TOC

Composer 24

Composer 24 Troubleshooting

Address Composer Microservice Shown as Not Running

Symptom

In the Composer server, running the `sudo service zoomdata status` command shows Composer as not running even though Composer is clearly running and accessible via the browser. No noticeable error is seen in the Composer log files and no other major issue is seen with the actual execution of Composer.

Possible Causes and Solutions

This issue may be occurring because your Composer pid file is in the `/tmp` folder of your Composer server. By default, the Composer pid file is stored in this directory per the `/etc/init.d/zoomdata` file. If this is the case, there are many reasons why the pid file could be missing from this directory, and would require further investigation from your Linux or Ops engineers. Please check the size of this temp directory as if it is quite small, it can easily fill up depending on the size and usage of the server. Furthermore, some users may have set-up a cron job (or manually) to periodically clean this `/tmp` directory.

As a workaround, the location of the Composer pid file can be changed to not use the `/tmp` folder. This can be done by modifying the `/etc/init.d/zoomdata` file directly. Look for the following line in this file:

```
# Define Composer pid file
[ -z "$ZOOMDATA_PID" ] && ZOOMDATA_PID="/tmp/zoomdata.pid"
```

We suggest either using the Composer directory or some other directory where the Composers user has write access that does not risk being cleaned out by something like a cron or manual job.

Intermittent WebSocket Disconnects in Composer

Resolutions

When experiencing intermittent or frequent WebSocket disconnects in Composer, check for the following:

- What version of Composer you are using? Consider upgrading to the latest available version. There have been various fixes and improvements to WebSocket behavior implemented that may address your issue.
- Follow-up with your network or IT team to verify if the issue is network-related. For example, traffic between Composer and your end users may be getting rerouted or there could be some other kind of network configuration that is causing skyrocket timeouts to occur in your environment on a frequent or regular basis.
- Check if there are any other applications (e.g. antivirus) that might be trying to block WebSocket sessions from establishing.
- Are these WebSocket disconnects only occurring in Composer or can these WebSocket disconnects be observed by the end-user when using other applications from the same browser machine?
- If you are using a load balancer with Composer, consider the following:
  - Review your load balancer configuration to determine the default session or WebSocket timeout value for your environment. Increase the timeout value if needed.
  - Your load balancer may not support protocol changes (HTTP/101), such as Amazon Web Services (AWS) Elastic Load Balancing (ELB). The Composer application, which uses a combination of HTTP, REST services, and WebSockets, requires a load balancer that supports protocol switching. In this case, consider using an alternative load balancer that supports protocol changes or configure it to function as a Layer-3 proxy if possible. If you are using ELB, you might find this blog post informative and a good starting point.
  - If you are using HAProxy version 1.5 or newer , please review your configured timeout setting for **tunnel mode** because it will override other server or client timeout settings. Thus, if set to a low value, this setting can cause frequent WebSocket disconnects to occur. For more information about tunnel mode, refer to the HAProxy documentation.

Note: By default, the session timeout for the Composer server is **30** minutes. If users are idle for extended periods of time, the existing WebSocket connections will timeout and this is expected behavior.

Can Composer Be Installed From an RPM Repository?

Yes, it is possible. If you would like more information please contact insightsoftwareTechnical Support for assistance.

What Is This Unsupported Class Error?

The `UnsupportedClassVersionError: Main : Unsupported major.minor version 52.0` error typically occurs when the Java version with which the plug-in is compiled differs from the Java version that the Composer server is using. Composer and its related plug-ins are compiled using Java 8 (1.8.0_131 or later). However, for example, if an older Composer server you have installed is running Java 7, it may not be able to read the Java 8 format class files in the corresponding plug-in (e.g. Phoenix connector, etc.) and will thus error out. If this is the case, upgrading to the latest Java version should resolve the issue.

Use the `java -version` command on Linux to determine the Java version.

How Do I Enable Debug Mode in Composer Services?

Debug mode logs additional information when trying to troubleshoot an issue. Debug mode should *only* be enabled for further troubleshooting. You may not want to leave debug mode enabled because it can be resource and log intensive!

You can enable debug mode using one of two methods:

Change Logging level at runtime without the service restart. Run the following API call:

Important: Restarting any service will also reset logging options and automatically disable debug mode by default.

```
#zoomdata/web service
       curl -X POST "http(s)://<host>:<port>/composer/actuator/loggers/com.zoomdata" \
               -H "Content-Type: application/json; charset=utf-8" \
               -d $'{ "configuredLevel": "DEBUG" }' \
               -u <admin>:<password>
                       #other services, query-engine, edc
                       curl -X POST "http(s)://<host>:<port>/composer/actuator/loggers/com.zoomdata" \
                               -H "Content-Type: application/json; charset=utf-8" \
                               -d $'{ "configuredLevel": "DEBUG" }' \
                       -u <admin>:<password>
```

1. Replace the `<password>`, `<host>`, and `<port>` parameters with appropriate values. The user must be the **admin** user to change the instance logging level. Useful logging levels are `DEBUG`, `INFO` (default), `ERROR`.

   The java package name prefix is `com.zoomdata`. Alternatively, it may be `org.springframework`.

2. Permanently change the service logging level, then restart the service. Add the following property to the parameter to the `zoomdata.properties` file or any other service `.properties`, then restart the service.

```
#com.zoomdata and org.springframework are java package names logging.level.com.zoomdata=DEBUG
logging.level.org.springframework=DEBUG
```

Verify the Composer Server Restart

If you restarted the Composer server using the `sudo service zoomdata restart` command but still experience issues, you can verify that the Composer Server successfully restarted.

To verify, complete the following steps:

1. Obtain the Composer Process ID (PID) information by running:

```
ps aux
grep zoomdata
```

2. Then check the running time of the PID by running:

```
ps -p [your_zoomdata_PID] -o etime=
```

3. Next, stop the Composer Server:

```
sudo service zoomdata stop
```

4. Check whether the Composer Server is still running:

```
ps aux
grep zoomdata
```

5. Optional: Check whether the ports for Composer are still available:

```
netstat -anp
grep 8080
```

6. If you discover that the Composer Server is still running, you will need to force stop the Server by running:

```
kill <your_zoomdata_PID>
```

Note: If this command does not successfully terminate Composer, you can enter the following command line:

```
kill -9 [your_zoomdata_PID]
```

For additional information about the Linux kill command, please refer to the appropriate Linux documentation or the following Linux/Unix Command: ps/kill topic.

7. After successfully stopping the Composer Server, you can start it up again:

```
sudo service zoomdata start
```

8. Check the running time of the Composer PID again:

```
ps -p <your_zoomdata_PID> -o etime=
```

The new Composer running time should reflect the time you restarted the server.

Reduce Resource Allocation Due to Live Mode

Composer supports live streaming sources, as well as the ability to play historical data sets using time controls available in the visual canvas. If you choose to play through your data, significant CPU and memory usage may result. However, you can add a server-level variable to enable or disable animation on the time bar for Live sources and a configurable setting that can be used to set the refresh rate for Live Mode.

Ensure Your Custom Favicon Sticks in Browser Tab

Problem : You added a custom favicon to the Composer user interface, but it changes back to the default Composer icon.

Resolution : Try clearing your browser's cache after uploading a custom favicon. This should resolve the issue and your custom icon should display as expected afterward. If this does not resolve your issue, you can contact Technical Support.

Basic SAML Troubleshooting

When troubleshooting SAML configuration or login issues, be sure to enable DEBUG mode for the SAML module. DEBUG mode allows for additional logging and more detailed error messages to be captured in the `zoomdata.log` file (located in `/opt/zoomdata/logs`) that is useful for troubleshooting purposes. To enable DEBUG mode, enter the following cURL command:

```
curl -u <admin>:<password> -X "POST" "http://<hostname>:<port>/composer/actuator/loggers/org.springframework.security.saml"
\
-H "Content-Type: application/json; charset=utf-8" -d $'{ "configuredLevel": "DEBUG" }'
```

Replace the `<admin>` and `<password>` with the credentials for the Composer admin user. Similarly, please make sure that your URL contains the appropriate `<hostname>` (or IP address) and `<port>` of your Composer environment. This should be similar to the hostname (or IP address) and port specified in your browser.

Commonly Reported Issues

Issue #1: Warning Message During IDP Redirection

Summary:

User sees the following warning message during redirection to the IDP (Identity Provider):

```
HTTP Status 401 - Authentication Failed: Response issue time is either too old or with date in the future
```

Root Cause:

This error is likely being thrown as a result of mistiming between the Composer server and IDP server.

Resolution:

Check that the NTP service is running on both machines. if not - start it and check that time is the same.

Issue #2: Connection Error

Summary:

User is encountering an error connecting to SAML And notices the following error message in the Composer log files:

```
2015-09-28 07:25:39,138 ERROR [o.s.s.s.u.SAMLUtil] Could not find any artifact resolution services in metadata.
2015-09-28 07:25:39,138 DEBUG [o.s.s.s.w.WebSSOProfileImpl] Could not decode artifact response message.
org.opensaml.ws.message.decoder.MessageDecodingException: Could not find any artifact resolution services in metadata.
```

Root Cause:

There is a missing artifact resolution service in the metadata, which is required by Composer.

Resolution:

Add the following property string to the *zoomdata.properties* file (located in `/etc/zoomdata` directory):

```
saml.artifactBindingDefault=false
```

Restart Composer after making this change.

Issue #3: Error Validating SAML Message on Composer Home Page

Summary:

After following the steps to configure SAML in Composer and successfully connecting to the SAML IDP (e.g. ADFS) login page, the user may still encounter a "Error validating SAML message" error message on the Composer Home page after logging in via SAML.

When looking in the zoomdata.log/zoomdata-error.log files, the user might see the following error messages:

```
2015-09-28 13:19:13,336 ERROR [o.o.x.e.Decrypter] Error decrypting the encrypted data element
org.apache.xml.security.encryption.XMLEncryptionException: Illegal key size
Caused by: java.security.InvalidKeyException: Illegal key size
```

Root Cause:

Encryption better than AES-128 which is not allowed by the default cryptographic jurisdiction policy files that are shipped with the Java JDK.

Resolution:

To address this issue, download the appropriate JCE extension for unlimited strength encryption for your current Java version and install the unlimited strength policy files with the JDK that is shipped with Composer. In order to install this JCE extension, you need to copy the two .jar files contained in the JCE downloaded archive to the */opt/zoomdata/jre/lib/security* directory of your Composer server and replace the existing limited JCE files in this location.

> **Important:** Make a backup of the original JCE files in case you need to restore these files for some reason. Keep in mind that during upgrade or installation, these files will be overwritten.

Afterward, try following the steps to configure SAML in Composer again and this issue should no longer occur.

Issue #4: Error Validating SAML Message (continued)

Summary:

User continues to encounter the "Error Validating SAML message" error after entering credentials through their ADFS login page. They also see the following error messages in the zoomdata.log file:

```
2015-09-29 09:05:08,796 INFO [o.s.s.s.l.SAMLDefaultLogger]
AuthNResponse;FAILURE;204.17.231.100org.opensaml.common.SAMLException: NameID element must be present as part
of the Subject in the Response message, please enable it in the IDP configuration

2015-09-29 09:05:08,796 DEBUG [o.s.s.s.SAMLProcessingFilter] Authentication request failed:
org.springframework.security.authentication.AuthenticationServiceException: Error validating SAML message
```

Root Cause:

The attribute, specified in the "Username Mapping" of Composer's SAML settings (under the Security tab logged in as the system admin), is not being sent by ADFS. In this example, the error message indicates that ADFS is not sending the "NameID" attribute.

Resolution:

Configure ADFS to add this attribute by following the below steps (we will continue to use "NameID" attribute in this example):

1. Add NameID as a "Claim rule name".
2. Choose "Active Directory" as the Attribute store.
3. Choose "SAMAccount-Name" as the LDAP attribute and "Name ID" as "Outgoing claim type".
4. Finish the wizard and confirm the claim rules window.
5. Verify that the Composer SAML settings on the **Security** tab when logged in as the supervisor, have this attribute (in this example, NameID) specified correctly under the "Username Mapping" parameter.

   Note: In ADFS 3.0, you may need to configure this attribute (e.g. "NameID") as a "Pass Through claim."

Why Can't I Recreate Users that Previously Existed?

Users may notice that if they delete a user while logged in as an administrator, they cannot recreate users with the same username. When you delete users while logged in as an administrator, the user is not completely removed from the system. Instead, it is no longer assigned to the account. This happens to ensure that we do not delete a user who has been assigned several accounts by an administrator who has no authority to see the other accounts. So, the user remains in the system and cannot be recreated.

To completely delete a user, log in as the supervisor and delete the user there. The user will be completely removed from the system and you can then create a user with the same user name. See Manage Users.

Icons Not Reverting to Defaults After Screenshot Microservice Disabled

The Screenshot microservice can be enabled in Composer using CentOS and Ubuntu. However, users might notice that even after disabling the Screenshot microservice, Composer continues to use existing screenshot images and does **not** automatically revert back to the original default icons for visuals or dashboards used by Composer after installation. To revert the icons used by Composer for the visuals or dashboards before the Screenshot microservice was enabled, you must delete all the screenshots in the metadata directly.

To do this in MongoDB, run the following commands:

```
use zoom;
db.screenshots.remove({});
```

Use the `mongo` command to access the mongo shell through the Linux command line.

Note: Make sure you disable the Screenshot microservice as well via the `zoomdata.conf` and `zoomdata.properties` files and restart the Composer microservice for the changes to take effect.

Elasticsearch: What Are the Commonly Reported Issues?

Why am I unable to define a Group-by after creating a visual?

By default, the data within an Elasticsearch data source is stored as "text" fields. However, in order to set a group-by, the field needs to be set as type "attribute" or else it will not show up in the group-by section. Please check your fields to make sure that the appropriate fields you would like to group-by are set as "attribute" within your Elasticsearch data source.

Why do my data source fields only contain single words?

Every string field in Elasticsearch is analyzed by default. If your field is "analyzed", this means that each individual word within your string is tokenized/indexed, so they will return as separate values. Thus, if you want Elasticsearch to respect the string and not return the string as individual entities, please make sure to set the field to be "not analyzed" within your Elasticsearch data set.

Resolve the Hive Timeout Warning Message

Troubleshooting

Issue description: A timeout warning message is displayed when you try to open a dashboard based on a Hive data source. This is possibly being caused by the configuration of the Hive server.

Workaround: If you are encountering timeout errors, you can first try to create or modify the settings in the Hive configuration file `edc-hive.properties`. See Configure ComposerSymphony.

- Increase the timeout value that causes this exception to 2 minutes:

```
datasource.time-limits.max-wait-time-sec=120
```

- If the Hive server has at least 64 GB storage and 16 cores, modify the values for the following parameters:

```
datasource.connection-limits.max-idle=5
datasource.connection-limits.max-total=5
```

Initial Kerberized Impala Troubleshooting Steps

After configuring Composer to connect to a kerberized Impala data source per Connect To A Kerberized CDH Cluster, Composer may still fail to connect when the user attempts to create a new Impala data source to this kerberized CDH cluster. In these situations, we recommend you to check the following first before opening a support ticket for further assistance:

- Verify that the time is synchronized between the Kerberos and Composer servers. Kerberos is very sensitive to time differences that exist. If possible, consider configuring a Network Time Protocol (e.g. ntpd) to synchronize the time on your servers.
- Double-check the configuration parameters, JDBC URL, and that the correct user is specified in the `zoomdata.jvm` file for Kerberos. For example, an unintended space when copying parameters can cause the connection to fail.
- Check if you are using AES-256 encryption level in your Active Directory. By default, Java *does not* support AES-256 encryption. In case your environment is using AES-256 encryption, make sure to do the following whenever you install Composer on a new server or you are upgrading Composer to a new major version:

1. Navigate to the Java Cryptography Extension (JCE) Unlimited Strength Jurisdiction Policy Files 8 download page.
2. Download the archive `jce_policy-8.zip`.
3. Extract the `jce/local_policy.jar` and `jce/US_export_policy.jar` files from the archive to the appropriate directory. Overwrite the files already present in the directory.

i. Linux: `/opt/zoomdata/jre/lib/security/`

ii. Windows: `<install-path>/jre/lib/security/`

4. Restart Composer.

Display All Unique Elements for a Selected Filter Panel Attribute

Resolution

The reason that only some, and not all, of the available attribute elements are showing on the filter panel is due to how Composer samples the data by default during the initial source creation. To have the filter panel populate with all the field elements, please refresh the field from within the data source so all the data is sampled. To do this:

1. Ensure you are logged into Composer as an administrator.
2. Select **Sources** on the UI menu (). The Sources page appears.
3. Scroll down the list of connected data sources, select the target source and navigate to the **Fields** page.
4. Scroll to the field on which the filter is being applied.
5. Under the **Statistics** column, select the **Refresh** button.

   This ensures that all the values for that specific field will appear on the filter panel of the visuals or filter snippet.

Fix Blank Visuals in the Home Page (for RPM Installations)

Symptom

If you successfully installed the RPM version of Composer and only see blank visuals on the dashboard, there may be a hostname mismatch in two specific Composer files: `/etc/sysconfig/network` and `/etc/hosts`.

Possible Cause

In the file `/etc/sysconfig/network`, the following setting is needed:

```
HOSTNAME=<servername>
```

Substitute any alphanumeric hostname for `<servername>`.

In the file `/etc/hosts`, the following should be listed:

```
<your_server_IP> <servername>
```

Substitute the IP address and hostname of your Composer instance for `<your_server_IP>` and `<servername>`.

Resolution

To resolve this issue, open the two files and verify that the hostname references in both files match.

- If the hostname reference does not exist in the `/etc/sysconfig/network` file, then it must be added. The name must match the name in the `/etc/hosts` file.
- If the hostname reference exists in both files, then one of the references must be revised to match the other.

To correct this error:

1. Log out of Composer, if you are still in the program and close the browser.
2. From your terminal, open a command line session.
3. Change to the `zoomdata` directory. See Configure ComposerSymphony if you need guidance.

4. Edit the file `/etc/sysconfig/network`. Search for the term `HOSTNAME`. If the term is not in the file, add the following line:

```
HOSTNAME=<servername>
```

```
Substitute any alphanumeric hostname for <servername>.
```

   Save the file.

5. Edit the file `/etc/hosts`. Find or add the following line in the file.

```
<your_server_IP> <servername>
```

   Substitute the IP address and hostname of your Composer instance for `<your_server_IP>` and `<servername>`. Verify that the `<servername>` specified in the `/etc/hosts` file matches the `<servername>` in the `/etc/sysconfig/network`file.

   Save the file.

6. Open a new browser session and log back into Composer to verify that the visuals are displaying in the gallery.

If this solution did not resolve the problem, contact Composer Technical Support.

Can I Use Multiple Data Sources on the Same Visual?

Generally, visuals can only be created from a single data source (to a single table or view). However, our dashboards can contain multiple visuals side-by-side that originate from multiple data sources. In addition, the following Composer features can be used to examine data from different data sources:

- You can create cross-source links between fields from the different data sources used by the different visuals on a dashboard. You can then apply filters to the cross-source-linked fields. See Use Cross-Source Links.
- You can create a fused data source containing data from different data sources and use the fused data source for your dashboard visuals. See Fuse Data Sources.

Address SQL Data Sources Displaying Date and Time Fields Incorrectly in Excel

This behavior is not a bug or an issue with Composer but actually a result of how Microsoft Excel tries to read the date or time data stored in the generated CSV file. CSV files don't have a specific format, they just contain data. When Excel tries to examine this data, it tries to set an appropriate format for it. If you open the CSV file using a text editor (for example, Sublime Text), you will notice that the date or time fields and corresponding values display correctly as a string value within quotation marks. Excel can recognize a string containing a human-readable date or time value, but it will convert this value to its own internal time stamp value represented as a floating point number. Excel then applies an appropriate (or default) date or time style to these cells, but the format displayed may not necessarily use or match the string representation shown in the CSV file.

When you initially open the CSV file in Excel and select the actual date or time field, you might notice that the correct value and actual value of the cell is displayed in the "function" section even if the value shown in the specific cell is different.

Opening the CSV file with Excel and saving it might cause the file to overwrite the date or time data with the incorrect format instead. Please check the initial CSV file generated by Composer during export.

To ensure Excel displays the date or time data correctly, use one of the following methods:

1. Prefix the formatted date strings in the CSV file by adding an "=" symbol before the date or time values in quotes for each individual row (e.g. "2013-09-17 04:00:00.0","Alabama" becomes ="2013-09-17 04:00:00.0","Alabama")
2. Format the column in Excel so that the cells use the correct date or time format by right-clicking the column (or cells) and selecting the **Format Cells** option.

For more information about making formatting changes (trying to set a different default date or time format) or general formatting behavior in Excel, please refer to Microsoft Excel's documentation.

Address Safari Browser Connection Lost Error When Rendering a Visual

Symptom

When trying to render a visual using one of your data sources (including Composer's Real Time Sales demo source), you may observe an issue where the visual never finishes rendering and you receive a 'connection lost' error as a red bar across the top of the browser. Specifically, this issue seems to only occur when using Safari but not in other browsers such as Chrome.

Possible Cause and Resolution

You may be encountering this issue because you are trying to use a self-signed certificate in Safari. By default, Composer will initially use a self-signed certificate for SSL unless otherwise configured. Because of how Safari's security settings are configured, the web-socket requests are likely getting denied causing the "connection lost" error and the visual to never render properly. You can address this issue by one of two methods:

1. Disable SSL in your Composer Server and make sure to use the 'http' connection when connecting to Composer via Safari
2. Configure your Composer server to use a new, valid SSL certificate instead of using the default, self-signed certificate. This can be done by adding an SSL certificate to your Composers server

What Should I Check for if Live Mode Is Configured But My Dashboard Data Isn't Updating?

Before opening a support ticket with Composer Technical Support, please check the following first:

- Data might be added in real time but not for "now" depending on the time field that Composer is using to play on. Since live mode only queries for any new data that comes in since the query was last executed, any "new but historical" data will not be captured until the dashboard is refreshed and the full query is executed.
- Verify that the time is in sync between the database server and Composer server.
- Verify that the database server and Composer server is using the same time zone.
- Try enabling Delay Mode *(with a significant delay)* to see if that makes any difference.

The Cross-Origin Request Blocked Error

Cross-origin resource sharing (CORS) is a new standard introduced in HTML 5 that allows web applications to use HTTP headers to specify which origins are permitted to request resources on the server. Modern web browsers will consult the Access-Control-Allow-Origin header on how to relax the same origin policy for a given page.

By default, this setting was disabled starting version 1.5.0SR1 due to security vulnerability concerns. However, CORS can be enabled for certain or all domains through the zoomdata.conf (`/etc/zoomdata`) file. Please add the following parameter:

```
access.control.allow.origin=*
```

The `*` will open CORS for all domains. If you want to specify specific domains, replace the `*` with the appropriate domain name. Refer to your Tomcat documentation to verify the appropriate syntax to use.

Please restart Composer server after making this change and also make sure to clear your browser cache.

What's the Difference between the Composer REST API and the ComposerJavaScript SDK?

Composer provides a REST API for your development needs.

Important: The Composer SDK is no longer supported.

Why Don't SDK-Embedded Visuals Display Properly Unless a User is Logged In?

Please make sure that the API key that was generated for your SDK implementation has appropriate access to ALL the data sources being used by your embedded visuals in your custom HTML page.

Please refer to our Data Discovery Security Configuration Object support topic for more information.