



Oracle Management Cloud – SendQuick Cloud Integration Guide

Version 1.0

SendQuick Pte Ltd

76 Playfair Road

#08-01 LHK2 Building

Singapore 367996

Tel : +65 6280 2881 Fax : +65 6280 6882

Email : info@SendQuick.com

www.SendQuick.com

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1.0 Introduction

1.1 About SendQuick Pte Ltd

SendQuick™ develops and offers **enterprise mobile messaging solutions** to facilitate and improve business workflow and communication, and is widely used in areas such as IT alerts & notifications, secure remote access via 2-Factor Authentication, emergency & broadcast messaging, business process automation and system availability monitoring.

In addition to functionality, SendQuick's messaging solutions have also been developed with other key features in mind. These include **security** and **confidentiality** of company information, and **ease in mitigating disruption** during unplanned system downtime such as that arising from cyberattacks.

1.2 About SendQuick Cloud

SendQuick Cloud is a cloud based Software-as-a-Service (SaaS) application to monitor and notify for cloud based incidents with omni-channel messaging capability. It has ability to monitor using ICMP Ping, Port check and URL check. It has policy based notifications using Email and Webhook, supporting any applications as well as Cloud Providers like AWS, Azure, Alibaba Cloud, Google Cloud and Oracle. Given the above integration methods, SendQuick Cloud is able to work with any applications to send notifications. Supporting notification channels include SMS, Telegram, Slack, Facebook Messenger and others. Lastly, there is Roster for messaging based on duties and time frame for each recipients, reducing alert fatigue.

1.3 Purpose of Document

This document is a guide on how to integrate SendQuick Cloud with Oracle Management Cloud (Oracle) to send message notifications and alerts. In this guide, we will be using SendQuick Cloud for the integration.

Oracle Management Cloud is accessible from the Oracle Cloud Portal. You will need to login to **Oracle Cloud Portal** and select **Platform Services > Management Cloud** and is presented with all the Oracle Management Cloud options. Select **Administration > Notification Channels**. You will need to configure the **Notifications** function as found in the Right of the Web Interface and shown in the diagram below.

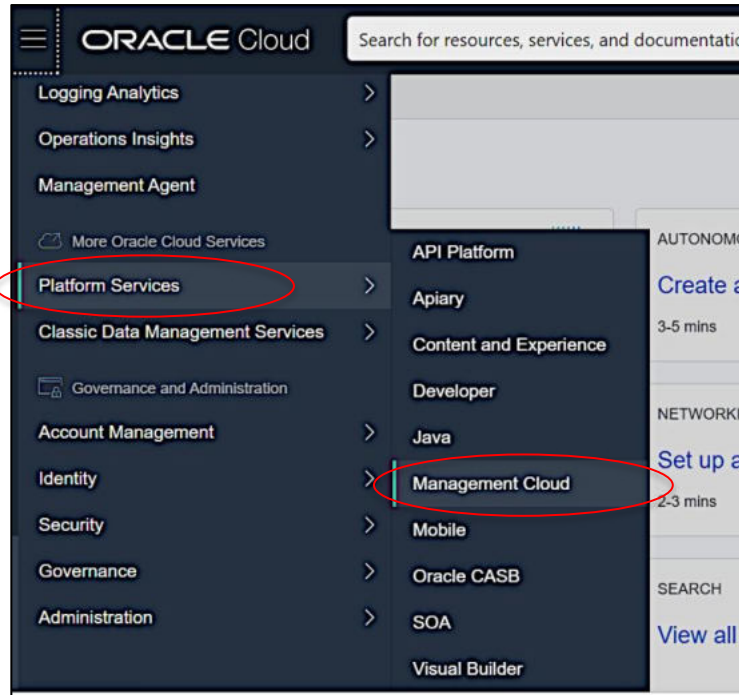


Figure 1.1: Navigate to Management Cloud

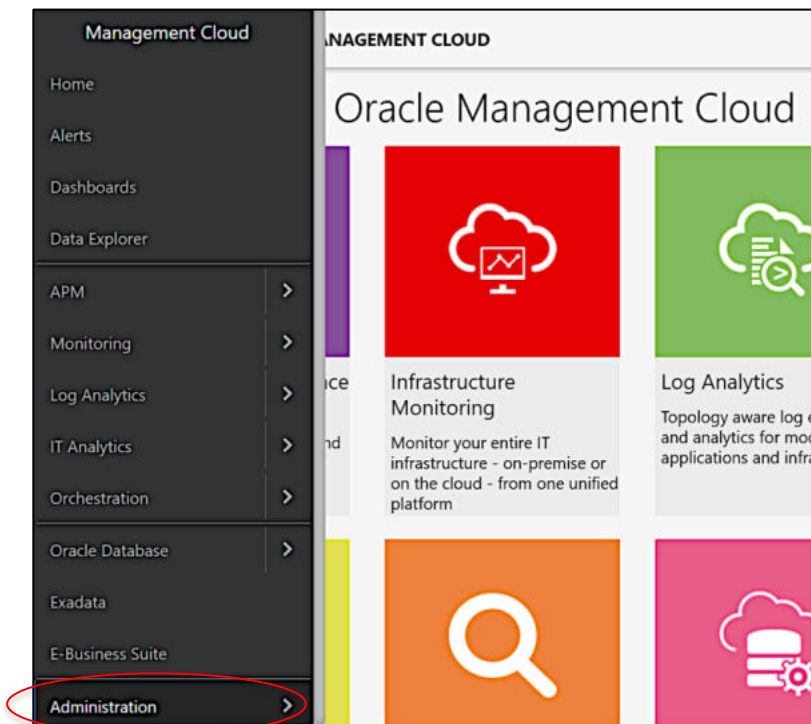


Figure 1.1: Navigate to Administration

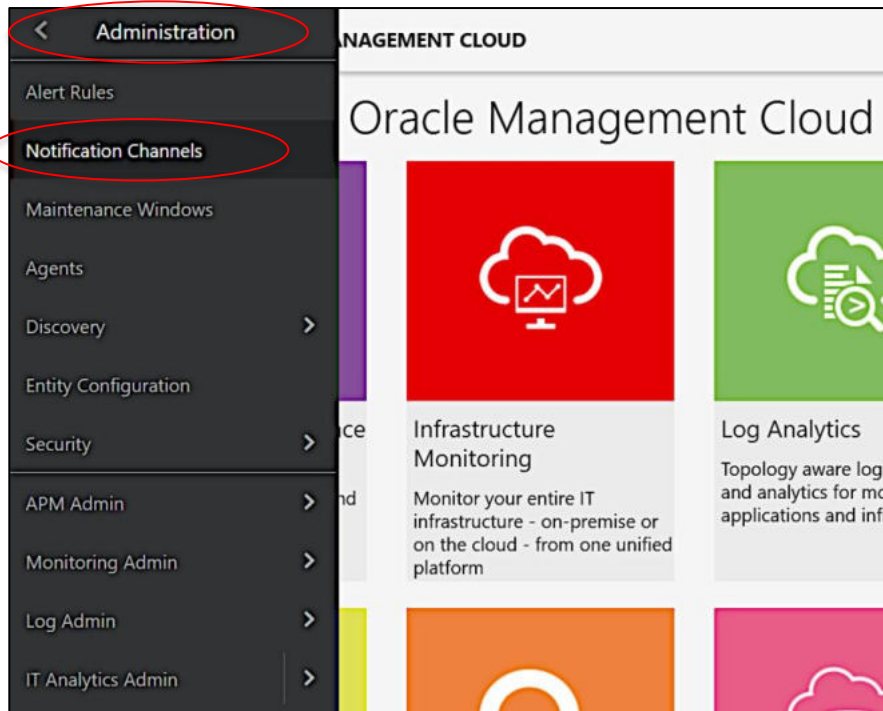


Figure 1.3: Navigate to Notifications Channels



Figure 1.4 : Notification Channels Page

In Oracle, you can send Alert via Email (SMTP) and Webhook (HTTP) method. This document will explain both methods in details in the following sections.

2.0 Configure in SendQuick Cloud

SendQuick Cloud is designed to complement the systems, virtual instances, devOps and other applications on the cloud for sending message notifications when an event happen. This will your services uptime for your cloud services.

2.1 Email Filters in SendQuick Cloud

SendQuick Cloud can receive any emails (SMTP) from any applications, apply the configured filters (policies) and if the condition matches, messages will be sent to the recipients. When starting to configure, create an account in SendQuick Cloud and go to **Email Filter** (left Menu) and **Create New Mail Filter Rule**. You will be presented with the interface as shown below.

You will notice the Email Address **TO** as the first Policy item. The email address is pre-assigned by SendQuick Cloud and will follow the name of your account name. This email address cannot be changed and will be used to configure in Cloud Monitor as explained in section 3.1.

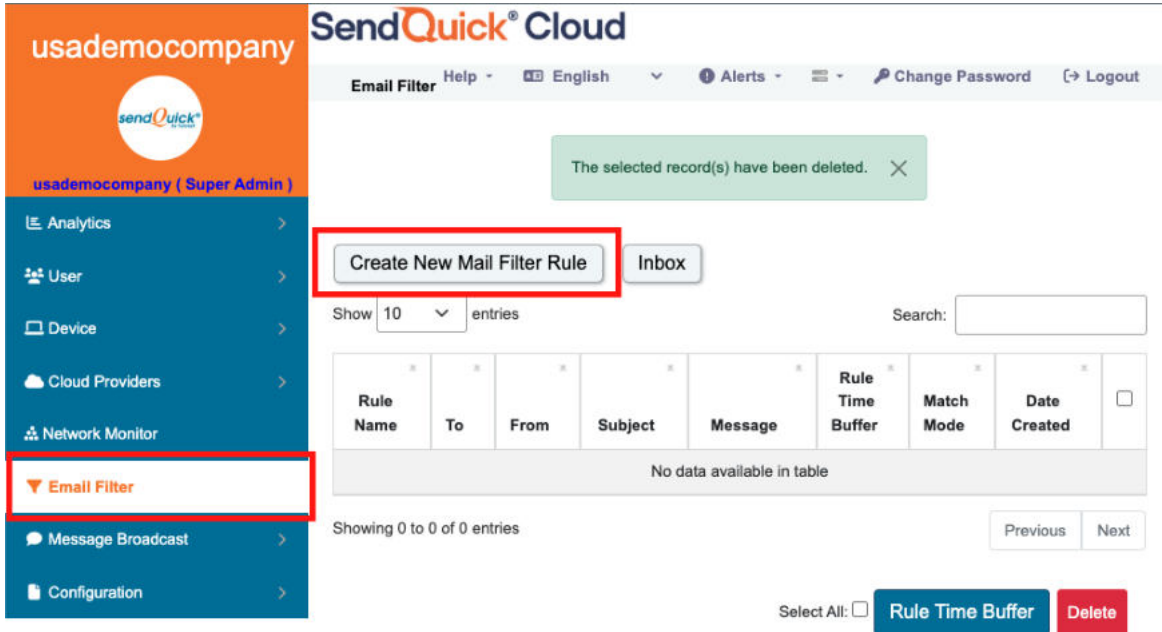


Figure 2.1: SendQuick Cloud Email Filter

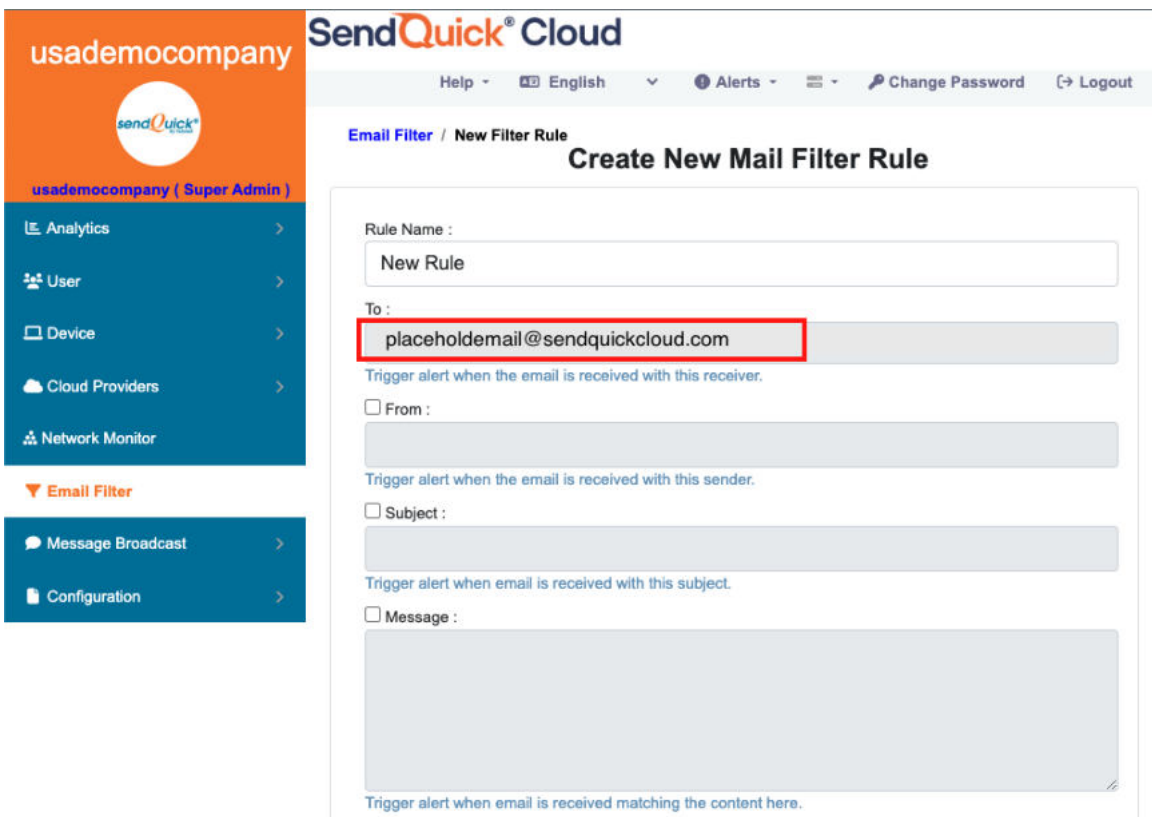
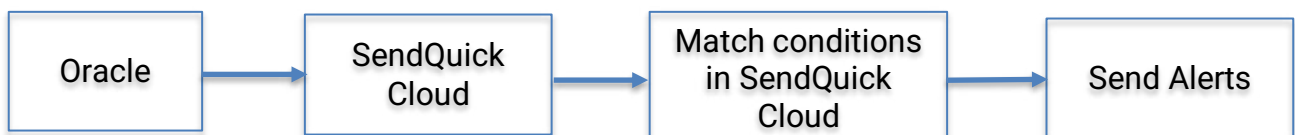


Figure 2.2: Creating New Email Filter Rule

2.2 Cloud Provider in SendQuick Cloud using Webhook

The second method to integrate between Cloud Monitor and SendQuick Cloud is using Webhook method. This is via an Application Programming Interface (API) where the event information is sent to SendQuick Cloud and SendQuick Cloud will process and check against the pre-configured policies (conditions). If the conditions are met, it will trigger an alert to the assigned users.

In summary, the flow is as below:



The webhook sending to SendQuick Cloud is found on the Service Configuration for Cloud Provider in SendQuick Cloud. This is depicted in interface below.

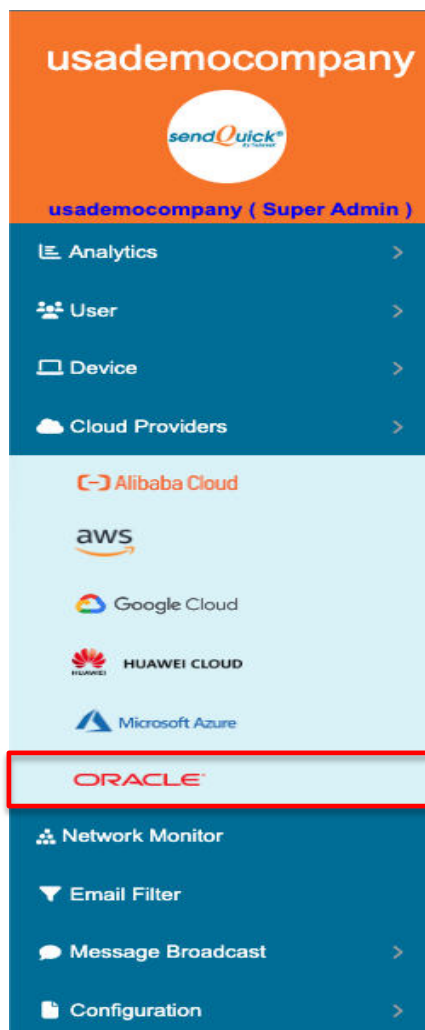


Figure 2.3: SendQuick Cloud Menu (left)

Chose the Cloud Provider as shown on the left Menu in the diagram above.

Copy the Integration URL as shown on the top of the Integration page. This is the URL to be configured in Azure Action as shown in section 4.0.

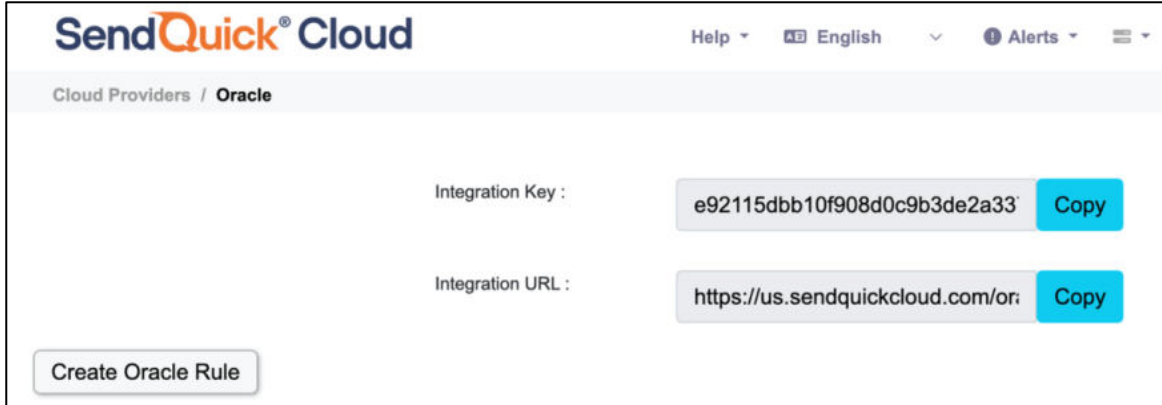


Figure 2.4: Cloud Providers Integration Information

3.0 Configure Oracle Notification Channel

When any event happens or there is a need to send a notification alert, Oracle Notification Channel (Oracle) can trigger an email and Webhook to SendQuick Cloud. SendQuick Cloud will then convert the email message and Webhook to alerts and send to mobile phone based on the policy (filter) rules assigned. The email messages and webhook are sent from Oracle to SendQuick Cloud for processing.

In Oracle, the first configuration is to configure the Notification Channel, creating the recipient list to receive the notifications. Since SendQuick Cloud is used to manage the recipients on the different channels, you just need to configure one (1) email and one (1) webhook for Oracle. This is explained below.

3.1 Configure Email and Webhook for SendQuick Cloud in Oracle

In Oracle, select **Create Notification Channel** and choose **Email or Webhook**. These are shown in the Figures below.



Figure 2.5: Create Notification Channel

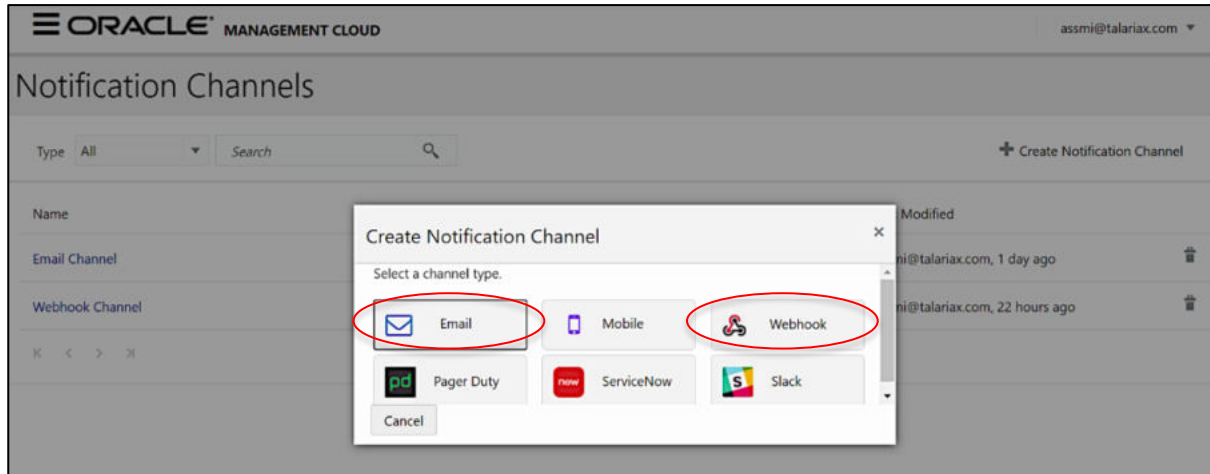


Figure 3.1: Availability of Email and Webhook Options

We will configure Email first. Select **Email** in the above Figure and you will see the Figure below. Assign a name, insert the email address (from Email Filter rules in SendQuick Cloud) and set the language and timezone. Then select **Create**.

The screenshot shows the 'Create Email Channel' configuration form. It includes the following fields: 'Channel Name' with the value 'sendQuickonCloud Email'; 'Email Addresses' with the value 'democompany@sg.sendquickoncloud.com', which is circled in red; 'Email Language' set to 'English (United States)'; and 'Email Timezone for Alert Timestamp' set to '(UTC+00:00) Coordinated Universal Time (UTC) (UTC)'. There are 'Create' and 'Cancel' buttons at the bottom right.

Figure 3.2: Configuring SendQuick Cloud as Email Recipient

You need to verify and confirm the email address first before the email can be used. The email will be sent to **SendQuick Cloud** system and you can view the Oracle email in SendQuick Cloud, under **Email Filter** and **Inbox**. The steps to verify the email is shown below.

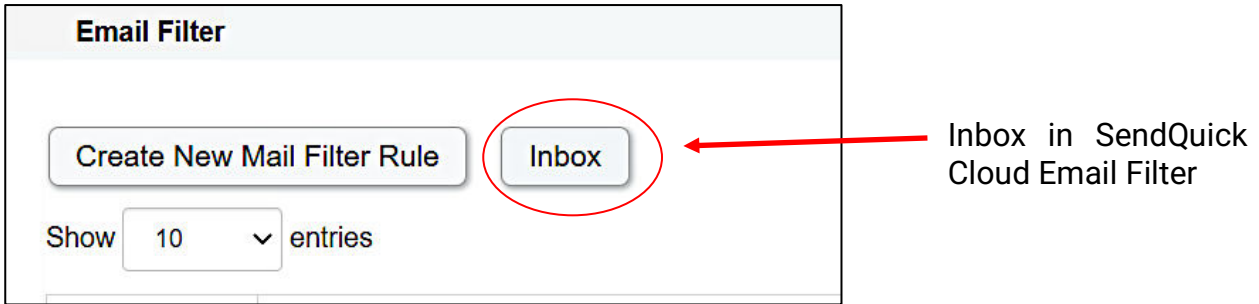


Figure 3.3: Navigate to SendQuick Cloud's Inbox

From	Subject	Content	Date & Time
no-reply@sns.amazonaws.com	AWS Notification - Subscription Confirmation	You have chosen to subscribe to the topic: arn:aws:sns:us-west-1:064352110866:test To confirm this subscription...	26 Jan 2021, 16:33 PM
monitor-sg@monitor.alibabacloud.com	Alibaba Cloud Monitor-Email activation code	Alibaba Cloud Monitor-Email check code ...	26 Jan 2021, 16:27 PM
noreplylf02@mail01.huawei.com	SMN-Confirming Your Subscription	Dear Sir or Madam,Welcome to Simple Message Notification (SMN) service.You are invited to subscribe to the topic: ...	26 Jan 2021, 16:03 PM
noreply@notification.us-phoenix-1.oci.oraclecloud.com	Oracle Cloud Infrastructure Notifications Service Subscription Confirmation	You have chosen to subscribe to the topic: test_email (Topic OCID: ocid1.onstopic.oc1.phx.aaaaaaa7thq7mckm4betyzc...	26 Jan 2021, 15:42 PM
noreply@notification.us-	Oracle Cloud	...Please do not reply directly to this email. If you have any questions or	26 Jan

Figure 3.4: SendQuick Cloud's Inbox

Once you select the Oracle email, you will see the Email content, Click on Confirm Subscription and the Confirmation Page will be shown. Once it is confirmed, you can use the Email notification from Oracle.

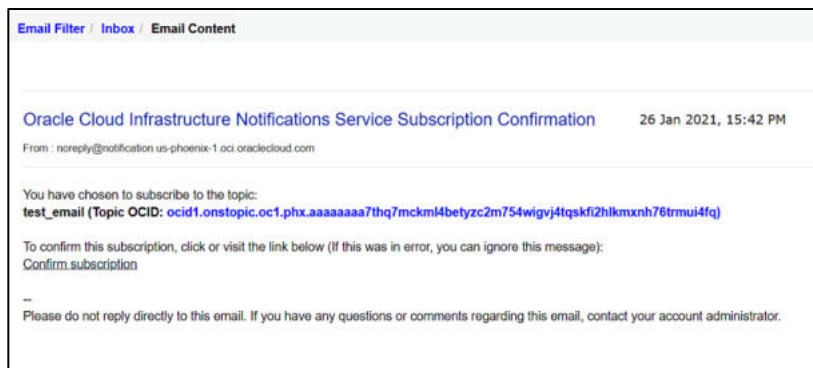


Figure 3.5: Confirmation Email



Figure 3.6: Confirmation Page in Oracle Management Cloud

You can repeat the same process (in creating email to create a Webhook), select **Webhook** and complete the information in Figure below. The URL is obtained from SendQuick Cloud in Section 2.2 above.

The image shows the "Create Webhook Channel" configuration page. The "Channel Name" is "sendQuickoncloud Webhook". The "URL" is "https://sg.sendquickoncloud.com/oracle/oracle_process.php", which is circled in red. Below the URL, it says "If you are specifying a port number, supported port numbers are : 80, 443". The "Authentication Type" is set to "None". The "HTTP Headers" section is empty. The "Payload" section contains a JSON object with the following fields: "conditionName", "updateType", "message", "severity", "time", "eventName", "alertDetailUrl", "entityId", "entityName", "entityType", "entityDisplayName", "entityHostName", "coy", and "key".

Figure 3.7: Configure Webhook Endpoint URL

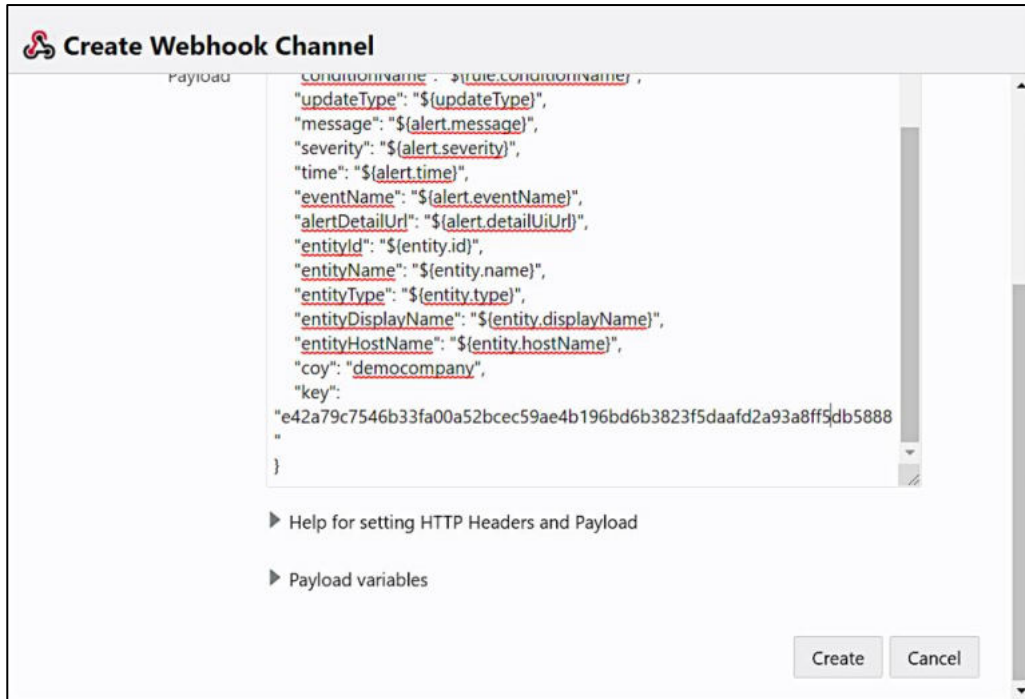


Figure 3.8: Configure Webhook Payload

For Webhook, we need to insert the payload for Oracle to send messages to SendQuick Cloud. The payload details as below. This is to complete the JSON payload when data is sent to SendQuick Cloud. The last two items (in blue), company name and key is obtained from SendQuick Cloud Integration page in Section 2.2 above.

Payload:

```
{
  "alertId": "${alert.id}",
  "ruleName": "${rule.ruleName}",
  "conditionName": "${rule.conditionName}",
  "updateType": "${updateType}",
  "message": "${alert.message}",
  "severity": "${alert.severity}",
  "time": "${alert.time}",
  "eventName": "${alert.eventName}",
  "alertDetailUrl": "${alert.detailUiUrl}",
  "entityId": "${entity.id}",
  "entityName": "${entity.name}",
  "entityType": "${entity.type}",
  "entityDisplayName": "${entity.displayName}",
  "entityHostName": "${entity.hostName}",
  "coy": "democompany",
  "key": "e42a79c7546b33fa00a52bcec59ae4b196bd6b3823f5daafd2a93a8ff4db5738"
}
```

Once completed, select Create and the webhook is created. The Notification Channels summary as shown below.

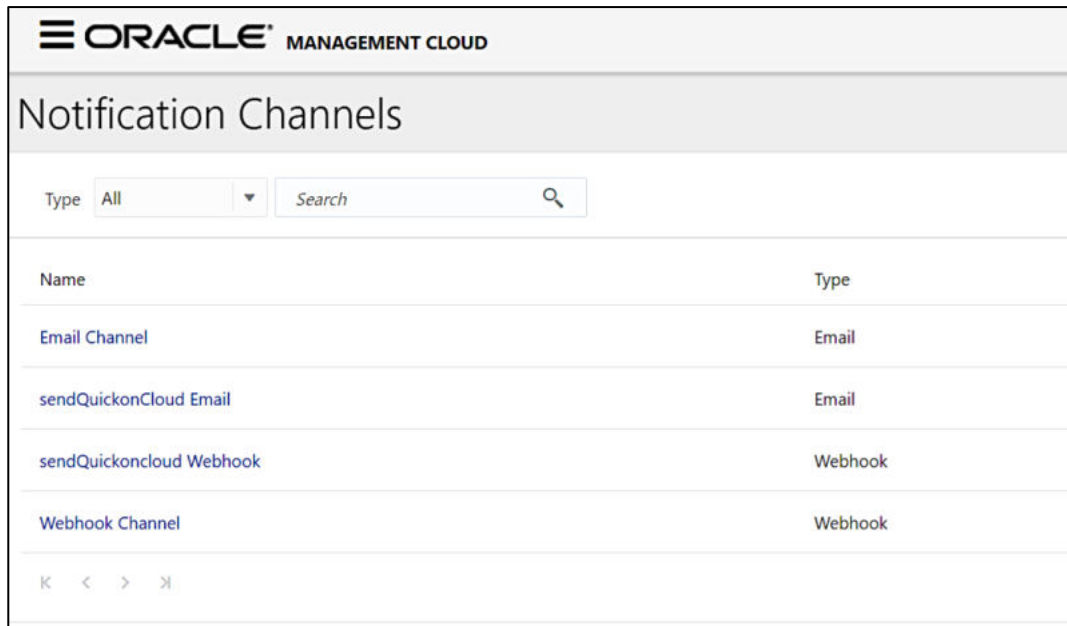


Figure 3.9: Notification Channels

4.0 Configure Alert Rules with SMTP and Webhook

In Oracle, the configuration for Email (SMTP) and webhook is configured in the same Alert rule. Hence, this section will explain both methods in the same configuration.

In the Left Menu, **Administration** select **Alert Rules > Services (select Monitoring)** and **Create Alert Rule** and you will see the interface to configure the rule as below.

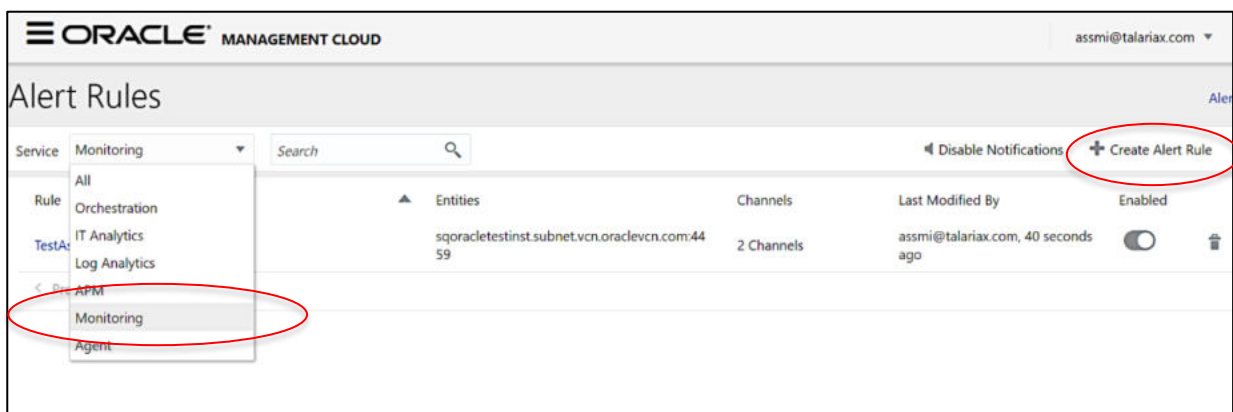


Figure 4.11: Create New Alert Rule

Provide a Rule Name and Enable the Rule. Then you can alert based on entity types or individual entities, In this example, we are configuring based on **Individual Entity**. Choose the entity that you are monitoring to send alerts. This is shown below

Create Alert Rule

Learn how to set up alert rules. Optionally, choose a sample to fill the rule definition below with suggested values.

Sample Select a sample rule

* Rule Name

[Add description](#)

Enable Rule

Entities

Choose "Entity Types" to apply the rule to all entities of that type or choose "Individual Entities" to limit the rule to just those entities.

Entity Types Individual Entities

Add Individual Entities (1)

Entity Type	Entity Name
Cloud Agent	sqoracletestinst.subnet.vcn.oraclevcn.com:4459

Alert Conditions

+ Add Condition

Figure 2: Configure Alert Condition

You can select the Add Condition, and set the condition for the alert or threshold. Set the relevant value (eg, Warning and Critical) as seen below.

Add Condition

Entity Type * Cloud Agent Condition Type * Fixed Threshold

Metric * Number of executions

Task Name	Operator	Warning	Critical
All values > <input type="text" value=""/>	>	2	5

+ Add Row

When to generate alert

Immediately, as soon as one metric value is outside the threshold or is anomalous.

If all the values are outside threshold or all are anomalous for minutes.*

When average computed over minutes* is outside the threshold or is anomalous.

* To avoid missing or uncleared alerts, choose a duration at least 2.5 times longer than the metric collection frequency, which is documented for Oracle-defined entity types and metrics. For other types, look at a metric history graph and estimate the collection frequency.

Customize Message Format

Use default message Use custom message

Sample Warning Message File System Usage of /u01 for host1 is 100 GB; it is greater than the expected value of 70 GB.

Figure 4.3: Add Condition

Next select the **Use Custom Message** and insert the formatted text in all the three message box (Warning, Critical and Clear). This will ensure the data values are sent over to SendQuick Cloud when the event happens. This is shown below and the text is display below as well.

```
{"metric":"CPUUtilization","actualValue": "%{sys.value}%", "operator": "%{sys.operator}%", "warningThreshold": "%{sys.warningThreshold}%", "criticalThreshold": "%{sys.criticalThreshold}%"}
```

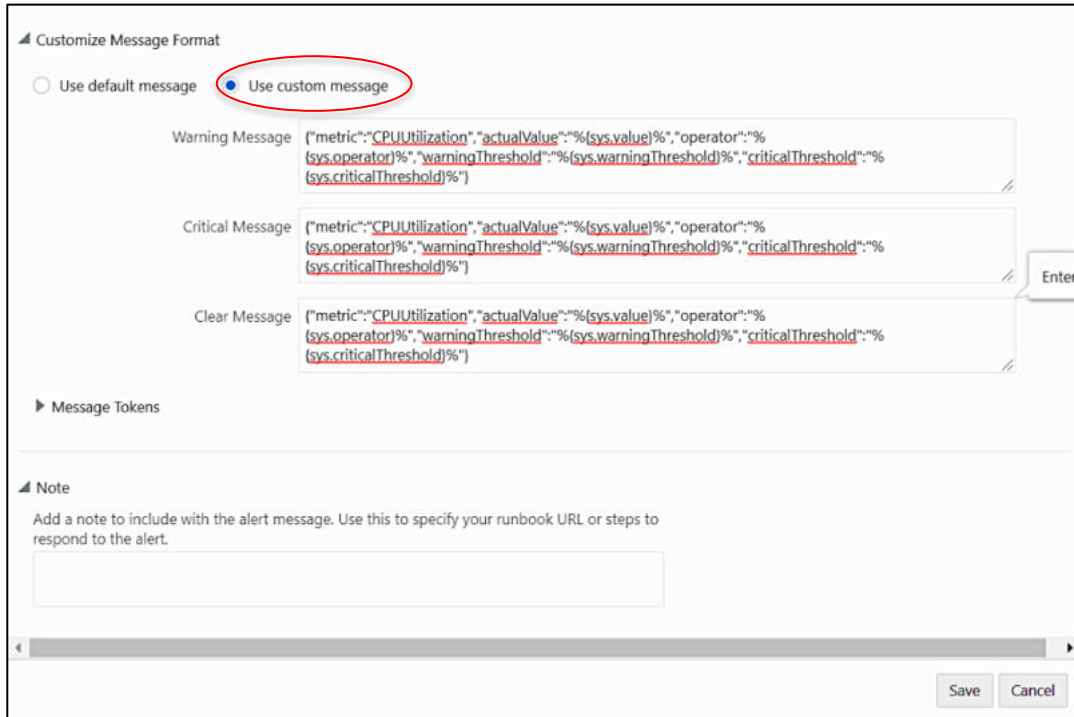


Figure 4.4: Use Custom Message Configuration

Then, select Notifications and you can choose to send using **Email** or **Integration** (webhook). Since we had configured the various Notification Channels earlier, the item are ready for selection in the next two Figures below.

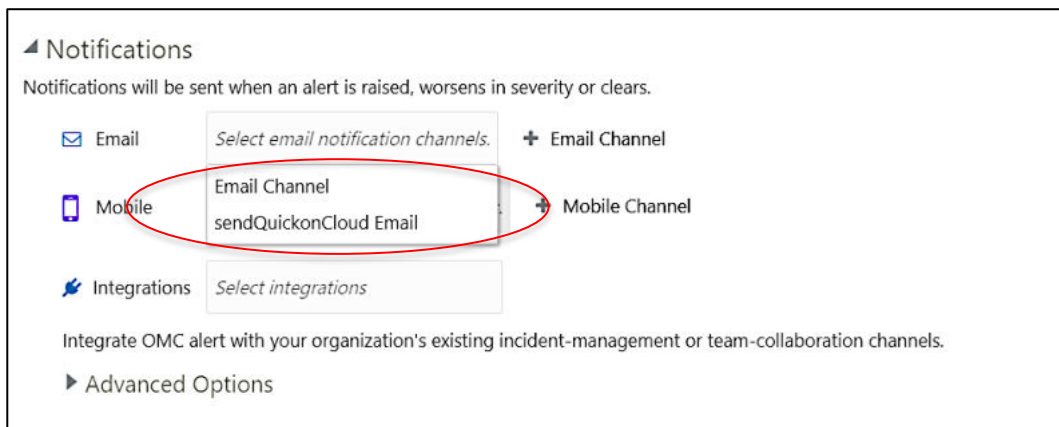


Figure 4.5: Email Notification Option

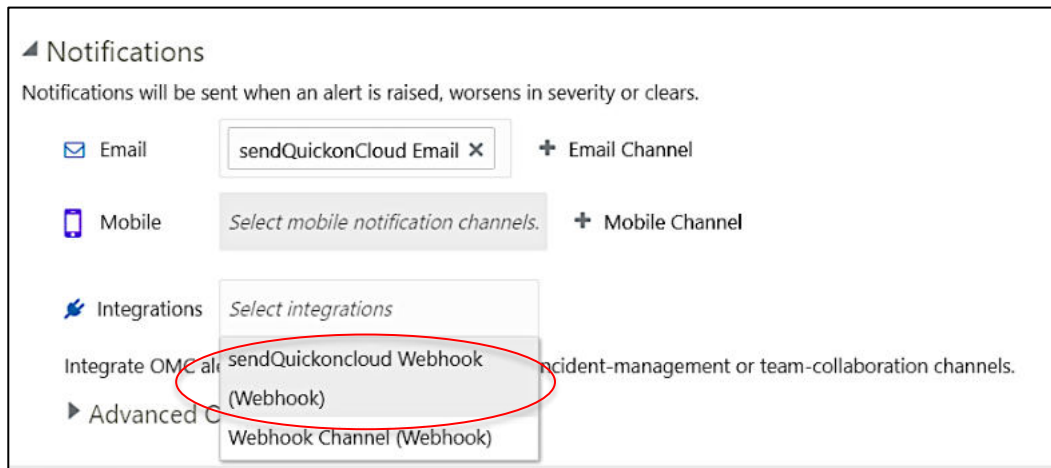


Figure 4.6: Webhook Notification Option

Once this is completed, select Save at the top right corner and you will see a summary of Alert Rules as displayed below.

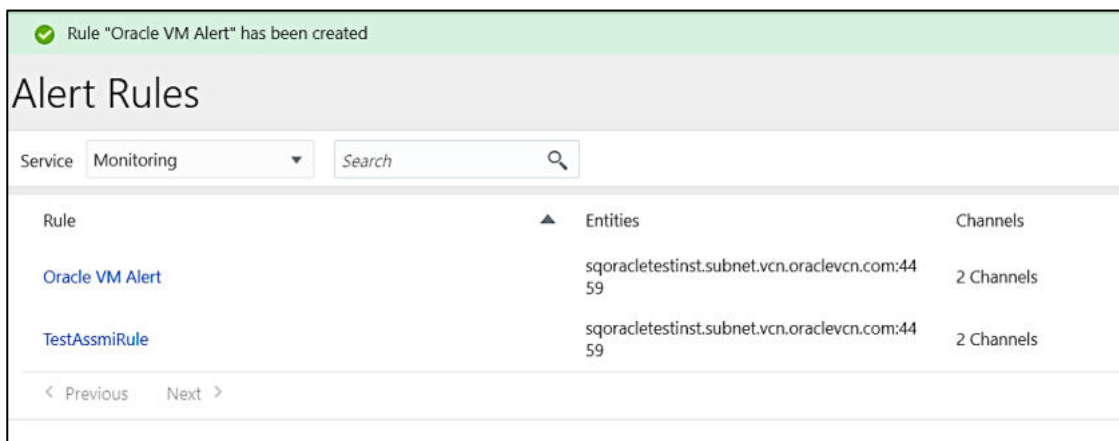


Figure 4.7: Alert Rules Summary

You can create more rules, as desired and use either Email or webhook to send the notifications to SendQuick Cloud.

Upon completion, you can start using SendQuick Cloud and configure all the filter/policies and user roster to receive the alerts on their phones. For more SendQuick Cloud configuration, refer to SendQuick Cloud User Manual or Video Tutorial.