section, Log file only radio button is selected.
 - Under Log File Rollover section, Daily schedule is selected.
- 6. If any changes were made, click **Apply** under **Actions** pane.

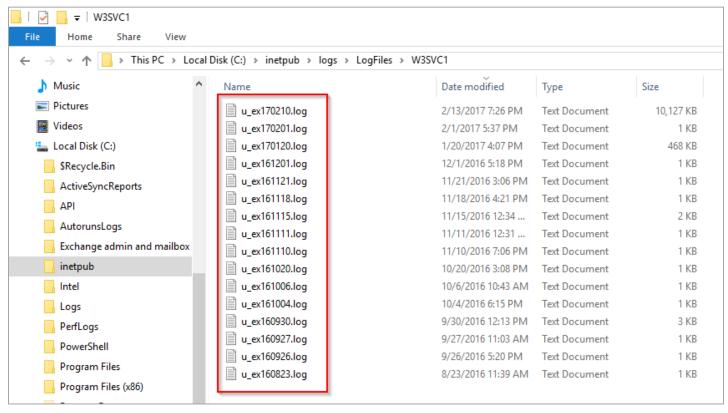


Figure 3

7. Navigate to IIS log file directory mentioned above to view generated log files.

Import Scheduled Task

- 1. Request ActiveSync script pack from EventTracker Support.
- 2. Download and extract the files provided at a preferred path.
- Open task scheduler by navigating to Control Panel -> System and Security -> Administrative Tools ->
 Task Scheduler.



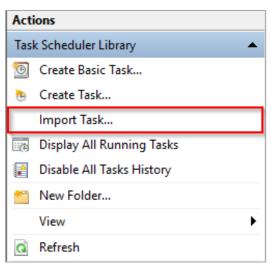


Figure 4

- 4. In Task scheduler windows, click on **Import Task** in **Actions** pane.
- 5. Browse and select the xml file named **ActiveSync Reporting.xml** from earlier mentioned extraction location.

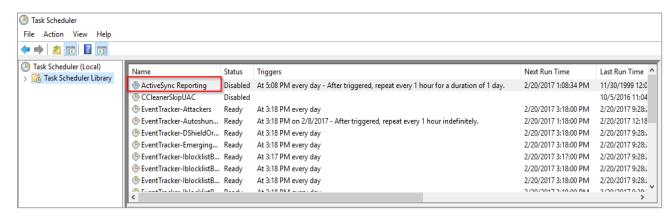


Figure 5

6. Double-click to edit the imported task named ActiveSync Reporting.



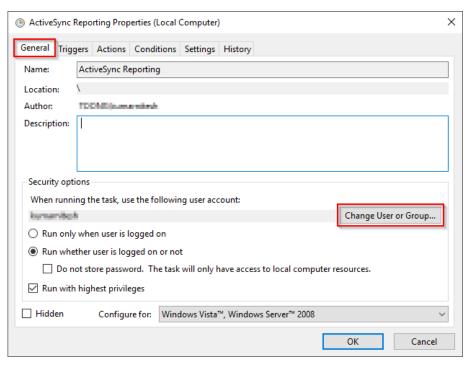


Figure 6

7. Click **General** tab and change the user account settings in **Security options** section. Please ensure concerned user has exchange admin privileges.

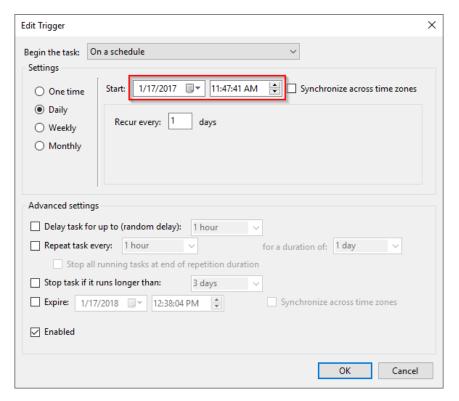


Figure 7



Edit Action X

You must specify what action this task will perform.

Action: Start a program Settings

Program/script:

powershell Browse...

Add arguments (optional):

Start in (optional):

OK Cancel

8. Click **Triggers** tab and select **Edit**. Please select an appropriate time for script execution.

Figure 8

9. Click **Actions** tab and select **Edit**. Alter expression provided in **Add parameters** as shown below.

-file "C:\Exchange ActiveSync\ ActiveSync Report Exporter.ps1"

- Script Location
 - 10. Click **OK** to apply the changes.
 - 11. When the script is executed, reports named **Hourly, PolicyCompliance, Servers, StatusCodes, UserAgents and Users** will be generated in CSV format at the script location in **ActiveSyncReports** folder.

EventTracker Agent LFM Configuration

- 1. Logon to Exchange server.
- 2. Navigate to <%EventTracker install directory%>\Prism Microsystems\EventTracker\Agent\.



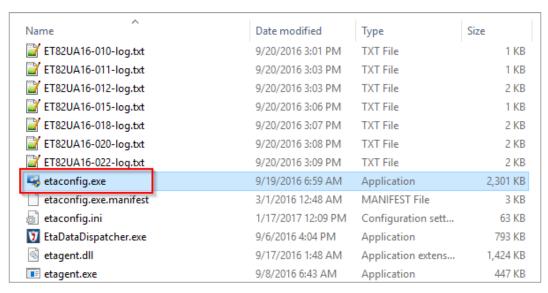


Figure 9

3. Right-click etaconfig.exe and select run as administrator.

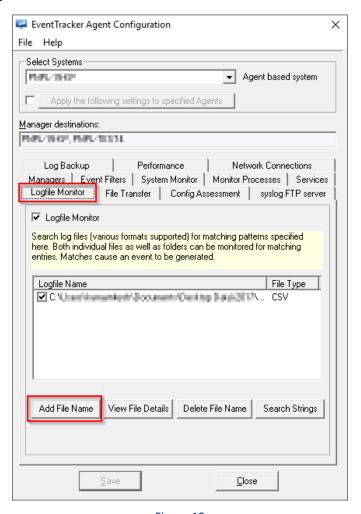


Figure 10



4. Select Logfile Monitor tab and click Add File Name.

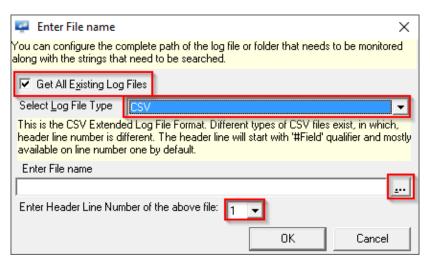


Figure 11

- 5. Select Get All Existing Log Files checkbox.
- 6. Select CSV from Log File Type drop-down.

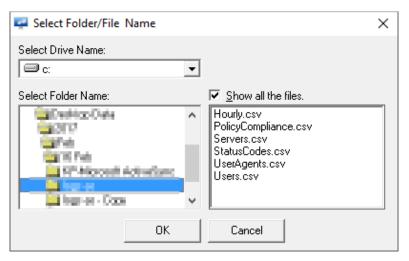


Figure 12

7. Click Browse and browse to the earlier selected log file path. Select Show all the files checkbox.

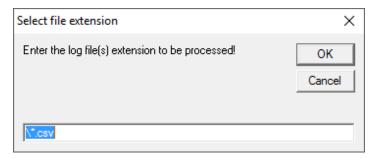


Figure 13



8. Type \.*.csv as file extension and click OK.

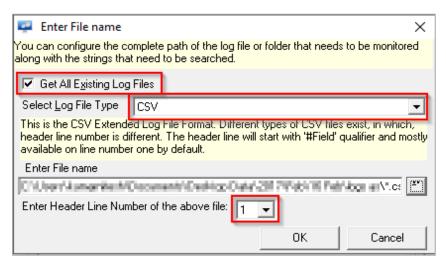


Figure 14

9. Select 1 from Header Line Number drop-down and click OK.

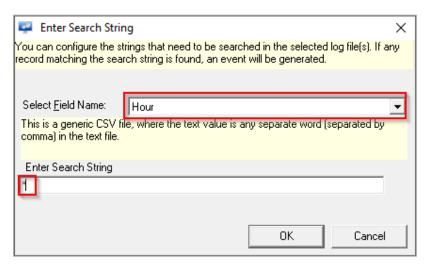


Figure 15

- 10. Select **Hour** from **Field Name** drop-down.
- 11. Type * (asterisk) as Search String.
- 12. Click **Ok** and **Save**.

Verify Logs on EventTracker Manager

1. Logon to EventTracker manager with appropriate credentials.





Figure 16

2. Click **Search** from EventTracker homepage ribbon.

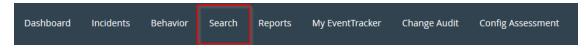


Figure 17

- 3. In log search window, initiate search with following criteria.
 - Select **File Transfer** checkbox and choose appropriate systems.
 - Select appropriate time duration.
 - In Custom Criteria, **Event Id** contains **3230**.
 - In Custom Criteria, **Source** contains **EventTracker**.

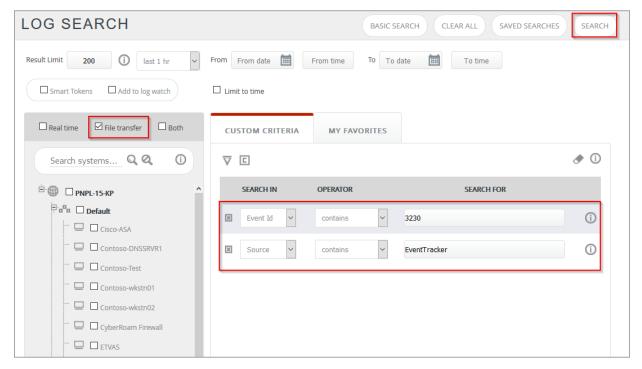


Figure 18



Integrate Microsoft ActiveSync with EventTracker



Figure 19

4. Consumed logs will be displayed as shown below.



EventTracker KP for Microsoft ActiveSync

Once ActiveSync logs are consumed in EventTracker, following Knowledge Packs are available to support ActiveSync monitoring:

Flex Reports

• Microsoft ActiveSync-Policy Compliance Statistics: This report supplies the number of Exchange ActiveSync clients that are currently in compliance with established ActiveSync policies. Although this report doesn't provide detailed data, it can help target deficiencies. For example, the report won't tell you why a client is not compliant with the ActiveSync policy, but it will tell you how many clients are compliant, how many are not compliant, how many are partially compliant and the number of clients in an unknown state.

Sample Report

LogTime	Computer	Compliance Type	Device Count	Device Ratio
02/15/2017 05:38:16 PM	mail.contoso. com	Unknown	25	5
02/15/2017 05:38:16 PM	mail.contoso. com	Compliant	320	60
02/15/2017 05:38:16 PM	mail.contoso. com	Partially Compliant	128	30
02/15/2017 05:38:16 PM	mail.contoso. com	Not Compliant	30	5

Figure 20

Sample Log



Figure 21



Microsoft ActiveSync-Server Statistics: This report essentially tells you which mailbox servers are used
most frequently by mobile device clients. It provides total number of synchronization requests processed
and total bytes sent and received by CAS server.

Sample Report

LogTime	Server Name	Host Name	Host Address	Average Unique Device Count	Hit Count	Total Bytes Sent	Total Bytes Received
02/15/2017 05:38:16 PM	mail.contoso. com	Support-34	192.168.1.25	9	754	41524	145214
02/15/2017 05:38:16 PM	mail.contoso. com	Wkst-3	192.168.1.29	13	214	15236	98564
02/16/2017 04:11:09 PM	mail.contoso. com	Mkt-11	192.168.1.3	1	123	34560	31260
02/16/2017 04:11:09 PM	mail.contoso. com	Mgr-12	192.168.1.56	3	345	98765	95665

Figure 22

Sample Log



Figure 23

• **Microsoft ActiveSync-HTTP Status Statistics**: This report enlists HTTP response codes and their respective hit counts. An administrator can use this report to troubleshoot failed requests and monitor performance of ActiveSync. More information about status codes is available here.



Sample Report

LogTime	Computer	HTTP Status	HTTP SubStatus	Hit Count	Hit Ratio
02/15/2017 05:38:16 PM	mail.contoso. com	403	3	45	2
02/15/2017 05:38:16 PM	mail.contoso. com	401	1	142	9
02/15/2017 05:38:16 PM	mail.contoso. com	101	0	1000	89

Figure 24

Sample Log



Figure 25

Microsoft ActiveSync-User Agent Statistics: This report generates ActiveSync usage data based on user
agent information. The term "user agent" refers to the operating system and builds number, the mobile
device used. This report details which mobile device operating systems were in use, how many mobile
devices using a particular user agent connected on a given day and how many hits each user agent
generated.

Sample Report

LogTime	Computer	User Agent Type	Hit Count	Unique Device Count
02/15/2017 05:38:16 PM	mail.contoso. com	Apple- iPhone32w/901.2 34	9	3
02/15/2017 05:38:16 PM	mail.contoso. com	Samsung-GT- 45677o/100.231	2	1
02/15/2017 05:38:16 PM	mail.contoso. com	Apple- MacBook78w/412 .785	4	2
02/15/2017 05:38:16 PM	mail.contoso. com	Samsung-ZQ- 487540/785.256	1	1



Figure 26

Sample Log



Figure 27

• Microsoft ActiveSync-User Activity Statistics: This report lets you analyze Exchange ActiveSync activity on a user-by-user basis. For example, you can see what type of mobile device individuals use to access Exchange Server. You can also see the number of items each user sends and receives.

Sample Report

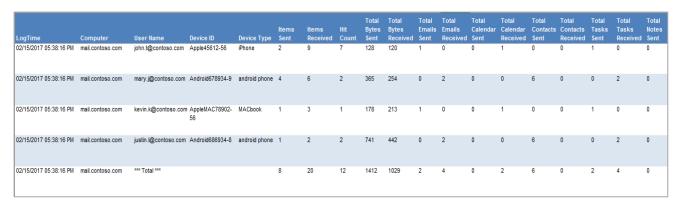


Figure 28



Sample Log

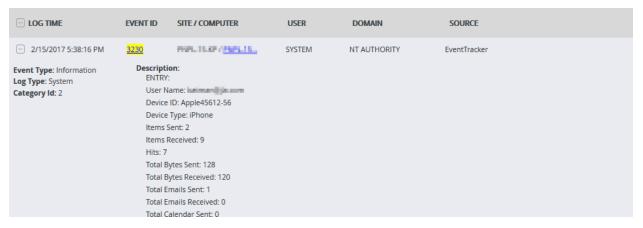


Figure 29

• Microsoft ActiveSync-Hourly Sync Statistics: This report assists in spotting network usage trends. You can find out the number of unique mobile devices that synchronized with your Exchange server within a given hour. Because this report tracks activity throughout the day, it is easy to discover peak usage periods.

Sample Report



Figure 30



Sample Log



Figure 31



Import EventTracker KP for Microsoft ActiveSync

- 1. Launch EventTracker Control Panel.
- 2. Double click Export Import Utility.

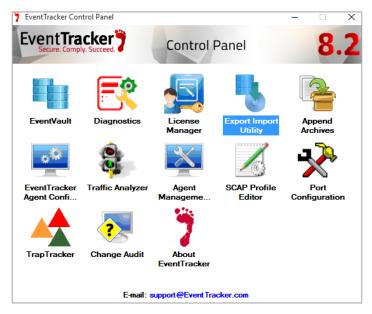


Figure 32

- 3. Import knowledge pack items in the following sequence:
 - Parsing Rules
 - Flex Reports

Parsing Rules

- 1. Select Import tab, choose Token value from Options dialog box.
- 2. Click the browse ____ button in Location section.



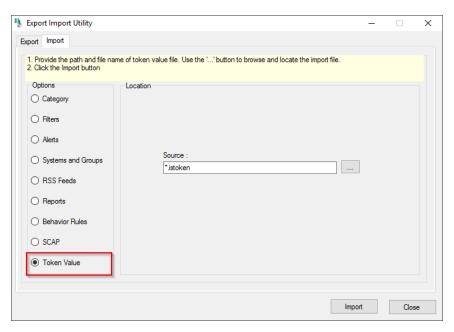


Figure 33

- 3. Locate the ActiveSync Parsing Rules.istoken file, and then click the Open button.
- 4. To import tokens, click the **Import** button.

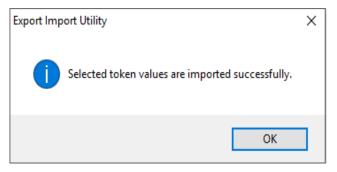


Figure 34

5. Click **OK**, and then click the **Close** button.

Flex Reports

1. Select **Import** tab, choose **Reports** from **Options** dialog box.



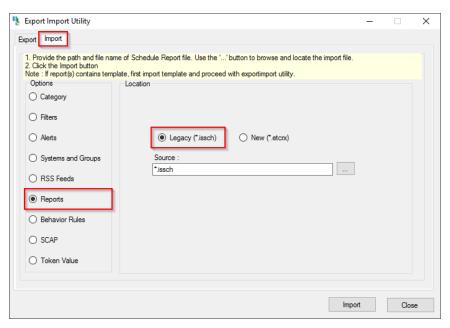


Figure 35

- 2. Select Legacy (*.issch) from location dialog box, click the 'browse' button
- 3. Locate ActiveSync Reports.issch file, and then click the Open button.
- 4. To import scheduled reports from selected file, click the **Import** button.



Figure 36

5. Click OK and Close.



Verify EventTracker KP for Microsoft ActiveSync

Parsing Rules

- 1. Logon to EventTracker Enterprise.
- 2. Click the Admin dropdown, and then click Parsing rule.
- 3. Scroll down and select **Microsoft ActiveSync** from **Groups**. Imported Token-Values are shown in right pane.

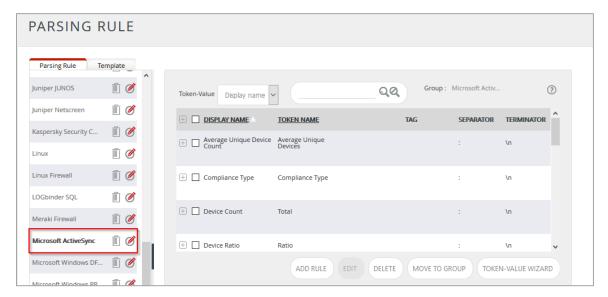


Figure 37

Flex Reports

1. Logon to EventTracker Enterprise.

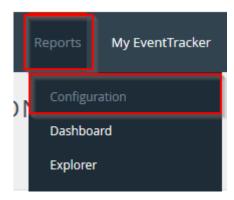


Figure 38

2. Navigate to **Reports->Configuration**.



- 3. Select **Defined** in report type.
- 4. In Report Configuration page, select Microsoft ActiveSync from Report Groups.

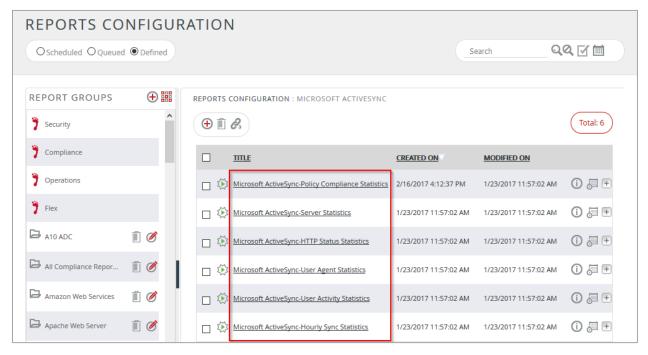


Figure 39

5. Imported reports are shown in the right pane.

Create Flex Dashboards in EventTracker

NOTE: To configure the flex dashboards, schedule and generate the reports. Flex dashboard feature is available from EventTracker Enterprise v8.0.

Schedule Reports

1. Open **EventTracker** in browser and logon.

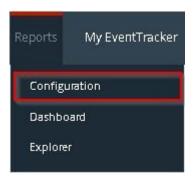




Figure 40

- 2. Navigate to Reports>Configuration.
- 3. Select Microsoft ActiveSync in report groups. Check Defined dialog box.

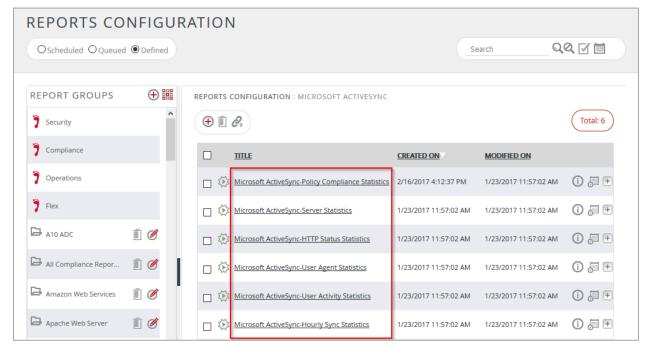


Figure 41

- 4. Click on 'schedule' to plan a report for later execution.
- 5. Click Next button to proceed.
- 6. In review page, check **Persist data in EventVault Explorer** option.



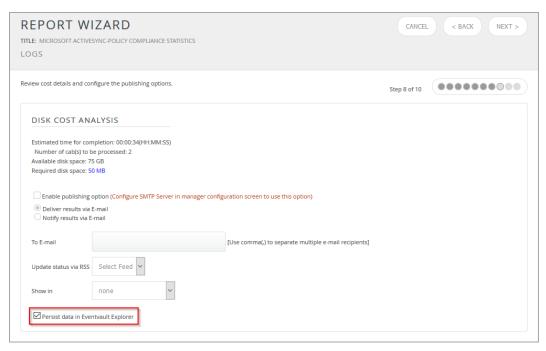


Figure 42

7. In next page, check column names to persist using **PERSIST** checkboxes beside them. Choose suitable **Retention period**.

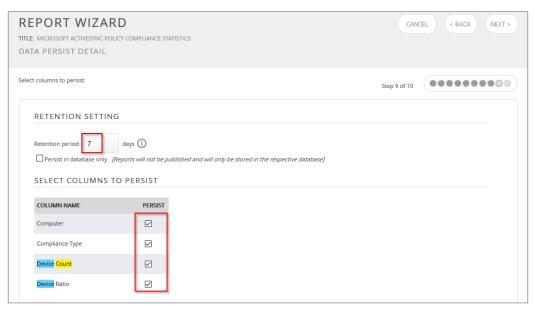


Figure 43

- 8. Proceed to next step and click **Schedule** button.
- 9. Wait till the reports get generated.



Create Dashlets

1. Open EventTracker Enterprise in browser and logon.

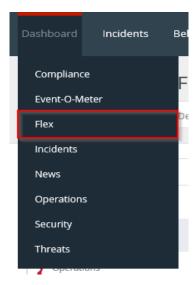


Figure 44

2. Navigate to **Dashboard>Flex**.

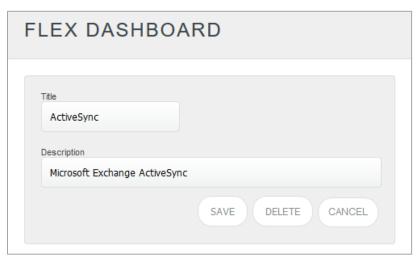


Figure 45

- 3. Fill suitable title and description and click **Save** button.
- 4. Click to configure a new flex dashlet. Widget configuration pane is shown.



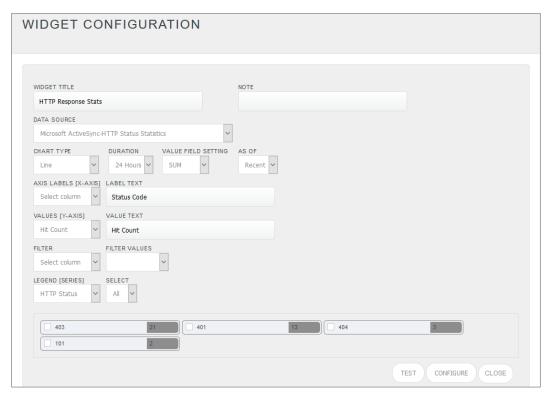


Figure 46

- 5. Locate earlier scheduled report in **Data Source** dropdown.
- 6. Select **Chart Type** from dropdown.
- 7. Select extent of data to be displayed in **Duration** dropdown.
- 8. Select computation type in Value Field Setting dropdown.
- 9. Select evaluation duration in As Of dropdown.
- 10. Select comparable values in **X Axis** with suitable label.
- 11. Select numeric values in Y Axis with suitable label.
- 12. Select comparable sequence in **Legend**.
- 13. Click **Test** button to evaluate. Evaluated chart is shown.





Figure 47

14. If satisfied, click **Configure** button.

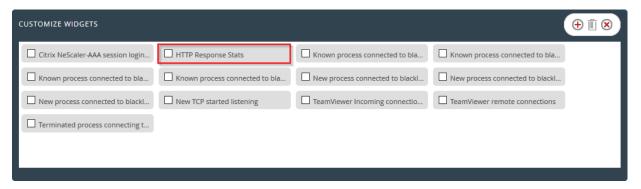


Figure 48

- 15. Click 'customize' to locate and choose created dashlet.
- 16. Click \oplus to add dashlet to earlier created dashboard.



Sample Flex Dashboards

1. Widget Title: HTTP response trend

Data Source: Microsoft ActiveSync-HTTP Status Statistics

Chart Type: Line

Values [Y-AXIS]: Hit Count
Legend [SERIES]: HTTP Code

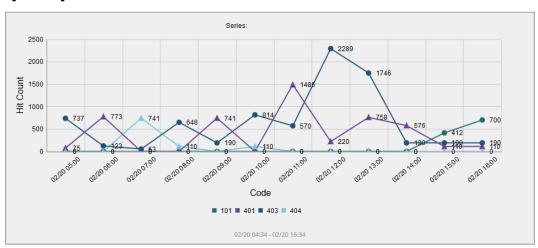


Figure 49

2. Widget Title: Policy compliance trend

Data Source: Microsoft ActiveSync-Policy Compliance Statistics

Chart Type: Line

Values [Y-AXIS]: Device Count

Legend [SERIES]: Compliance Type

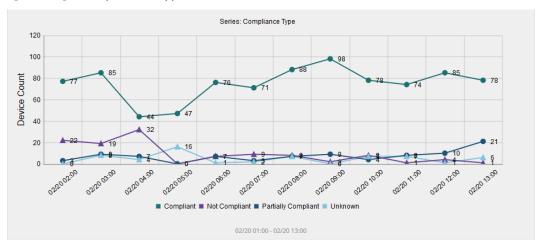


Figure 50



3. Widget Title: Unique device detection trend

Data Source: Microsoft ActiveSync-Server Statistics

Chart Type: Line

Values [Y-AXIS]: Average Unique Device Count

Legend [SERIES]: Server Name

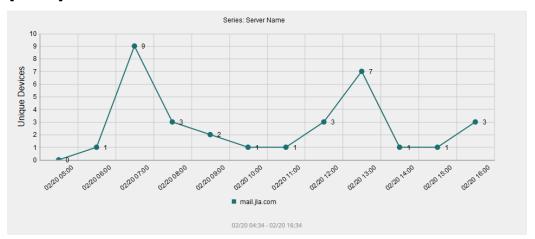


Figure 51

4. Widget Title: Cumulative user hit count variance

Data Source: Microsoft ActiveSync-User Activity Statistics

Chart Type: Meter Guage
Values [Y-AXIS]: Hit Count
Legend [SERIES]: User Name

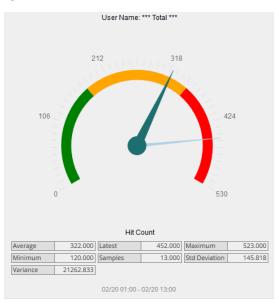


Figure 52



5. Widget Title: User agent connection statistics

Data Source: Microsoft ActiveSync-User Agent Statistics

Chart Type: Donut

Axis Labels [X-AXIS]: User Agent Type

Values [Y-AXIS]: Hit Count

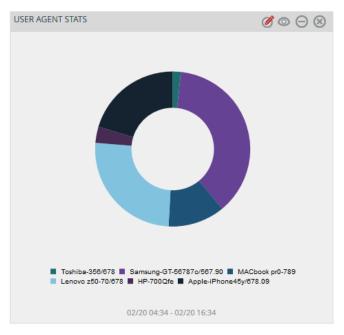


Figure 53

