HCLSoftware

HCL IntelliOps
Event Management

IEM User Guide

Version 1.0

HCL has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the HCL website at www.hcltechsw.com.

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Document Revision History

This guide is updated with each release of the product or when necessary.

This table provides the revision history of this User Guide.

Version Date	Description
January, 2024	HCL IEM User Guide_V1.0

1 Preface

This section provides information about the HCL IntelliOps Event Management (IEM) User Guide that includes the following topics.

- Intended Audience
- About This Guide
- Related Documents
- Conventions

1.1 Intended Audience

This guide is intended for HCL IEM end-users like Command Centre, DC Ops teams etc. working towards the resolution of actionable issues detected by HCL IEM by correlating alerts.

1.2 About This Guide

This guide will introduce users to the key concepts of HCL IEM and provide instructions on how they can use this product to its full potential. It will provide an overview of the end-user interface and contains instructions to perform different tasks.
This document includes the following topics:

- HCL IEM Overview
- System Requirements
- Using HCL IEM
- Support

1.3 Related Documents

The following documents can be referenced in addition to this guide for further information on the HCL IEM platform.

- Introduction to HCL IEM User Guide

1.4 Conventions

The following typographic conventions are used in this document:

Table 1 - Conventions

Convention	Element
Boldface	Indicates graphical user interface elements associated with an action, or terms defined in text or the glossary
Underlined blue	Indicates a cross-reference and links
`Courier New` (Font)	Indicates commands within a paragraph, URLs, code in examples, and paths including on screen text and text input from users
Italic	Indicates document titles, occasional emphasis, or glossary terms
Numbered lists	Indicates steps in a procedure to be followed in a sequence
Bulleted lists	Indicates a list of items that is not necessarily meant to be followed in a sequence

2 Introduction

This user guide is intended for HCL IEM end-users like Command Centre, DC Ops teams etc. that are working towards the resolution of actionable issues detected by HCL IEM by correlating alerts.

2.1 Overview of IEM

HCL IntelliOps Event Management is an AI-powered IT event management platform on the cloud that transforms IT operations by incorporating AIOps capabilities into the system. Its machine learning-based advanced features, such as topology correlation, anomaly detection, and noise reduction, not only help reduce Mean Time to Detect (MTTD) and Mean Time to Recover (MTTR) of incidents but also proactively detect potential issues, prevent outages, and ensure service continuity for businesses.

This intelligent platform provides integrations with various monitoring tools and custom code within an ecosystem to ingest a vast volume of heterogeneous data in the form of events, metrics, performance, and configuration information. Its client-side component – IEM-(IMM) Integration Management Module collects raw events from various monitoring systems and send it to IEM, it also offers a unique feature of continuous service delivery in the case of connectivity loss with IEM Cloud, minimizing the impact of outages on IT operations.

IEM also fosters efficient collaboration across teams, ultimately improving system performance and agility. Its integration with ITSM tools packages industry best practices, significantly reducing duplicate incidents and enhancing the Root Cause Analysis process by automatically correlating incidents with Change Management.

2.2 Key Features

- **Early Anomaly Detection**: Utilizes metrics for early identification of true anomalies in the lifecycle. Metric anomaly system is available to identify anomalous metric point for outlier detection based on metric data being ingested.
- **Topology Based Alert Correlation**: OOB correlation rules available for Correlation of alerts based on relationships between entities defined in the system.
- **Temporal-Based Alert Correlation**: Leverages a robust correlation engine and condition-based correlation for automatic grouping and mapping of alerts with and efficient Feedback System to avoid irrelevant alert to actionable grouping.
- **OOB NiFi Connector Management via IMM (Integration Management Module) Portal**: Topology, Entity and Service data ingestion via NiFi in real-time.
- **Automated Noise Reduction**: Filters out irrelevant data to reduce noise and focus on meaningful events. There is Noise Rule Configuration with maintenance windows support.
- **Related Problems and Changes view of Actionable for Effective Diagnosis**: Helps in addressing impact assessment for continuous improvement and prioritize actionable based on their potential impact.

- **Real-Time Interactive Visualization**: Provides user-friendly dashboards for real-time interaction with Metric View, Service View, and Topology View. Timeline view is also available for events, alerts, and actionable.
- **Quick User's Collaboration**: Enables quick chat and collaboration with the team for efficient communication thereby reducing MTTR along with automated notifications to operators for assigned actionable.
- **Cost Saving View**: Significantly benefits by optimizing resources, improving operational efficiency, and reducing unnecessary expenditures on actionable resolution and reviving the degraded services.

3 IEM Interface

The interface presents a unified views like Metric View, Topology View and Service View to facilitate Event Management helping IT Professionals understand the relationships between different entities and services to make informed decisions to manage and troubleshoot complex IT environments more efficiently.

3.1 Login to HCL IEM

HCL IEM can be accessed web browser, with the sole exception of Internet Explorer. After the user receives their login credentials, they should perform the following steps to log into HCL IEM:

1. Launch web browser (Chrome, Mozilla, or Edge) and use the HCL IEM Portal URL.
2. On the HCL IEM **Login** page, type your email ID registered with HCL IEM in the **Email** field and password in password field.

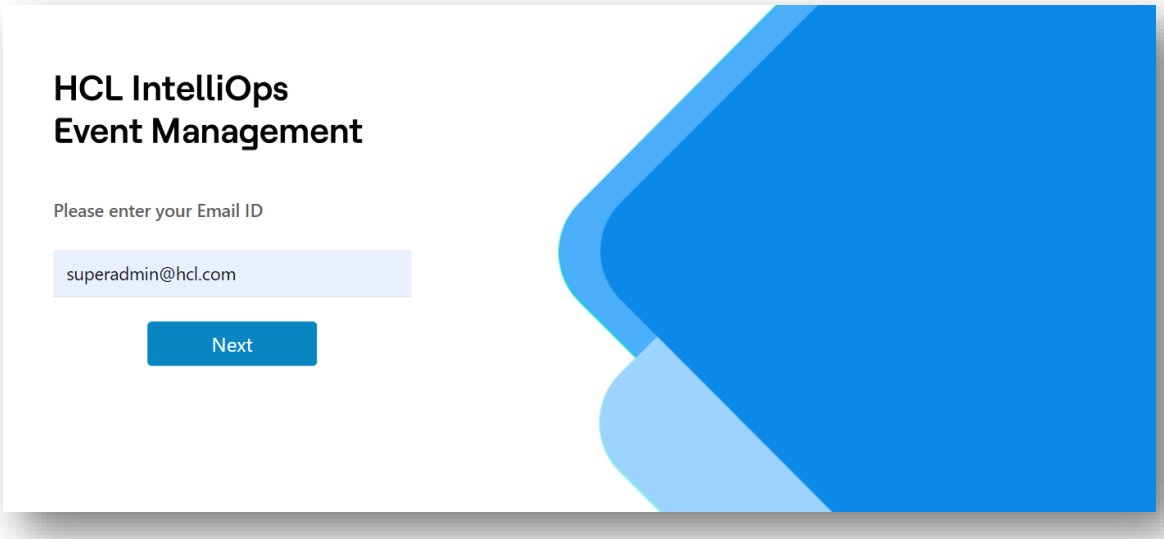

Figure 1 - Login

3. Post successful authentication, the user logs into the HCL IEM portal on home page.

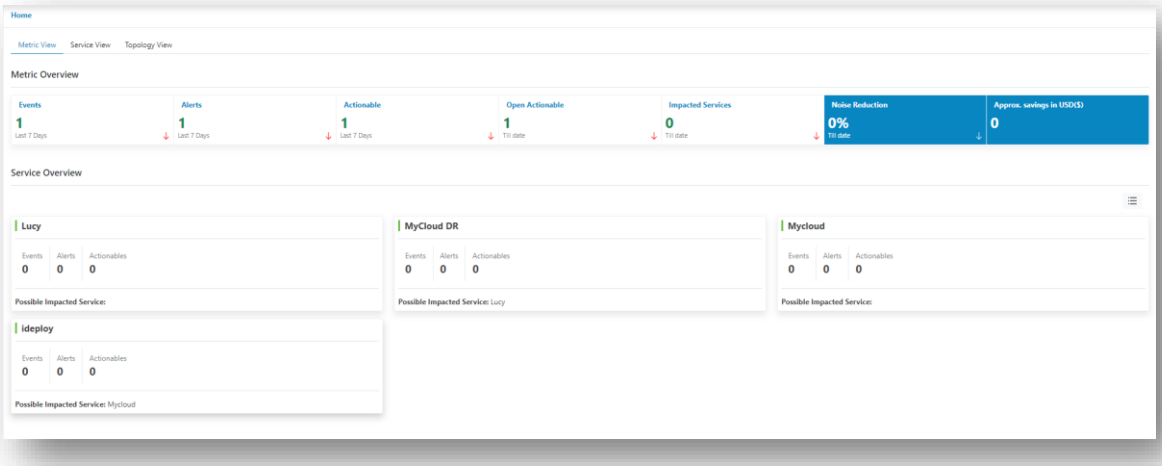

Figure 2 - Home Page

The user interface is comprised of three views:

- Home
- Dataview
- Customer

The interface also presents unified views like Metric View, Topology View and Service View to provide a visual representation of the relationship between services and entities in the system.

The Home Screen is a dashboard where a user can see three different views:

- Metric View
- Service View
- Topology View

3.1.1 Metric View

The Metric view shows the value for different metrics corresponding to Events, Alerts, Actionable for a particular customer. It gives a view of open actionable and impacted services. In addition, Noise Reduction percentage, calculated to date, is also shown in the metric view.

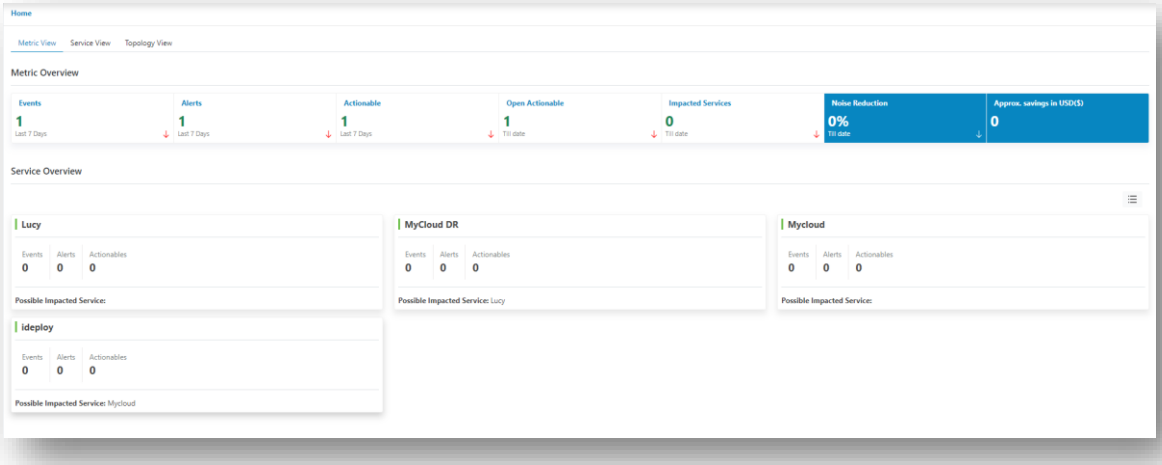

Figure 3 - Metric View

3.1.2 Service View

Applications consist of multiple services running on different nodes or entities. These services are often related to each other in a Parent-Child relationship where issue on a child service gets cascaded onto parent service and further up in hierarchy. In a complex or large environment, analyzing this impact is very challenging and leads to higher MTTR, RCA and outages. With HCL IEM Service View, Users can quickly identify the Causal Service and corresponding Impacted Services enabling them to trigger appropriate remediation process in minimal time.

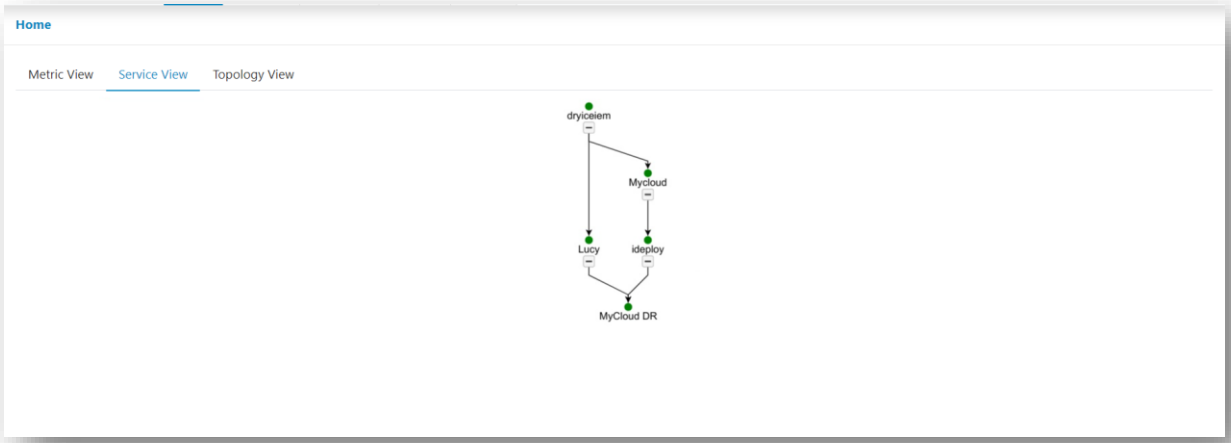

Figure 4 - Service Overview

3.1.3 Topology View

Topology View shows the relationship between entities for a particular customer. Parent and Child nodes are depicted in the Topology view chart, as configured for the selected customer.

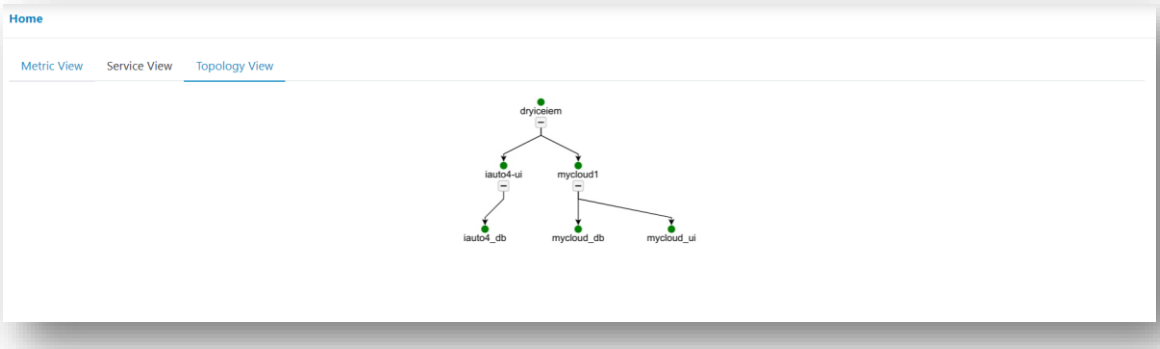

Figure 5 - Topology View

3.2 Data View

The data view acts as the user's visual guide into granular data related to the events, alerts, actionable and noise data, in a single, unified view that permits the user to filter data according to their requirement and obtain a more transparent view of the system and any issues related to the services configured within the system.

Based on the configuration, five data views are displayed over this console.

- Events
- Alerts
- Actionable
- All Events
- Noise Events

3.2.1 Events

An "event" refers to a significant occurrence or incident within an IT environment that is detected, monitored, and logged by various systems and tools. Events are typically generated by hardware, software, applications, or network devices, and they serve as a key source of information for monitoring and managing the performance and health of IT systems.

Events can be diverse and may include activities such as system errors, warning messages, user interactions, configuration changes, or security-related incidents.

This view will show all events that have come into HCL IEM system after removal of noise events.

Events are classified as noise if it satisfies the rule condition.

3.2.1.1 Events View

Please follow below steps to view events data:

1. In the top navigation bar, click on Data View and click on Events.
2. Events data will be displayed for the customer to which user is part of.

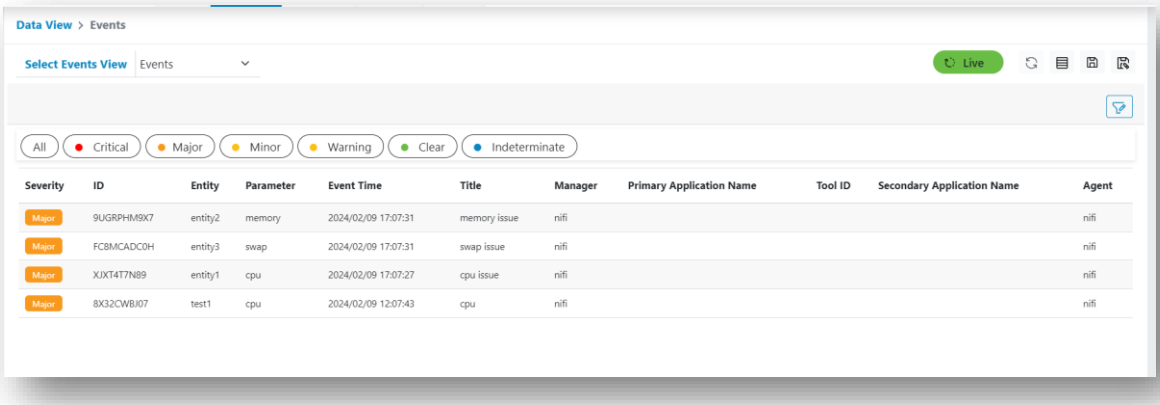

Figure 6 - View Events

3.2.1.2 Add Column

This option will enable user to add more columns in data grid to analyze it deeply. Please follow below steps to add columns to data view.

1. In the top navigation bar, click on Data View and click on Events.
2. Click on the Add Column action button present at right side of Live button.
3. A pop-up will open up which enables user to select from list of available columns to add it in the grid as shown in figure. Then, click on save button to add selected columns in view.

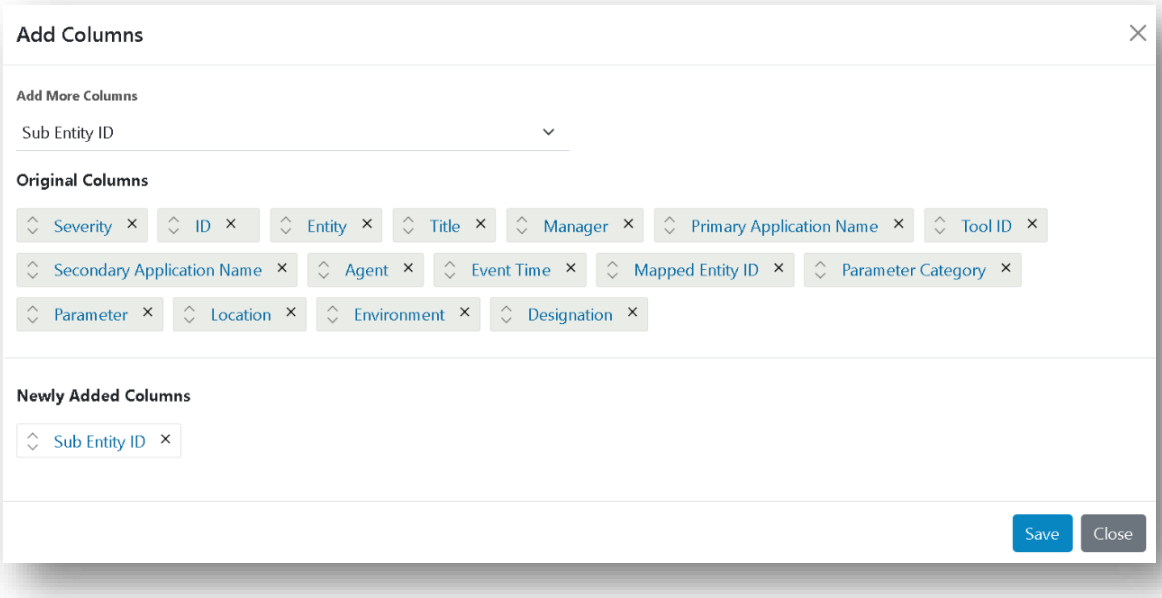

Figure 7 - Add Column

3.2.1.3 Save As Events

This option will enable user to save currently opened view with columns populated in data grid so that same view can be shown to any other user in an organization. It is very helpful for admins to configure this kind of view for other users in an organization by creating a different view other than current view. For e.g., view to list out events with critical severity only. Please follow below steps to save as events:

1. In the top navigation bar, click on Data View and click on Events.
2. Once the user clicks the **Save** button, a pop-up will open to provide following information:
   - **View Name**: name of view like critical events
   - **Description**: description of view like list all critical events
   - **Show to**: Either it will be visible to user who is saving it or to other users.

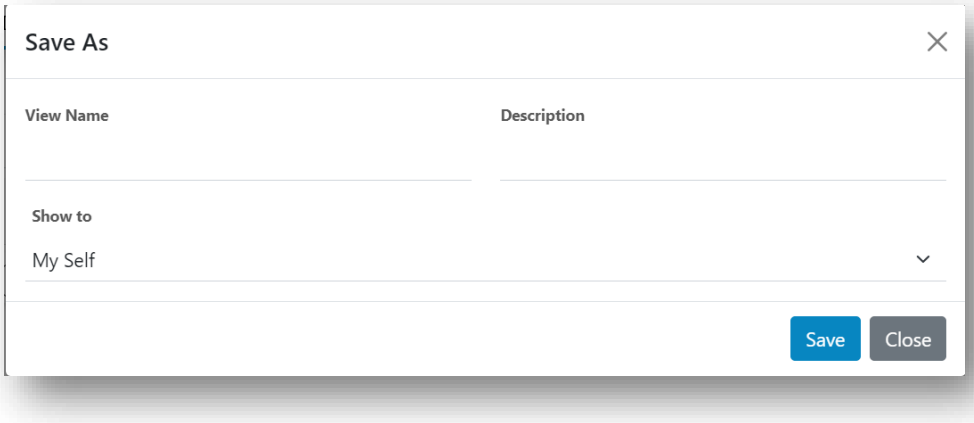

Figure 8 - Save as Events

3.2.1.4 Refresh Events

This option will enable user to refresh data grid to populate latest data over screen.

Please follow below steps to refresh events grid:

1. In the top navigation bar, click on Data View and click on Events.
2. Once the user can click the Refresh button, confirmation pop up message will appear.

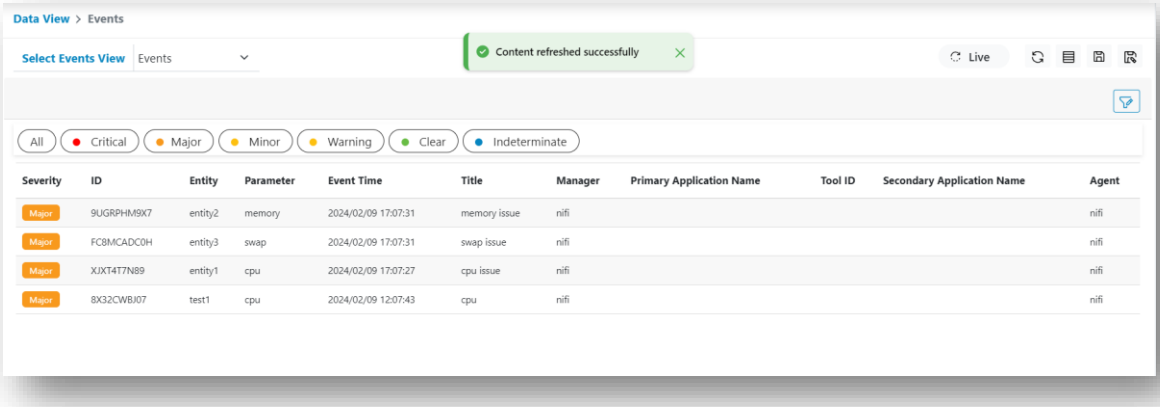

Figure 9 - Refresh View Data Events

3.2.1.5 Live Events Data

This option will enable user to stop/start live update of data being shown in grid. Please follow below steps to enable/disable live events.

1. In the top navigation bar, click on Data View and click on Events.
2. Users can see the Live Events Data, and this will be updated regularly, and automatically refresh the grid.
3. To stop live data update, please click on Live button, it stops updating the live event data, a confirmation message will appear, stating that "Auto – refresh has been disabled."

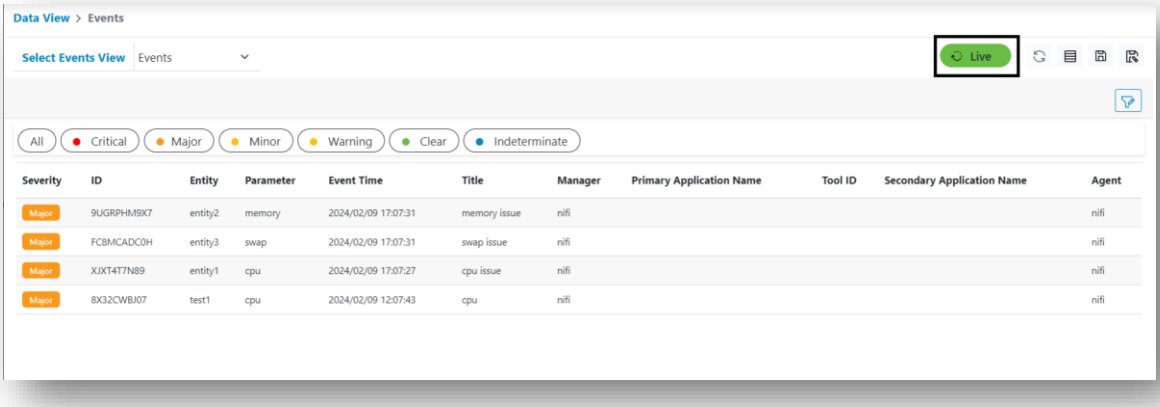

Figure 10 - Live Events Data

3.2.1.6 Apply Filters

This option will enable user to apply filters over currently opened view to see data of specific values. For e.g., to see list of critical events, user can set filters over severity columns of events 'data. Please follow below steps to apply filters:

1. In the top navigation bar, click on Data View and click on Events.
2. Click on the filter option present at right side of Live button as shown in figure.

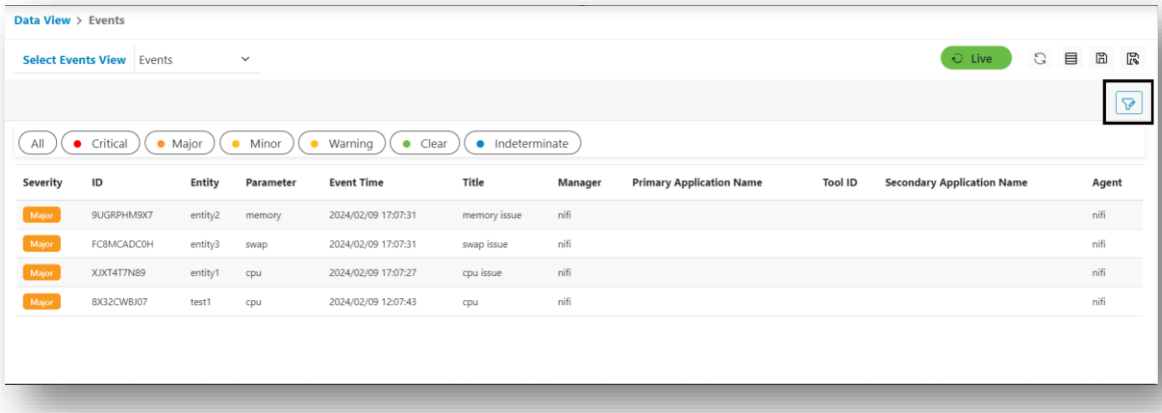

Figure 11 - More Filter Operation

3. A filter screen will come up which enables user to select field and corresponding operator along with value to filter data.

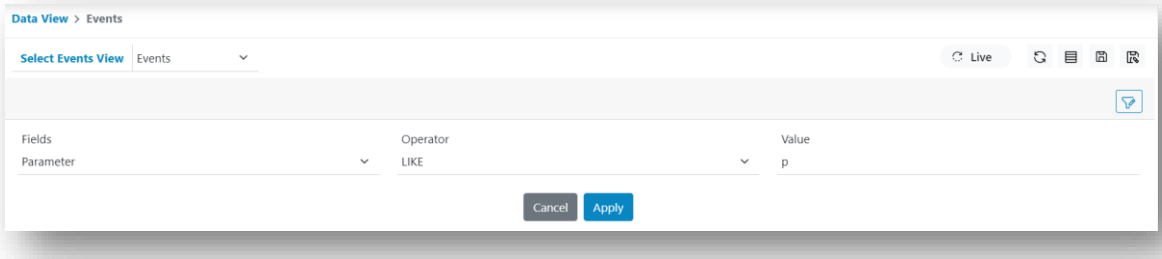

Figure 12 - More Filter Operation

3.2.2 Alerts

"Alerts" refer to notifications or warnings generated by monitoring systems or tools when significant events or issues are deviating from normal system behavior. Alerts play a crucial role in proactively identifying potential problems, anomalies, or security incidents within the IT environment. Alerts are triggered by a monitoring system to indicate the occurrence of a specific event or condition that requires attention. Alerts are typically generated based on predefined rules, thresholds, or conditions associated with events. Multiple alerts may be correlated to identify patterns or relationships between different events, helping in understanding the broader impact.

Well-designed alerting view provides IT teams with crucial information, enabling them to respond proactively to potential issues and minimize the impact on operations.

3.2.2.1 Alerts View

This option will enable user to view list of all alerts those have been created in HCL IEM. Please follow below steps to view alerts:

1. In the top navigation bar, click on Data View and click on Alerts.
2. Alert data will be displayed for the customer logged-in is part of.

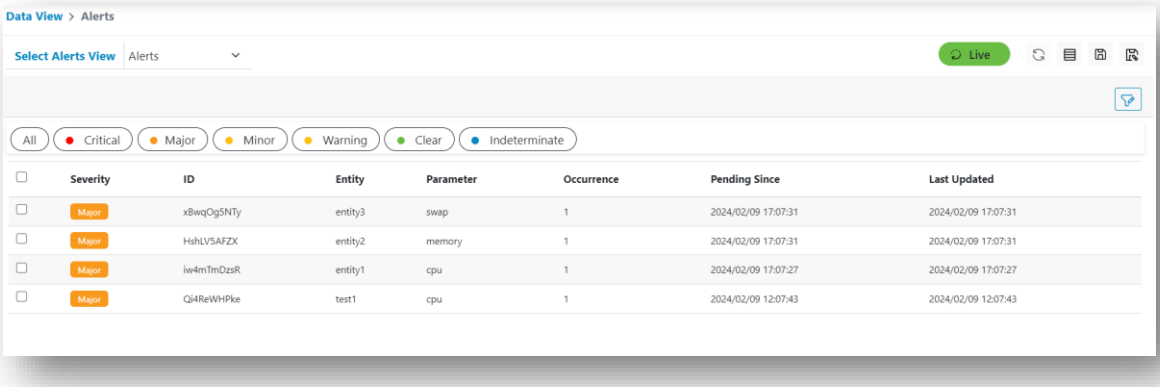

Figure 13 - Alerts View

3.2.2.2 Save As Alerts

This option will enable user to save currently opened view with columns populated in data grid so that same view can be shown to any other user in an organization. It is very helpful for admins to configure this kind of view for other users in an organization by creating a different view other than current view. For e.g., view to list out events with critical severity only. Please follow below steps to save as events:

1. In the top navigation bar, click on Data View and click on alerts.
2. Once the user can click the save as button, a pop-up will open to provide following information:
   - **View Name**: name of view like critical alerts
   - **Description**: description of view like list all critical alerts
   - **Show to**: Either it will be visible to user who is saving it or to other users.
3. Next, click on save button to save view.

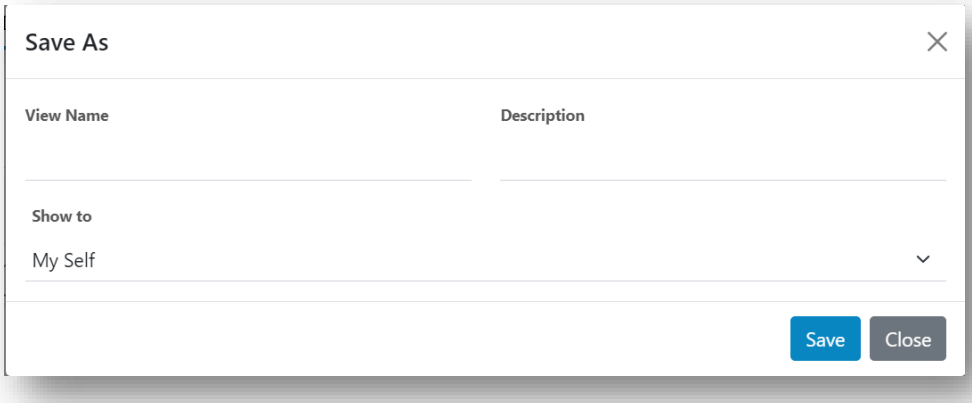

Figure 14 - Save As Alerts

4. This view will be available in list for users as shown in figure.

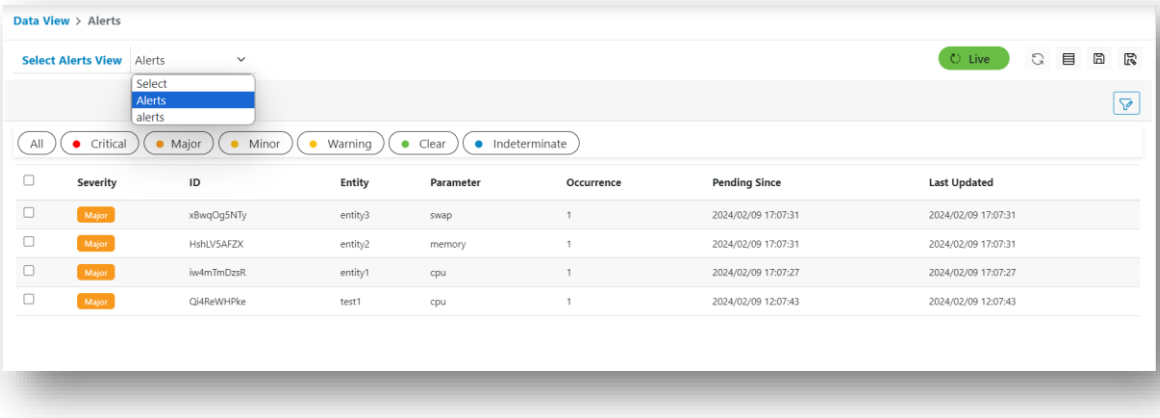

Figure 15 - Select Alerts View Dropdown

3.2.2.3 Add Column

This option will enable user to add more columns in data grid to analyse it deeply. Please follow below steps to add columns to data view.

1. In the top navigation bar, click on Data View and click on Events.
2. Click on the Add Column action button present at right side of Live button.
3. A pop-up will open which enables user to select from list of available columns to add it in the grid as shown in figure. Then, click on save button to add selected columns in view.

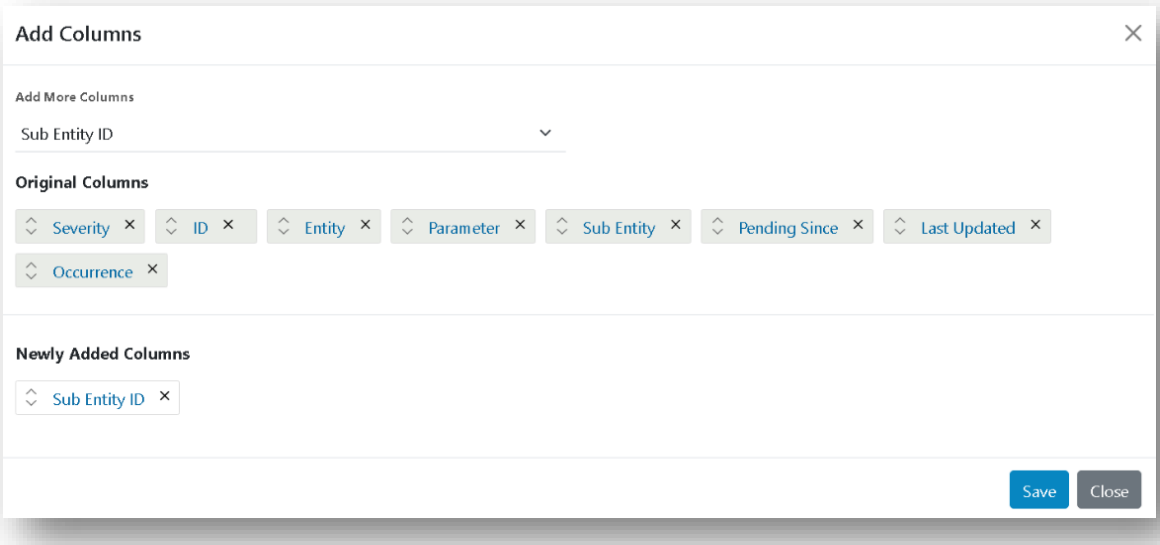

Figure 16 - Add Column

3.2.2.4 Related Events

This option will enable user to see related events for selected alert to see what all events have been combined to create an alert.

1. In the top navigation bar, click on Data View and click on Alerts.
2. Click on a particular alert on Data View-Alert screen, then it will populate list of related events as shown below in figure.

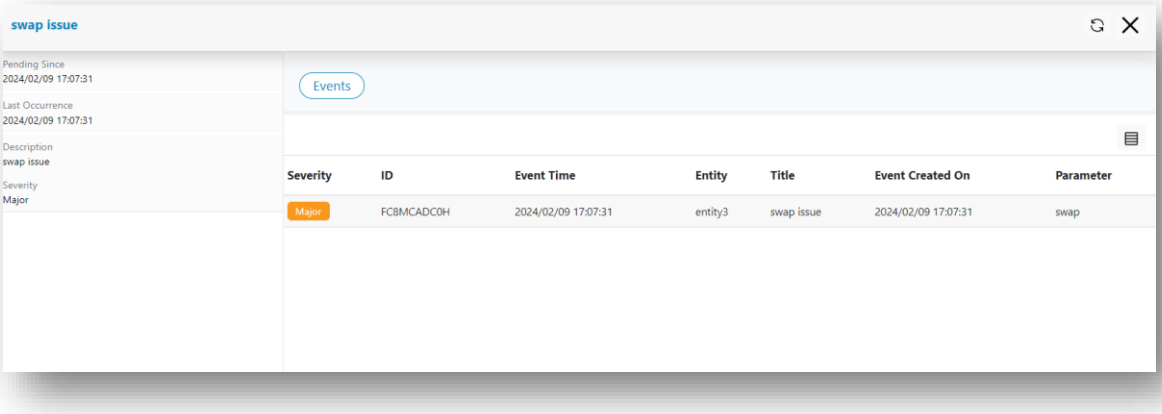

Figure 17 - Alerts Related Events

3.2.2.5 Refresh Alerts

This option will enable user to refresh data grid to populate latest alerts data over screen.

Please follow below steps to refresh alerts grid:

1. In the top navigation bar, click on Data View and click on alerts.
2. Once the user clicks on Refresh button, confirmation pop up message will appear.

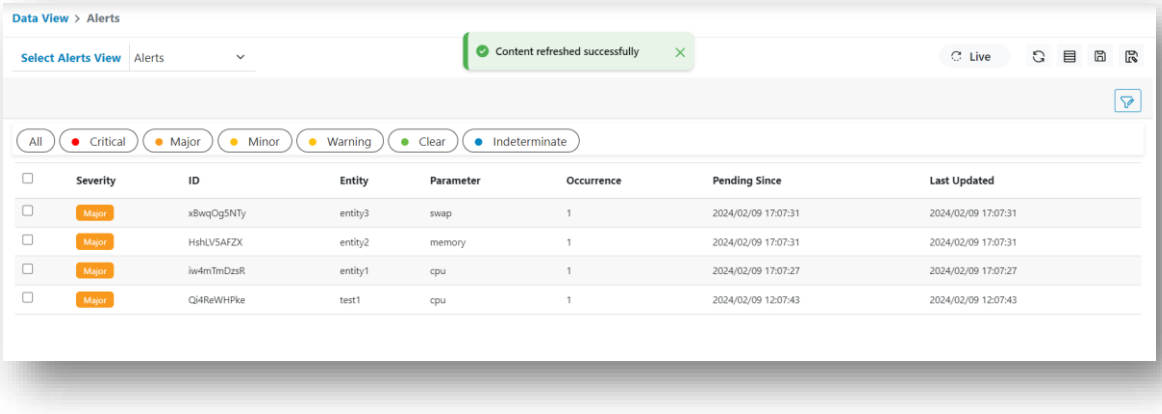

Figure 18 - Confirmation Message

3.2.2.6 Live Alerts Data

This option will enable user to stop/start live update of data being shown in grid. Please follow below steps to enable/disable live alerts.

1. In the top navigation bar, click on Data View and click on alerts.
2. Users can see the Live Alerts Data, and this will be updated regularly, and refresh grid.
3. To stop live data update, please click on Live button, it stops updating the live alerts data, a confirmation message will appear, stating that "Auto – refresh has been disabled."

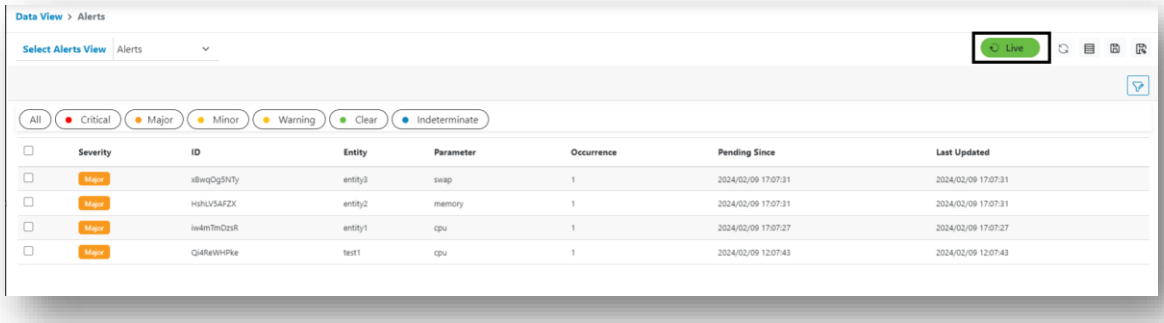

Figure 19 - Live Alerts Data

3.2.2.7 Apply Filters

This option will enable user to apply filters over currently opened view to see data of specific values. For e.g., to see list of critical alerts, user can set filters over severity columns of alerts' data. Please follow below steps to apply filters:

1. In the top navigation bar, click on Data View and click on alerts.
2. Click on the filter option present at right side of Live button as shown in figure.
3. A filter screen will come up which enables user to select field and corresponding operator along with value to filter data as shown in figure.

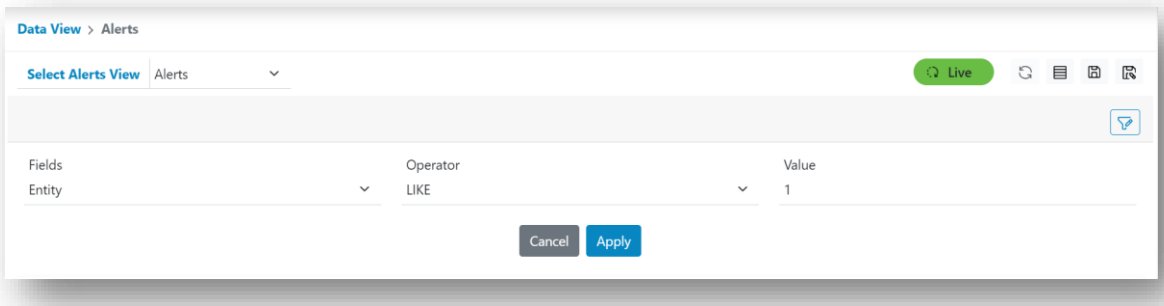

Figure 20 - More Filter Operation

4. Users can see the result of applied filter.

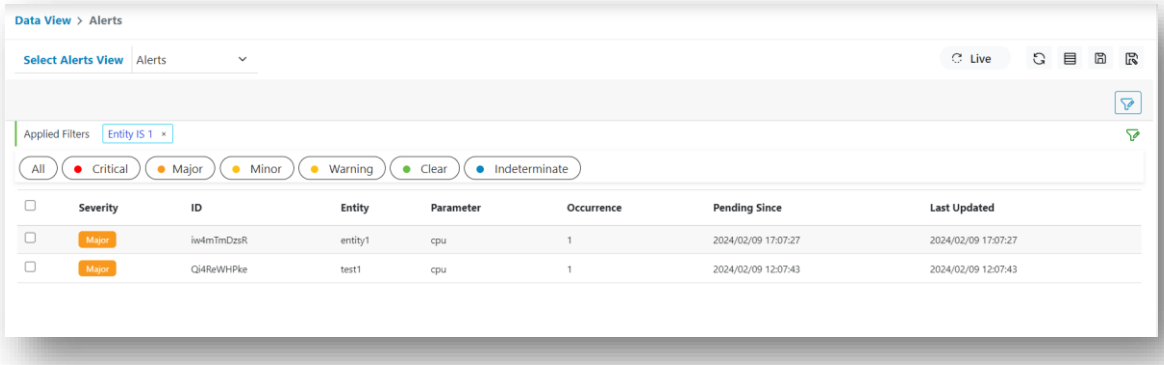

Figure 21 - More Filter Operation

3.2.3 Actionable

"Actionable" refers to a specific occurrence or situation that disrupts normal IT operations and requires attention, investigation, and resolution. Actionable are typically identified based on events or alerts generated by monitoring systems, and their management involves a structured and coordinated response to minimize the impact on the organization's IT services. Actionable are identified through the correlation and analysis of alerts, or anomalies detected by monitoring systems over HCL IEM. Efficient Actionable creation depends upon how effective alert correlation is happening over the system. Actionable progress through various stages in their lifecycle, including detection, identification, classification, investigation, resolution, and closure. It includes root cause analysis to identify the underlying factors that led to the actionable, helping in preventive actions.

3.2.3.1 Actionable View

Please follow below steps to view events data:

1. In the top navigation bar, click on Data View and click on actionable.
2. Alerts data will be displayed for the customer to which user is part of.

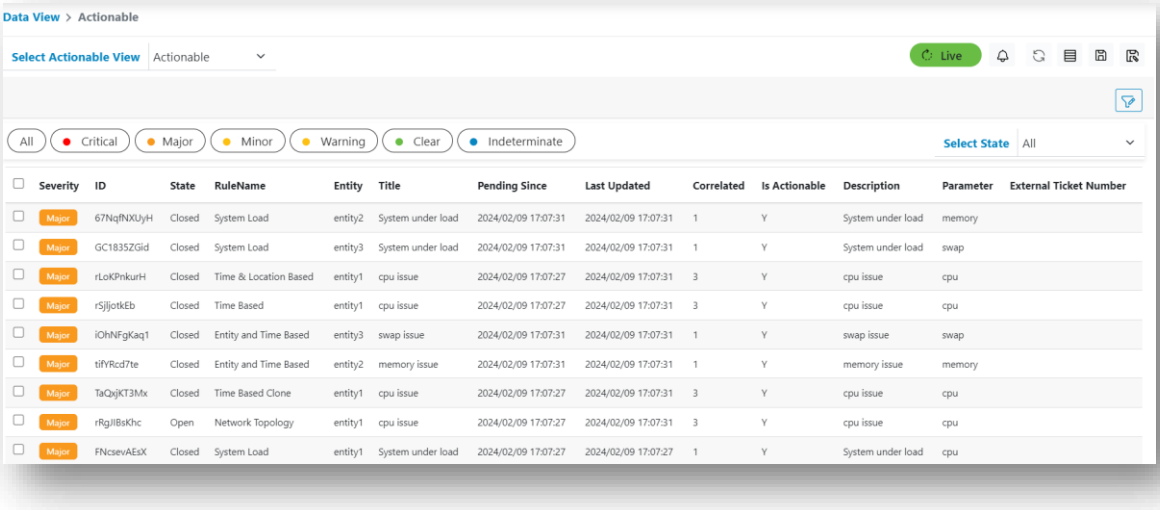

Figure 22 - Actionable View

3.2.3.2 Add Column

This option will enable user to add more columns in data grid to analyse it deeply. Please follow below steps to add columns to data view.

1. In the top navigation bar, click on Data View and click on alerts.
2. Click on the Add Column action button present at right side of Live button.
3. A pop-up will open which enables user to select from list of available columns to add it in the grid as shown in figure. Then, click on save button to add selected columns in view.

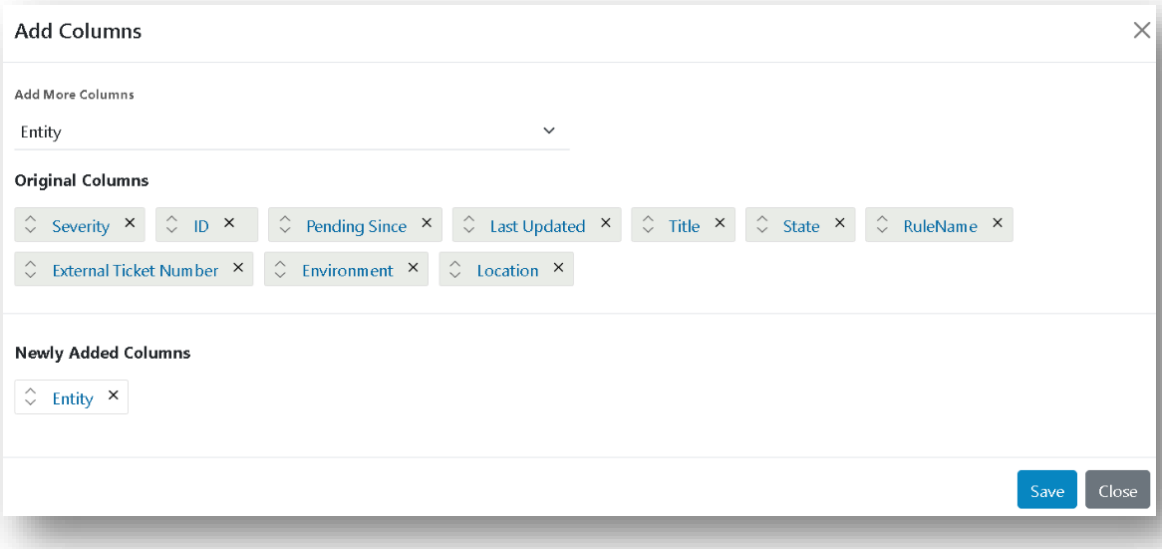

Figure 23 - Add Column

3.2.3.3 Related Changes and Related Problems

This view enables user to see related changes and problem corresponding to entity for which actionable has been created as this could one of root cause for change and problem creation. Below are steps for accessing related changes and problems.

1. Click on a particular actionable on Data View-Actionable screen, it will open up pop-up window.
2. Next, click on Related Changes or Related Problems tab.
3. Related changes and problems will be populated in card as shown in figure.

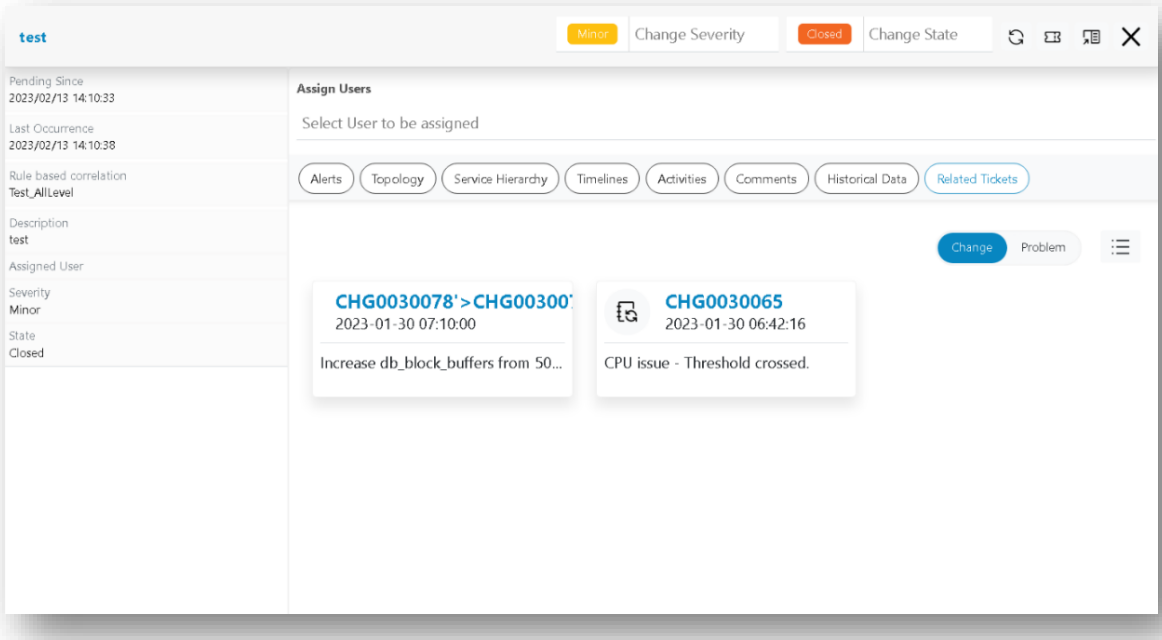

Figure 24 - Related Changes

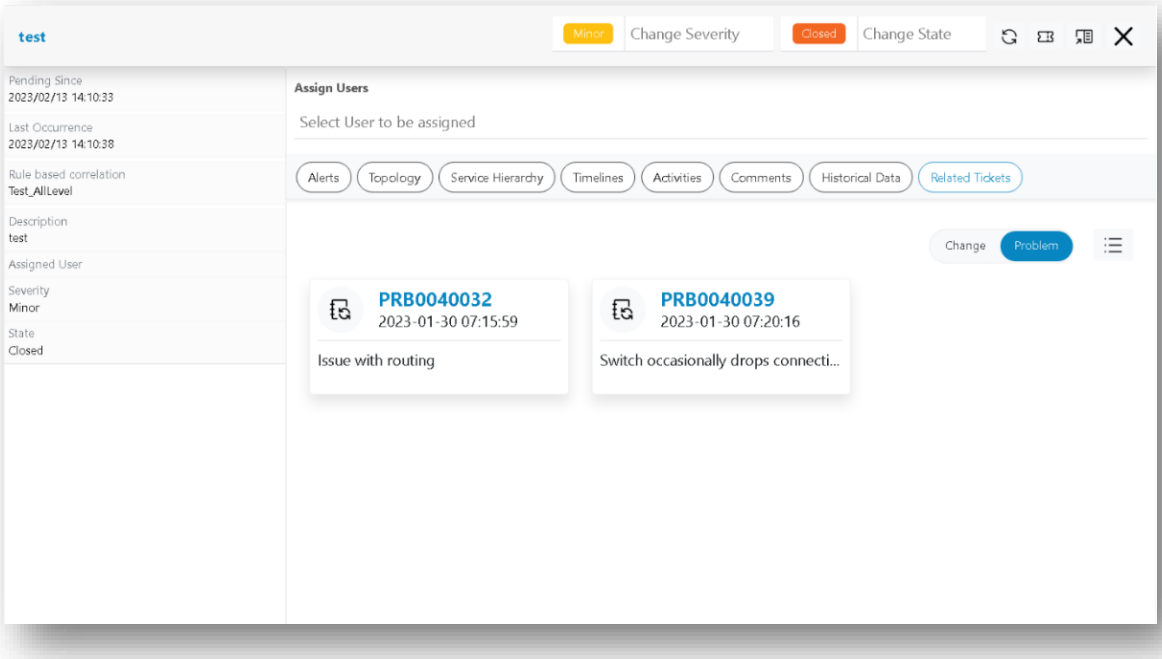

Figure 25 - Related Problems

3.2.3.4 Chat Bot

The steps involved to initiate a chat with a particular user over the chat window are given as follows: HCL IEM enables collaboration amongst team members via chat room functionality. It also provides integration with HCL Lucy in case operator wants to fetch some information related to actionable over which user is working on:

1. Click on a particular actionable on Data View-Actionable screen, then go to pop up opened for the actionable.
2. Click on the chat icon present over the header of the actionable popup.
3. Actionable title resembling issue description is mentioned over the chat window. The user can initiate chat with the invited user as shown.

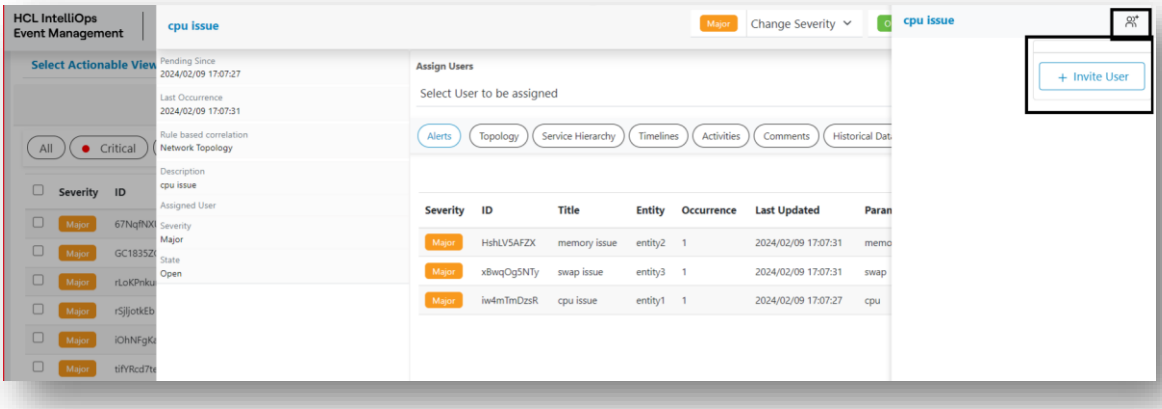

Figure 26 - Chat Bot

4. After Click on + Invite User, user can select the user from dropdown shown below.

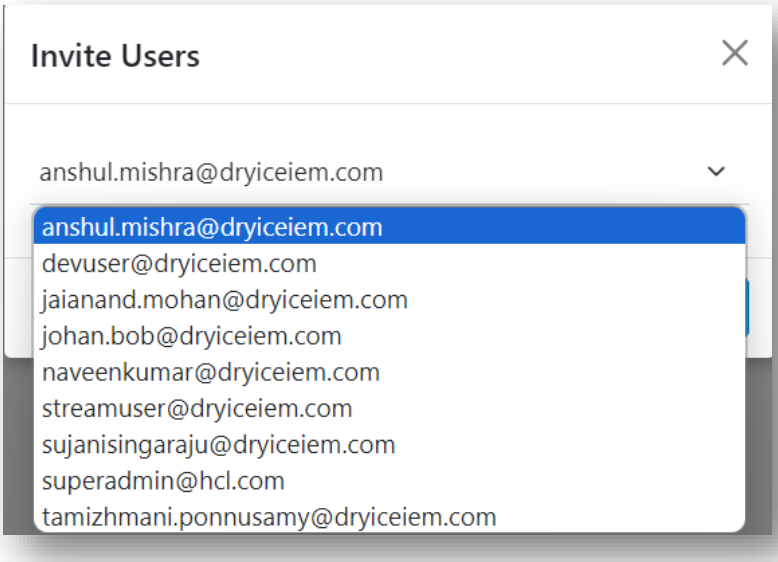

Figure 27 - Invite User

5. After successful invitation, confirmation message will be displayed.

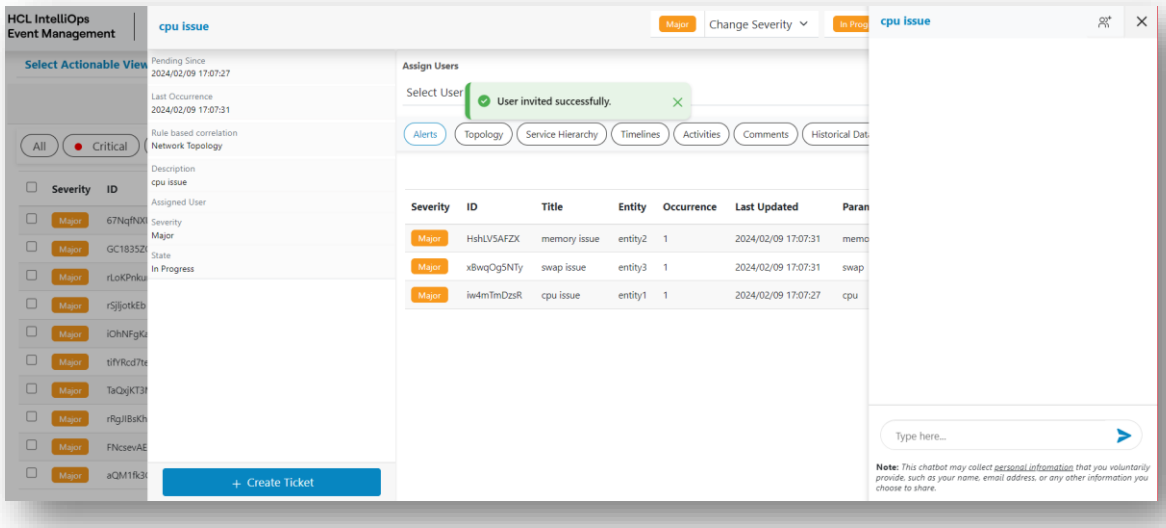

Figure 28 - Alert Message

3.2.3.5 Add Comments

HCL IEM enables user to provide comments that user has been performing while solving issues. Please follow below steps to add comments in actionable screen:

1. Click on a particular actionable on Data View-Actionable screen, a pop-up window will open up that will show all information like related alerts, related changes, related problems, timeline view, topology view, service topology view etc.
2. Click on the Comments header present in the actionable popup.
3. Details of comments along with posted user will be displayed over screen.
4. It also provides an option to search for a specific comment by entering text in search box.

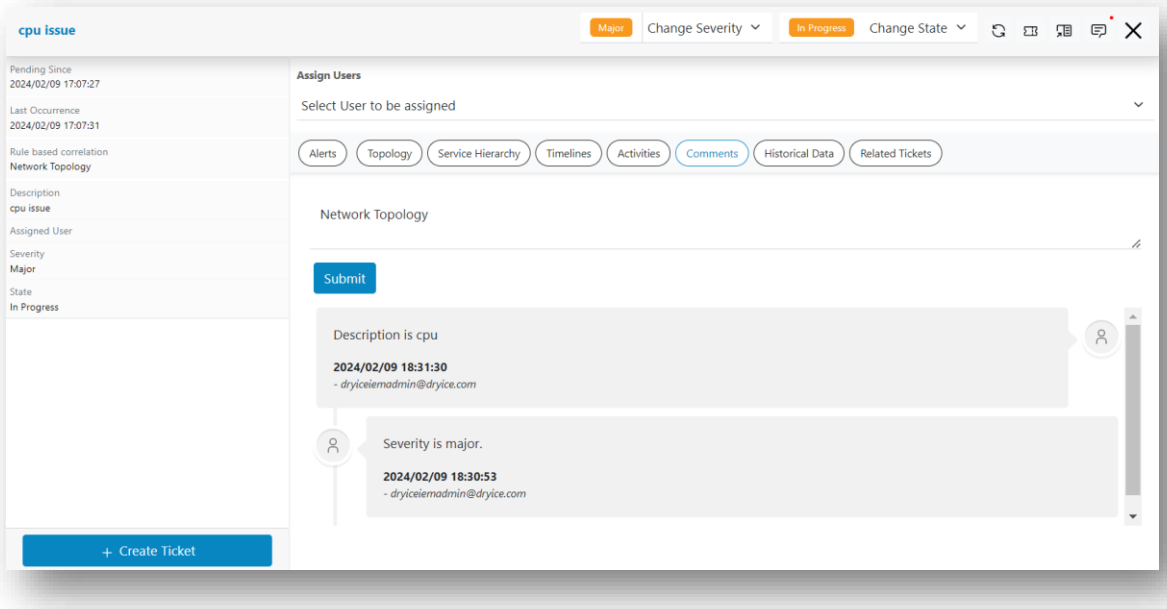

Figure 29 - Add Comments to Actionable

3.2.3.6 Activities

HCL IEM records list of activities system or user has performed while analysing events, alerts and actionable. Please follow below steps to list out activities:

1. Click on a particular actionable on Data View-Actionable screen, a pop-up window will open up that will show all information like related alerts, related changes, related problems, timeline view, topology view, service topology view etc.
2. Click on the Activities header present in the actionable popup.
3. Detailed view of changes in the logs for that actionable and its related activities will be visible as shown.
4. Search tab is present to specifically search for a log present in the activity view.

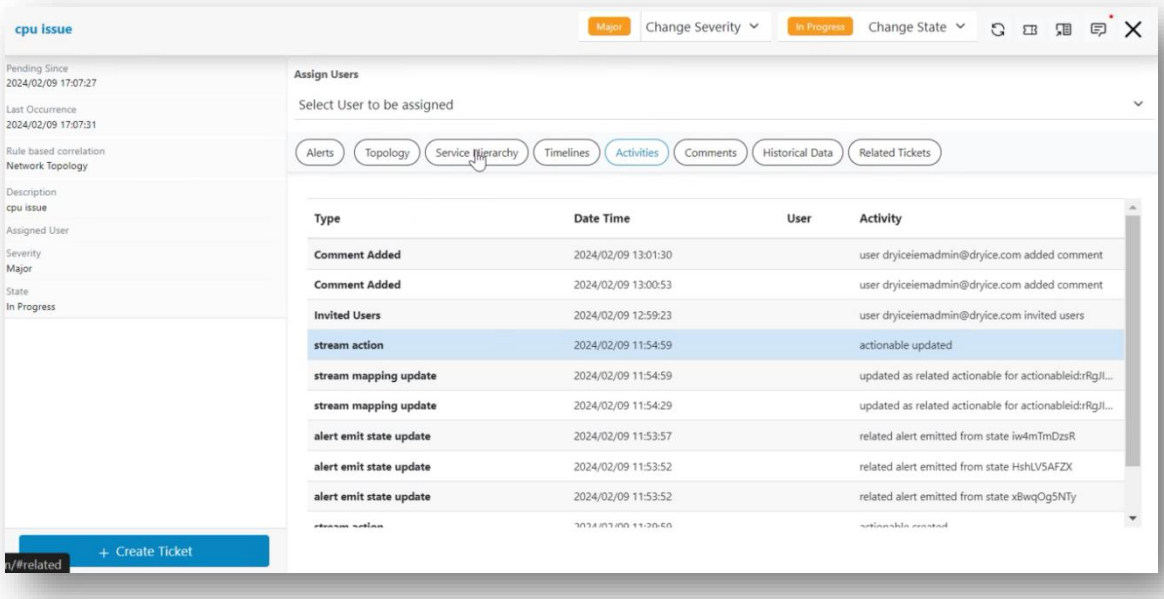

Figure 30 - Activities

3.2.3.7 Historical Data

HCL IEM enables operators to view similar actionable related to current actionable. This works by comparing entity+parameter combinations for current actionable and compare with historical actionables to identify and populate matching actionables. Please follow steps to view similar actionables.

1. Click on a particular actionable on Data View-Actionable screen, a pop-up window will open up that will show all information like related alerts, related changes, related problems, timeline view, topology view, service topology view etc.
2. Click on the Historical Data header present in the actionable popup.
3. Historical Data containing details of similar actionable will be displayed and details can be seen while scrolling from left to right for similar actionable.

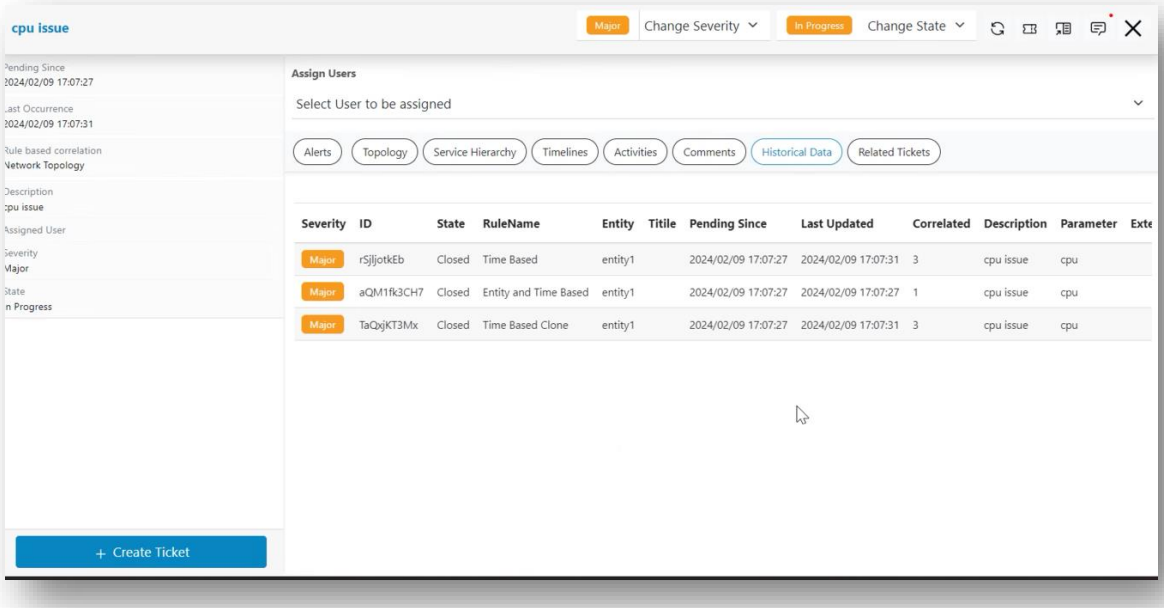

Figure 31 - Similar Actionable

3.2.3.8 Service Hierarchy

HCL IEM provides service hierarchy view to for service corresponding to which actionable got created. This enables operator to understand what other service can be impacted due to this. Please follow below steps to access service hierarchy tab:

1. Click on a particular actionable on Data View-Actionable screen, a pop-up window will open up that will show all information like related alerts, related changes, related problems, timeline view, topology view, service topology view etc.
2. Click on the Service Hierarchy tab present in the actionable popup.
3. Service Hierarchy provides visualization of services relationships along with their impact based on current events in system.
4. Impacted services can be highlighted as per configured color codes and level of impact.

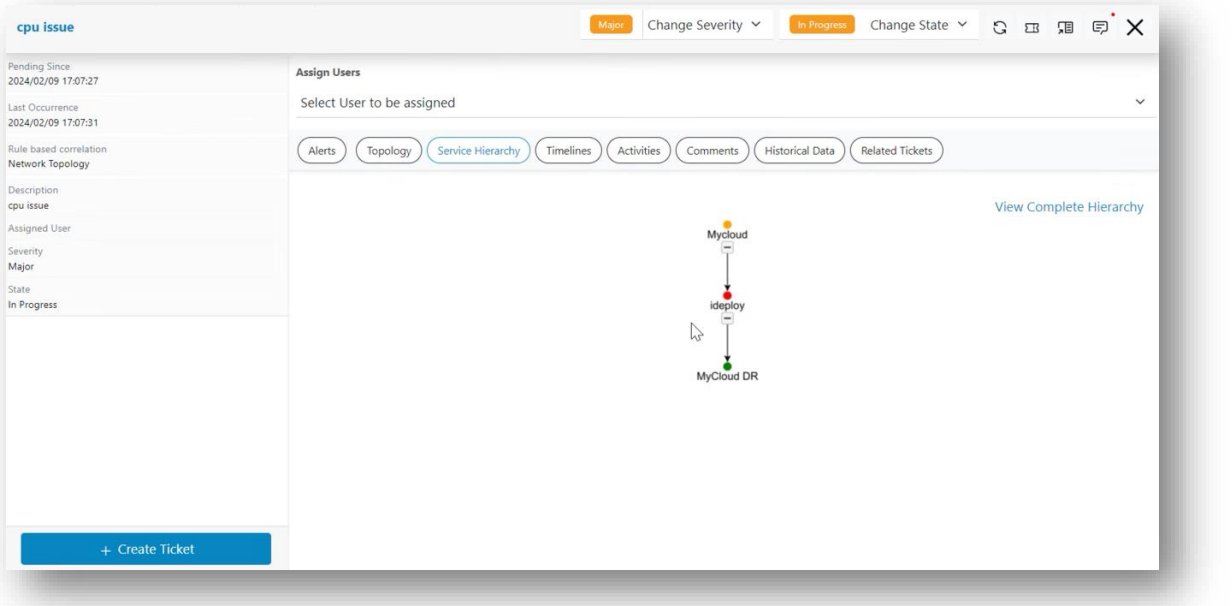

Figure 32 - Service Hierarchy

3.2.3.9 TimeLine

Visualizing complete timeline when event came in, when alert got created and how actionable got combined is very difficult to understand. HCL IEM provides a way to present this information in timeline manner where events, alerts and associated actionable will be shown over time scale. Please follow below steps to access timeline view:

1. Click on a particular actionable on Data View-Actionable screen, then go to pop up opened for the actionable.
2. Click on the Timelines header present in the actionable popup.
3. Timeline view will be visible under the header, and details can be seen while scrolling from top to bottom to check the timestamp of events and alerts for that actionable.
4. Entity, Parameter, Description and Timestamp are displayed for Event/Alert/ Actionable in the timeline view.

5. There are different icons for differentiating between events, alerts and actionable, and different color codes as per severity.

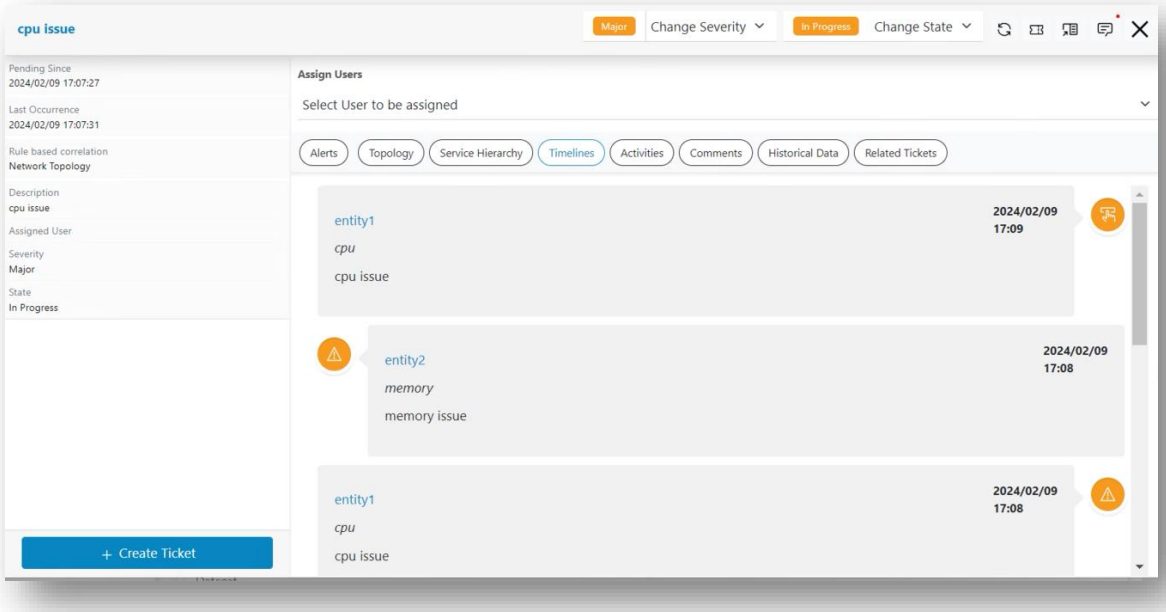

Figure 33 - Timelines

3.2.3.10 Change Severity

Operators can modify severity of actionable based on their understanding. Please follow below steps to change severity of actionable.

1. Click on a particular actionable on Data View-Actionable screen, then go to pop up opened for the actionable.
2. Click on the severity Clear/Indeterminate/Warning/Minor/Major/Critical as shown.
3. A dialog box would appear for confirmation.

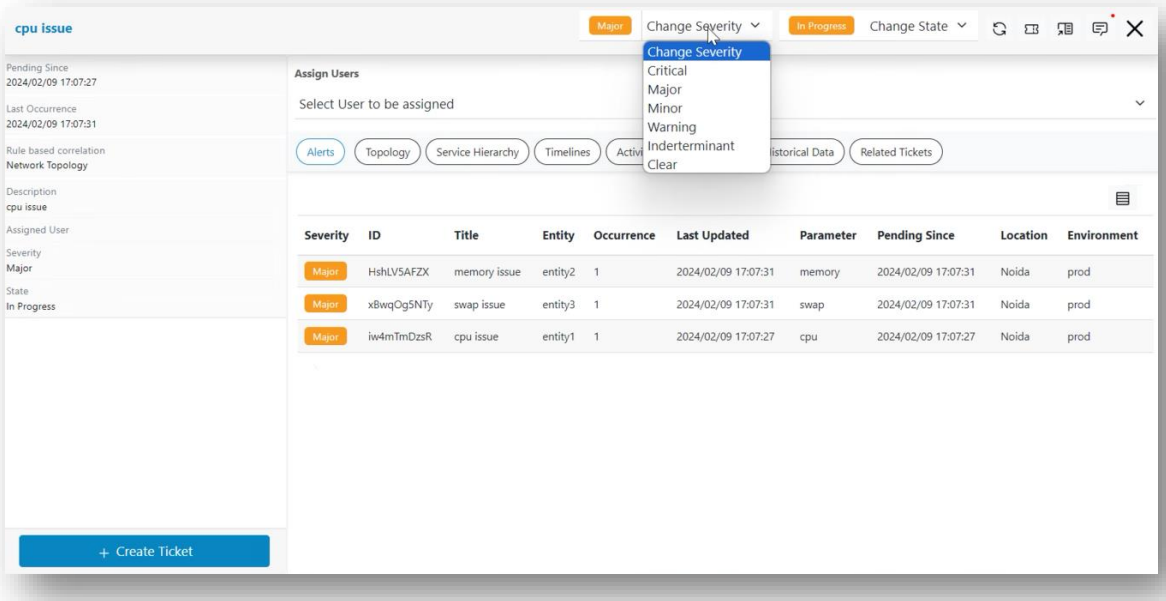

Figure 34 - To Change Severity of Actionable

3.2.3.11 Change State

Operators can modify or change status of actionable based on current state of work. Please follow below steps to change status of an actionable.

1. Click on a particular actionable on Data View-Actionable screen, then go to pop up opened for the actionable.
2. Click on the status Open/Assigned/In Progress/Resolved.
3. A dialog box would appear for confirmation.

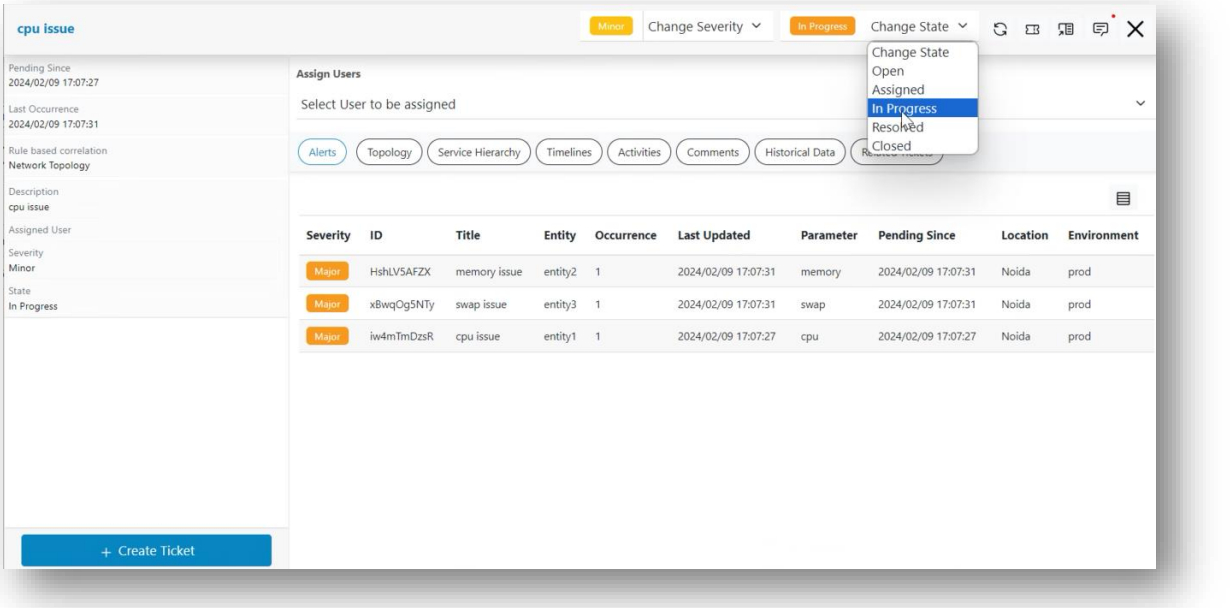

Figure 35 - To Change Status for Actionable

3.2.3.12 Assign Actionable to Another User

User with tenant admin role can assign actionable to their team members based on their availability. Please follow below steps to assign actionable to user.

1. Click on a particular actionable on Data View-Actionable screen, then go to pop up opened for the actionable.
2. Click on Assign to header present in the actionable popup. The dropdown list of users configured in the environment will be displayed.
3. Click on the user assigned for that actionable as shown.
4. Notification will be sent to the user after the actionable is assigned.
5. Notification will be sent to the user even when the assigned actionable will be released from the user.

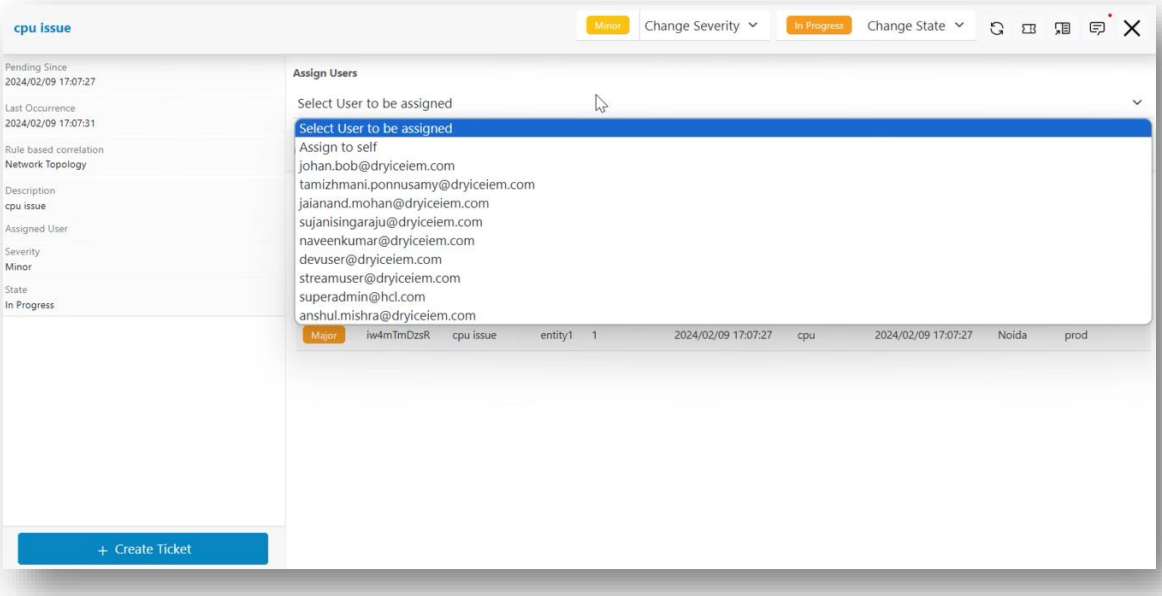

Figure 36 - Assign Actionable to Another User

3.2.3.13 Save As Actionable

This option will enable user to save currently opened view with columns populated in data grid so that same view can be shown to any other user in an organization. It is very helpful for admins to configure this kind of view for other users in an organization by creating a different view other than current view. For e.g., view to list out actionable with critical severity only. Please follow below steps to save as actionable:

1. In the top navigation bar, click on Data View and click on actionable.
2. Once the user can click the save as button, a pop-up will open to provide following information:
   - **View Name**: name of view like critical actionable
   - **Description**: description of view like list all critical actionable
   - **Show to**: Either it will be visible to user who is saving it or to other users.
3. View with name "Critical Actionable" is created.

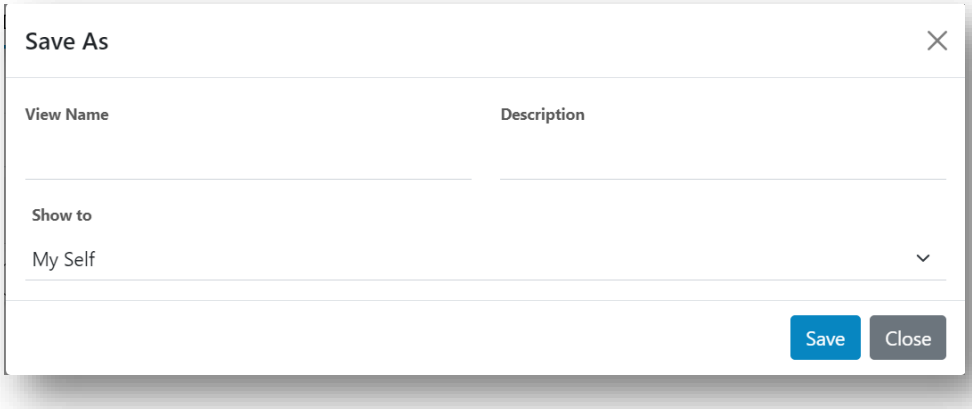

Figure 37 - Save As Actionable

3.2.3.14 Refresh Actionable

This option will enable user to refresh data grid to populate latest actionable data over screen.

Please follow below steps to refresh alerts grid:

1. In the top navigation bar, click on Data View and click on alerts.
2. Once the user clicks on Refresh button, confirmation pop up message will appear.

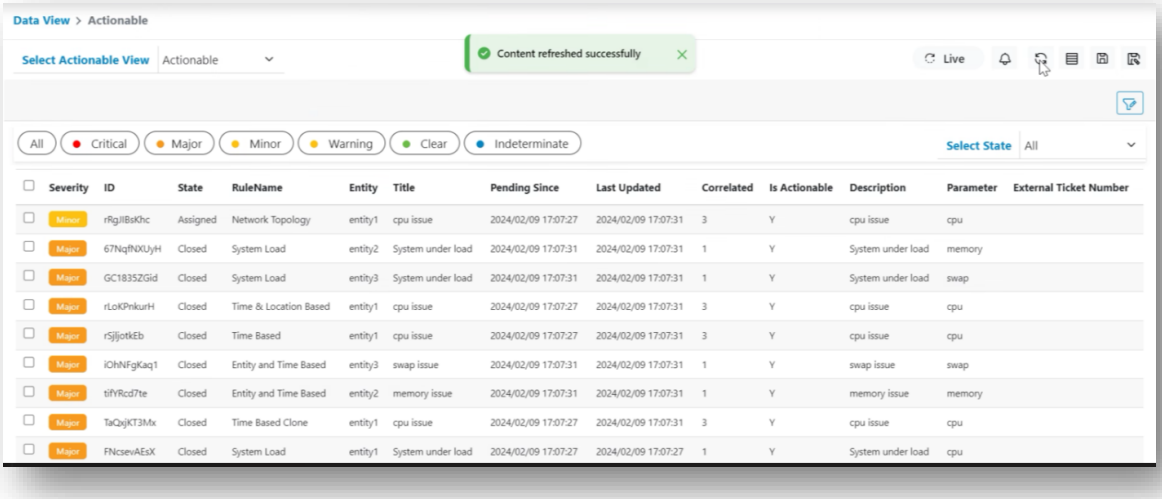

Figure 38 - Refresh time for Actionable

3.2.3.15 Live Actionable Data

This option will enable user to stop/start live update of data being shown in grid. Please follow below steps to enable/disable live actionable.

1. In the top navigation bar, click on Data View and click on actionable.
2. Users can see the Live Actionable Data, and this will be updated regularly.
3. To stop live data update, please click on Live button, it stops updating the live actionable data, a confirmation message will appear, stating that "Auto – refresh has been disabled."

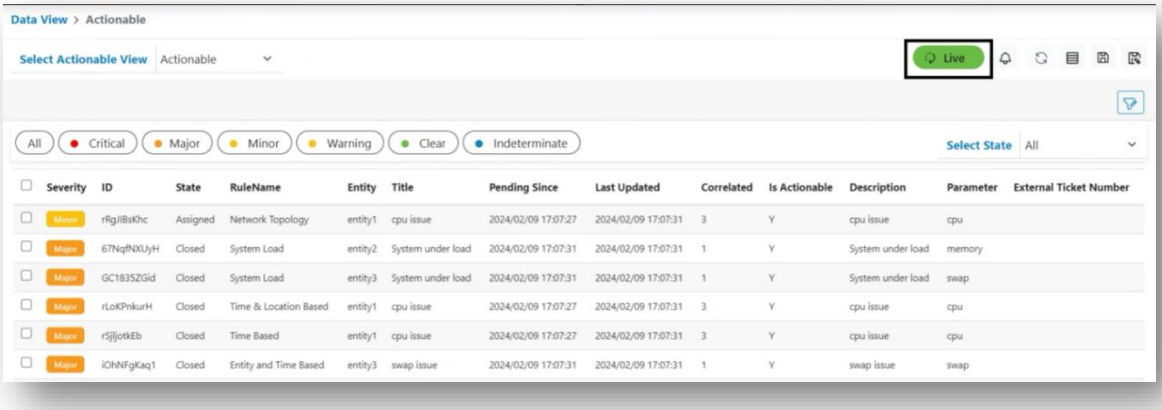

Figure 39 - Live Actionable Data

3.2.3.16 Related Alerts

This option will enable user to see related alerts for selected actionable to see what all alerts have been combined to create an actionable.

1. In the top navigation bar, click on Data View and click on actionable.

2. Click on a particular actionable on Data View-Alert screen, then it will populate list of related alerts as shown below in figure.

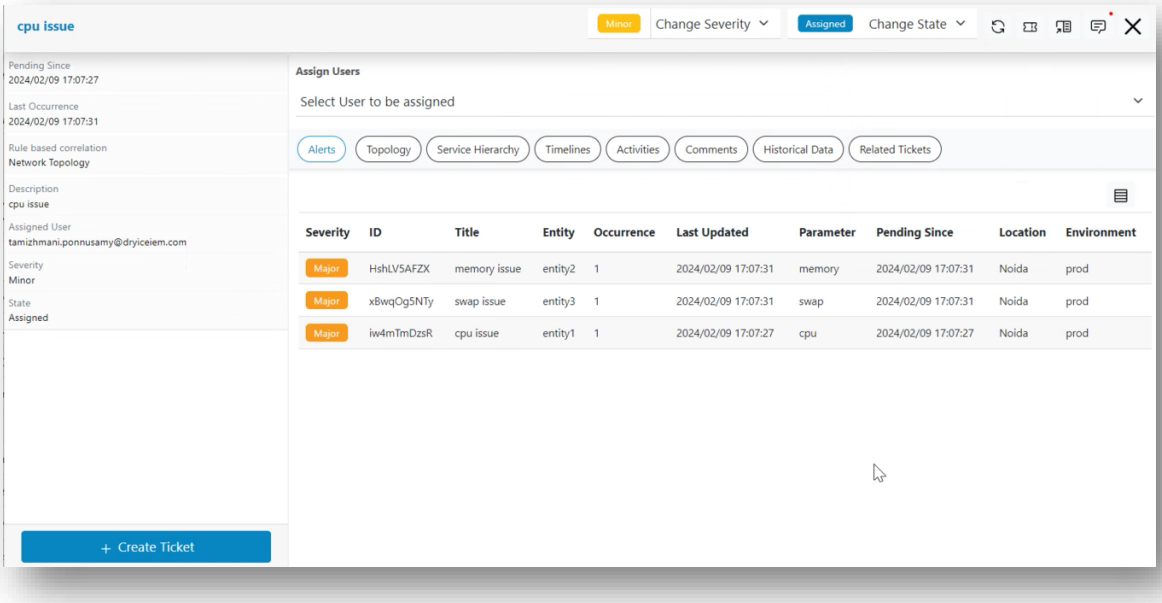

Figure 40 - Actionable Related Alerts

3.2.3.17 Topology

HCL IEM provides topology hierarchy view for entity corresponding to which actionable got created. This enables operator to understand what other entities can be impacted due to this. Please follow below steps to access topology tab:

1. Click on a particular actionable on Data View-Actionable screen, a pop-up window will open up that will show all information like related alerts, related changes, related problems, timeline view, topology view, service topology view etc.
2. Click on the topology tab present in the actionable popup.
3. Topology provides visualization of entities relationships along with their impact based on current events in system.
4. Impacted entities can be highlighted as per configured color codes based on level of impact on Impacted entities.

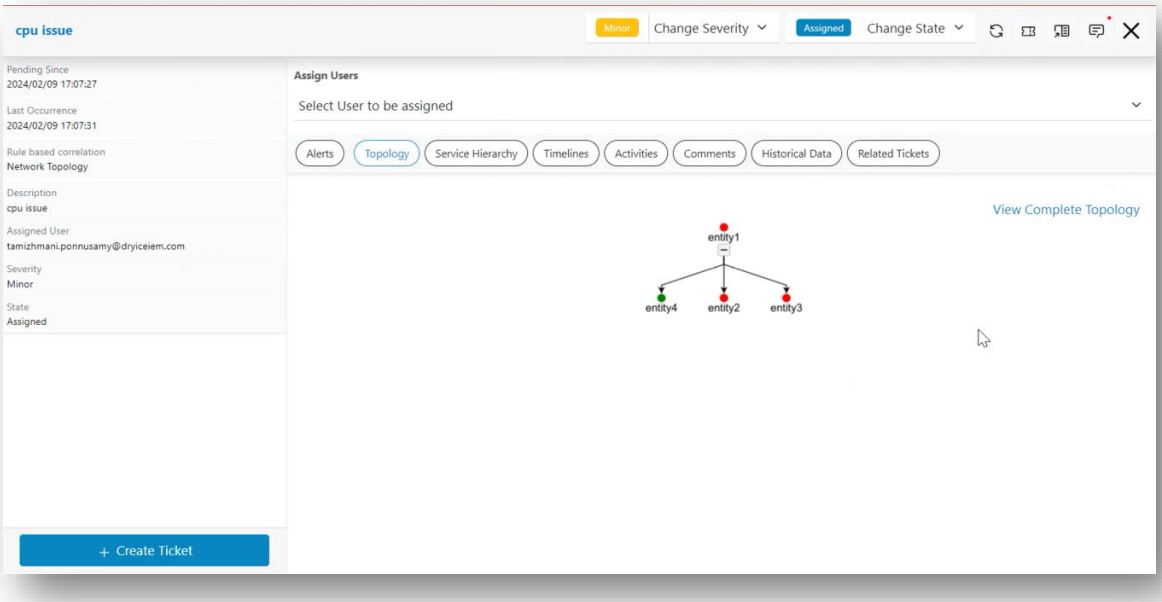

Figure 41 - Topology

3.2.3.18 Create Ticket

HCL IEM enables operator to create ticket if not created automatically as part of configured correlation rule. Please follow steps to create ticket for an actionable in HCL IEM.

1. Click on a particular actionable on Data View-Actionable screen, then go to pop up opened for the actionable.
2. Click on the + create ticket icon present in the actionable popup.

Only operator with relevant role would be able to create ticket in SNOW.

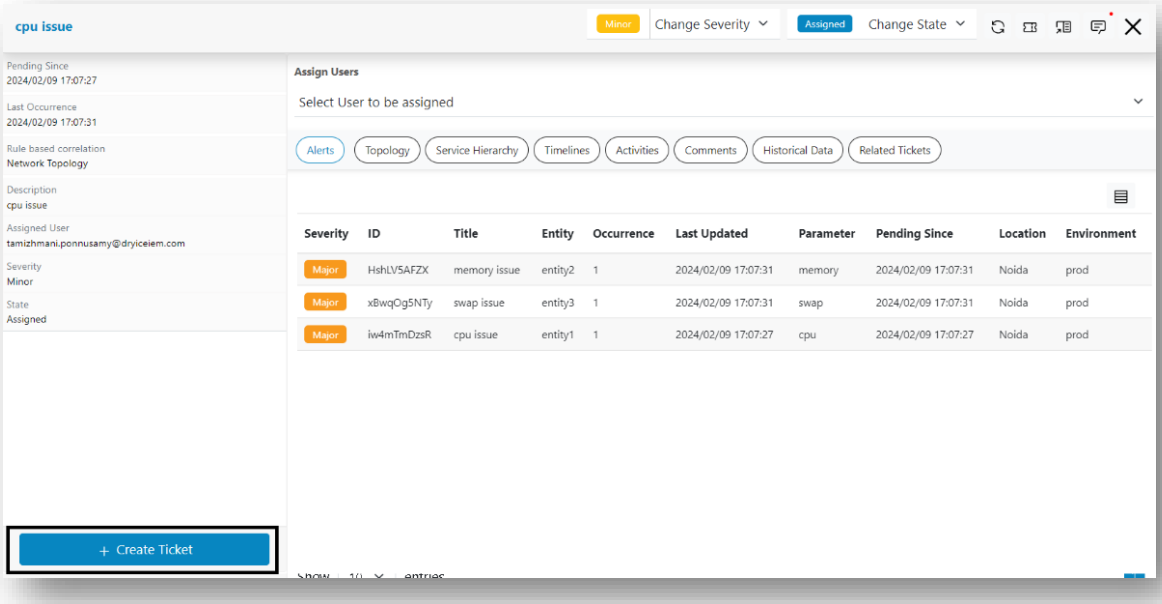

Figure 42 - Create Ticket

4. A confirmation pop up message will appear.

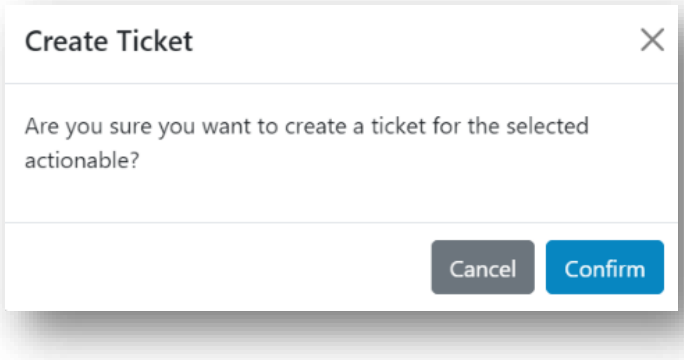

Figure 43 - Create Ticket Confirmation

3. Users can Create Ticket to an actionable by clicking on the confirm button.

3.2.3.19 Apply Filters

This option will enable user to apply filters over currently opened view to see data of specific values. For e.g., to see list of critical actionable, user can set filters over severity columns of actionables' data. Please follow below steps to apply filters:

1. In the top navigation bar, click on Data View and click on actionable.
2. Click on the filter option present at right side of Live button as shown in figure.

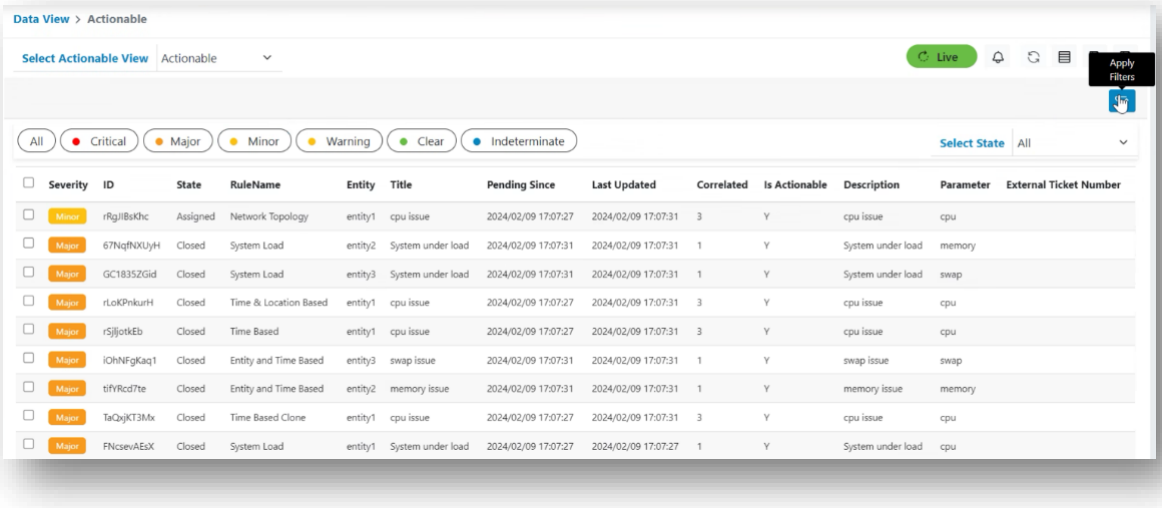

Figure 44 –Filter Operation

3. A filter screen will come up which enables user to select field and corresponding operator along with value to filter data as shown in figure.

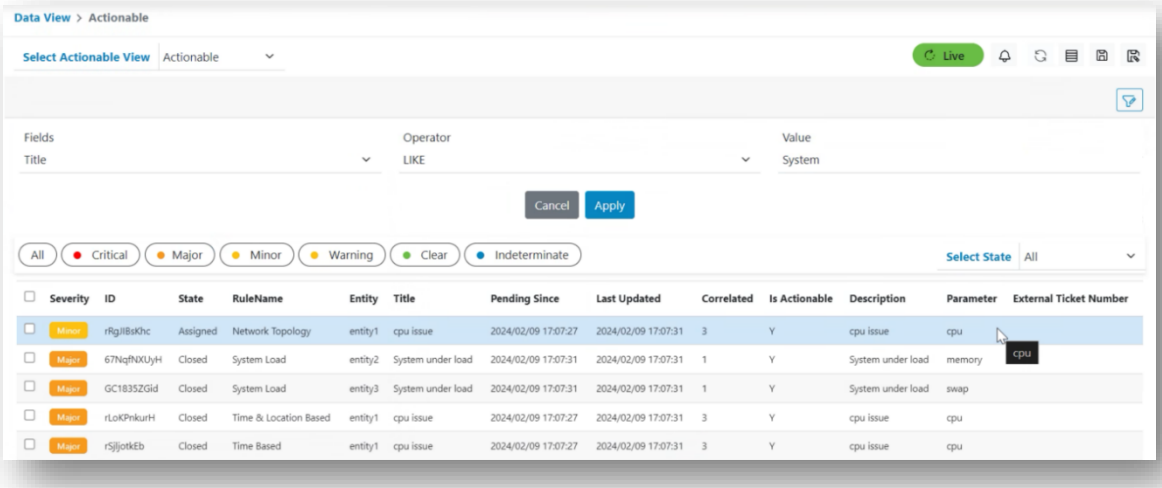

Figure 45 – More Filter Operation

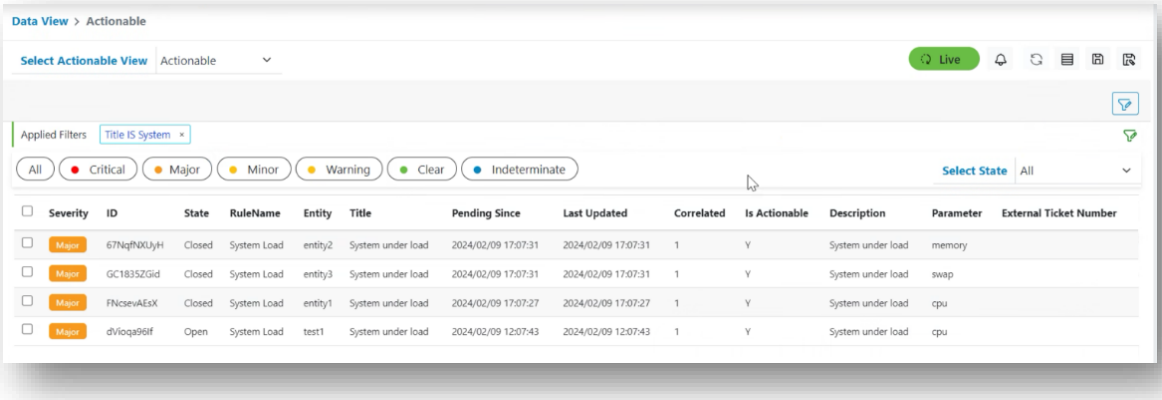

Figure 46 – More Filter Operation

4. Users can see the result of applied filter.

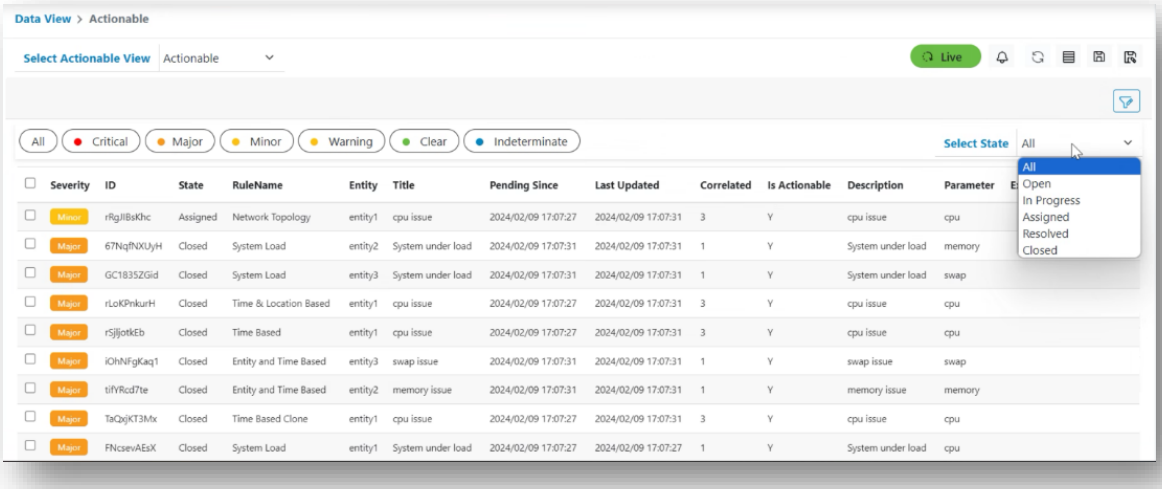

Figure 45 – Select State Operation

3.2.4 All Events View

All Events View includes a grid which contains all events data that is coming to the system. It includes noise events as well as non-noise events.

Please follow below steps to view All Events data:

1. In the top navigation bar, click on Data View and click on All Events.
2. All Events data will be displayed for the customer to which user is part of.

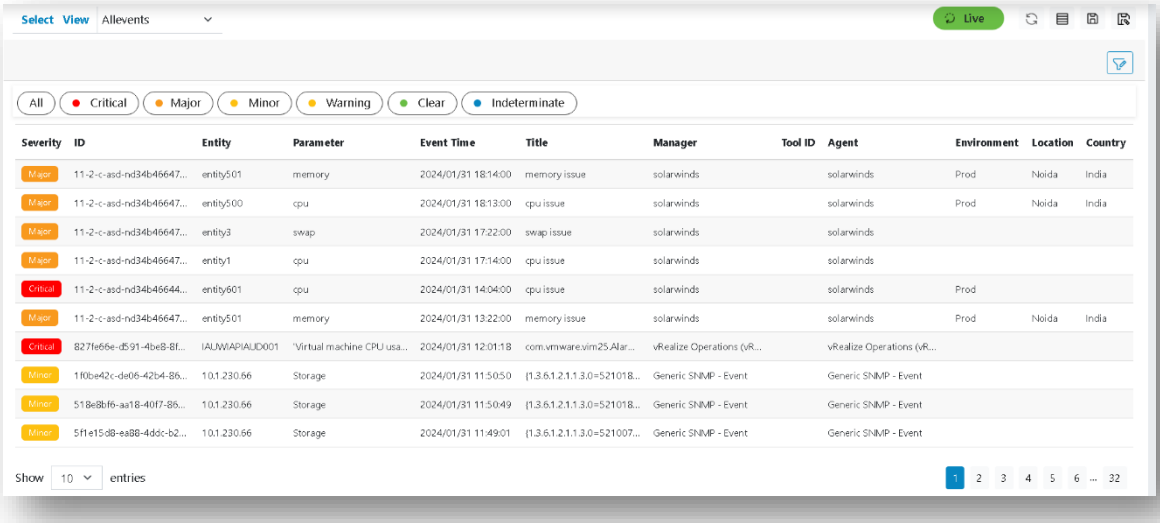

Figure – All Events View

3.2.4.1 Add Column

This option will enable user to add more columns in data grid to analyze it deeply. Please follow below steps to add columns to data view.

1. In the top navigation bar, click on Data View and click on All Events.
2. Click on the Add Column action button present at right side of Live button.
3. A pop-up will open which enables user to select from list of available columns to add it in the grid as shown in figure. Then, click on save button to add selected columns in view.

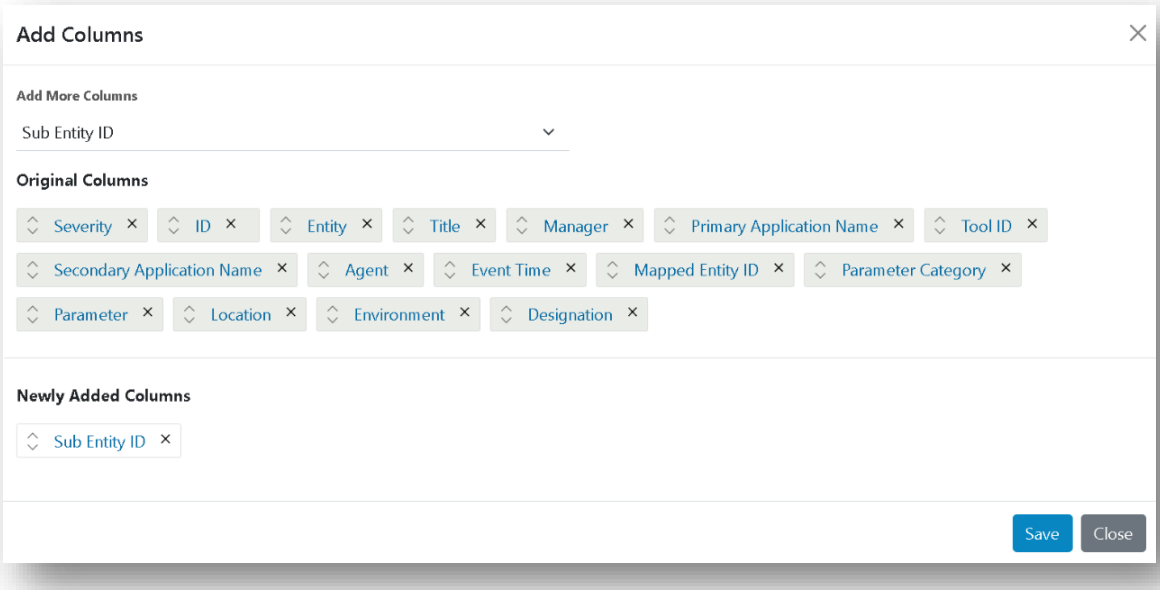

Figure 47 – Add Column

3.2.4.2 Save As All Events

This option will enable user to save currently opened view with columns populated in data grid so that same view can be shown to any other user in an organization. It is very helpful for admins to configure this kind of view for other users in an organization by creating a different view other than current view. For e.g., view to list out all events with critical severity only. Please follow below steps to save as events:

1. In the top navigation bar, click on Data View and click on All Events.
2. Once the user can click the save as button, a pop-up will open to provide following information:
   - **View Name**: name of view like critical events
   - **Description**: description of view like list all critical events
   - **Show to**: Either it will be visible to user who is saving it or to other users.

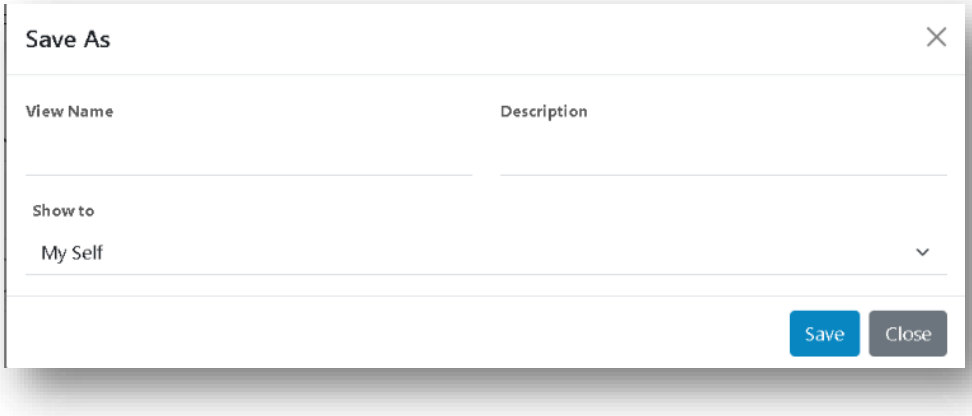

Figure 48 – Save as Events

3. Next, click on save button to save view and this view will be available in list for users.

3.2.4.3 Refresh All Events

This option will enable user to refresh data grid to populate latest data over screen.

Please follow below steps to refresh events grid:

1. In the top navigation bar, click on Data View and click on All Events.
2. Once the user can click the Refresh button, confirmation pop up message will appear.

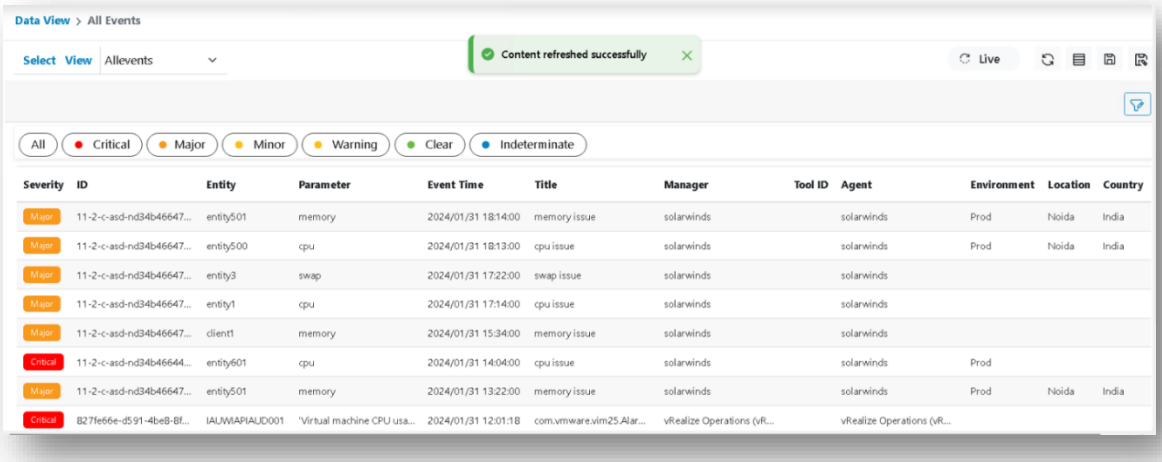

Figure 49 – Refresh All Events

3.2.4.4 Live All Events Data

This option will enable user to stop/start live update of data being shown in grid. Please follow below steps to enable/disable live events.

1. In the top navigation bar, click on Data View and click on All Events.
2. Users can see the Live All Events Data, and this will be updated regularly, and automatically refresh the grid.

3.2.4.5 Apply Filters

This option will enable user to apply filters over currently opened view to see data of specific values. For e.g., to see list of critical events, user can set filters over severity columns of all events 'data. Please follow below steps to apply filters:

1. In the top navigation bar, click on Data View and click on All Events.
2. Click on the filter option present at right side of Live button as shown in figure.

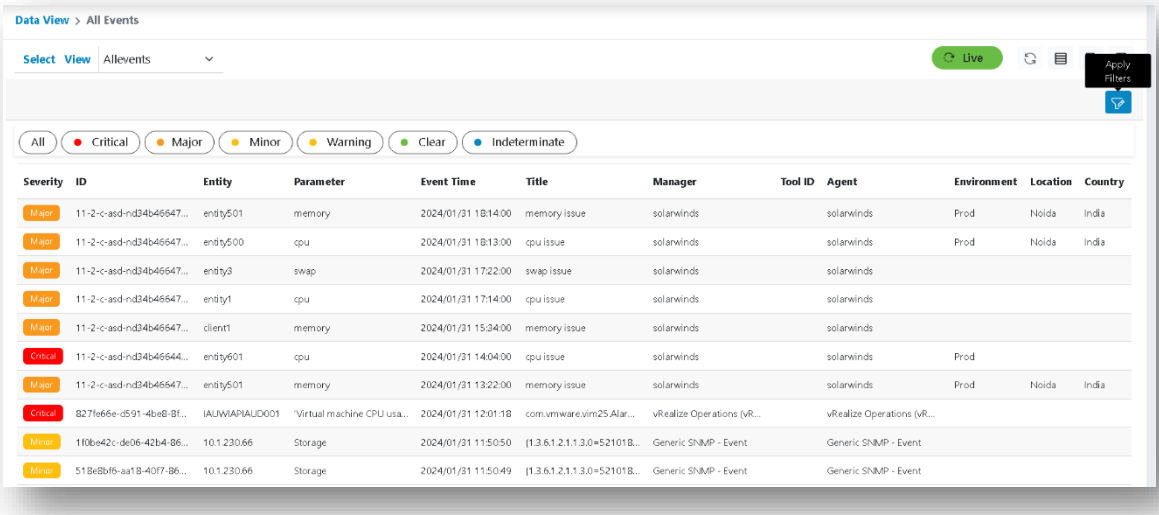

Figure 50 – Filter Operation

3. A filter screen will come up which enables user to select field and corresponding operator along with value to filter data.

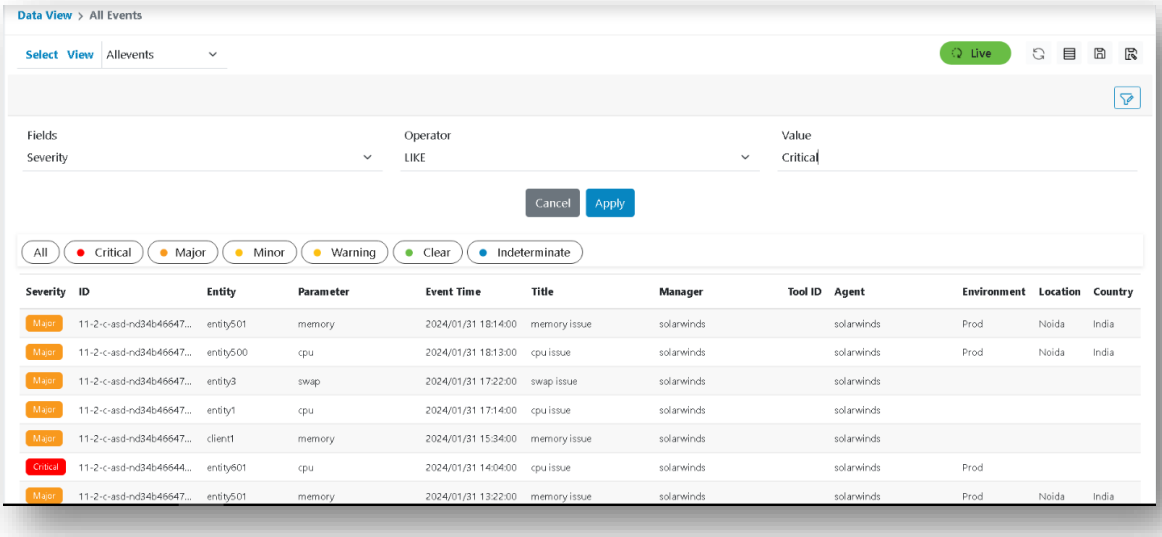

Figure 51 – Filter Operation

4. Users can see the result of applied filter.

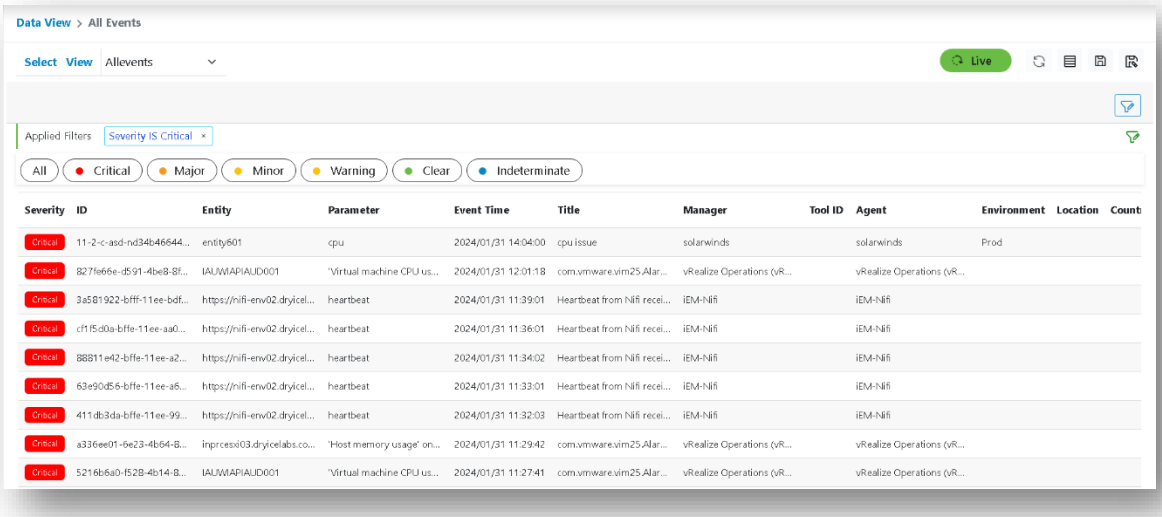

Figure 52 – Filter Operation

3.2.5 Noise Events View

Noise Events View includes a grid which contains all the noise events in a single grid.

Please follow below steps to view Noise Events data:

1. In the top navigation bar, click on Data View and click on Noise Events.
2. Noise Events data will be displayed for the customer to which user is part of.

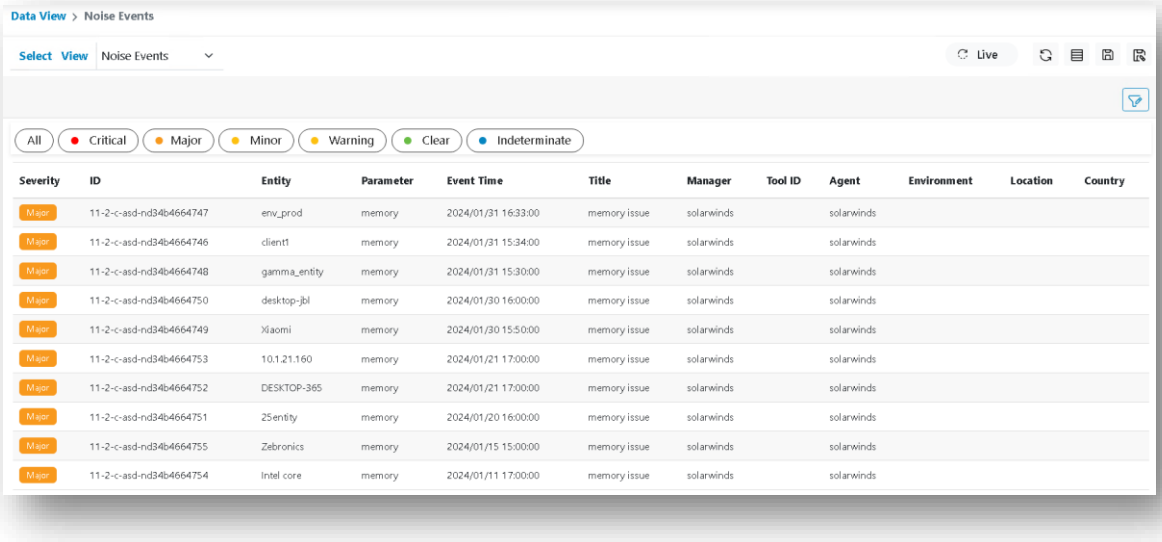

Figure 53 – Noise Events View

3.2.5.1 Add Column

This option will enable user to add more columns in data grid to analyze it deeply. Please follow below steps to add columns to data view.

1. In the top navigation bar, click on Data View and click on Noise Events.
2. Click on the Add Column action button present at right side of Live button.
3. A pop-up will open which enables user to select from list of available columns to add it in the grid as shown in figure. Then, click on save button to add selected columns in view.

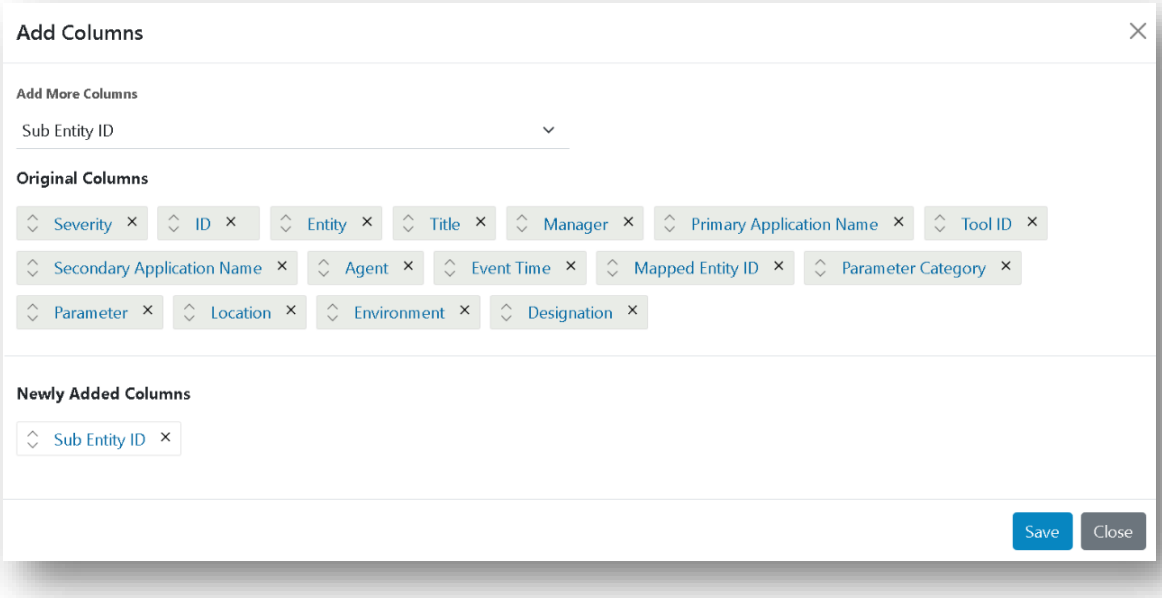

Figure 54 – Add Column

3.2.5.2 Save As Noise Events

This option will enable user to save currently opened view with columns populated in data grid so that same view can be shown to any other user in an organization. It is very helpful for admins to configure this

kind of view for other users in an organization by creating a different view other than current view. For e.g., view to list out noise events with critical severity only. Please follow below steps to save as events:

1. In the top navigation bar, click on Data View and click on Noise Events.
2. Once the user can click the save as button, a pop-up will open to provide following information:
   - **View Name**: name of view like critical noise events
   - **Description**: description of view like list all critical noise events
   - **Show to**: Either it will be visible to user who is saving it or to other users.

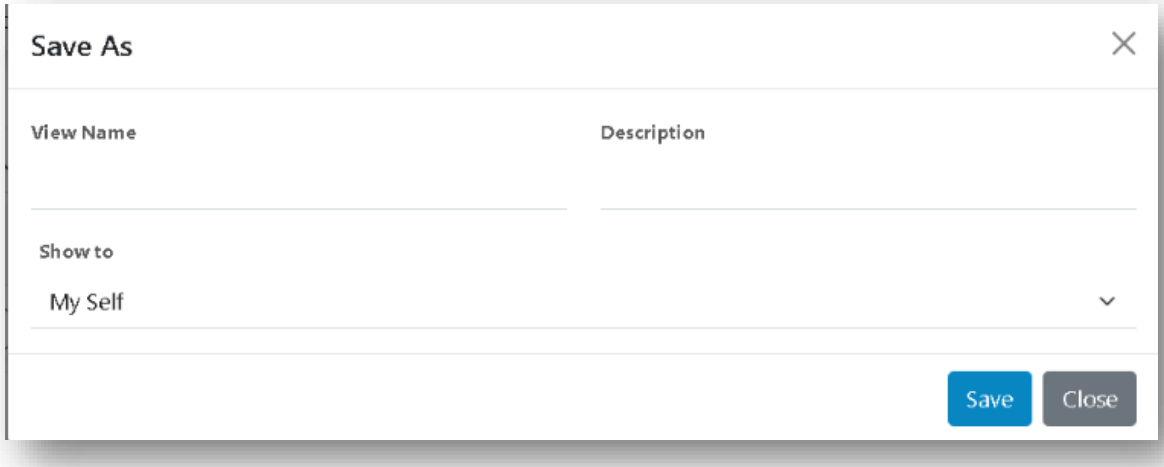

Figure 55 – Save as Events

3. Next, click on save button to save view and this view will be available in list for users.

3.2.5.3 Refresh Noise Events

This option will enable user to refresh data grid to populate latest data over screen.

Please follow below steps to refresh noise events grid:

1. In the top navigation bar, click on Data View and click on Noise Events.
2. Once the user can click the Refresh button, confirmation pop up message will appear.

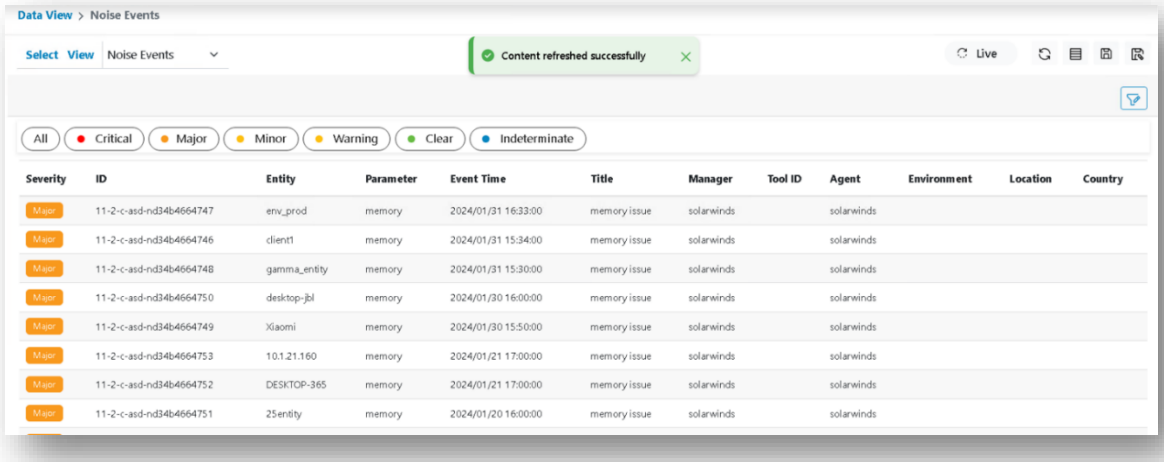

Figure 56 – Refresh Noise Events

3.2.5.4 Live Noise Events Data

This option will enable user to stop/start live update of data being shown in grid. Please follow below steps to enable/disable live noise events.

1. In the top navigation bar, click on Data View and click on Noise Events.
2. Users can see the Live Noise Events Data, and this will be updated regularly, and automatically refresh the grid.

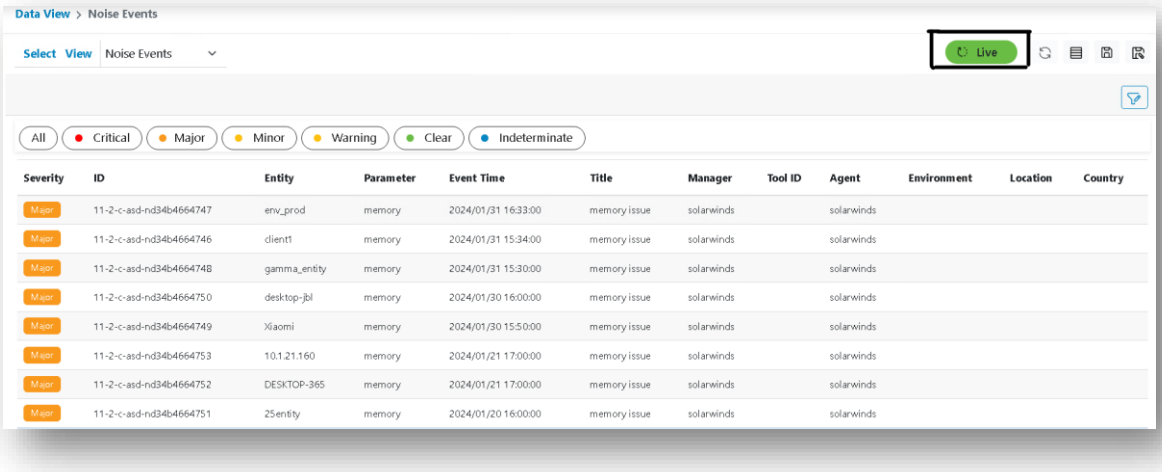

Figure 57 – Live Events Data

3. To stop live data update, please click on Live button, it stops updating the live noise event data, a confirmation message will appear, stating that "Auto – refresh has been disabled."

3.2.5.5 Apply Filters

This option will enable user to apply filters over currently opened view to see data of specific values. For e.g., to see list of critical noise events, user can set filters over severity columns of noise events data. Please follow below steps to apply filters:

1. In the top navigation bar, click on Data View and click on Noise Events.
2. Click on the filter option present at right side of Live button as shown in figure.

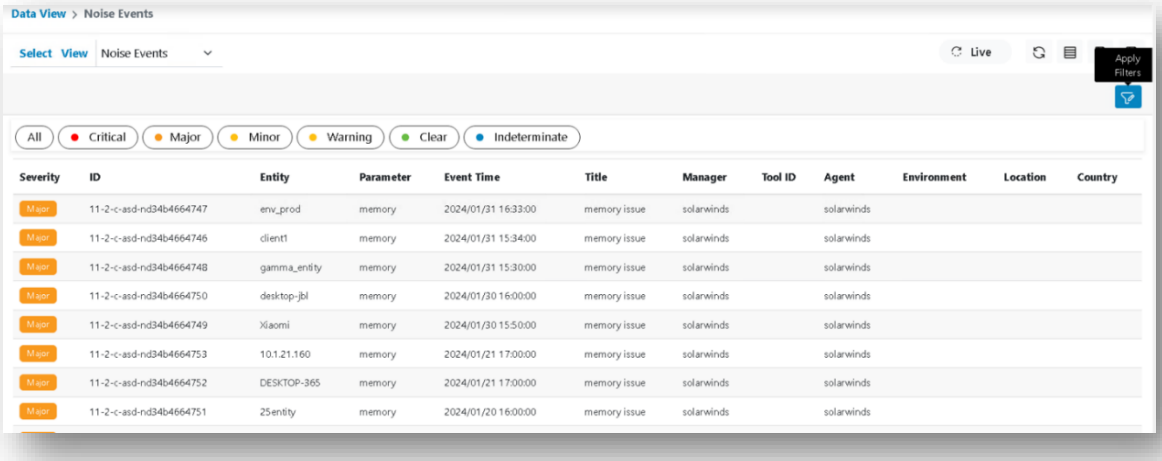

Figure 58 – Filter Operation

3. A filter screen will come up which enables user to select field and corresponding operator along with value to filter data.

3.3 Customer

The goal of customer onboarding in Event Management AIOps is to facilitate efficient introduction to the platform, ensuring that customers can quickly and effectively utilize the features of the system for managing events with the support of AI-driven capabilities.

3.3.1 Edit Customer

HCL IEM allows the user to edit the customer details with this option. When the user clicks on Edit Customer, the navigation panel will show the options that can be accessed by the user.

It includes: -

- Customer Details
- Noise Maintenance

1. Click on the **edit icon** corresponding to the name of the customer whose details are to be updated. The following screen appears:

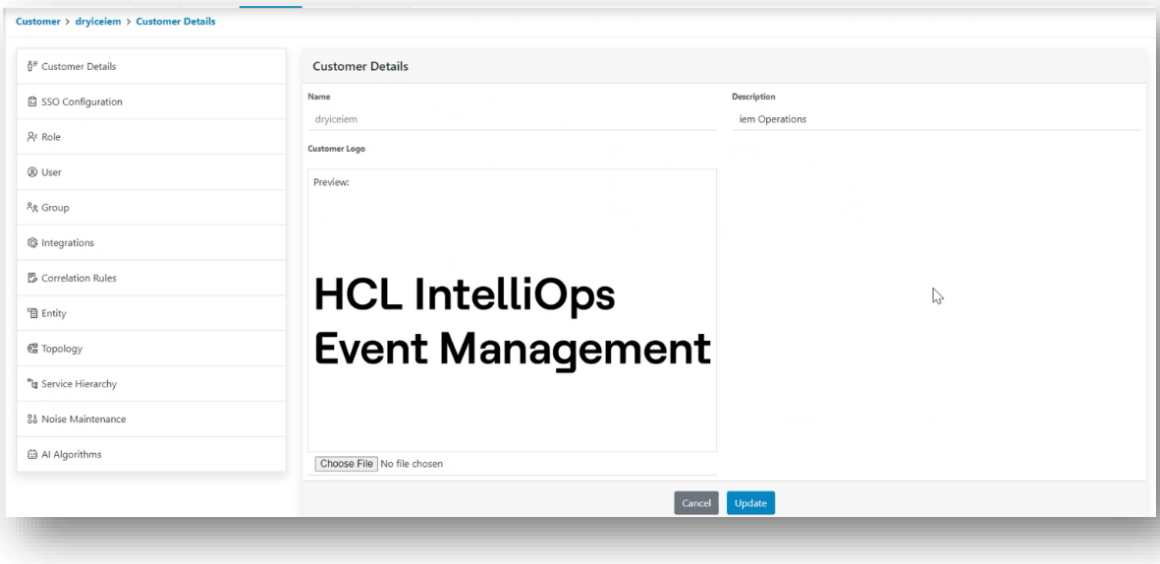

Figure 59 – Edit Customer

3.3.2 View Customer

1. To view the details of a customer, click on the view icon corresponding to the name of the customer whose details are to be viewed. Refer the following image:

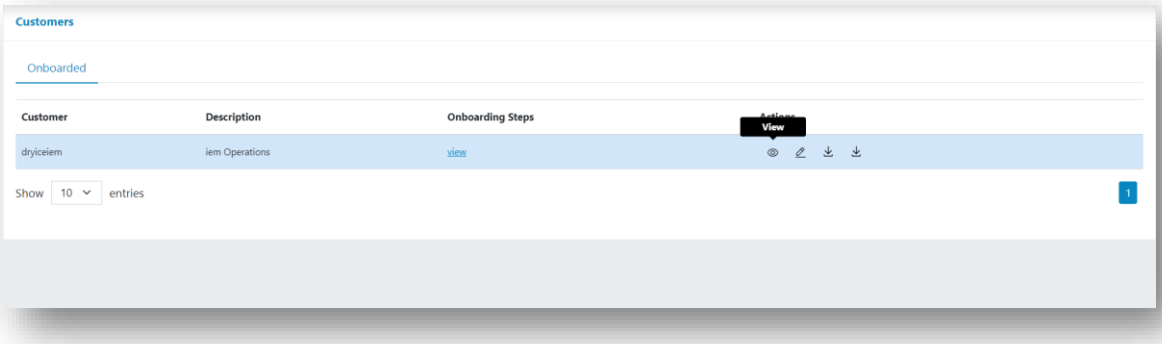

Figure 60 – View Customer

3.3.3 Noise Maintenance

Noise maintenance" refers to the ongoing process of managing and reducing the amount of irrelevant or non-actionable events, alerts, or data generated by the monitoring and detection systems. Noise, in this context, represents information that does not contribute to meaningful insights or indicate significant issues. Reducing noise is crucial for optimizing the efficiency of actionable detection, analysis, and resolution.

"Noise Maintenance Window" refers to a specific timeframe or scheduled period during which fine-tuning activities are performed to manage and reduce the noise generated by the monitoring and alerting systems.

This window allows IT teams to proactively address the issues related to false positives, irrelevant alerts, or unnecessary noise in the event data.

This section enables user to define rules for filtering out events data at the beginning of event data processing. User can perform actions based on their role.

Admin can see all the previously created noise rules by clicking on customer edit action button → **Noise/Maintenance** Window.

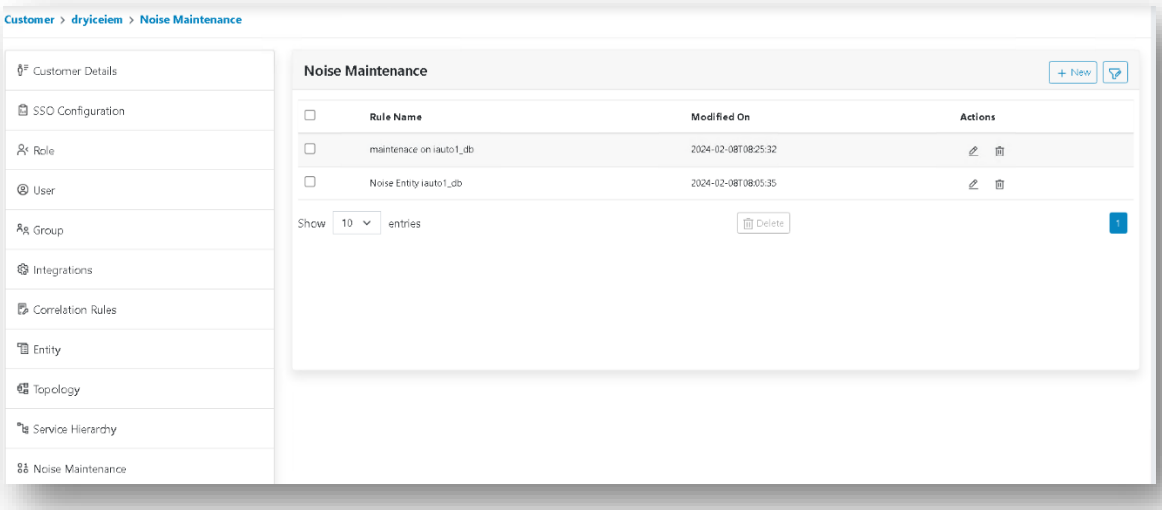

Figure 61 – Noise Maintenance

A user can perform the following actions:

- Add Noise
- Edit Noise
- Delete Noise
- Apply Filters

Rules can be created from the **Entity** screen. Please refer to the ***IEM Configuration Guide → Entity*** section. These rules are prefixed with the action i.e., whether it is a Noise, or a Maintenance configuration followed with the Entity name. From the screen user can create rule-based entity id only.

3.3.3.1 Add Noise

Noise rules can be configured as required, by following the steps given below:

1. Click on **+ New** button at the top of the grid to create a new rule. The following screen appears:

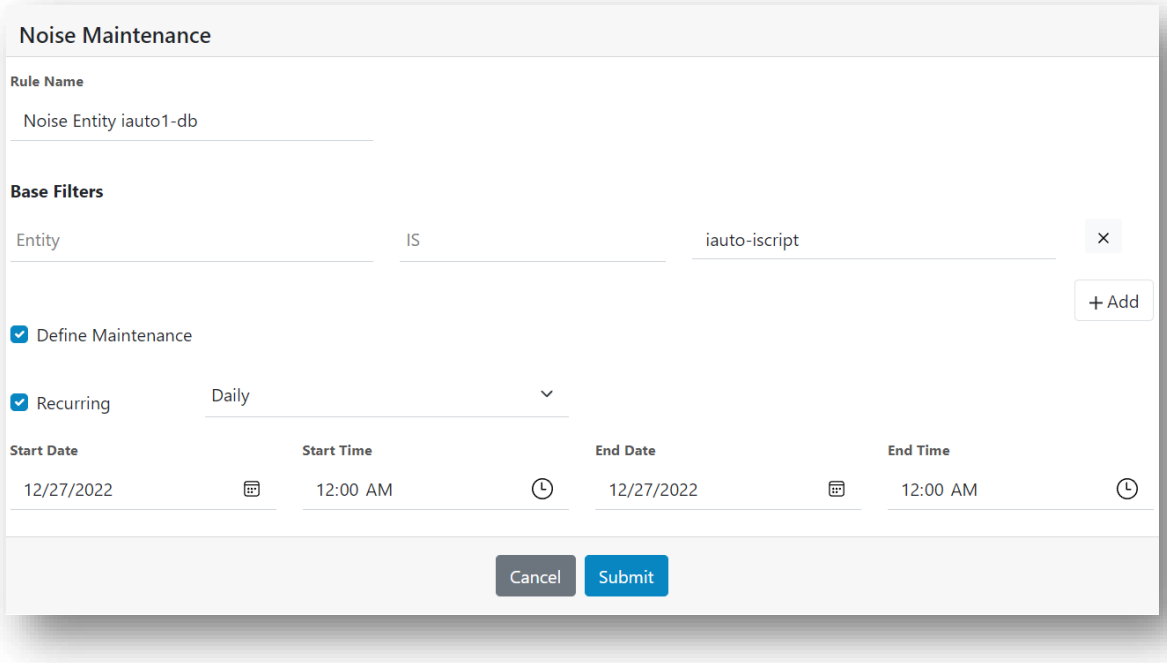

Figure 62 – Creating Noise Rule

2. Enter the **Rule Name**.
3. In the base filters field, select the **Entity,** then select operator then give value. Users can add many base filters by clicking on **+Add** button.
4. User can define **maintenance** window and **Recurring**.
5. Add the required fields then click on the **submit** action button.

3.3.3.2 Edit Noise

Edit the rules based on requirement, base filters can be added, or maintenance window can be modified (change the time interval or dates interval etc.)

Rule name cannot be edited.

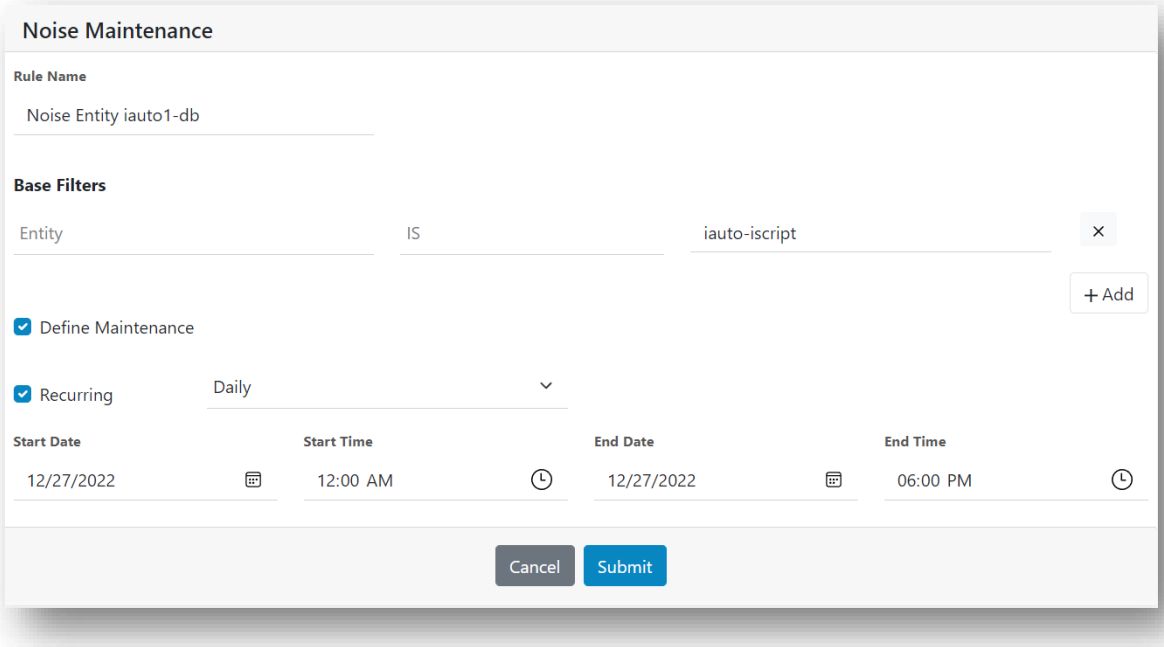

Figure 63 – Updating Noise Rule

3.3.3.3 Delete Noise

1. User can delete noise rules using delete action button.
2. Select the rule(s) to be deleted by clicking on the corresponding checkbox.
3. Click on the **delete** action button (bulk/single selection).

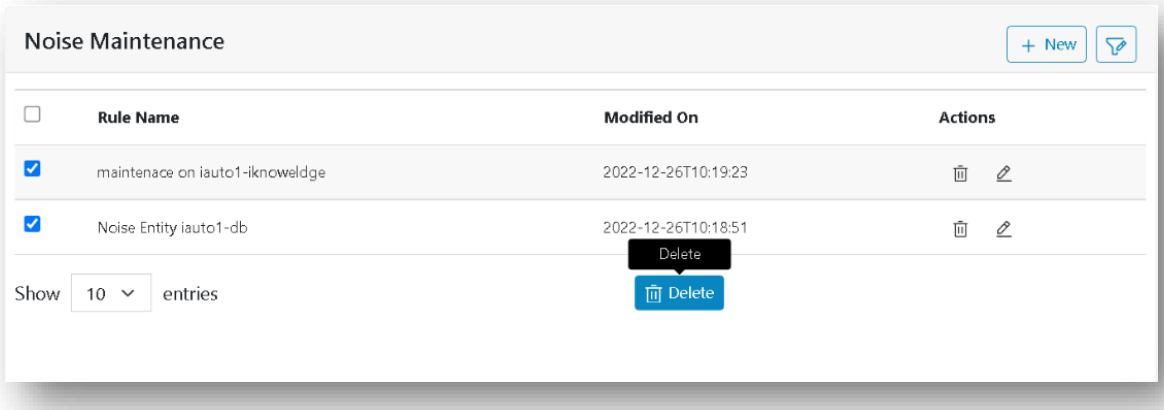

Figure 64 – Bulk Delete Noise Rule

4. The following popup will appear.

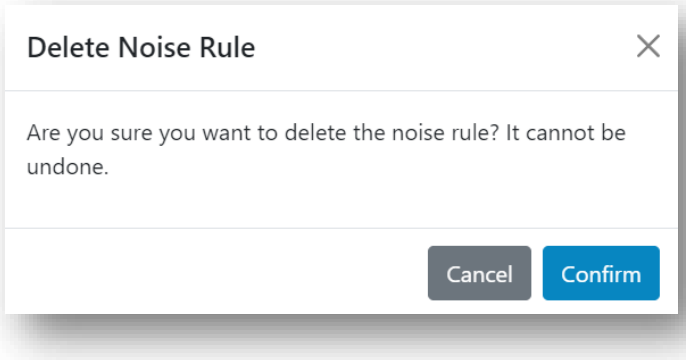

Figure 65 – Confirmation Pop-up

5. Click on **Confirm**. Noise rules will be deleted.

3.3.3.4 Apply Filter

1. Click on the **Apply filter** action button present at the below header of the console.
2. The form will appear from where the user can select **field** and **operator** from the drop-down list and provide value. Then click on the **apply** button.

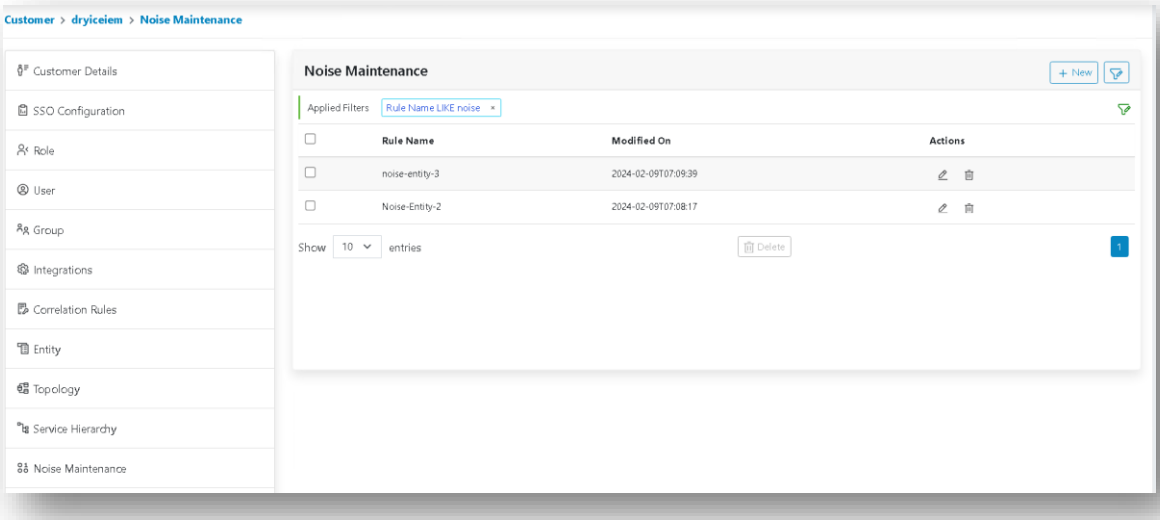

Figure 66 – Noise Maintenance – Apply Filter

3.3.3.4.1 Health Check

A health check module is a crucial component of HCL IEM alongside which enables admin to monitor the status and performance of deployments, such as NiFi endpoints, and integrations at HCL IEM-IMM's end. With this module, admin can regularly assess the health of these components, ensuring they are functioning optimally and identifying any potential issues before they escalate. By providing real-time insights into the health of deployments and integrations, the module empowers admin to take proactive measures to maintain system reliability and prevent disruptions.

Through this module, user can manage Health check for Deployments (NiFi endpoints) and Integrations (adapters) through below steps:

1. On the Main Menu bar, click **Health Check**.

2. The **Health Check** screen appears, and it lists down the available Deployments and Integrations.

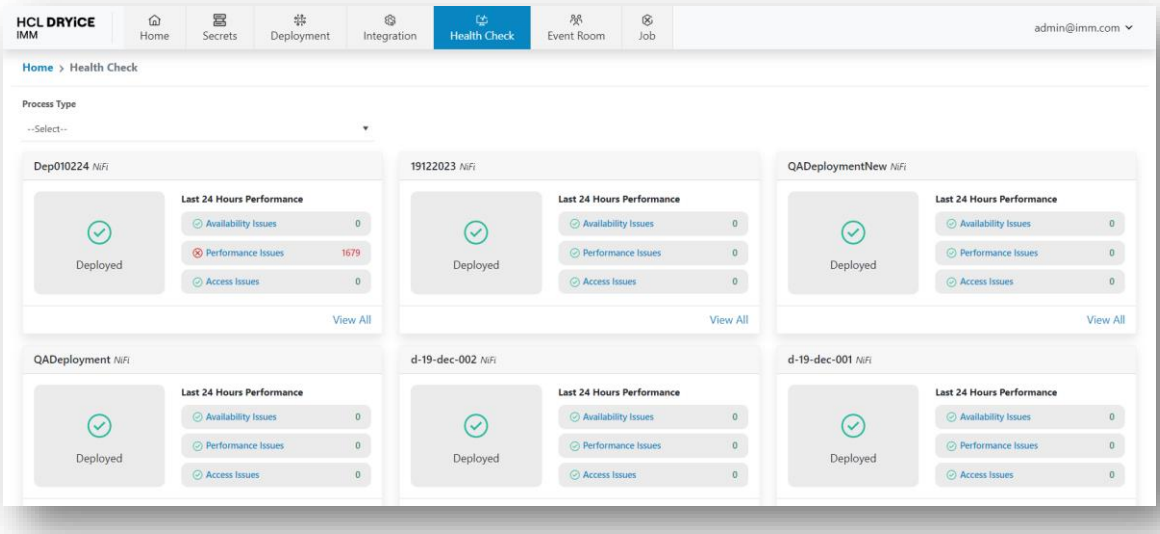

Figure 67 – Health Check

3. Using **Process Type** dropdown, user can filter the tile accordingly.

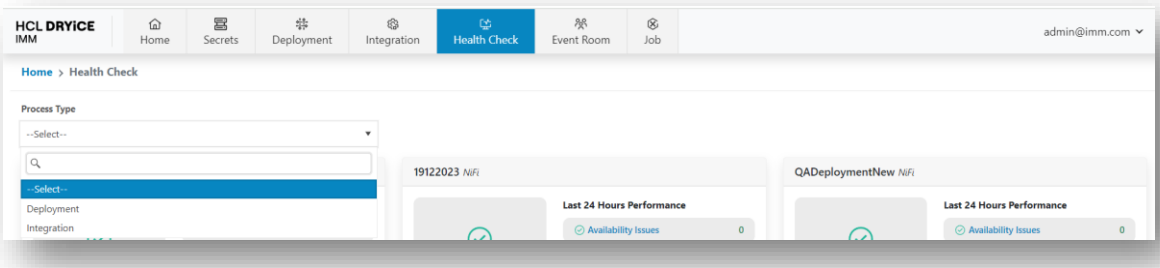

Figure 68 – Process Type

4. Each tiles categorized the issues in three categories:
   - Availability
   - Performance
   - Access
5. To View detailed logging click on **View All** link on each tile. It will provide the details of KPI corresponding to each category.

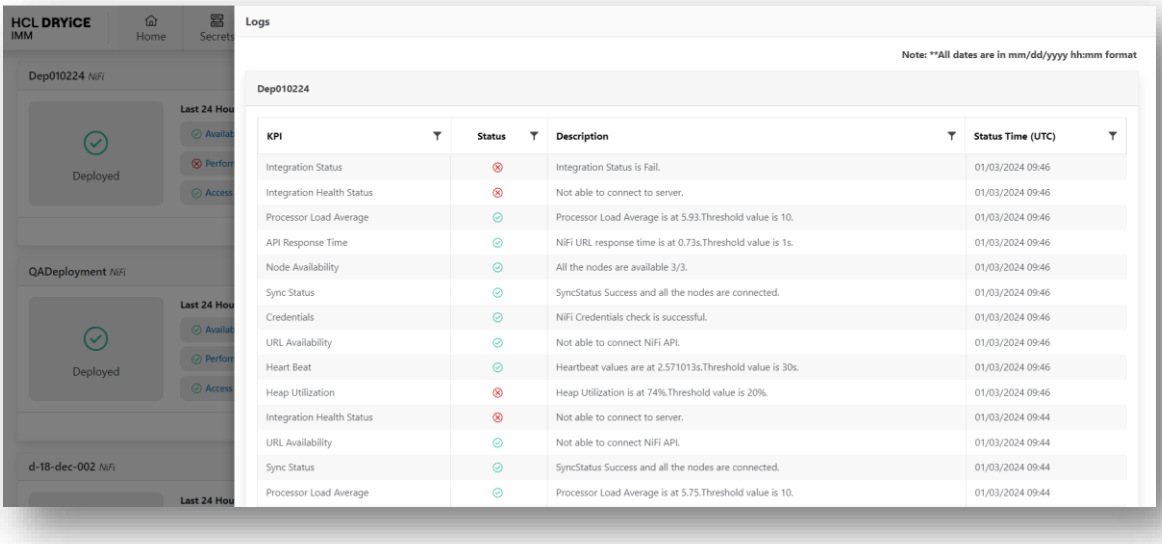

Figure 69 – Logs (KPI Details)

Refer the below table to understand the fields mentioned in the above figure.

Table 12 – View Health Check Logs field

Fields	Description
KPI	Displays the KPI Name.
Status	Displays the Status Success or Fail.
Description	Displays the Description.
Status Time	Display the Status Time.

3.3.3.4.2 Event Room

The Event Room serves as a dedicated space alongside the HCL IEM where administrators can monitor events that have not been successfully transmitted by NiFi to HCL IEM. This module provides visibility into the events that are currently queued or pending transmission, allowing administrators to identify any issues or bottlenecks in the data transfer process.

By displaying queued events in the Event Room, administrators can quickly assess the status of data transmission and take appropriate actions to address any issues. This might include investigating the root cause of transmission failures, resolving connectivity issues, or optimizing data transfer configurations.

Through this module, user can view the events data which NiFi is not able to send to IEM portal. The events data is categories into four categories (Event, Metrics, Service, Entity).

Kindly follow the below steps to access Event Room:

1. On the Main Menu, click **Event Room.** The **Event Room** screen appears.

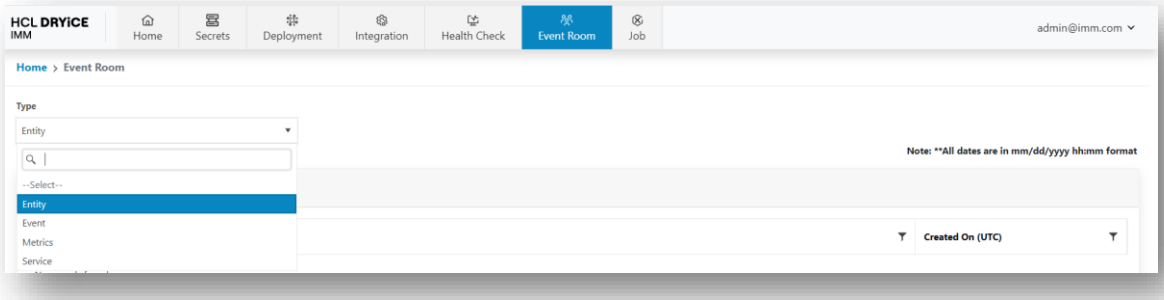

Figure 70 – Event Room Type

2. Select the appropriate category from the **Type** dropdown. The following options available:
   - Entity
   - Event
   - Metrics
   - Service
3. On selecting the type, the grid will be populated with the events data pushed by NiFi in IMM DB.

4 Support

To get support for this product, please drop an email to IMM-Product-Supp@hcl.com.

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