

# ZENworks Application Virtualization (ZAV) Server Usage Reporting Package

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Novell®

The ZAV Server Usage Reporting Package is a ZENworks Reporting 5 domain, a set of predefined ad hoc views, and a set of default reports that can be used to obtain information about the usage of virtualized applications accessed via the ZAV Server. This package works with ZAV versions 10 and 10.1.

## 1 Installing the ZAV Server Usage Reporting Package

To install the ZAV Server Usage Reporting Package, you first need to ensure that your environment meets the following prerequisites:

- ◆ Your ZAV Server is configured to use an external MS-SQL database and you know the database host name/ip address, port, instance name, database name, and database credentials.
- ◆ You have installed ZENworks Reporting 5 (ZR5) on a server that can establish a network connection to the database server.
- ◆ If you want to access the dashboard and reports from your iOS or Android mobile devices, ensure that you have installed the JasperMobile application from the store and configure it to connect to your ZR5 server.

If you meet these prerequisites, you can install the ZAV Server Usage Reporting Package by doing the following:

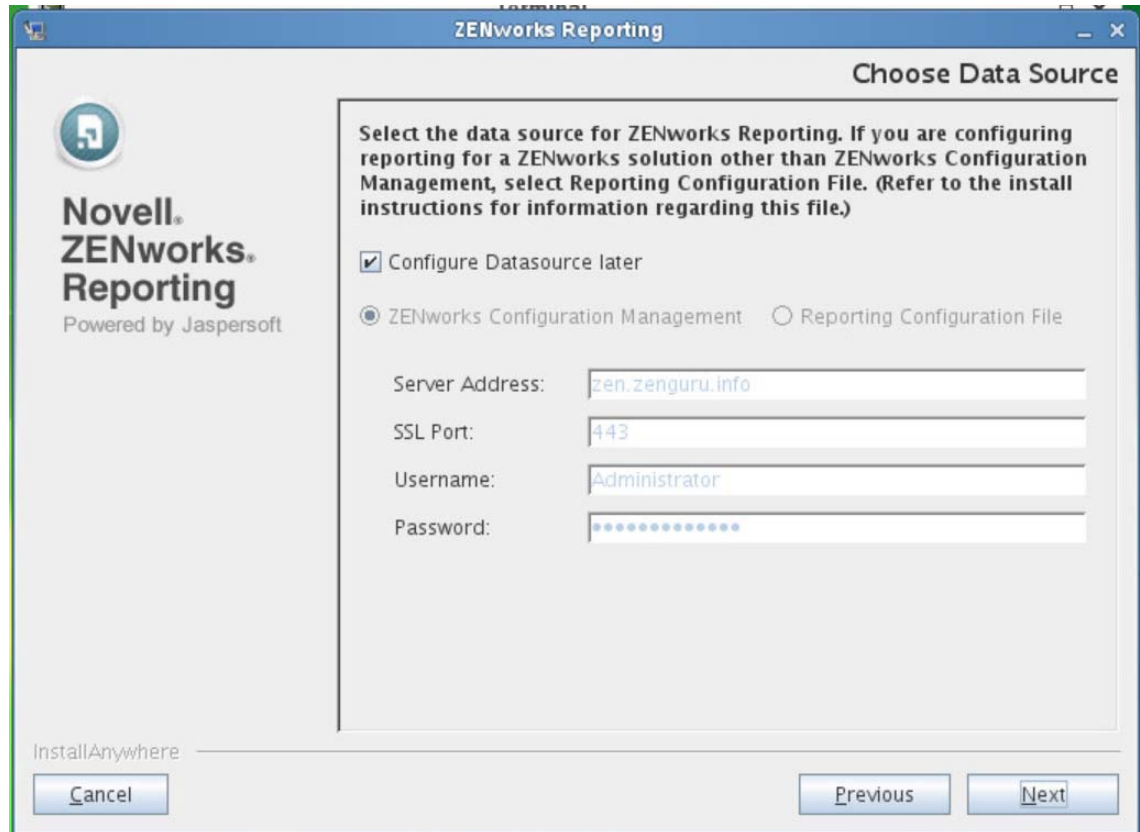
- 1 On your ZENworks Reporting server, run the ZENworks Reporting configuration tool:

```
%ZENWORKS_HOME%\zenworks-reporting\bin\zrsconfig.sh
```

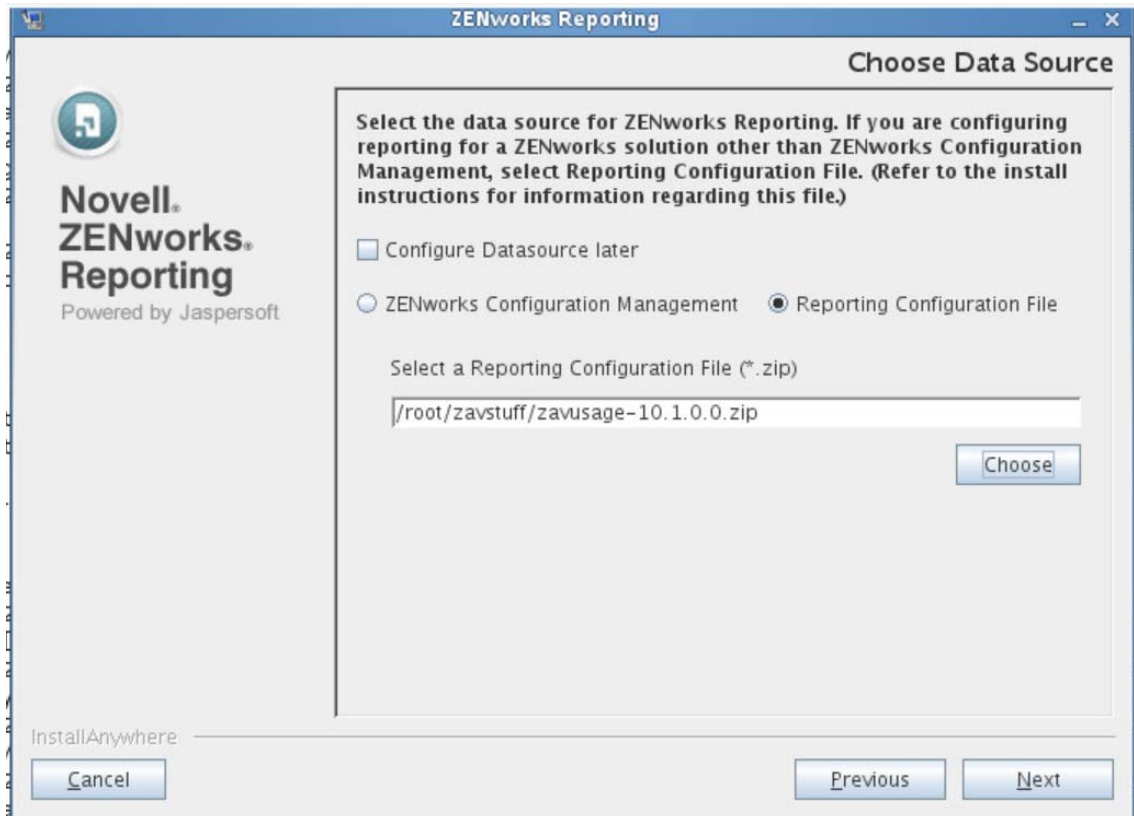
or

```
%ZENWORKS_HOME%\zenworks-reporting\bin\zrsconfig.exe
```

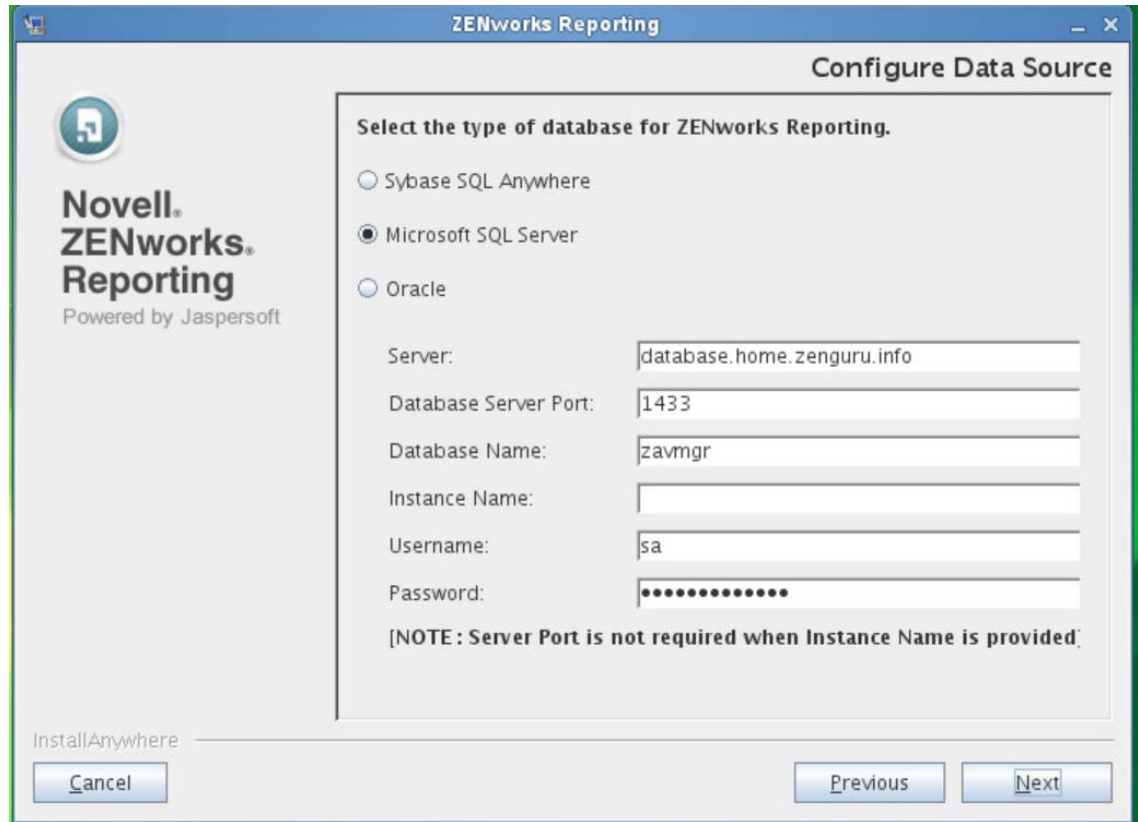
- 2 Click *Next* through all of the screens in the wizard until the Choose Data Source screen, shown below:



- 3 Deselect the *Configure Datasource later* checkbox.
- 4 Select *Reporting Configuration File*. This will ask for a path to a Reporting Configuration File as shown below:



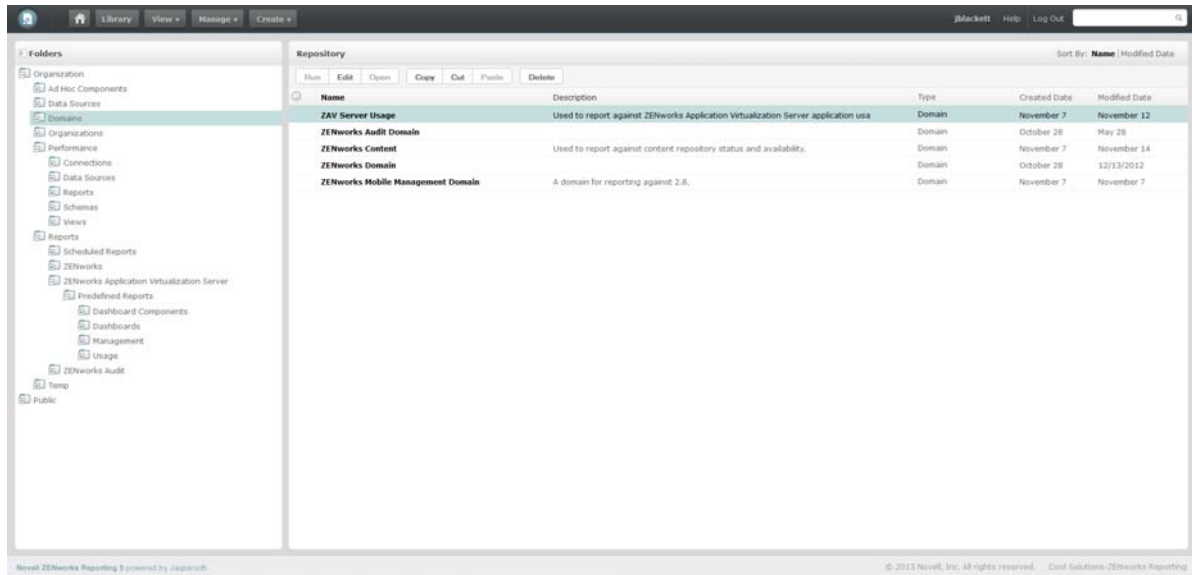
- 5 Browse to the ZAV Servers Usage zip file (zavusage-10.1.0.0.zip) that you download from this cool solution.
- 6 Click *Next*.
- 7 On the Configure Data Source page, enter the information to connect to the ZAV Server Manager database, similar to the dialog shown below:



- 8 Click *Next*.
- 9 Accept the defaults for the rest of the configuration tool and complete the configuration. This creates the data source and then imports the domain, views, and reports.

## 2 Using the ZAV Server Usage Reporting Package

After the configuration script is finished running, the ZAV Server Usage Reporting components are present in the ZR5 server. You can see this by logging into ZR5 and looking at the Repository browser. You should see the following:



The following objects are added to the ZR5 repository:

The rest of this document looks at each of these object types in more detail so that you can properly use the capabilities of ZR5 to report against ZAV Server Usage data.

- ◆ Organization/Data Sources/ZAV Server Usage Data Source

This object contains the connection information for the ZR5 server to be able to connect to the ZAV Server usage database.

- ◆ Organization/Domains/ZAV Server Usage

This object contains metadata used by the Ad Hoc reporting tool to allow you to quickly and easily build dynamic charts, crosstabs, and tabular reports.

- ◆ Organization/Reports/ZENworks Application Virtualization Server/Predefined Reports/Usage

This folder contains a number of Ad Hoc Views that can be used to generate additional reports or used as a template for building your own custom reports.

- ◆ Organization/Reports/ZENworks Application Virtualization Server/Predefined Reports/Dashboard Components

This folder contains a number of small charts, crosstabs, and tables that are useful on dashboards. They are built from the Ad Hoc Views in the Usage folder.

- ◆ Organization/Reports/ZENworks Application Virtualization Server/Predefined Reports/Dashboards

This folder contains a single ZAV Server Usage dashboard that shows key metrics related to the usage of ZAV Server.

The rest of this document looks at each of these object types in more detail so that you can properly use the capabilities of ZR5 to report against ZAV Server Usage data. It is divided into the following topics:

- ◆ [Section 2.1, “Using the Predefined ZAV Server Usage Dashboard,” on page 6](#)
- ◆ [Section 2.2, “Creating Reports from the Predefined ZAV Server Usage Ad Hoc Views,” on page 9](#)

- ♦ Section 2.3, “Using the Predefined ZAV Server Usage Ad Hoc Views to create custom views,” on page 13
- ♦ Section 2.4, “Creating Custom ZAV Server Usage Views using the ZAV Server Usage Domain,” on page 14

## 2.1 Using the Predefined ZAV Server Usage Dashboard

The ZAV Server Usage Reporting Package includes a built-in ZAV Usage dashboard that shows you key information about the usage of the ZAV Server. You can edit this dashboard to meet your needs or simply use it as a sample to help you understand the power of ZR5 dashboards. To access the ZAV Server Usage dashboard from your desktop browser, do the following:

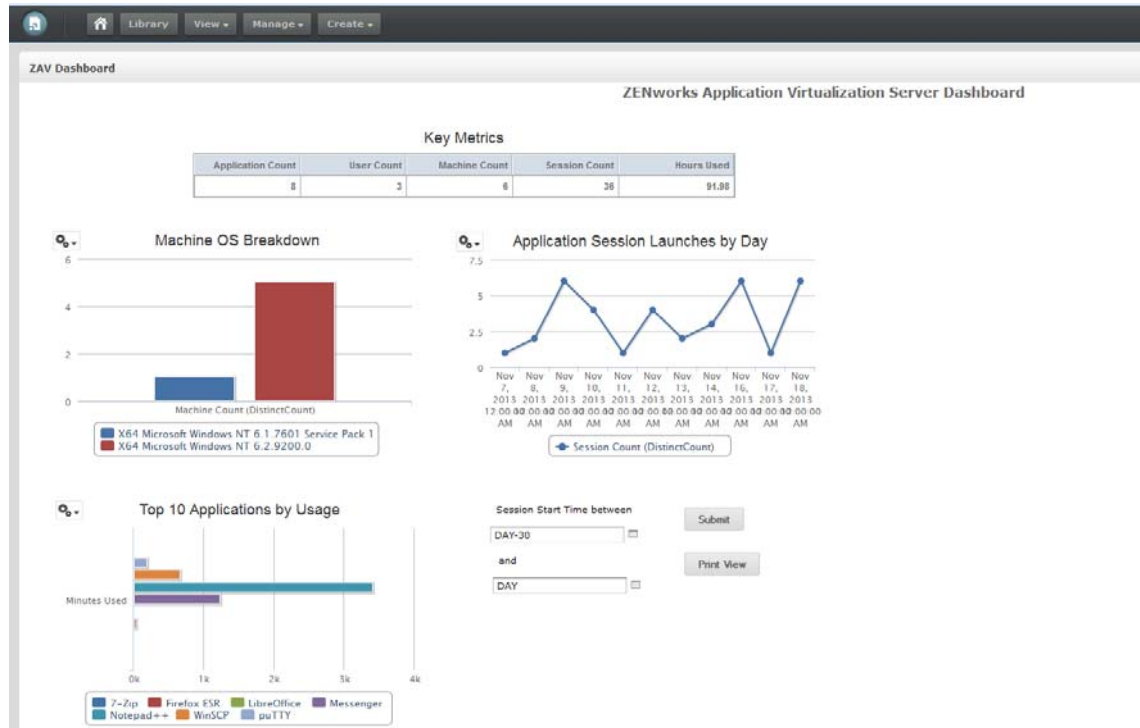
- 1 In the ZR5 console, click the *Library* button.
- 2 Search for Dashboard. You should see *ZAV Dashboard* in the list, as shown below:

*Open the ZAV Usage Dashboard*

The screenshot shows the ZR5 console Library search results for 'dashboard'. The search results are displayed in a table with the following columns: Name, Description, Type, Created Date, and Modified Date. The results are sorted by Name. The 'ZAV Dashboard' is highlighted in blue.

Name	Description	Type	Created Date	Modified Date
Application Session Launches per Day Report	A chart that can be put on the dashboard that shows the number of overall launches of virtual applications in	Report	November 12	November 12
Bundle Dashboard		Dashboard	October 30	October 30
Bundle Installs Per Quarter Dashboard		Report	October 30	October 30
Machine OS Breakdown Report	A chart for the dashboard that shows the breakdown of operating systems installed on devices using virtual	Report	November 12	November 12
Top 10 Applications by Sessions Launched (Chart) Report	A chart for dashboards that shows the number of sessions launched for the top 10 applications on the server	Report	November 12	November 12
Top 10 Applications by Usage (Chart) Report	A chart for dashboards that shows the total minutes used for the top 10 applications on the server.	Report	November 12	November 12
Top 10 Machines by Sessions Launched (Chart) Report	A chart for dashboards that shows the number of sessions launched by the top 10 machines on the server.	Report	November 12	November 12
Top 10 Machines by Usage (Chart) Report	A chart for dashboards that shows the minutes used by the top 10 machines on the server.	Report	November 12	November 12
ZAV Dashboard	A high-level dashboard for ZENworks Application Virtualization Server.	Dashboard	November 12	November 12

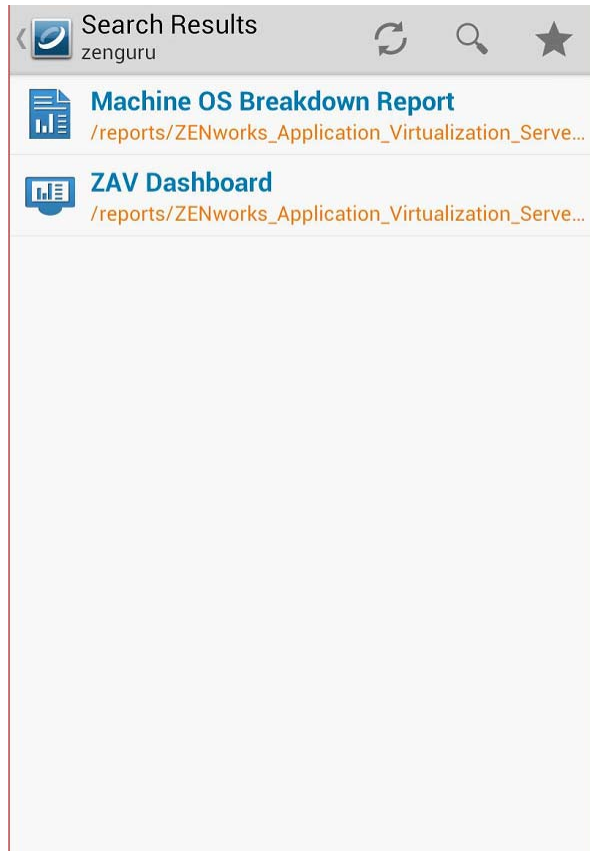
- 3 Right-click *ZAV Dashboard*, then select *Run*. This executes the dashboard reports against your ZAV Server Usage database. You should see a dashboard similar to the one below:



- 4 By default, the data on the dashboard is filtered for application launches that occurred during the last 30 days. If you want to increase or decrease this time period, you can change the *Session Start Time between* values to either specific or relative dates. For instance, if you want to see only the last 2 weeks, you can change DAY-30 to DAY-14. After you change the time period, click *Submit* to update the dashboard reports.
- 5 If you want to modify the dashboard, you can right-click on the dashboard and select *Open in designer*. When you are done making changes, do a *Save Dashboard As...* so that updates made to the dashboard included with this cool solution don't overwrite your changes.

Using the JasperMobile you can also access the dashboard application on your mobile device as follows:

- 1 Launch the JasperMobile application.
- 2 Make sure that your ZR5 server is the active profile.
- 3 Tap *Search*.
- 4 Search for ZAV Dashboard. This should display a search results screen similar to the one below:

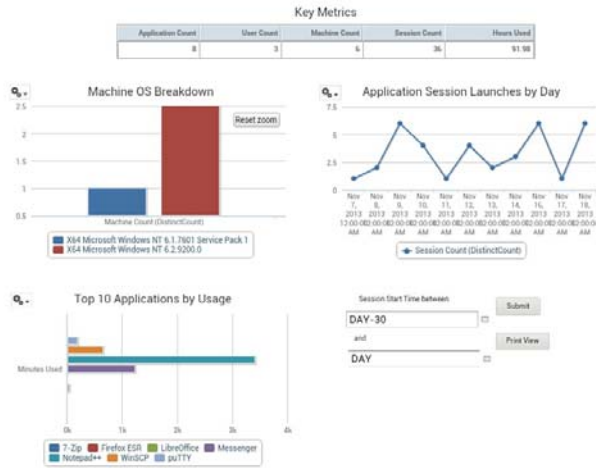


- 5 Tap the *ZAV Dashboard* option to render the dashboard as shown below:





ZENworks Application Virtualization Server Dashboard

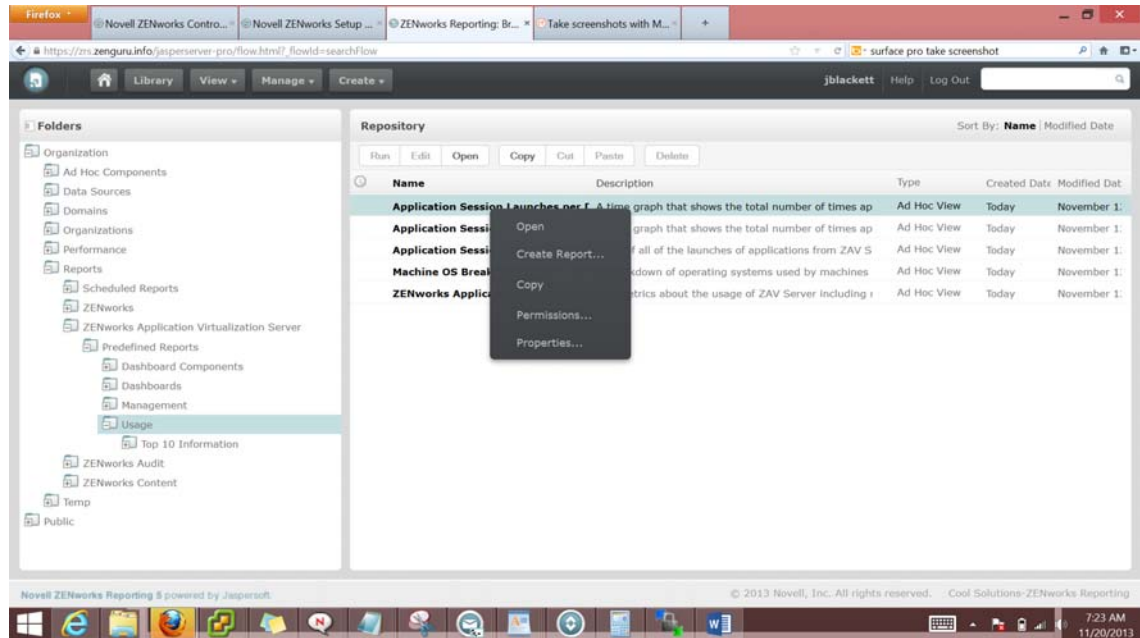


## 2.2 Creating Reports from the Predefined ZAV Server Usage Ad Hoc Views

The ZAV Server Usage Reporting Package also includes a number of predefined usage views that you can use to create reports to view information, print information, or add key information to custom dashboards of your own. To create a report from these default views, do the following:

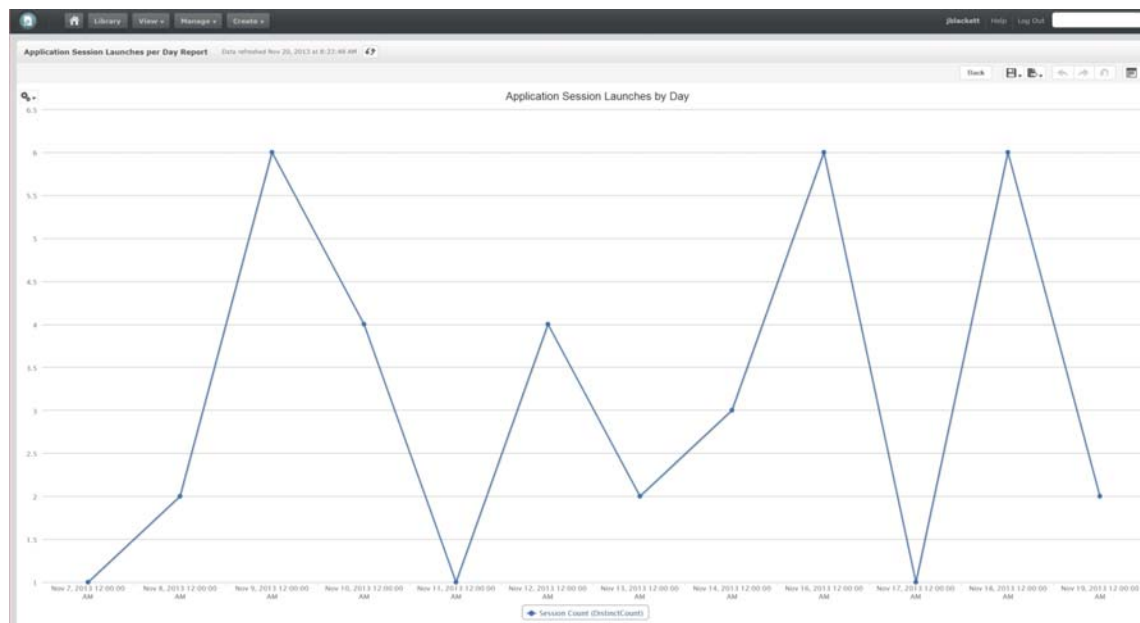
- 1 Select the *Repository View*.
- 2 Browse to *Organization > Reports > ZENworks Application Virtualization Server > Predefined Reports > Usage*.
- 3 Right-click one of the Ad Hoc Views in the list, as shown below:

Select ad hoc view




- 4 Select *Create Report*. This opens the Report viewer with your selected report. You should see something similar to this:

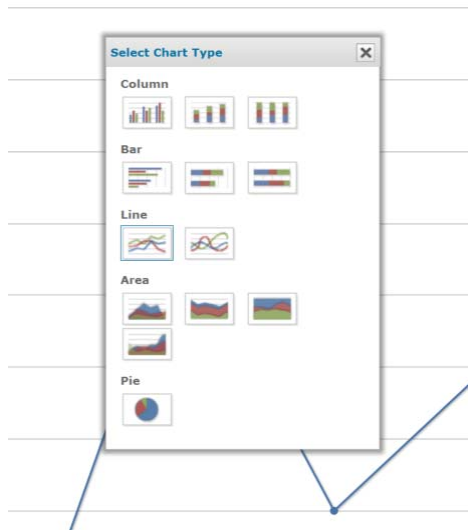
*Application Session Launches per Day Report*




- 5 (optional) If this is a Chart report, and you want to change the chart type, click the *Chart Types*

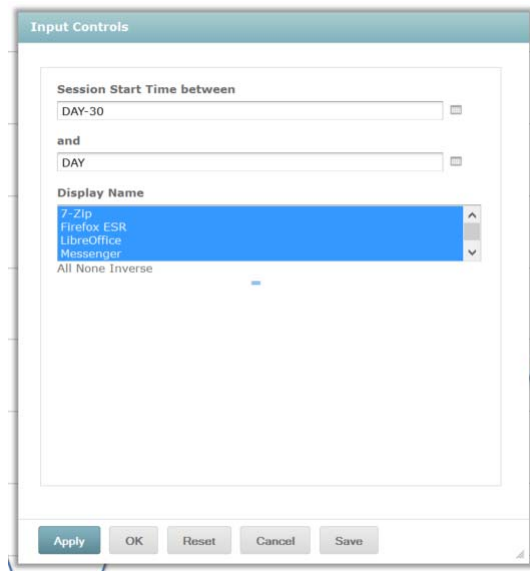
dropdown  in the left corner of the chart. You can then select a new way to look at the data as shown below:

Select chart type



- 6 (optional) If you want to change the values for any filters, click the *Options* button  in the upper right corner. This displays a dialog similar to the one below:

*Input Controls*



- 7 After you have the chart and inputs the way you want, you can format the data in any tabular fields if needed. When you are finished, save the report in the system, save it to a PDF or other file format, or do both.

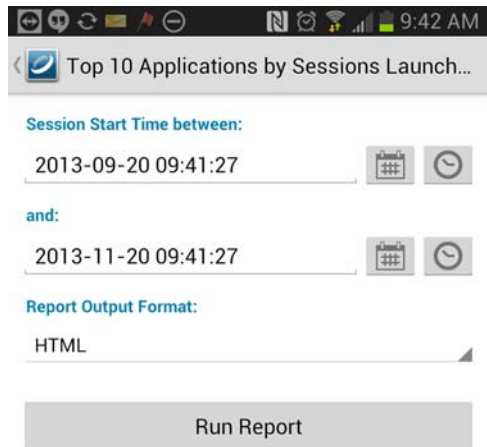
Any reports you create can also be accessed from the JasperMobile application from either the Library or the Repository browser, as described below:

- 1 Launch the JasperMobile application.
- 2 Make sure that your ZR5 server is the active profile.

**3** Tap *Search*.

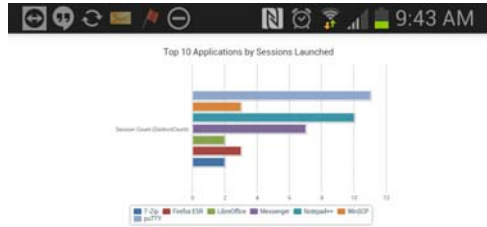
**4** Enter the name of the report you created. This displays the input filters, similar to the screen below:

*JasperMobile Input Controls*



The screenshot shows a mobile application interface with a dark status bar at the top displaying the time 9:42 AM and various system icons. Below the status bar is a title bar with a back arrow and the text "Top 10 Applications by Sessions Launch...". The main content area contains three filter sections: "Session Start Time between:" with a date-time input field containing "2013-09-20 09:41:27" and a calendar icon; "and:" with a date-time input field containing "2013-11-20 09:41:27" and a calendar icon; and "Report Output Format:" with a dropdown menu currently set to "HTML". At the bottom of the form is a large grey button labeled "Run Report".

**5** Click *Run Report* to display the report, similar to the one shown below:



## 2.3 Using the Predefined ZAV Server Usage Ad Hoc Views to create custom views

All of the predefined reports included with the ZAV Server Usage Package are built using ZR5 Ad Hoc Views. If you need to customize these reports, or if you want an easy way to get started with a new report, you can use these Ad Hoc Views as templates. Rather than changing the default views, you should make copies and then modify them as necessary. An example of how to do this is described below:

- 1 Select the *Repository View*.
- 2 Browse to *Organization > Reports > ZENworks Application Virtualization Server*.
- 3 Create a folder called *Custom Reports*.
- 4 Browse to *Organization > Reports > ZENworks Application Virtualization Server > Predefined Reports > Usage*.
- 5 Right-click one of the Ad Hoc Views in the list, then select *Copy*.
- 6 Right-click your *Custom Reports* folder, then select *Paste*.
- 7 Highlight the copied view, then click *Open*.
- 8 Drag new values in, change the drilldown level in charts, create additional filters for the report, and make any title or formatting changes you want.
- 9 Save the report, export it as an HTML, PDF, etc., or do both.

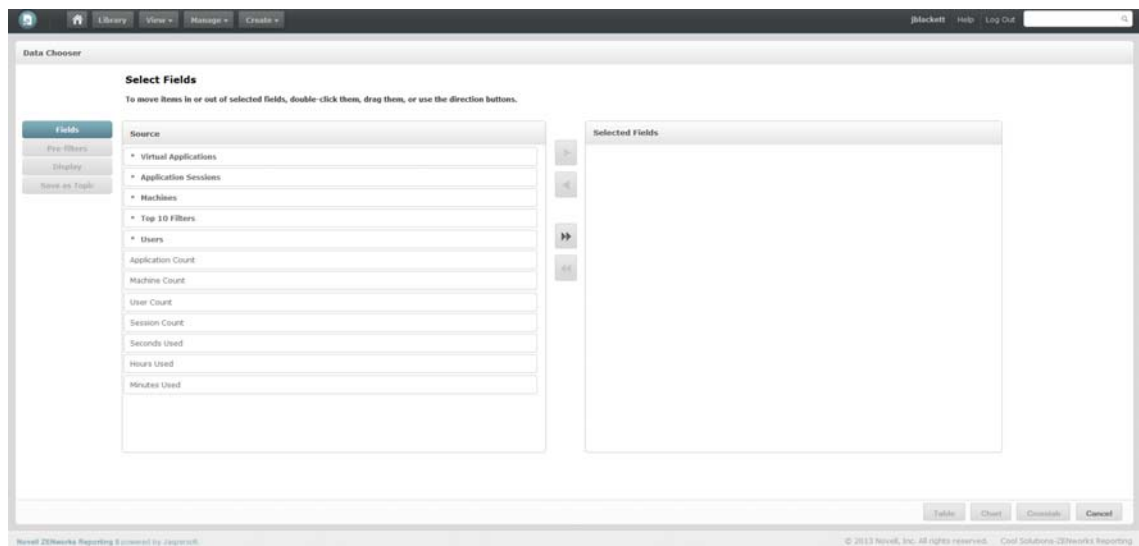
You can now use this custom view to create reports that you can then view, schedule, or use in dashboards.

## 2.4 Creating Custom ZAV Server Usage Views using the ZAV Server Usage Domain

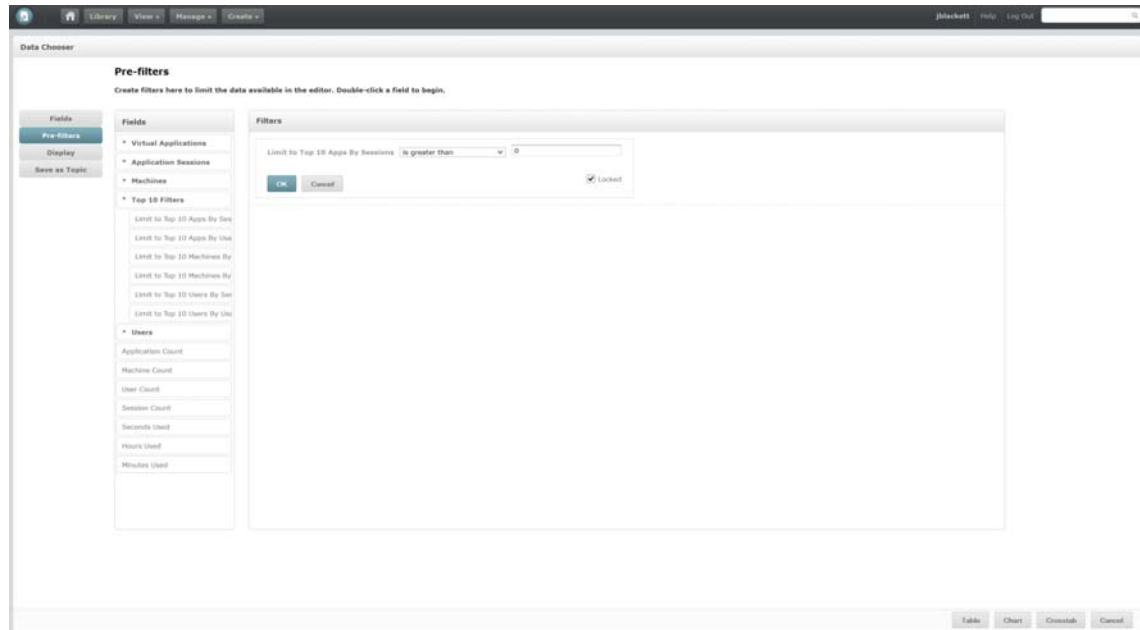
Because the ZAV Server Usage Reporting Package includes a full ZR5 domain for accessing the ZAV Server Usage data, you can use the domain to quickly and easily build new customer views, reports, and dashboards. To build your own view using the domain, do the following:

- 1 From the ZR5 home page, click *Create Ad Hoc View*.
- 2 Select the *Domains* tab.
- 3 Highlight the *Domains > ZAV Server Usage* entry, then click *Choose Data* to display the data chooser:

*Data Chooser*



- 4 Select the fields, described in the next section, that you want to have available in your report.
- 5 (optional) If you want to add pre-filters to the query, click Pre-filters. In many of the default views included with the package, the view has been pre-filtered by adding the appropriate Top 10 fields with a comparator of greater than 0 as shown below:



- 6 (optional) If you want to change the names of any of the fields to something more applicable for your environment, you can use the Display tab to set custom field names.
- 7 (optional) If you believe that you will use this set of fields, pre-filters, and names often, you can save this set of items as a Topic which can be re-used the next time you create a view.
- 8 Click Table, Chart, or Crosstab to open the View Designer.
- 9 Drag items from the Fields list into the report or use them as filters.
- 10 When you are finished, save the view. You can then utilize the view to create reports as described in the previous section.

The next section provides additional information about each of the objects in the domain to help you build the reports you need.

### 3 ZAV server Usage Domain Reference

The ZAV Server Usage Domain provides the following fields and measures that can be used in your reports:

**Table 1** ZAV Server Usage Domain Objects

Field / Measure Name	Path	Description / Use Case
Architecture	Virtual Applications	This field contains the architecture string for the virtual application. The string indicates whether the application is limited to running on 32-bit, on 64-bit, or on any CPU.
Display Name	Virtual Applications	This field contains the name of the application as displayed to the end user in the portal.

<b>Field / Measure Name</b>	<b>Path</b>	<b>Description / Use Case</b>
Internal Name	Virtual Applications	This field contains the unique internal name of the application stored in the database.
Application Language	Virtual Applications	This field contains the language identifier for the application that was launched by the end user.
Revision	Virtual Applications	This field contains the revision number of the application that was run.
SKU	Virtual Applications	This field contains the unique product code associated with the launched application as entered by the administrator.
Version	Virtual Applications	This field contains the version number of the application that was run.
IP Address	Application Sessions	This field contains the IP address of the machine on which the user ran the application.
Session End Time	Application Sessions	This field contains the date and time when the user exited the application.
Session GUID	Application Sessions	This field contains the GUID that represents the unique launch of the application.
Session Start Time	Application Sessions	This field contains the date and time when the user started the application.
Session Updated Time	Application Sessions	This field contains the last date and time the device checked in to indicate that the application was still running.
OS Architecture	Machines	This field contains information about the architecture of the operating system running on the machine that launched the application.
First Launch Date	Machines	This field contains the date and time when the machine was added to the usage database. This corresponds to the first time a virtual application was launched on the machine.
Machine Name	Machines	The field contains the Windows computer name of the machine where the application was launched.



<b>Field / Measure Name</b>	<b>Path</b>	<b>Description / Use Case</b>
MAC Address	Machines	The field contains the hardware network address of the machine where the application was launched.
Operating System	Machines	This field contains information about the Windows operating system, including name, version, and service pack.
Machine SID	Machines	The field contains the Windows SID of the machine where the application was launched.
Limit to Top 10 Apps By Sessions	Top 10 Filters	Use this measure as a filter to limit the results in the list to the 10 applications that have been launched the most number of times. To use this measure, drag it to the filter list and set the comparator to greater than 0.
Limit to Top 10 Apps By Usage	Top 10 Filters	Use this measure as a filter to limit the results in the list to the 10 applications that have the most total usage time. To use this measure, drag it to the filter list and set the comparator to greater than 0.
Limit to Top 10 Machines By Sessions	Top 10 Filters	Use this measure as a filter to limit the results in the list to the 10 machines that have launched applications the most. To use this measure, drag it to the filter list and set the comparator to greater than 0.
Limit to Top 10 Machines By Usage	Top 10 Filters	Use this measure as a filter to limit the results in the list to the 10 machines that have the most usage time across all applications. To use this measure, drag it to the filter list and set the comparator to greater than 0.
Limit to Top 10 Users By Sessions	Top 10 Filters	Use this measure as a filter to limit the results in the list to the 10 users that have launched applications the most. To use this measure, drag it to the filter list and set the comparator to greater than 0.

<b>Field / Measure Name</b>	<b>Path</b>	<b>Description / Use Case</b>
Limit to Top 10 Users By Sessions	Top 10 Filters	Use this measure as a filter to limit the results in the list to the 10 users that have the most usage time across all applications. To use this measure, drag it to the filter list and set the comparator to greater than 0.
First Launch Time	Users	This field contains the date and time when the user was added to the usage database. This corresponds to the first time a virtual application was launched by the user.
User Name	Users	This field contains the user name of the user that launched the application.
User SID	Users	This field contains the user's Windows SID of the user that launched the application.
Application Count	<root>	Use this measure to count the number of unique applications in the usage database. In a table, this shows an integer value that represents the application.
Machine Count	<root>	Use this measure to count the number of unique machines in the usage database. In a table, this shows an integer value that represents the machine.
User Count	<root>	Use this measure to count the number of unique users in the usage database. In a table, this shows an integer value that represents the user.
Session Count	<root>	Use this measure to count the number of unique launches of applications in the usage database. In a table, this shows an integer value that represents the unique launch.
Seconds Used	<root>	This measure displays the total time, in seconds, that the application ran. When applied in a crosstab or summary, this value is the sum total of the time used.
Minutes Used	<root>	This measure displays the total time, in minutes, that the application ran. When applied in a crosstab or summary, this value is the sum total of the time used.

Field / Measure Name	Path	Description / Use Case
Hours Used	<root>	This measure displays the total time, in hours, that the application ran. When applied in a crosstab or summary, this value is the sum total of the time used.

## 4 Summary

Using ZENworks Reporting 5 and the ZAV Server Usage Reporting Package, you can create dynamic dashboards and reports. Additionally, you can mix and match report components on dashboards with other ZAV reports or other ZENworks reports to help you get a quick view of usage across your environment.

