



# IBM Tivoli Netcool Service Quality Manager 4.1

Customer experience manager  
service level objective creation



Tivoli software

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**IBM® Tivoli® Netcool® Service Quality Manager 4.1: Customer experience manager service level objective creation.**

This training module is for IBM Tivoli Netcool Service Quality Manager 4.1 customer experience manager service level objective creation.

## Assumptions

- You have Tivoli Netcool Service Quality Manager 4.1 installed and running
- You have Tivoli Netcool Customer Experience Manager (CEM) 4.1.2 installed and running
- You are a user with access CEM SLO management

### **Assumptions.**

The assumptions are that you have Tivoli Netcool Service Quality Manager 4.1 and Tivoli Netcool Customer Experience Manager (CEM) 4.1.2 installed and running. You must also be a user with access to CEM SLO Management.

## Objectives

Upon completion of this module, you should be able to:

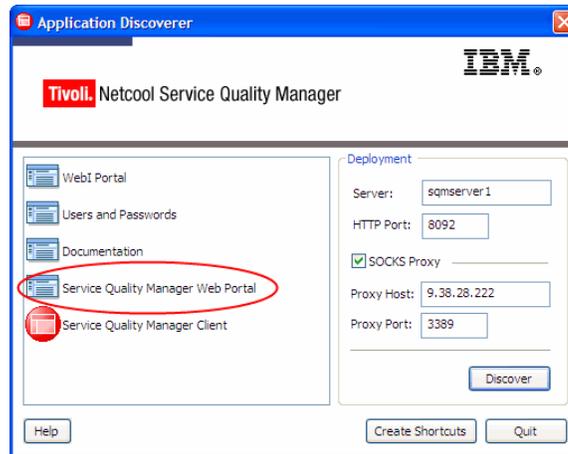
- Create a service level objective category
- Create a service level objective

### **Objectives.**

Upon completion of this module, you should be able to create a service level objective category and a service level objective.

## Service Quality Manager Web portal

Click the **Service Quality Manager Web Portal** icon in the Application Discoverer window



### Service Quality Manager Web portal.

Click the **Service Quality Manager Web Portal** icon in the Application Discoverer window.

## Login

Enter user ID and password to log in

Integrated Solutions Console

Welcome, enter your information.

User ID:

Password:

### **Login.**

Enter user ID and password to log in.

## Customer experience management

### Expand **Customer Experience Management**

The screenshot shows the Integrated Solutions Console interface. The top navigation bar includes "Integrated Solutions Console", "Welcome cemuser", "Help", and "Logout". A "View:" dropdown menu is set to "All tasks". The left sidebar contains two menu items: "Service Quality Manager" and "Customer Experience Management", with the latter highlighted and circled in red. The main content area displays a "Welcome" message and a table of product suites.

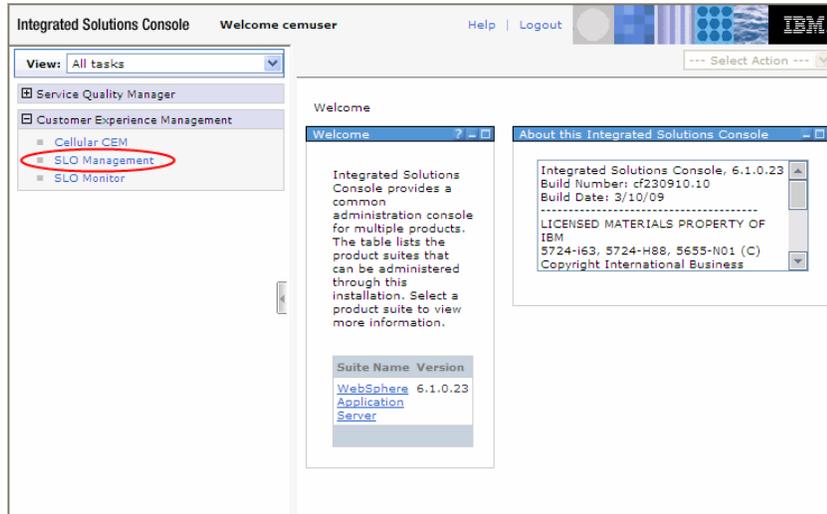
Suite Name	Version
<a href="#">WebSphere</a>	6.1.0.23
<a href="#">Application</a>	
<a href="#">Server</a>	

**Customer experience management.**

Expand **Customer Experience Management.**

## SLO management

Click **SLO Management**

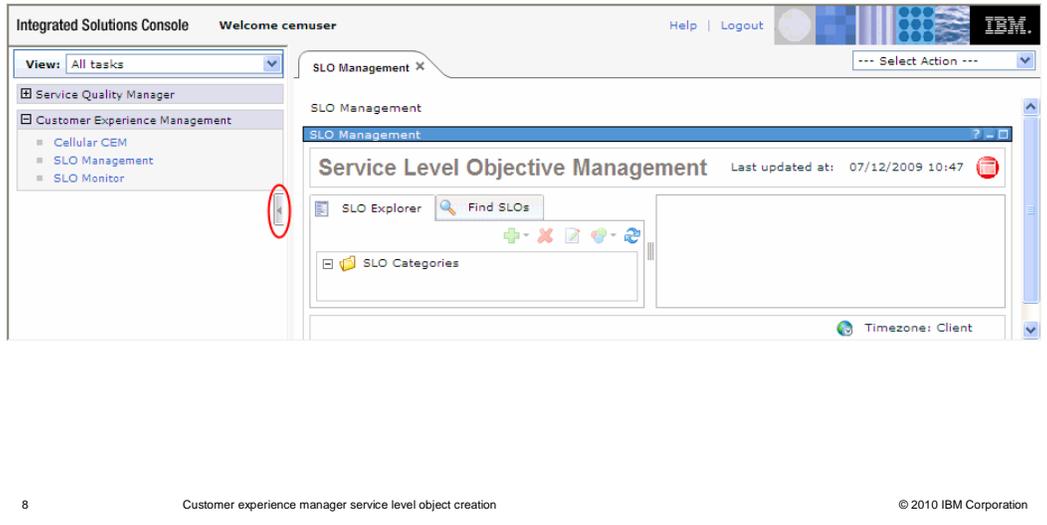


**SLO management.**

**Click SLO Management.**

## Hide navigation menu

Click the **Hide Navigation** button

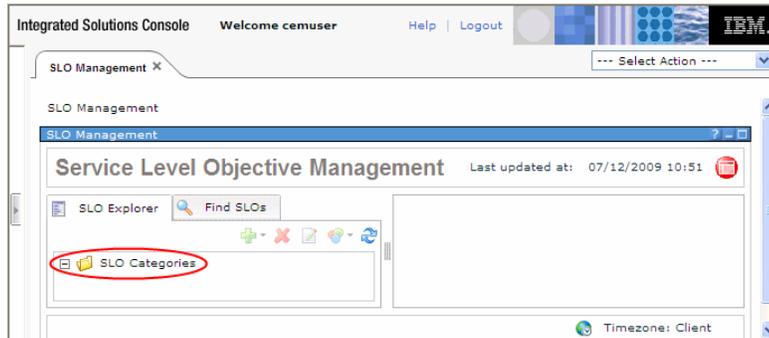


**Hide navigation menu.**

Click the **Hide Navigation** button.

## SLO categories

Click the **SLO Categories** folder

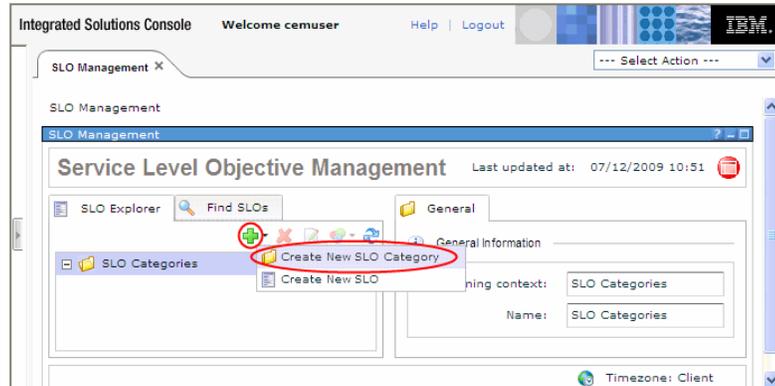


## SLO categories.

Click the **SLO Categories** folder.

## Create new SLO category

- Click the **Create a new item** icon
- Click **Create New SLO Category**



### Create new SLO category.

Click the **Create a new item icon**. Click **Create New SLO Category**.

## Create new SLO category name

- Enter name **sqmuser\_data**
- Click **OK**

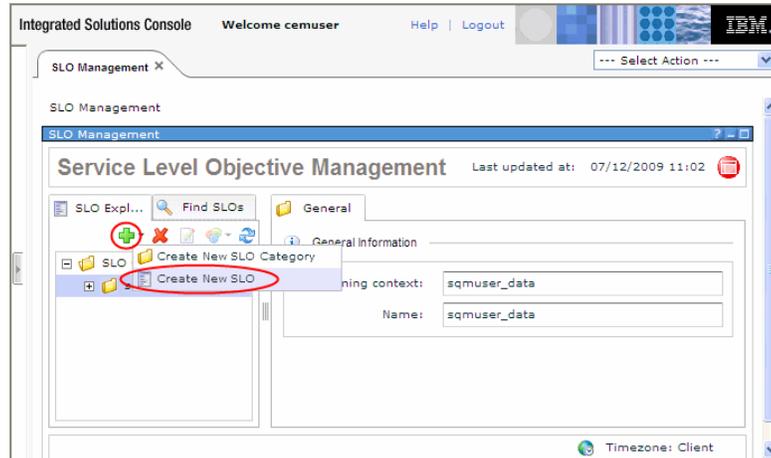
The screenshot shows the IBM Integrated Solutions Console interface for SLO Management. The main window is titled "Service Level Objective Management" and includes a "Create category" dialog box. The dialog box prompts the user to "Specify the category name." and has a "Name:" field containing the text "sqmuser\_data". The "OK" button is circled in red, indicating it should be clicked. The "Cancel" button is also visible. The interface includes a search bar, a list of SLO categories, and a "Timezone: Client" dropdown menu.

**Create new SLO category name.**

Enter name **sqmuser\_data**. Click **OK**.

## Create new SLO

- Click the **Create a new item** icon
- Click **Create New SLO**



### Create new SLO.

Click the **Create a new item** icon. Click **Create New SLO**.

## Enter name and description

- Enter name **sms\_delivery**
- Enter description **SMS deliveries**
- Click **Next**

The description is optional

The screenshot shows the 'Service Level Objective Management' interface. The 'SLO General Information' section is active, with the following fields filled:

- Name: sms\_delivery
- Description: SMS deliveries

The 'Next' button at the bottom of the form is circled in red, indicating the next step in the process.

### Enter name and description.

Enter name **sms\_delivery**. Enter description **SMS deliveries**. Click **Next**. The description is optional.

## Select contractual dates

- The default contractual start date is the current day. You can edit the start date
- The default contractual end date is **Never**. You can specify an end date by selecting the end date check box and specifying an end date

The screenshot shows the 'Service Level Objective Management' interface in the IBM Integrated Solutions Console. The 'Assessment interval and Schedules' section is active, displaying the 'Contractual Date' fields. The 'Start Date' is set to 07/12/2009 and the 'End Date' is set to 'Never'. The 'Schedules' section is empty. The interface includes a search bar, a list of SLO categories, and navigation buttons at the bottom.

### Select contractual dates.

The default contractual start date is the current day. You can edit the start date. The default contractual end date is **Never**. You can specify an end date by selecting the **End Date** check box and specifying an end date.

## Add schedules

Click **Add** to add a schedule

Integrated Solutions Console Welcome cemuser Help | Logout IBM.

SLO Management X ... Select Action ...

SLO Management

### Service Level Objective Management

Last updated at: 07/12/2009 11:05

SLO Ex... Find S...

SLO Categories  
sqmuser\_data

#### Assessment interval and Schedules

Select an assessment interval and schedules for this SLO.

**Contractual Date**

Start Date: 07/12/2009 Start Time: 00 : 00

End Date: Never End Time: 00 : 00

**Schedules**

Schedules

**Add** Remove Edit

Back Next OK Cancel

Timezone: Client

**Add schedules.**

Click **Add** to add a schedule.

## Select holiday and weekday schedules

- You can include or exclude public holidays
- You can include the full week or specific weekdays
- You can click **Clear All** to clear all the weekday selections

The screenshot shows the 'Schedule Dialog' in the IBM Integrated Solutions Console. The dialog is titled 'Schedule Dialog' and has a subtitle 'Select schedule element attributes.' It contains several sections:
 

- Public Holidays:** Two radio buttons, 'Include public holiday' (selected) and 'Exclude public holiday'.
- Week Days:** A grid of checkboxes for days of the week: Mon, Tue, Wed, Thu, Fri, Sat, Sun. The 'Full Week' button is also visible.
- Day Time Coverage:** A grid of time ranges: 00:00 ~ 06:00, 06:00 ~ 12:00, 12:00 ~ 18:00, 18:00 ~ 24:00, and a 'Full Time' button.
- Specific Days:** Two text input fields labeled 'Include' and 'Exclude' with calendar icons.

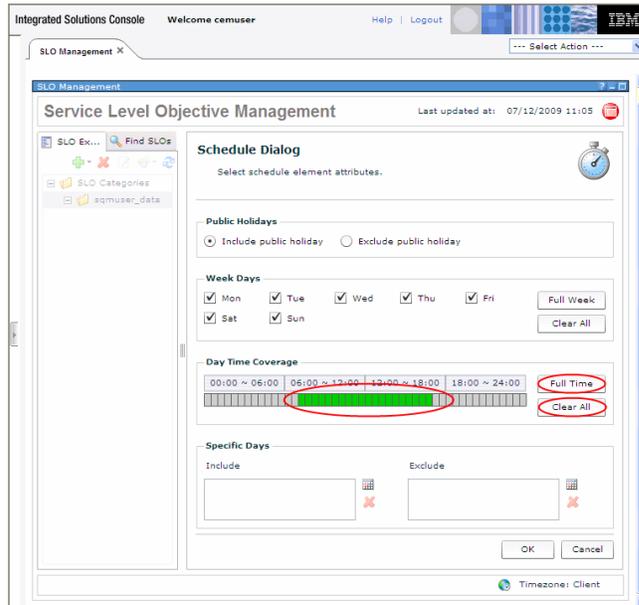
 Red circles in the original image highlight the 'Include public holiday' radio button, the 'Full Week' and 'Clear All' buttons, and the 'Mon-Fri' checkboxes.

### Select holiday and weekday schedules.

You can include or exclude public holidays. You can include the full week or specific weekdays. You can click **Clear All** to clear all the week day selections.

## Select day time coverage

- You can select the day time coverage by clicking **Full Time** or by highlighting half-hour increments or a block of time on the coverage bar
- You can click **Clear All** to clear all the day time coverage selections

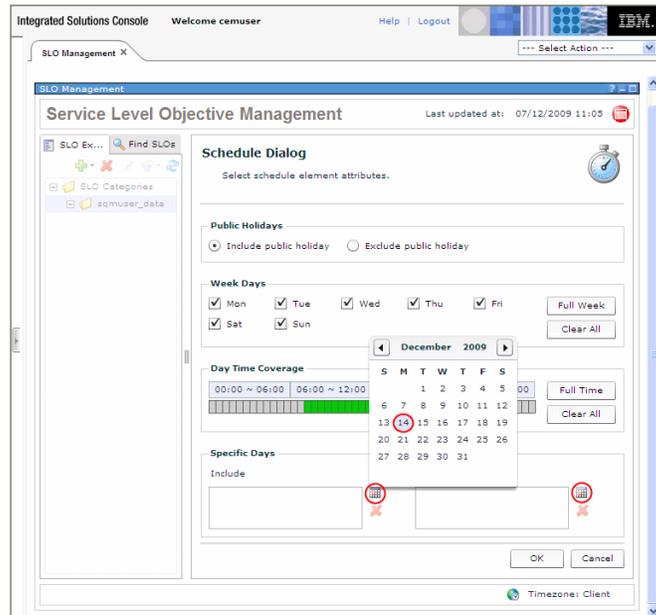


### Select day time coverage.

You can select the day time coverage by clicking **Full Time** or by highlighting half-hour increments or a block of time on the coverage bar. You can click **Clear All** to clear all the day time coverage selections.

## Add specific days

- You can include or exclude specific days from the schedule
- Click the calendar icon to select dates from a calendar and select the day to include or exclude
- To include December 14th, click **December 14**



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Customer experience manager service level object creation

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## Add specific days.

You can include or exclude specific days from the schedule. Click the calendar icon to select dates from a calendar and select the day to include or exclude. To include December 14<sup>th</sup>, click **December 14**.

Finish the service dialog

Click **OK**

Integrated Solutions Console Welcome cemuser Help | Logout IBM

SLO Management X ... Select Action ...

SLO Management

Service Level Objective Management Last updated at: 07/12/2009 11:05

SLO Ex... Find SLOs

SLO Categories

sqmuser\_data

**Schedule Dialog**

Select schedule element attributes.

**Public Holidays**

Include public holiday  Exclude public holiday

**Week Days**

Mon  Tue  Wed  Thu  Fri  Sat  Sun

Full Week Clear All

**Day Time Coverage**

00:00 ~ 06:00 06:00 ~ 12:00 12:00 ~ 18:00 18:00 ~ 24:00

Full Time Clear All

**Specific Days**

Include Exclude

Mon Dec 14 2009

OK Cancel

Timezone: Client

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**Finish the service dialog.**

Click **OK**.

## Verify and finish assessment interval and schedules

- Verify that schedules are complete
- You can add, remove, and edit schedules by clicking **Add**, **Remove**, and **Edit**
- Click **Next**

### Verify and finish assessment interval and schedules.

Verify schedules are complete. You can add, remove, and edit schedules by clicking **Add**, **Remove**, and **Edit**. Click **Next**.

## Browse KPI model

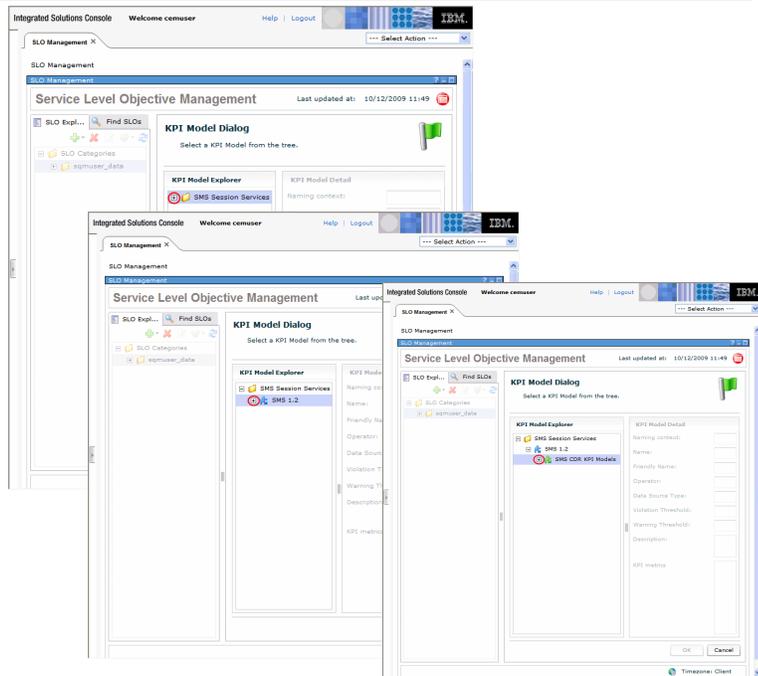
Click **Browse** to see KPI models

**Browse KPI model.**

Click **Browse** to see KPI models.

## Expand KPI model explorer

- Expand **SMS Session Services**
- Expand **SMS 1.2**
- Expand **SMS CDR KPI Models**



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**Expand KPI model explorer.**

**Expand SMS Session Services. Expand SMS 1.2. Expand SMS CDR KPI Models.**

Select KPI model

Click **SMS\_Deliver\_Counters**

Integrated Solutions Console Welcome cemuser Help | Logout

SLO Management X ... Select Action ...

SLO Management

Service Level Objective Management Last updated at: 07/12/2009 11:05

SLO Expl... Find SLOs

SLO Categories

sqmuser\_data

KPI Model Dialog

Select a KPI Model from the tree.

KPI Model Explorer

- SMS Session Services
  - SMS 1.2
    - SMS\_CDR\_KPI\_Models**
      - SMS\_Deliver\_Counters**
      - SMS\_Deliver\_Duration\_Counters
      - SMS\_Deliver\_Rate\_Counters
      - SMS\_Deliver\_Report\_Counters
      - SMS\_Deliver\_Report\_Duration\_Counters
      - SMS\_Deliver\_Report\_Rate\_Counters
      - SMS\_Status\_Report\_Counters
      - SMS\_Status\_Report\_Duration\_Counters
      - SMS\_Status\_Report\_Rate\_Counters
      - SMS\_Submit\_Counters
      - SMS\_Submit\_Duration\_Counters
      - SMS\_Submit\_Rate\_Counters
      - SMS\_Submit\_Report\_Counters
      - SMS\_Submit\_Report\_Duration\_Counters
      - SMS\_Submit\_Report\_Rate\_Counters

KPI Model Detail

Naming context:

Name:

Friendly Name:

Operator:

Data Source Type:

Violation Threshold:

Warning Threshold:

Description:

KPI metrics

OK Cancel

Timezone: Client

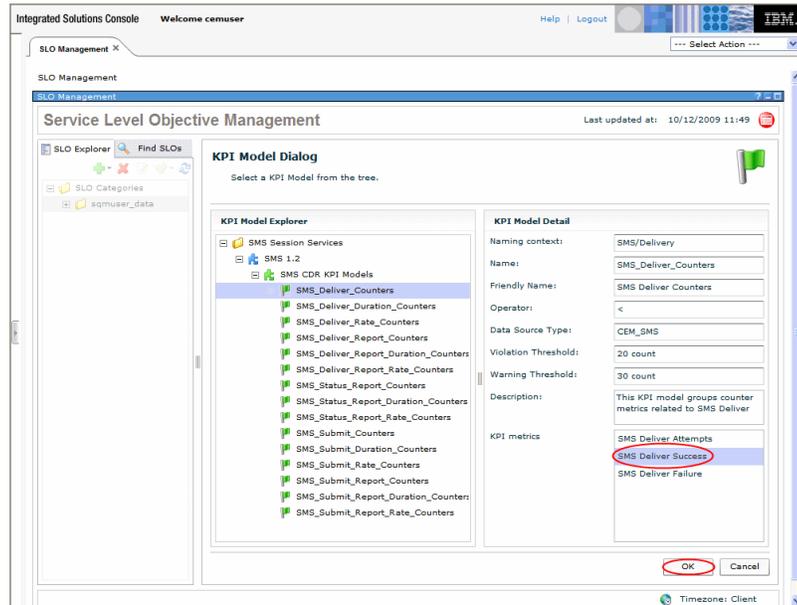
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Select KPI model.

Click **SMS\_Deliver\_Counters**.

## Select KPI metrics and finish KPI model dialog

- Click **SMS Deliver Success**
- Click **OK**



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**Select KPI metrics and finish KPI model dialog.**

Click **SMS\_Deliver\_Success**. Click **OK**.

## Finish KPI model

- Click **Next**
- You can change the KPI metric by selecting from the pull-down menu

The screenshot shows the IBM Integrated Solutions Console interface. The main window is titled 'Service Level Objective Management' and is last updated at 07/12/2009 11:05. The 'KPI Model' section is active, and the user is prompted to 'Select a KPI Model to be associated with this SLO.' The 'General information' section shows the Name as 'SMS\_Deliver\_Counters' and the KPI metric as 'SMS Deliver Success'. The 'Detail information' section shows the Friendly Name as 'SMS Deliver Success', the Operator as '<', the Data Source Type as 'CEM\_SMS', the Violation Threshold as '20', the Warning Threshold as '30', and the Unit as 'count'. The Description is 'This KPI model groups counter metrics related to SMS Deliver'. The 'Next' button is circled in red.

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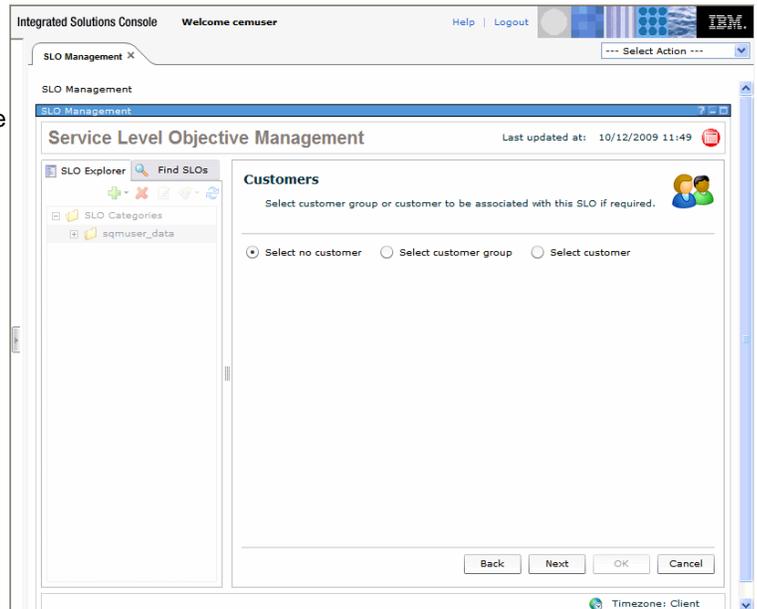
© 2010 IBM Corporation

## Finish KPI model.

Click **Next**. You can change the KPI metric by selecting from the pull-down menu.

## Customers

- You can select a customer group or customer to be associated with the SLO
- **Select no customer** is the default setting

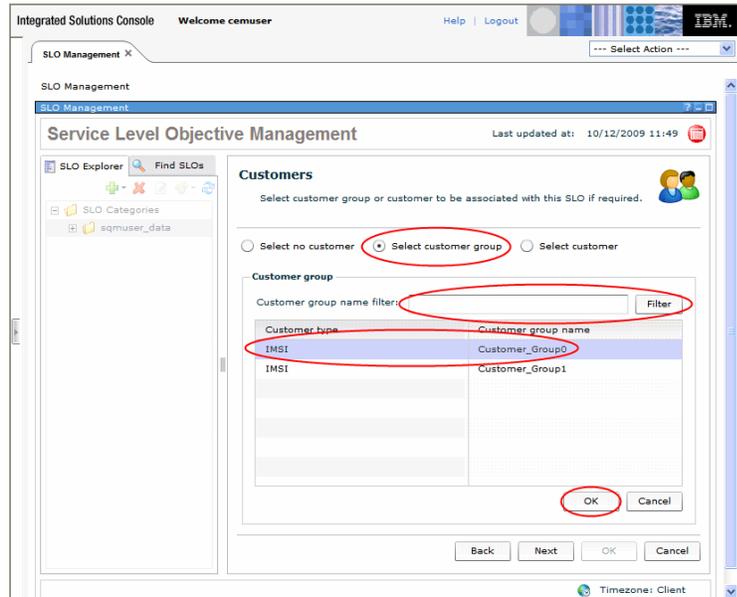


### Customers.

You can select a customer group or customer to be associated with the SLO. **Select no customer** is the default setting.

## Select customer group

- You can select customer group
- You can filter customer group names by entering a filter and clicking **Filter**
- You can select a customer group from the customer group list
- You can accept the customer group by clicking **OK**



### Select customer group.

You can select customer group. You can filter customer group names by entering a filter and clicking **Filter**. You can select a customer group from the customer group list. You can accept the customer group by clicking **OK**.

## Selected customer group

- You can clear the selected customer group by clicking **Clear**
- You can select a new customer group by clicking **Select**
- You can accept the customer group by clicking **Next**

Integrated Solutions Console Welcome cemuser Help | Logout

SLO Management

SLO Management

Service Level Objective Management Last updated at: 10/12/2009 11:49

SLO Explorer Find SLOs

SLO Categories sqmuser\_data

Customers

Select customer group or customer to be associated with this SLO if required.

Select no customer  Select customer group  Select customer

Customer group

Customer group type: IMSI

Customer group name: Customer\_Group0

Clear Select

Back Next OK Cancel

Timezone: Client

### Selected customer group.

You can clear the selected customer group by clicking **Clear**. You can select a new customer group by clicking **Select**. You can accept the customer group by clicking **Next**.

## Select customer

- You can select a customer
- You can enter a name or telephone number to search and click **Search**

The screenshot shows the 'Service Level Objective Management' interface. The 'Customers' section is active, and the 'Select customer' radio button is selected. A 'Customer Search' dialog box is open, showing input fields for 'Name' and 'Phone Number', and 'Search' and 'Clear' buttons. A table with columns 'Name', 'Phone N', and 'Address' is also visible.

### Select customer.

You can select a customer. You can enter a name or telephone number to search and click **Search**.

## Customer search

- You can search customers
- You can enter the name **Keith**, click **Search**, click **Keith Holland** and click **OK** to select

Integrated Solutions Console Welcome cemuser Help | Logout

SLO Management

SLO Management

Service Level Objective Management Last updated at: 10/12/2009 11:49

SLO Explorer Find SLOs

SLO Categories

sqlmuser\_data

Customers

Select customer group or customer to be associated with this SLO if required.

Select no customer  Select customer group  Select customer

Customer

Customer Search

Name: Keith

Phone Number:

Search Clear

Name	Phone Number	Address
Keith Udaltsov	12300000136	Address136
Keith Holland	12300000217	Address217
Keith O Mahony	12300000364	Address364
Keith Burke	12300000661	Address661
Keith Hallahan	12300000681	Address681
Keith Dineen	12300000778	Address778
Keith Cafferkey	12300000813	Address813
Keith Hourigan	12300000828	Address828
Keith O'Connor	12300000863	Address863

OK Cancel

Back Next OK Cancel

Timezone: Client

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### Customer search.

You can search customers. You can enter the name **Keith**, click **Search**, click **Keith Holland** and click **OK** to select.

## Selected customer

- You can clear the selected customer by clicking **Clear**
- You can select a new customer by clicking **Select**
- You can accept the customer by clicking **Next**

Integrated Solutions Console Welcome cemuser Help | Logout

SLO Management

SLO Management

Service Level Objective Management Last updated at: 10/12/2009 11:49

SLO Explorer Find SLOs

SLO Categories sqmuser\_data

Customers

Select customer group or customer to be associated with this SLO if required.

Select no customer  Select customer group  Select customer

Customer

Name: Keith Holland

Phone Number: 12300000217

Address: Address217

Clear Select

Back Next OK Cancel

Timezone: Client

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Customer experience manager service level object creation

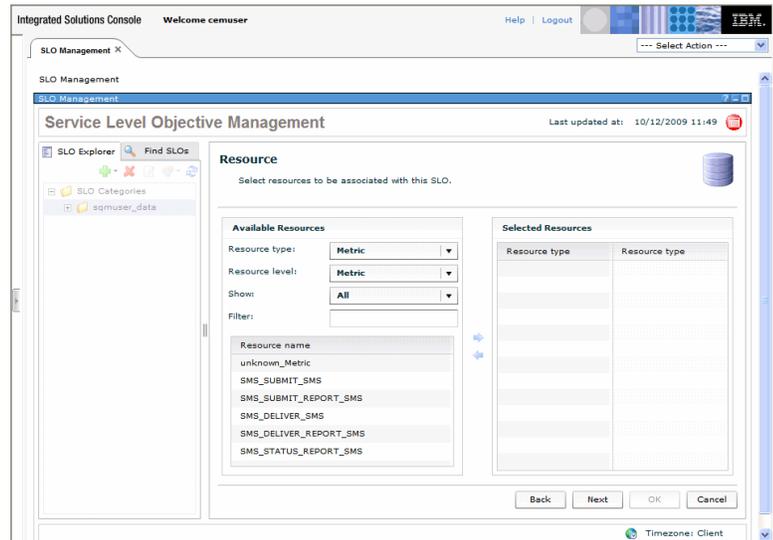
© 2010 IBM Corporation

### Selected customer.

You can clear the selected customer by clicking **Clear**. You can select a new customer by clicking **Select**. You can accept the customer by clicking **Next**.

## Resource

- You can select resources to associate with the SLO

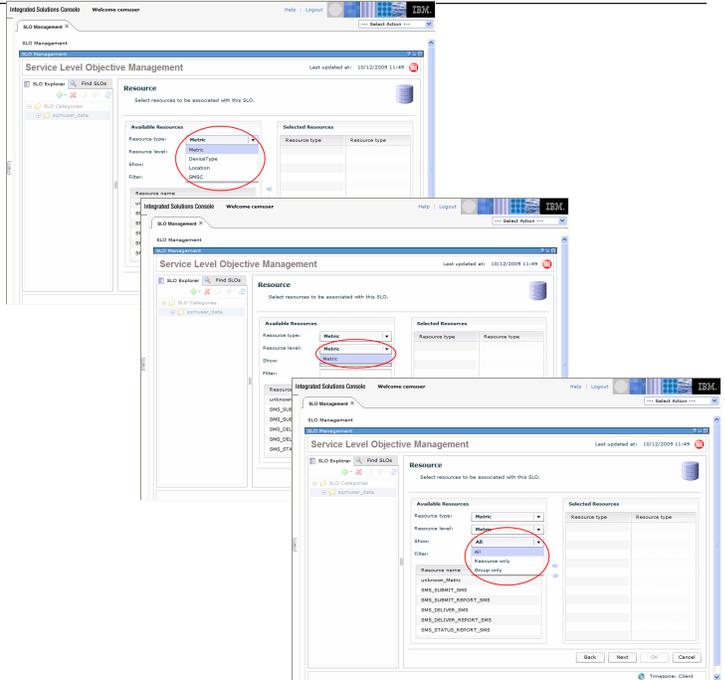


### Resource.

You can select resources to associate with the SLO.

## Resource type

- Select a resource type by clicking **Metric** from the pull-down menu
- Select a resource level by clicking **Metric** from the pull-down menu
- Select resources to show by clicking **All**



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Customer experience manager service level object creation

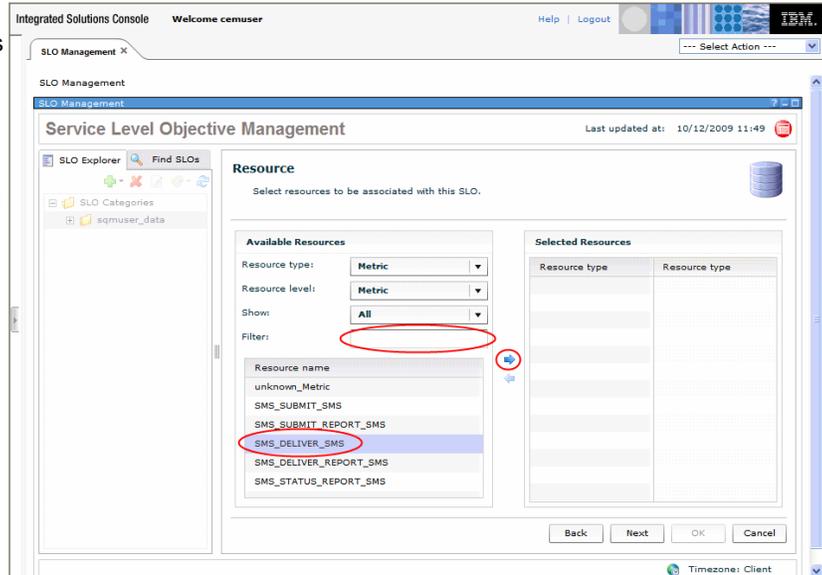
© 2010 IBM Corporation

## Resource type.

Select a resource type by clicking **Metric** from the pull-down menu. Select a resource level by clicking **Metric** from the pull-down menu. Select resources to show by clicking **All**.

## Select resource

- You can filter resource names by entering a search in the **Filter** field
- Click **SMS\_DELIVER\_SMS**
- Click the right arrow icon



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### Select Resource.

You can filter resource names by entering a search in **Filters**. Click **SMS\_DELIVER\_SMS**. Click the right arrow icon.

## Finish resource

Click **Next**

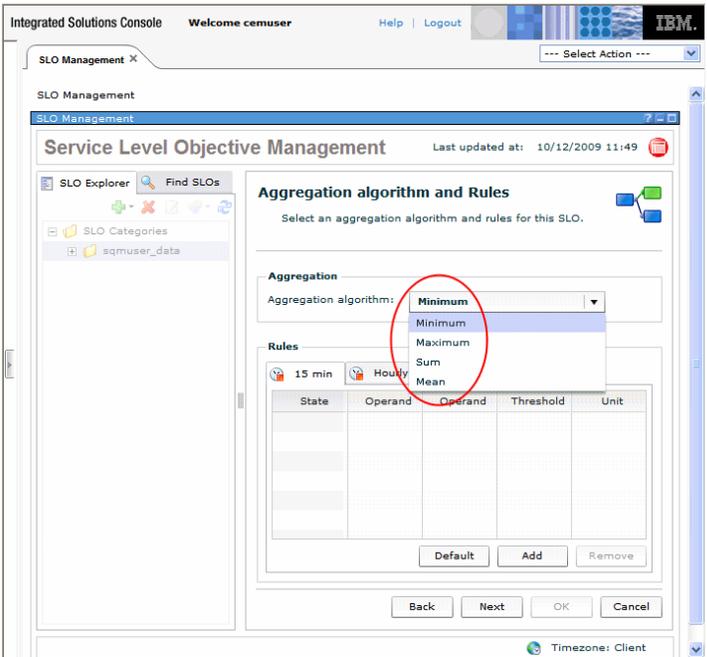
The screenshot shows the 'Service Level Objective Management' interface. On the left is an 'SLO Explorer' pane with a tree view containing 'SLO Categories' and 'sqmuser\_data'. The main area is titled 'Resource' and contains the instruction 'Select resources to be associated with this SLO.'. Below this are two panels: 'Available Resources' and 'Selected Resources'. The 'Available Resources' panel has dropdowns for 'Resource type' (Metric) and 'Resource level' (Metric), a 'Show' dropdown (All), and a 'Filter' input field. Below these is a list of resource names: 'unknown\_Metric', 'SMS\_SUBMIT\_SMS', 'SMS\_SUBMIT\_REPORT\_SMS', 'SMS\_DELIVER\_REPORT\_SMS', and 'SMS\_STATUS\_REPORT\_SMS'. The 'Selected Resources' panel is currently empty. At the bottom right, there are four buttons: 'Back', 'Next' (circled in red), 'OK', and 'Cancel'. The page footer includes '35', 'Customer experience manager service level object creation', and '© 2010 IBM Corporation'.

**Finish resource.**

Click **Next**.

## Aggregation algorithm

Select the aggregation algorithm **Minimum** from the pull-down menu



The screenshot shows the IBM Integrated Solutions Console interface for Service Level Objective Management. The main window is titled "Service Level Objective Management" and includes a sidebar with "SLO Explorer" and "Find SLOs". The "Aggregation algorithm and Rules" section is active, displaying a dropdown menu for "Aggregation algorithm" with options: Minimum, Maximum, Sum, and Mean. The "Minimum" option is selected and highlighted with a red circle. Below the dropdown is a "Rules" section with a table for defining rules and buttons for "Default", "Add", and "Remove". The interface also shows "Back", "Next", "OK", and "Cancel" buttons at the bottom.

State	Operand	Operand	Threshold	Unit

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## Aggregation algorithm.

Select the aggregation algorithm **Minimum** from the pull-down menu.

**Rules**

- You can set 15-minute, hourly, daily, and weekly rules by clicking the **15 min**, **Hourly**, **Daily** and **Weekly** tabs
- Click **Add** to add a rule

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**Rules.**

You can set 15-minute, hourly, daily, and weekly rules by clicking the **15 min**, **Hourly**, **Daily**, and **Weekly** tabs. Click **Add** to add a rule.

**Add additional rule**

Click **Add** to add an additional rule

The screenshot shows the IBM Integrated Solutions Console interface for SLO Management. The main window is titled 'Service Level Objective Management' and is updated as of 10/12/2009 11:49. On the left, there is an 'SLO Explorer' pane showing 'SLO Categories' and 'sqmuser\_data'. The main content area is titled 'Aggregation algorithm and Rules' and prompts the user to 'Select an aggregation algorithm and rules for this SLO.'. Under the 'Aggregation' section, the 'Aggregation algorithm' is set to 'Minimum'. The 'Rules' section has tabs for '15 min', 'Hourly', 'Daily', and 'Weekly'. Below these tabs is a table with the following data:

State	Operand	Operand	Threshold	Unit
Violatio	KPI Value	<	0	count

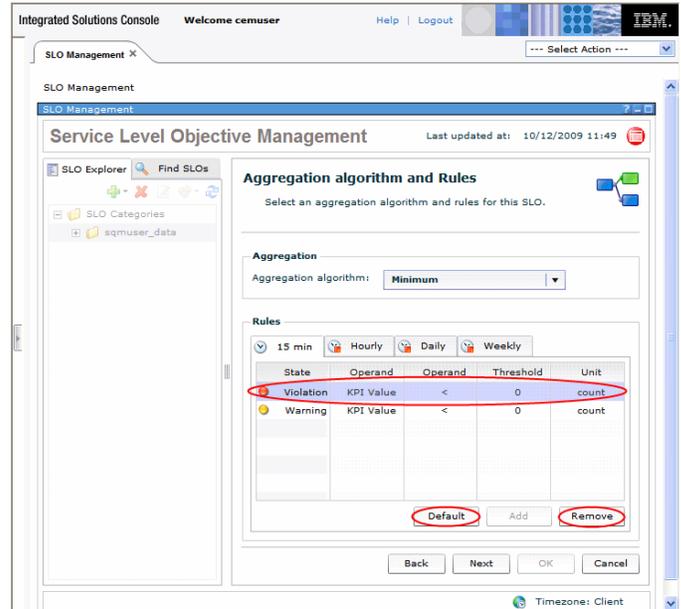
At the bottom of the rules table, there are three buttons: 'Default', 'Add' (circled in red), and 'Remove'. Below the table are 'Back', 'Next', 'OK', and 'Cancel' buttons. The footer of the console shows '38', 'Customer experience manager service level object creation', and '© 2010 IBM Corporation'.

**Add additional rule.**

Click **Add** to add an additional rule.

## Default and remove rules

- Select **Violation** state
- Select default settings by clicking **Default**. The default operand and threshold values are set
- You can remove the rule by clicking **Remove**



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Customer experience manager service level object creation

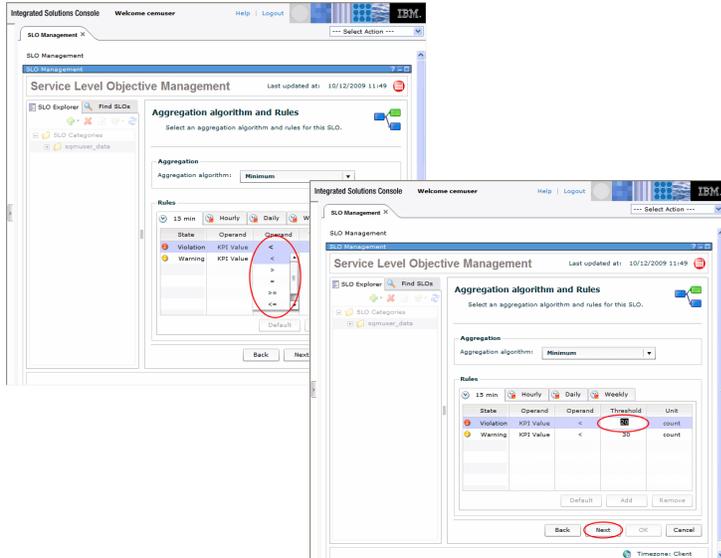
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### Defaults and remove rules.

Select **Violation** state. Select default settings by clicking **Default**. The default operand and threshold values are set. You can remove the rule by clicking **Remove**.

## Set operand, threshold and finish aggregation algorithm and rules

- Select the less than (<) operand from the pull-down menu
- Enter **20** for the threshold
- Click **Next**



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### Set operand, threshold, and finish aggregation algorithm and rules.

Select the less than (<) operand from the pull-down menu. Enter **20** for the threshold. Click **Next**.

## Actions

- You can create actions to be associated with the SLO
- You can send an alarm, send an SNMP trap, or send an e-mail by using the **Send an internal alarm**, **Send a SNMP trap**, or **Send an email** tabs
- Select **Violation** from the **Send an internal alarm** tab
- Click **Next**

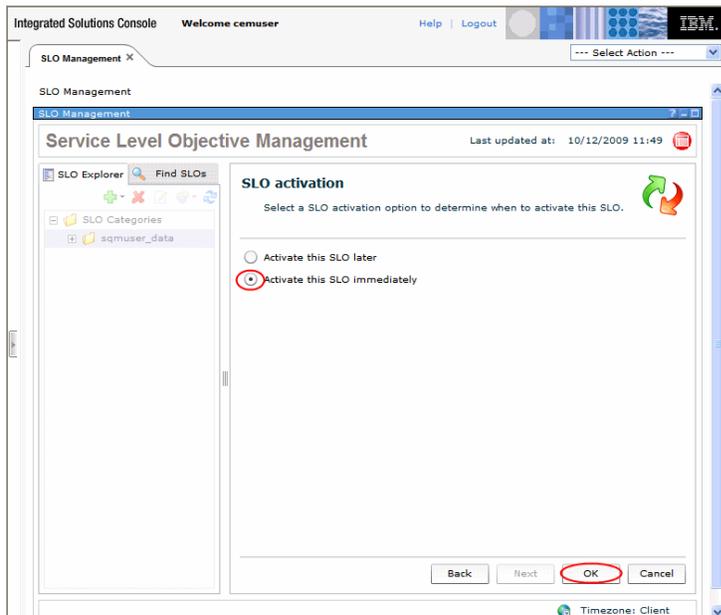
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### Actions.

You can create actions to be associated with the SLO. You can send an alarm, send an SNMP trap, or send an e-mail using the **Send an internal alarm**, **Send a SNMP trap** or **Send an email** tabs. Select **Violation** from the **Send an internal alarm** tab. Click **Next**.

## SLO activation

- You can activate the SLO later or immediately
- **Activate this SLO later** is the default setting
- Select **Activate this SLO immediately**
- Click **OK**



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### SLO activation.

You can activate the SLO later or immediately. **Activate this SLO later** is the default setting. Select **Activate this SLO immediately**. Click **OK**.

### View SLO

- Expand **sqmuser\_data**
- Click **sms\_deliver**
- You can review the SLO by clicking the **General, Assessment, KPI Model, Resource, Customer, Action, Rule and Report** tabs

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### View SLO.

Expand **sqmuser\_data**. Click **sms\_deliver**. You can review the SLO by clicking the **General, Assessment, KPI Model, Resource, Customer, Action, Rule, and Report** tabs.

## Summary

- You should now be able to:
  - Create service level objective category
  - Create an service level objective

### **Summary.**

You should now be able to create a service level objective category and a service level objective.



## Training roadmap for IBM Tivoli Netcool Service Quality Manager

[www.ibm.com/software/tivoli/education/edu\\_prd.html](http://www.ibm.com/software/tivoli/education/edu_prd.html)

### **Training roadmap for IBM Tivoli Netcool Service Quality Manager.**

You can see the training roadmap for IBM Tivoli Netcool Service Quality Manager by going to the URL listed on the slide.



## Feedback

Your feedback is valuable

You can help improve the quality of IBM Education Assistant content to better meet your needs by providing feedback.

- Did you find this module useful?
- Did it help you solve a problem or answer a question?
- Do you have suggestions for improvements?

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