

Troubleshooting BI Security Issues

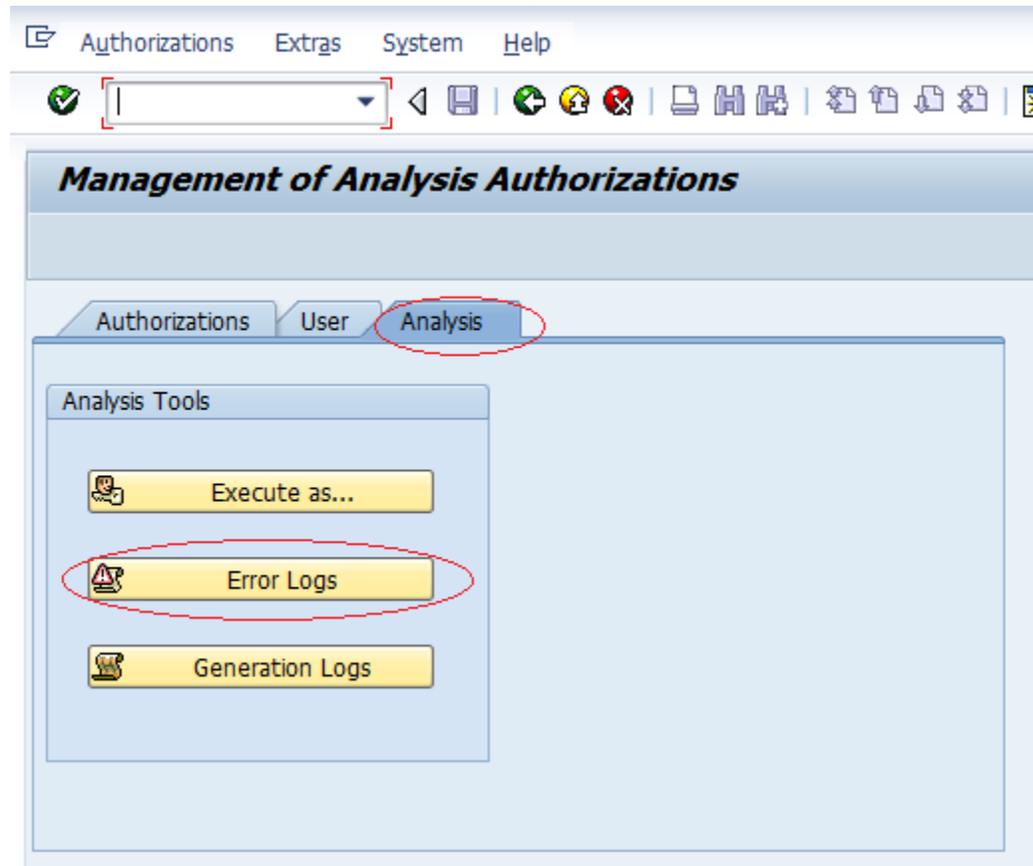
The following troubleshooting tips are scenarios that actually occurred during our testing. The resolution that was taken for each scenario has been documented and in some cases, additional documentation has been provided or referenced.

1. **The query does not return the correct values:** In such a case there might not be an issue with the setup of the role and the AAs in the roles, but the values of characteristics in the AAs which is the result why the query is not producing the acceptable records.
To troubleshoot this we need to identify the values of characteristics within the AAs that will produce the correct result. For this we may have to consult the business and the BI developer.
2. **The query comes up with the No Authorization error:** In such a scenario either the role is missing access to an AA or an AA is missing access to characteristic. Either way it boils down to access to a characteristic.

When in such a scenario, follow the following steps to troubleshoot:

- I. Identify the query being executed and user executing the query
(ZMONSALE2/SD_SREP_CUST_SALE_MO_S724_RUOM and ZTEST_QU2 respectively in this case)

- II. Run txn RSECADMIN and select the Error Logs under the Analysis tab.



- III. On the next screen Populate the field "UTC time stamp in short form" and "Executing User" and hit enter. If there is an error log for selected time stamp there would a number displayed "Number of Selected Logs". Hit Display to select the log and then view.

Log Edit Goto System Help

Authorization Logs: Selection Back (F3)

Configure Log Recording Information

Selection Criteria

UTC time stamp in short form 4/2012 10:43:32 to 02/15/2012 14:..

Executing User ZTEST_QU2 to

Restricted User to

Delete Selections

Data Source

From Database

From Archive

Number of Selected Logs: 3 Display Delete

Characteristic	Content(in SQL Format)
	(0SALES ORG IN ('CA11','US11','US12','US14','US15','US16','US17','US18','US1A','US1G') OR 0SALES ORG LIKE 'BE1%' OR 0SALES ORG LIKE 'BR1%' OR 0SALES ORG LIKE 'DE1%' OR 0SALES ORG LIKE 'DK1%' OR 0SALES ORG LIKE 'FR1%' OR 0SALES ORG LIKE 'GB1%' OR 0SALES ORG LIKE 'HU1%' OR 0SALES ORG LIKE 'MX1%' OR 0SALES ORG LIKE 'PL1%') AND 0TCAACTVT = '83'
0MATERIAL__0MATL_GROUP	
0SALESORG	
0TCAACTVT	
	0SALESORG
	Not Authorized
	BE1*
	BR1*
	DE1*
	DK1*
	FR1*
	GB1*
	HU1*
	MX1*
	PL1*
	US11
	US12
	US14
	US15
	US16
	US17
	IEQ

In this particular example the access fails due to no access to the characteristic 0MATERIAL__0MATL_GROUP.

We will have to adjust the role with an AA which has the access to this characteristic.

3. Reading Error Logs (in more detail):

The below give more detail of the error log documented by Dipender above. I think this will explain the whole SQL check process that the system goes through.

Characteristic	Content (in SQL Format)	
0G_CWWBGR	0G_CWWBGR = '1'	I EQ
0G_CWWGMI	AND 0G_CWWGMI IN ('10_BU', '11_BU', '12_BU', '13_BU', '14_BU', '15_BU', '16_BU', '17_BU', '18_BU', '19_BU', '1A_BU', '1B_BU', '1E_BU', '1S_BU', '1X_BU')	1B_BU
0G_CWWSEC	AND 0G_CWWSEC IN ('E', 'H')	I EQ
0SALESORG	AND 0TCAACTVT = '03'	19_BU
0TCAACTVT	AND 0SALES ORG LIKE *	I EQ
		1A_BU
		I EQ
		1B_BU
		I EQ
		1E_BU
		I EQ
		1S_BU
		I EQ
		1X_BU
		0G_CWWSEC
		I EQ :
		I EQ E
		I EQ H
		0SALESORG
		I CP
		CH*
		I CP IH*
		0SALESORG
		I CP
		MY*
		I CP
		SG*
		I CP
		TH*
		I EQ :
		0TCAACTVT
		I EQ 03
		I EQ 71

The box on the left is from the “Following Set is Checked” column. This means that this is the information that is being requested in the query (in the form of a SQL statement). Here you can see that several characteristics/values are being selected in an AND statement, including **0SALESORG LIKE *** at the end. This means the query is asking for this information, it has nothing to do with the authorizations yet. The box on the right identifies the authorizations the user has in one particular analysis auth. Here you can see that 0SALESORG has some discrete values (meaning its less than **LIKE ***). You’re getting “Partially Authorized” at this point and the system will check the Remaining Set (the stuff you didn’t have access to) against the rest of the Analysis Auths that the user has. Since the statement is an AND, the Remaining Set is still a combination of all the characteristics. The remaining set is compared against all the other AA’s and none pass (because none have 0SALESORG LIKE *). So the issue here is that the query is asking for more 0SALESORG data than is authorized.

6. No Access to a Characteristic

You do not have analysis authorization for any char. values of char. 0COMP_CODE

Message no. EYE018

Diagnosis

The system determined the authorized characteristic values for the characteristic 0COMP_CODE. It determined that you do not have the (analysis) authorization to view transaction data for any characteristic values or range.

System Response

If this situation occurs when a variable is being filled, the query cannot be executed.

Procedure

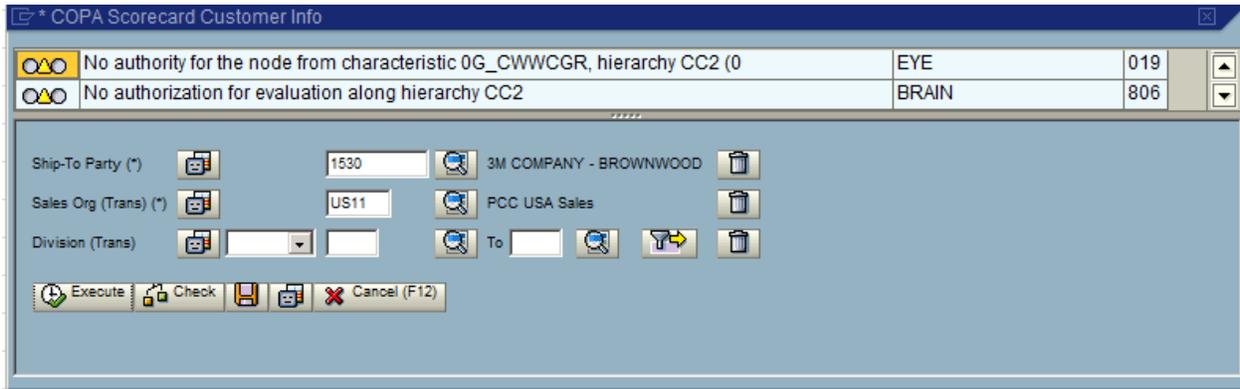
You must have authorization for at least one characteristic value for the characteristic 0COMP_CODE.

Create the appropriate analysis authorizations for the user.

If you are only authorized for evaluations that aggregate using the characteristic 0COMP_CODE (for ** authorizations), use a query without this characteristic. If the characteristic is not used as a filter or in the drilldown, variables should not be used.

When the above message appears, this means that the characteristic value is not in the Analysis Authorization and therefore the user cannot run the query because it is authorization relevant. Security will need to create an Analysis Authorization with the characteristic and it's values, if one doesn't already exist. Then the Analysis Authorization will need to be added to the role.

7. No Access for hierarchy



When the above error is received, this means that a hierarchy characteristic needs to be created for the required node. Follow the process steps documented for creating hierarchical nodes.



Restricting
Authorization to Hier:

8. Missing Aggregate Values

Authorizations missing for aggregation (":")

Characteristic	Z0BI_AGDATA
OMATERIAL__0MATL_GROUP	I EQ 14PG,...
OMAT_PLANT__0PUR_GROUP	I EQ :

Entries marked with red do not have aggregation authorization
You can find more information about this here [1140831](#)

The authorization check stops here as this selection is no longer needed

Message EYE007: You do not have sufficient authorization
No Sufficient Authorization for This Subselection (SUBNR)

Following CHANMIDs Are Affected:

92 (0MATL_TYPE)

879 (0PLANT__0COMP_CODE)

Authorization Check Complete

The above error means that aggregate values are required for the navigational attribute listed in the example. The same type of message would appear for Characteristic values as well. An analysis

authorization called Z0BI_AGDATA was created to capture all of these. Add the missing characteristic to the AGGDATA analysis Authorization but make sure it has been turned on as authorization relevant first. Follow the document for making navigational attributes authorization relevant which was documented by SAP. **<Provided as a separate file since the link to the document wouldn't work>**

NOTE: Several error messages may appear similar and can become confusing. The best steps to take in order to narrow down the issues is to breakdown the content within the AA's assigned to the role and the values within the AA's. The following steps can help simplify troubleshooting