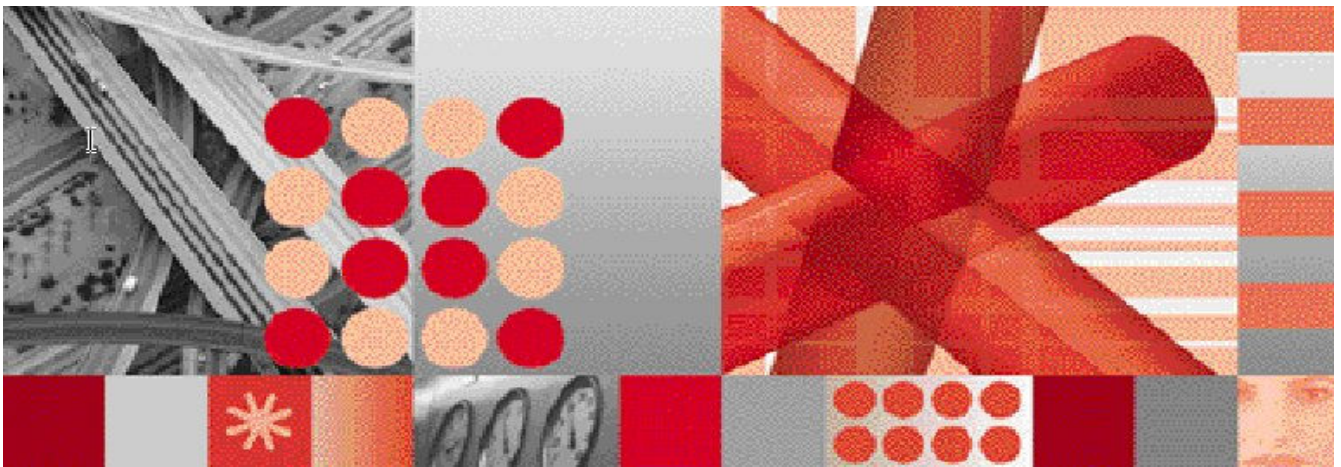




Version 4.1.3 FP2

The IBM logo, consisting of the letters "IBM" in white serif font on a black rectangular background.



Technical note for TNSQM 4.1.3 FP2 : Product enhancements

Note: Before using this information and the product it supports, read the information in Appendix A Notices on page 13.

This edition applies to Version **4**, release **1.3 FP2** of IBM Tivoli Netcool Service Quality Manager and to all subsequent releases and modifications until otherwise indicated in new editions.

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1 Changes in oss.properties

Two new properties were added to \$WMCROOT/conf/service/dom/oss.properties configuration file

```
oss.snmp.percentile.scale=1  
oss.snmp.accuracy.scale=100
```

The parameter `oss.snmp.percentile.scale` is used to scale KQI values and weights when corresponding KQI model unit or KQI model weight unit is percent. When the value of the parameter is 1 then the KQI value and the KQI weight are sent as is (default behavior). The other possibility is to set the `oss.snmp.percentile.scale` value to 100. In this case the values and/or weights of KQI snapshots would be multiplied by 100 when the KQI model unit and/or KQI model weight unit is percent.

The parameter `oss.snmp.accuracy.scale` is used to scale KQI accuracy. When the value of the `oss.snmp.accuracy.scale` is 100 then the KQI accuracy is sent as is (default behavior). The other possibility is to set the value of the `oss.snmp.accuracy.scale` to 1. In latter case the KQI accuracy would be divided by 100.

Note: these parameters are not supported by the TBSM configuration code and should be left unchanged when TNSQM Resource Viewer or reports are used.

2 OMNIbus changes

The newly added alert status fields (`TNSQM_ModelCategory` and `TNSQM_KQIUnit`) are grouped at the end of the OMNIbus event list. These new columns would not be immediately populated for any existing SLO/SLA. These new columns will only be populated when an event row is created for a new resource or when an event row is purged as being in “clear” state and then re-created.

The SLO created in 4.1.3 FP2 are not supported by 4.1.3 or 4.1.3 FP1 releases and should be deleted before the rollback procedure is started.

3 Changes to provisioning guide

Note: Section numeration here corresponds to the numeration in TNSQM provisioning guide.

The following text replaces section 11.2 of the TNSQM provisioning guide:

11.2 Behaviour for composite resource types

A KQI model can be based on a composite resource type, which means that each KQI value is associated with more than 1 resource. SLO assessment results can be published either on this set of resources or on a single resource only. This means that in the latter case the KQI values for composite resources need to be aggregated in some way by the SLO prior to comparison with thresholds. For example, for a composite resource type [*Customer*, *Location*] with an associated KQI model *ModelA*, the following KQI values could be produced :

[Customer1, Location1]	3
[Customer1, Location2]	6
[Customer1, Location3]	1

If an SLO on *ModelA* specifies which “dimension” it is to focus on (here either *Customer* or *Location*) , it can also specify the aggregation algorithm to be used when aggregating the KQI values. For example, if SLO1 is defined on this model with dimension = Customer and aggregationAlgorithm = Sum, the aggregation produces the following:

[Customer1, Location1]	3	
[Customer1, Location2]	6	[Customer1] 10
[Customer1, Location3]	1	

The tables 43 and 44 of the provisioning guide were updated:

XML Attribute	Description	Restrictions
name	The name of the Tivoli Netcool Service Quality Manager SLO (sqmslo). This name should be unique.	string - maximum 128 characters, mandatory. The allowed characters are: [a..z] [0..9] []

XML Attribute	Description	Restrictions
kqiModelName	The name of the KQI model to associate with (simple or periodical combined).	String, mandatory. A maximum of 50 characters is allowed.
kqiRollupLevel	The rollup level of the KQI snapshots to evaluate.	string - maximum 128 characters, optional.
dimension	<p>The position of the base resource type (for composite resource types only). Dimensions are only valid for composite resources, where it is necessary to select one dimension to which the value would be rolled up to. For example for the composite type (Location, Customer) valid values are: Location, Customer.</p> <p>The interface also accepts a positive integer indicating the position of the desired base resource type within the composite resource type, for example: 2 would specify customer dimension from (Location, Customer).</p> <p>When “None” is specified as the aggregation algorithm the dimension attribute should not be set.</p>	string - maximum 64 characters, required where the KQI model is based on a composite resource type..
aggregationAlgorithm	<p>The aggregation algorithm (for composite resource types only). The formula to use during the aggregation of data from each of the constituent models.</p> <p>When “None” is specified as the aggregation algorithm the snapshots would be processed without aggregation. In this case the “dimension” attribute should not be set.</p>	<p>String, optional</p> <p>Valid values are:</p> <p>Sum</p> <p>Mean</p> <p>Min</p> <p>Max</p> <p>WMean</p> <p>None</p>
package	The name of the service module package.	string, maximum 32 characters, optional.

Table 43: <key> attributes

Table 44: <rule> attributes

XML attribute	Description	Restrictions
name	The name of the Tivoli Netcool Service Quality Manager SLO (sqmslo) rule. This name must be meaningful and descriptive, potentially specifying the KQI model and the tags associated with the rule. If name is not specified then the tag is used instead.	String maximum length = 128 characters, optional
tag	This defines the tag of the resource to which the rule is associated with. The rule can be associated with 1..N tags. In the case where multiple tags are needed then they must be separated with a “ ” operator. The tag is the unique key for the rule. The wildcard “*” can be specified where all tags will be matched. Only 1 rule containing the wildcard can be specified in an SLO, and it must be the last rule, that is the catch-all. Note : Composite tags will be sorted alphabetically internally.	String maximum length = 4000 characters, mandatory
priority	As the rules are evaluated in order of their priority, this attribute identifies this order.	Positive integer, mandatory
violationExpression	Boolean expression, for example, value > 80. Either warning or violation expression should be specified. ViolationExpression and warningExpression are also used for individual snapshot evaluation for a composite type and are used to update the "state counters".	String maximum length = 4000 characters, optional
warningExpression	Boolean expression, for example: value > 80. Either warning or violation expression should be specified.	String maximum length = 4000 characters, optional

XML attribute	Description	Restrictions
	violationExpression and warningExpression are also used for individual snapshot evaluation for a composite type and are used to update the "state counters".	
aggregateViolationExpression	Boolean expression . Either aggregatewarning or aggregate-violation expression should be specified when an aggregation of snapshots is performed (and the aggregation algorithm is not "None").	String maximum length = 4000 characters, optional
aggregateWarningExpression	Boolean expression. Either aggregatewarning or aggregate-violation expression should be specified when an aggregation of snapshots is performed (and the aggregation algorithm is not "None").	String maximum length = 4000 characters, optional

The following text replaces start of the section 11.8.1:

11.8.1 Warning and violation expressions and SLO TRAP ruleCondition field.

In non composite resource types either a warning and/or violation expression can be specified in a rule condition. For these types of resources when a KQI snapshot value triggers a rule expression a trap may be sent detailing the condition that violated the SLO in the field "ruleCondition".

Example:

SNMP Trap Field	Value
TNSQM_RuleCondition	value > 90

However a KQI model can also be based on a composite resource type, which means that each KQI value is associated with more than one resource. The SLO associated with a composite resource type may be processed without aggregation when no dimension is specified and the aggregation algorithm is set to "None". In this case the SLO would be processed in the same manner as the SLO associated with a non-composite resource type. However SLO assessment results (and consequently the corresponding event trap that is published) may be based on an aggregated resource instance...

4 Launching BusinessObjects Reports from History Charts

When launching from the History Charts to the default BusinessObjects report for a given SLA or SLO, an HTTP Error 500 may be displayed in the browser. This error indicates that no default report has been defined for the SLA/SLO. To correct this issue, associate a report with the KQI model used in the SLA/SLO in question, and make this report the default.

5 Launching KQI History Charts from the TNSQM Resource Viewer portlet

When launching to a KQI History chart by right-clicking on a resource row in the TNSQM Resource Viewer portlet, two launch types are now supported.

- KQI History

This launches the KQI History chart with the parameter `include_kqi_data` set to false. KQI values which have not been assessed will not be included in the chart. See section 7.2.1 of the TNSQM 4.1.3 SQMC Integration guide for a full description of this parameter.

- KQI History (Include unassessed KQIs)

This launches the KQI History chart with the parameter `include_kqi_data` set to true. KQI values which have not been assessed will be included in the report. As this parameter is ignored by SLO KQI History charts, executing this launch type is equivalent to using the previously described launch type. See section 7.2.1 of the TNSQM 4.1.3 SQMC Integration guide for a full description of this parameter.

6 TNSQM Resource Viewer Column Sorting Limitations

TNSQM Resource Viewer columns containing numerical data cannot currently be sorted, due to a TIP issue. When attempting to sort, the following error message is displayed:

IllegalArgumentException: Arguments have to be of type String

This issue is described by PMR 39600,999,778.

7 Configuring format of dates passed from TNSQM Resource Viewer Portlet to BusinessObjects reports

By default, the format of dates passed from the TNSQM Resource Viewer portlet to a BusinessObjects report during a contextual report launch is as follows (format follows the Java specification for date formats):

dd/MM/yyyy HH:mm

In cases where a different format is used by BusinessObjects reports, it is possible to override the default format by specifying a servlet initialization parameter in the deployment descriptor of the TNSQM Resource Viewer web application.

\$TIP_HOME/systemApps/isclite.ear/resource_viewer.war/WEB-INF/web.xml

The parameter name is `businessobjects.date.format`. The value of this parameter must adhere to that mandated by the Java date format specification, e.g.

```
<init-param>
  <param-name>businessobjects.date.format</param-name>
  <param-value>MM/dd/yyyy HH:mm</param-value>
</init-param>
```

8 Passing Dummy Parameters to KQI History Charts and the TNSQM Resource Viewer Portlet

Due to an issue with TIP's reporting architecture, parameters intended to be undefined or empty must be set with the value DUMMY_PARAM.

When the TNSQM Resource Viewer is launched with a set of parameters, it now checks for parameters with value DUMMY_PARAM. Parameters found to have this value are now treated as undefined.

This issue is described by PMR 39556,999,778

9 Intermittent failure to launch TNSQM Resource Viewer portlet

A race condition in the TNSQM Resource Viewer portlet's Javascript sometimes resulted in a failure of the TNSQM Resource Viewer to launch. The issue has been addressed in this release.

This issue is described by PMR 39790,999,778

10 TNSQM Resource Viewer portlet unable to launch KQI History Chart

A library version mismatch between the TNSQM Resource Viewer client Dojo code and the back-end libraries caused serialized information to be lost. The TNSQM Resource Viewer back-end logic was thus unable to determine which rows were clicked at the user interface when performing a contextual launch. The issue has been addressed in this release.

This issue is described by PMR 39599,999,778

11 TNSQM Resource Viewer displays N/A for some fields when launched for an SLO

Certain fields were not available for SLOs, for example the Accuracy field. This data has been made available in this release and data is now rendered in corresponding columns. The issue has been addressed in this release.

This issue is described by PMR 39555,999,778

12 TNSQM Resource Viewer Performance Alterations

- When the TNSQM Resource Viewer is launched from the Active Event List (AEL) in TBSM it returns SLO/SLA assessments for the time period to which the trap relates.
- When the TNSQM Resource Viewer is launched from the Service Tree view in TBSM by it will return the latest SLO/SLA assessments within the last 24 hours.

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