PAESSLER PRTG NETWORK MONITOR

ITOps Board

User Guide

Release 3.20

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CHAPTER 1

Introduction

Document Purpose and Intended Audience

This document provides information about how to use ITOps Board to analyze and manage data from multiple PRTG servers.

This guide is intended for use by administrators and operators.

Revision History

Document Date	Description
February 26, 2025	ITOps BoardUser Guide Release 3.20

CHAPTER 2

About ITOps Board

ITOps Board is a powerful IT analytics solution that consolidates the information from multiple PRTG servers into a single system. It pulls alerts and health state information from your PRTG installations and allows you to unify them in groups. These groups are known as either boards or business services. Consolidating the information from various systems allows you to quickly see the overall health status of a system.

ITOps Board provides tools that you can use to model your monitoring data in the way that best suits your business.

CHAPTER 3

About the Interface

The ITOps Board main menu allows you to manage boards, business services, and administrative settings.

The following sections describe each of the menu options and the functionality they provide:

- "Data Analysis" on page 8
- "Explore" on page 1
- "Settings" on page 21
- "Help" on page 23

Data Analysis

The Data Analysis menu provides access to boards and business services, which allow you to model data in the way that best suits your needs. For information, see the following sections:

- "Boards" on page 8
- "Business Services" on page 9

Boards

Use the Boards page to configure, monitor, and share boards. You can also create sub-boards, and view board details. The Boards page includes a Filters panel that you can use to organize how the boards are displayed, and to find specific boards.

Click the arrow on the left side to show options to organize and configure the page view, and to find specific boards:

- **Display Top**—Choose to show a maximum of 20, 50, or 100 boards on the page.
- **Visualize By**—Choose how you want the boards to display information.
- **Sort By**—Choose whether to sort the boards by the board states or the board names.
- **Display Board States**—Filter the boards based on the state of the board.
- **Health Rollup Types**—Filter the boards based on the type of health rollup configured for the board.

- **Exclude Child Boards**—This option is selected by default. When this is selected, only top-level boards display. Boards that roll up their health state to a higher-level board are not shown.
- **Display boards with**—Filter the boards based on whether incident automation or notifications are enabled for the board.

Click the icon in the header of each board to access the following menu items:

- **Actions**
  - Share—Make the board available to users in a specific role.
  - PIN—Pin the board to a another board, as a sub-board.
  - Delete—Delete the board.
- **Edit**
  - Details—Change the board name or health rollup type.
  - Manual State—Manually change the current state of the board.
  - Notifications—Configure a notification that is triggered when a board is shared, when its state changes, or when there is a new alert or new incident.
- **Maintenance Mode**—Schedule maintenance, or put the board in maintenance mode immediately.
- **Incident Automation**—If you have integrated an ITSM system with ITOps Board, you can automate the creation of incidents.

Click the Add icon in the bottom right corner of the page to create a new board.

Click on any board header to open the board and to view board details, including:

- **Members**—Displays all member objects currently pinned to the board. Member objects can include components such as computer, groups, or services, as well as sub-boards.
- **Explorer**—Displays a topology diagram that allows you to view board objects and to explore related objects.
- **Alerts or Incidents**—Displays a list of all active alerts or incidents related to the board.
- **Rules**—Displays all rules that have been configured to dynamically add objects to this board.
- **Exclusions**—Displays the objects within the configured rules that will be excluded from the rules; these specific objects will not be dynamically added to the board.

Click the Actions icon in the bottom right corner of each tab to access the valid actions for that tab.

Business Services

Use the Business Services page to organize and monitor critical business services. You can also generate SLA availability reports, and access details about the business service perspectives and member objects.

The page also displays the number of active events and incidents related to the business service, and the overall SLA percentage of availability for each business service, based on the service level objectives (SLO) you have configured for each business service.

Click on the business service name to view information about the overall business service including:

- **SLA**—Displays a summary of SLA availability information for the business service, and a breakdown of the health state of each perspective.
- **Members**—Displays all member objects of the business service, organized by perspective. You can click each perspective to drill down to view the objects within each perspective.
- **Alerts or Incidents**—Displays a list of all active alerts or incidents related to the business service.

Alternatively, click any of the perspective columns to view information about that particular perspective for the business service, including:

- **Members**—Displays all member objects for the selected perspective of the business service. Member objects can include components such as computer, groups, or services. You can click each object to view the object details.
- **Alerts or Incidents**—Displays a list of all active alerts or incidents related to the business service.
- **Rules**—Displays all rules that have been configured to dynamically add objects to this business service.
- **Exclusions**—Displays the objects within the configured rules that will be excluded from the rules; these specific objects will not be dynamically added to the business service.

Click the icon at the end of each business service row to access the following menu items:

- Configure
  - **Service Details**—View or update configuration details for the business service.
  - **Service Level Objectives**—View or update the SLA goal, and the time period and business hours to use in SLA calculations.
  - **Supplier Services**—View or update the supplier services that relate to the selected business service.
  - **Incident Automation**—If you have integrated an ITSM system with ITOps Board, you can automate the creation of incidents.
  - **Notifications**—Configure a notification that is triggered when a business service is shared, when its state changes, or when there is a new alert or new incident.
  - **Manual State**—Manually change the current state of the business service.
- **Maintenance Mode**—Schedule maintenance, or put the business service in maintenance mode immediately.
- **Share**—Make the business service available to users in a specific role.

- **Remove**—Delete the business service.

Tip:
You can change the display for the business service data. Click the icon in a column header and select options to sort data, to hide or show columns, or to reset to the default display. Click and drag column headers to rearrange the columns.

Explore

The Explore page provides access to the following tabs, which allow you to view and search health information, as well as the raw properties that ITOps Board collects from the source systems.

- "Computers" on page 11
- "Alerts" on page 14
- "Incidents" on page 15
- "Groups and Services" on page 16
- "Components" on page 18
- "Saved Searches" on page 20

In addition, the Explore page provides a Search bar that allows you to search the details or raw properties of each object, alert, and incident.

Computers

The Computers tab provides information about the properties of the computers that are monitored by your systems. ITOps Board and PRTG use different terminology. For consistency, ITOps Board normalizes the monitored objects into data types. On the Computers tab, the data types are:

- Computer
- Virtual machine

You can filter the computers and virtual machines using the following options:

- **Types**—Filter based on the type of object: computers or virtual machines.
- **Integration Types**— Filter based on the type of integration. Only PRTG Network Monitor appears in the list.
- **Integrations**—Filter based on the names of the integrations that you have configured.
- **Hide Correlated Components**—This option is selected by default. When it is selected, the page displays the consolidated components but does not show the components that are correlated with them. Deselect this option to show all components.

- **Consolidation Rules**—Filter the list based on consolidation rules that apply to this type of component.
- **State**—Filter based on the health status of the object.

When you select a single computer or virtual machine, the properties panel displays. It shows information about the number of open alerts and incidents, as well as the Mean Time to Resolution (MTTR). It also provides information about uptime and state changes, and it indicates the component type and the source monitoring system. For consolidated components, the component type is indicated by the consolidation icon, and the source system is listed as Consolidation.

The following functions are available from the properties panel of a computer or virtual machine:

<table>
<tr><th>Button</th><th>Function</th><th>Description</th></tr>
<tr><td></td><td>More Details</td><td>This button opens a page with the details about the selected computer. The page contains the following tabs:

Properties—View the raw properties from the original monitoring system.
Explorer—View a topology diagram that shows components and relationships. For more information about using the Explorer, see "Use the Components Explorer" on page 45
Alerts—View alerts related to the selected computer or virtual machine.
Incidents—View incidents related to the selected computer or virtual machine.
Boards—View boards that the computer or virtual machine is a member of.
Services—View services that the computer or virtual machine is a member of.
Correlated Components—This tab displays for consolidated components only. Use it to view a list of the components that are contained in the consolidated component. You can select a component to view its properties, such as the object type and the source system that is monitoring it.
</td></tr>
<tr><td></td><td>Source</td><td>This button opens a new browser tab and navigates to the selected object in the console of the integrated source system.</td></tr>
<tr><td></td><td>Action</td><td>This button provides access to the following options:</td></tr>
</table>

Button	Function	Description
	Incident Automation	This button opens a dialog box that allows you to configure incident automation for the selected consolidated component. This feature is available for consolidated components only, and you must have integrated an ITSM system with ITOps Board to use this feature.
	Pin	This button pins the object to a new or existing board.
	Service	This button pins the object to a service.

If you want to perform an action for multiple objects on this tab, you can use the Ctrl and Shift keys to select them. For example, you can pin multiple objects to a board or service. When you select multiple objects, the following functions are available.

Button	Function	Description
	Action	This button provides access to the following options:
	Pin	This button pins the object to a new or existing board.
	Service	This button pins the object to a service.

Note: PRTG identifies objects as devices, which may be computers. ITOps Board shows objects that may be considered computers on this tab; however, if a computer does not display on this tab, it may be due to the way that PRTG has identified it. If you are unable to find a computer on this tab, you can find it in the Components tab, which contains all objects.

Alerts

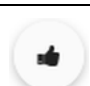
The Alerts tab displays all of the alerts from the different monitoring systems. The most recent alerts are shown at the top of the tab by default, but you can change the sort order.

You can filter alerts using the following options:

- **Integration Types**— Filter based on the type of integration. Only PRTG Network Monitor appears in the list.
- **Integrations**—Filter based on the names of the integrations that you have configured.
- **Severity**—Filter based on the severity of the alert.
- **Active**—Show active alerts only.
- **Incidents**—Choose whether to display alerts with incidents or without incidents.
- **Time**—Filter based on the length of time since the alert was raised or updated.

You can use the Ctrl and Shift keys to select multiple alerts on this tab. When you select a single alert, the properties panel displays.

The following functions are available on the properties panel:

Button	Function	Description
	Editable Fields	This toggle displays for SCOM and MPA integrations. Use it to view editable fields in SCOM.
	Related Components	This button opens a new page that lists details about components in ITOps Board that are related to this alert.
	Source	This button opens a new browser tab and navigates to the selected object in the console of the integrated source system.
	Resolve	Resolve the alert in the source system.
	Link an Incident	Link the alert to an existing incident.
	Acknowledge an Alert	Acknowledge an alert in the source system.
	Create an Incident	Link the alert to a new incident.

Incidents

The Incidents tab displays incidents that ITOps Board has retrieved from your integrated systems.

You can filter incidents using the following options:

- **Integration Types**— Filter based on the type of integration. Only PRTG Network Monitor appears in the list.

- **Integrations**—Filter based on the names of the integrations that you have configured.
- **Active**—Show active incidents only.
- **Created by ITOps Board**—Show only those incidents created by ITOps Board.
- **Time**—Filter based on the length of time since the alert was raised or updated.

When you select a single incident, the properties panel displays.

The following functions are available from the properties panel:

Button	Function	Description
	More Details	Use the button to view the incident page with raw properties and related alerts.
	Related Components	This button opens a new page that lists details about components in ITOps Board that are related to this incident.
	Source	This button opens a new browser tab and navigates to the selected object in the console of the integrated source system.

Groups and Services

The Groups & Services tab displays all groups and services from your monitoring systems. This tab allows you to view the group health as well as the health of the objects within the group.

You can filter groups and services using the following options:

- **Types**—Filter based on the type of object: groups or services.
- **Integration Types**— Filter based on the type of integration. Only PRTG Network Monitor appears in the list.
- **Integrations**—Filter based on the names of the integrations that you have configured.
- **Hide Correlated Components**—This option is selected by default. When it is selected, the page displays the consolidated components but does not show the components that are correlated with them. Deselect this option to show all components.
- **Consolidation Rules**—Filter the list based on consolidation rules that apply to this type of component.
- **State**—Filter based on the health status of the object.

You can use the Ctrl and Shift keys to select multiple objects on this tab. When you select a single group or service, the properties panel displays.

The following functions are available when you select an object:

Button	Function	Description
	More Details	This button opens the Component page. The page contains the following tabs: • **Properties**—View the raw properties from the original monitoring system. • **Members**—View members of the group or service. You can click the name of the member to view more information about that object. • **Explorer**—View a topology diagram that shows components and relationships. You can use the diagram to explore the group or service to see the hierarchy of objects. For more information about using the Explorer, see "Use the Groups and Services Explorer" on page 44. • **Alerts**—View alerts related to the selected group or service. • **Incidents**—View incidents related to the selected group or service. • **Boards**—View boards that the group or service is a member of. • **Services**—View services that the group or service is a member of. • **Correlated Components**—This tab displays for consolidated components only. Use it to view a list of the groups and services that are included in the consolidated component. You can select a component to view its properties, such as the object type and the source system that is monitoring it.
	Action	This button provides access to the following options:

Button	Function	Description
	Create a Synced Board	A synched board displays the members of the group as they are configured in the source system. When members are added or removed in the source system, those changes are reflected on the board in ITOps Board. The health state of the board is the same as the health state of the original group in the source system.
	Pin	This button pins the object to a new or existing board.
	Service	This button pins the object to a service.
	Incident Automation	This button opens a dialog box that allows you to configure incident automation for the selected consolidated component. This feature is available for consolidated components only, and you must have integrated an ITSM system with ITOps Board to use this feature.

Components

The Components tab displays all monitored components.

You can filter the components using the following options:

- **Types**—Filter based on the type of object. Each monitoring system uses its own terminology. For consistency, ITOps Board normalizes the monitored components into types, such as computers, websites, databases, and more. You can filter the components on this tab based on any of the available types.
- **Integration Types**— Filter based on the type of integration. Only PRTG Network Monitor appears in the list.
- **Integrations**—Filter based on the names of the integrations that you have configured.
- **Hide Correlated Components**—This option is selected by default. When it is selected, the page displays the consolidated components but does not show the components that are correlated with them. Deselect this option to show all components.
- **Consolidation Rules**—Filter the list based on consolidation rules that apply to this type of component.
- **State**—Filter based on the health status of the component.

You can use the Ctrl and Shift keys to select multiple components on this tab. When you select a single component, the properties panel displays.

The following functions are available when you select a component:

Button	Function	Description
	More Details	This button opens a page with details about the component. It contains the following tabs: • **Properties**—View the raw properties from the original monitoring system. • **Alerts**—View alerts related to the selected component. • **Explorer**—View a topology diagram that shows components and relationships. You can use the diagram to explore the group or service to see the hierarchy of objects. For more information about using the Explorer, see "Use the Components Explorer" on page 45. • **Incidents**—View incidents related to the selected component. • **Boards**—View boards that the component is a member of. • **Services**—View services that the component is a member of. • **Correlated Components**—This tab displays for consolidated components only. Use it to view a list of the components that are contained in the consolidated component. You can select a component to view its properties, such as the object type and the source system that is monitoring it.
	Action	This button provides access to the following options:

Button	Function	Description
	Incident Automation	This button opens a dialog box that allows you to configure incident automation for the selected computer. You must have integrated an ITSM system with ITOps Board to use this feature.
	Pin	This button pins the object to a new or existing board.
	Service	This button pins the object to a service.

Search Bar

The Search bar allows you to search the details or raw properties of each object, alert, and incident in Elasticsearch. When you use the Search bar, it returns results for each of the tabs on the page. As long as the search term remains in the Search bar, the tabs continue to display information based on that search term.

Unless you use a wild card, the search looks for the exact words that you enter. For example, searching SQL will not return SQLSVR01. For information about using search strings, see "Search Operators" on page 28.

On the right side of the Search bar, there are three options:

- **Save**—Save a search.
- **Load**—Load a saved search.
- **X**—Clear the search.

Saved Searches

The Saved Searches tab allows you to customize searches and save your preferences. You can set filters for the search and select the tab where you want the results to display.

The Saved Searches tab includes several pre-defined searches:

- Contains 'SQL'
- Critical Alerts in Last 24h
- Critical Computers
- Critical Databases
- Critical Websites
- Exceptions and Errors
- Incidents Created in Last 24h

The saved search displays the number of objects, alerts, incidents or components that match your search criteria. You can click the information on the saved search to go directly to the data tab for that item.

Settings

The Settings option on the main menu is available to ITOps Board administrators only.

The Settings page contains the following tabs:

- "Integrations" on page 21
- "Authorization" on page 21
- "Agents" on page 22
- "General Settings" on page 22
- "Licensing" on page 22
- "Storage" on page 22
- "Consolidation Rules" on page 22

Integrations

ITOps Board can connect to multiple PRTG servers. You can connect to one or more of these systems on the Integrations tab. You can find PRTG servers in the data systems category.

Authorization

Use this tab to configure the following options:

- **Roles**—Roles are used to specify the type of data that users in each role can access.
- **Roles**—Roles are used to control the access that a user has to the data that ITOps Board retrieves. Users added to the Administrators role have automatic access to all data, as well as application settings. The user who installed ITOps Board is added to the administrator’s role by default. You can add any user or group from Active Directory to a ITOps Board role.
- **Scope Components By Boards and Services**—When a user accesses a board or service, the board or service may contain components from an integration that the user does not have permission to access. Administrators can configure whether users can view details about all components on a board, regardless of the source, or administrators can choose to limit the user to viewing data from specific integrations.
- **Saved Searches Visibility**—Administrators can control who can see and use saved searches. Use the toggle on this page to choose one of the following options:
  - Admin only
  - Everyone

Agents

There is always one active agent, which is called the local agent. For complex implementations of ITOps Board, you may require multiple remote agents to overcome network boundaries. For example, if you want to use a monitoring system installed on-premises and ITOps Board is running in Amazon Web Services, you can use the remote agent to communicate with ITOps Board in the cloud without any open inbound ports on-premises.

Use the Agents tab to download additional agents.

General Settings

- **Downtime**—Administrators can define which states are considered as downtime for the board SLA calculations.
- **Notifications and Incident Automation**—Administrators can customize the time interval at whichITOps Board sends notifications. If you are using incident automation, the setting also determines the interval at which ITOps Board creates incidents. The default interval is 5 minutes, which is also the minimum that you can configure. The maximum interval is 30 minutes.
- **Consent Messages**—Administrators can create messages that display in a banner at the bottom of the page. Users must accept the message to remove the banner. Administrators can multiple messages and can configure them to display for specific user roles.
- **Product Analytics**—Administrators can enable or disable Product Analytics. When this option is enabled, we collect metrics that help us understand how you use the interface. We use this information to improve future versions of the product.
- **Explorer Feature**—Administrators can enable or disable the Boards Explorer and the Components Explorer tabs. The tabs are enabled by default We recommend that you disable them for large environments where the Explorer diagrams contain more than 300 objects.

Licensing

Use this tab to view and update licenses.

Storage

Use this tab to control the number of days that ITOps Board retains data from its integrated source systems. By default, ITOps Board retains data for 90 days; this value is the maximum.

You can also use this tab to see the amount of data stored for each integration.

Consolidation Rules

Consolidation rules allow you to link together components that have common properties. This feature is helpful if you have components that are monitored by multiple integrations. ITOps Board can consolidate the components based on rules that you configure. It then displays them as a single component.

For example, if a server is being monitored by multiple PRTG sensors, you can consolidate those sensors and the device into one component and designate it as a Computer in ITOps Board. You can then monitor a single computer with all its related sensors as one object.

The consolidated component displays as a separate component in ITOps Board. The interface lists Consolidation as the source system for these components because they are created by ITOps Board rather than retrieved from another monitoring system. The following icon is used throughout the interface to indicate a consolidated component:

The Consolidation Rules page is available when you log in as an administrator. It allows you to add rules that determine how components are consolidated. A table displays the all of the rules, and contains the following information:

- **Component Type**—When you create a consolidation rule, you assign the component type. When components are monitored by multiple source systems, they may be categorized as different types of components by each source system. When you consolidate the components in ITOps Board, you can choose how you want to categorize the new consolidated component. The following options are available:
    - Object
    - Group
    - Service
    - Computer
    - Database
    - Website
    - Virtual Machine

  The column displays the consolidation rules that are configured for each type of component.
- **Consolidated Components**—This column shows the number of consolidated components that ITOps Board has created for each component type.
- **Correlated Components**—This column shows the number of components that are associated with consolidated components.
- **Noise Reduction**—This column shows the reduction in the number of components to manage, as a result of consolidating them into a single component. The noise reduction is measured as a percentage.

Help

The Help page provides version information and contains the following tabs:

- **Resources**—This tab provides links to the Technical Documentation.
- **Support**—This tab provides a link to open a support ticket and provides information about how to contact technical support.
- **About**—This tab provides a high-level description of ITOps Board.

CHAPTER 4

Configuring Integrations

Use the information in this section to complete the following tasks:

Task	Description
"Add a License Key" on page 63	Activate your license.
"Add an Integration" on page 25	Integrate your monitoring systems with ITOps Board.
"Test an Integration" on page 26	Ensure that monitoring systems are communicating successfully with ITOps Board.
"Download a Remote Agent" on page 26	Optional. ITOps Board has a default remote agent; however, complex integrations may require additional remote agents.

Add an Integration

You must be a ITOps Board administrator to perform this procedure. When you configure an integration, you must provide credentials that ITOps Board can use to access the source system. These user permissions determine the access that ITOps Board has to the source system. If the user in the source system does not have sufficient permissions, some data may not be visible in ITOps Board and some functionality—such as the ability to close an alert—may not work.

Before you Begin

Ensure that you have information about how to access the monitoring system. For a complete list of the information needed, see the *ITOps Board Installation and Upgrade Guide*.

1. From the main menu, select **Settings**.
   The Integrations tab displays the currently installed integrations.
2. Click the **Add** button at the bottom of the page.
3. Select a monitoring system from the dialog box.
4. Enter the information required for the monitoring system.

5. Click **Save**.

Test an Integration

You must be an administrator to perform this procedure.

1. From the main menu, select **Settings**.
   The Integrations tab displays the currently installed integrations.
2. Select an integration and click the **Test Integration** button.
   A banner displays at the top of the screen to indicate the status.

Download a Remote Agent

A remote agent is needed when it is not possible to connect to the source system from the ITOps Board web server due to network boundaries. For example, you may need a remote agent because of firewall restrictions or because you authenticate users against a remote Active Directory.

You must be an administrator to perform this procedure.

1. From the main menu, select **Settings**.
2. Click the **Agents** tab.
3. Click the **Download Agent** button.
   A dialog box displays.
4. Click **Save** to download the AgentInstaller.zip file.
5. Unzip the file on the Windows server where you want to install the remote agent and execute the command file.
   The command file installs the remote agent using the correct ITOps Board web server settings and registers with ITOps Board automatically.

Organizing Data

Use the information in this section to complete the following tasks:

Task	Description
"Perform a Search" on page 28	Search for objects, alerts, or incidents, and save your searches.
"Consolidate Components" on page 29	Consolidate components so that they display as a single object when you view them in ITOps Board.
"Create a Board" on page 30	Create boards when you want to group data from one or more monitoring systems.
"Create Sub-Boards" on page 31	Optional. Create sub-boards when you want to add child boards to a parent board.
"Create a Synced Board" on page 31	Optional. Create a board that is synced with the source system. The members of the board and the health state are determined by the source system and are not configurable in ITOps Board.
"Create a Business Service" on page 31	Optional. Create business services when you want to monitor critical services, such as email or order entry, according to the following categories: end user, application, infrastructure, or supplier services.
"Pin Objects to a Board or Business Service" on page 33	Add components to an existing board or business service.
"Configure Rules" on page 33	Optional. Use rules to dynamically add objects to a board or business service.

Task	Description
"Configure Exclusions" on page 35	Optional. Use exclusions in conjunction with rules to refine the scope of objects that are dynamically added to a board or business service.

Perform a Search

The Search bar allows you to search the details or raw properties of each component, alert, and incident. When you enter a search term, ITOps Board returns results on all tabs, not only on the currently selected tab. If you have any filters enabled on the tabs, the search results are filtered as well. As long as the search term remains in the Search bar, the tabs continue to display information based on that search term.

ITOps Board highlights areas that match the search in yellow. If a search result is returned but no data is highlighted in the main window, that typically indicates that the searched item was found in the details or raw properties. You can view the raw data by selecting the component and clicking the **More Details** button.

Before you Begin

- Click **X** to clear any existing searches.
- Review "Search Operators" on page 28

1. From the main menu, click **Explore**.
2. Choose one of the following options:
   - Enter a search term in the **Search** bar and press **Enter** to begin the search.
   - Click **Load** and select a **Saved Search** from the list.
3. If you entered a search term:
   - Click **Save** if you use this search term frequently.
   - Click **X** to clear the search.

Search Operators

You can use any of the following terms to include or exclude results from your search:

- AND
- NOT
- OR
- TO

ITOps Board performs a text search. Some characters are reserved. You cannot search for the following characters unless they are in quotes as part of a search:

```
+ - = && || > < ! ( ) { } [ ] ^ " ~ * ? : \ /
```

Searches are not case-sensitive, unless you are searching on field name. For example, you may want to search on alerts where the Priority field is set to High. In the case of field names, you must use the proper case and formatting to target a field. You can verify the proper name and case of a field by hovering your mouse over the field name. If the field name has a space in it, such as “IP Address,” you must enter an escape character (\) in the search to represent the space.

Because the field names are related to the source system, you need to specify the integration type in your search. The format is:

```
source.<integration>. <field name>: <search term>
```

Consolidate Components

Use this procedure to configure consolidation rules. Consolidation rules are a way to link together components that have common properties. This feature is helpful if you have components that are monitored by multiple source systems. ITOps Board can consolidate the components based on the rules you configure, and then display them as a single component.

When you consolidate components, ITOps Board creates a new component that represents all of the components it contains. Because the consolidated component is created within ITOps Board, the interface lists Consolidation as the source system for the component. You assign a component type to the new consolidated component.

ITOps Board can search object properties provided by the source systems and identify components to consolidate based on an exact match, a partial match, or on whole words. You need to specify the type of match to use when you configure a consolidation rule.

1. From the main menu, select **Settings** and click the **Consolidation Rules** tab.
2. Click the expansion icon next to the type of component that you want to make.
3. Click **Add Rule**.
4. To define the rule, enter the following information:

Field	Description
Rule Name	Enter a name for the rule
Description	Enter a description of the rule.
Field Mappings	
Integration Type	Select the source system from the drop-down list.
Field Name	Select the field in the source system to base the consolidation on.
Match Type	When ITOps Board searches the specified field, it can match components based on an exact match, partial match, or whole words. Select the type of matching to use.

5. Optional. Click **Add A Property** to add another rule.
6. If you create multiple rules, click the arrows next to the integration type to assign a higher or lower priority to the field mapping.
   When ITOps Board consolidates components, it begins with the first mapping in the list. Any components that are consolidated as a result of the first mapping are not considered when ITOps Board applies the next mapping in the list.
7. Click **Save**.
8. Click the **Action** button and then click the **Start Consolidation** icon.
9. Click **Ok**.

Create a Board

Boards are a way of organizing groups of objects from one or more monitoring systems. Use the following procedures to create a new board.

There are two ways to create boards. Choose one of the following options:

- "Create a New Board" on page 30 and then search for objects and pin them at a later time.
- Search for an object and "Create a Board from Search Results" on page 30.

Create a New Board

1. On the main menu, select **Data Analysis > Boards**.
2. Click the **Add** icon at the bottom right corner.
3. Enter a name for the board.
4. Choose the way that you want the health status reported for the board:
   - Worst-case
   - Best-case
   - Percentage-based
     If you chose percentage-based, enter a percentage.
5. Click **OK**.

Create a Board from Search Results

1. On the main menu and click **Explore**.
2. Select a saved search or search for an object and select it on the related tab.
3. Click the **Action** button and then click the **Pin** button.
4. In the dialog box, click **Create a Board**.
5. Enter a name for the board.
6. Choose the way that you want the health status reported for the board:
   - Worst-case
   - Best-case

- Percentage-based
  If you chose percentage-based, enter a percentage.

7. Click **Pin it**.

Create Sub-Boards

1. On the main menu, select **Data Analysis > Boards**.
2. Find the board that you want to assign as sub-board and click the icon in the top corner.
3. Click **Actions** and select **Pin**.
4. Select a board from the list. If needed, use the **Filter** field to search for a board.

Create a Synced Board

Create a board that is synced with the source system. The members of the board and the health state are determined by the source system and are not configurable in ITOps Board. If members are added or deleted in the source system, or if the health state changes in the source system, the board in ITOps Board automatically updates.

1. On the main menu, click **Explore**.
2. Select a saved search or search for an object and select it on the **Groups & Services** tab.
3. Click the **Action** button and then click the button to create a synced board.
   A dialog box prompts you to confirm that you want to create a board from the selected group.
4. Click **OK**.
5. Optional. To view the source system, click .

Tip: To create multiple synced boards at once, use the Ctrl or Shift keys when you select groups or services. ITOps Board creates one synced board for each group or service that you selected.

Create a Business Service

Business services are a way of organizing data about critical business services from one or more monitoring systems. Business services allow you to view information about critical business services, such as email or order entry, according to the following categories: end user, application, infrastructure, or supplier services.

Use the following procedures to create a new business service.

There are two ways to create business services. Choose one of the following options:

- "Create a New Business Service" on page 32 and then search for objects and pin them at a later time.

- Search for an object and "Create a Business Service from Search Results" on page 32.

Create a New Business Service

1. On the main menu, select **Data Analysis > Business Services**.
2. Click **Create**.
3. Enter a name and description for the business service.
4. Choose the perspectives that you want to use to calculate the health status for the business service:
   - End user
   - Application
   - Infrastructure

   If you choose multiple perspectives, the status is based on the perspective with the worst health.
5. Choose the way that you want the health status reported for each of the selected perspectives:
   - Worst-case
   - Best-case
   - Percentage-based
     If you chose percentage-based, enter a percentage.
6. Click **Create**.

Create a Business Service from Search Results

1. On the main menu and click **Explore**.
2. Select a saved search or search for an object and select it on the related tab.
3. Click the **Action** button and then click the **Pin to Service** button.
4. In the dialog box, select the **Create a Service** tab.
5. Select a perspective for the object: End User, Application, or Infrastructure.
6. Enter a name and description for the business service.
7. Choose the perspectives that you want to use to calculate the health status for the business service:
   - End user
   - Application
   - Infrastructure

   If you choose multiple perspectives, the status is based on the perspective with the worst health.
8. Choose the way that you want the health status reported for each of the selected perspectives:
   - Worst-case
   - Best-case

- Percentage-based
  If you chose percentage-based, enter a percentage.

9. Click **Create**.

Tip: You can edit the name, description, and health roll-up setting for a business service from the **Business Services** page. Click the icon at the end of the entry for the business service and select **Details**.

Pin Objects to a Board or Business Service

Use this procedure to add objects to an existing board or business service.

1. On the main menu and click **Explore**.
2. Search for an object. When the results display, select one of the following tabs: **Computers**, **Groups & Services**, or **Components**.
3. Select an object in the list. If needed, filter the list using the options on the left side of the page.
4. Click the **Action** button and choose one of the following options:
   - To pin the object to a board, click the **Pin** button and select a board from the list.
   - To pin the object to a business service, click the **Service** button and select a business service from the list. Choose a perspective and click **Pin It**.

Tip:
You can add a supplier service to a business service without performing a search. Choose one of the following options:

- On the main menu, select **Data Analysis > Business Services**. Click the icon at the end of the entry for the business service and select **Supplier Services**. In the dialog box, select the supplier services that relate to the selected business service.
- From the **Business Services** page, open the business service and click the **Action** button. Click **Edit Supplier Services** and select the supplier services that relate to the selected business service.

Configure Rules

Use this procedure to dynamically add objects to a board or business service using rules. You can use any saved search as a rule.

There are two ways to create a rule. Choose one of the following options:

- "Create a New Rule" on page 34
- "Create a Rule from an Existing Saved Search" on page 34

Create a New Rule

1. On the main menu, click **Data Analysis > Explore**.
2. Enter a search term in the **Search bar** and press Enter to begin the search.
3. Filter the search results if necessary.
4. Click **Save** and enter the following information in the dialog box:
   - Name your search.
   - Select the target tab for the object: Computers, Groups & Services, or Components.
5. Click **Save & Add Rule**.
6. Choose one of the following options:
   - To apply this rule to a board, select **Add Rule to Board** and select a board from the list.
   - To apply this rule to a business service, select **Add Rule to Service** and select a service from the list, then choose a perspective.
7. Click **Pin It**.
   A status message indicates that the rule has been added. Click the link to navigate to the board or service.

Create a Rule from an Existing Saved Search

> **Note:** Saved searches that contain alerts or incidents cannot be used as rules.

1. On the main menu, click **Explore**.
2. Select the **Saved Searches** tab and select a saved search.
3. Click the icon in the top corner of the search and select one of the following options:
   - Click **Add Rule to Service** and select a service from the list. Choose a perspective and click **Pin It**.
   - Click **Add Rule to Board** and select a board from the list.

   A status message indicates that the rule has been added. Click the link to navigate to the board or service.

Configure Exclusions

You can configure exclusions after you add a rule to a board or business service. Exclusions are a way of refining rules.

1. Review the board or the perspective in a business service where you added a rule. If the search results included an object that you do not want, click the icon in the upper corner of the object and click **Remove**.
2. Click **OK** to confirm the removal.
   The object is moved to the Exclusions tab.
3. Optional. If you want to reinstate the object, click the **Exclusions** tab.
4. Click the **Action** button and click **Remove Exclusion**.
5. Click **OK** to confirm the change.

CHAPTER 6

Configuring Views

Use the information in this section to complete the following tasks:

Task	Description
"Configure the Boards View" on page 36	Select how you want to view boards.
"View Boards or Business Services in NOC Mode" on page 37	Display boards or business services in a NOC view, where the status colour fills the entire board.
"Configure Table Layouts" on page 37	Change the order of the columns on pages that display data in tabular format.
"Disable the Explorer Feature" on page 1	The Explorer feature is enabled by default. In large environments, retrieving the objects for the diagram may impact performance, and you may prefer to disable this feature.

Configure the Boards View

You can show a maximum of 20, 50, or 100 boards on the Boards page; you can reduce the page load time by decreasing the number of boards to show. You can configure how you want those boards to display information, and how the boards are sorted on the page. Use this procedure to select how many boards to show, and how to display and sort those boards.

1. On the main menu, select **Data Analysis > Boards**.
2. Click the arrow on the left side of the screen to display the **Filters** panel.
3. Click the **Display Top** drop-down and choose to show a maximum of 20, 50, or 100 boards on the page.
   The page header displays the current number of boards shown out of the total number of available boards.
4. Click the **Visualize By** drop-down and select how you want the boards to display information:

- **Pie chart**—Displays the health status of individual objects within the board, shown in pie chart form.
- **Heat map**—In non-NOC mode, displays tiles of colour that indicate the health status of individual objects within the board, as well as the overall health status of the board. In NOC mode, the background colour indicates the health status of the board as a whole.
- **Alerts**—Displays the total number of alerts for all the objects, plus the Mean Time To Resolution (MTTR).
- **Incidents**—Displays the total number of incidents related to the components plus the MTTR.
- **Uptime**—Displays the uptime percentage of the board, calculated over the last 7 days.

5. Click the **Sort By** drop-down and choose whether to sort the boards by the board states or the board names.

Related Topics

To find and filter boards on the Boards page, see "Filter Boards" on page 43.

View Boards or Business Services in NOC Mode

By default, each board or business service shows the health roll-up of the board, as well as the health of the underlying objects. Use this procedure when you prefer a NOC view, where the status color fills the entire board.

1. From the Data Analysis menu, select one of the following options:
   - **Boards**
   - **Business Services**
2. Use the toggle on the upper right side of the page to select one of the following options:
   - **NOC mode**—The color that indicates the overall health status displays as the background of the board or business service.
   - **Non-NOC mode**—Non-NOC mode shows the overall health status of the board, as well as the health state of the individual components pinned to the board. This view displays up to 100 individual objects. If the board has more than 100 objects pinned to it, ITOps Board displays 100 tiles that represent the health states as a percentage. For example, if 30% of the objects are in a critical state, the view shows 30 tiles as critical.

Configure Table Layouts

Use this procedure to change the order of the columns on pages where the data is displayed in table form. The method differs, depending on the type of table display:

- Some tables have column headers that allow you to click and drag to reposition (for example, the Business Services page).

- Some table pages have a button that allows you to edit the order of table columns (for example, the Computers, Alerts, Incidents, Groups & Services, and Components tabs, which are available on the Explore page).

1. Select the page or tab for which you want to configure display options.
2. Choose one of the following options, based on the type of table page:
    - Click and drag the column headers to reposition the table columns.
    - Click the **Edit your table settings** button, click the arrows to reposition the table columns, and click **Save**.

CHAPTER 7

Managing Boards and Business Services

Use the information in this section to complete the following tasks:

Task	Description
"Change the State of a Board or Business Service" on page 39	Manually change the state of a board.
"Place a Board or Business Service in Maintenance Mode" on page 40	Place a board or business service in maintenance mode when you want to temporarily suppress state changes, notifications and incident automation steps.
"Share a Board or Business Service" on page 42	Give a specified group of users access to a board or business service.
"Locate Critical Issues" on page 42	Find critical issues on boards or groups and services.
"Filter Boards" on page 43	Filter the view to easily find boards on the Boards page.
"Use the Board Explorer" on page 44	View a topology diagram that allows you to view components and explore related components.
"Use the Groups and Services Explorer" on page 44	View a topology diagram that allows you to view groups and services and their related components.
"Use the Components Explorer" on page 45	View a topology diagram that allows you to view components and their relationships.

Change the State of a Board or Business Service

You can manually change the state of a board or business service.

1. From the Data Analysis menu, select one of the following options:
   - **Boards**
   - **Business Services**
2. Open a board or a business service, and click the **Members** tab.
3. Click the **Action** button and then click the **Manual State** button.
   A dialog box displays.
4. Select a state from the drop-down list and click **Update**.

> **Tip:** Alternatively, you can perform this task without opening the board or the business service. From the Boards page, click the icon in the top corner of the board, or from the Business Services page, click the icon at the end of the entry for the business service. Select the appropriate menus and options.

Place a Board or Business Service in Maintenance Mode

Place a board or business service in maintenance mode when you want to temporarily suppress state changes, notifications and incident automation steps.

Choose one of the following options:

- "Place a Board or Business Service in Maintenance Mode Immediately" on page 40
- "Schedule Maintenance Mode for a Board or Business Service" on page 40

Place a Board or Business Service in Maintenance Mode Immediately

1. From the Data Analysis menu, select one of the following options:
   - **Boards**
   - **Business Services**
2. Open a board or a business service, and click the **Members** tab.
3. Click the **Action** button and then click the **Start Maintenance Now** button.
   A banner indicates that the board was placed in maintenance mode.

> **Tip:** Alternatively, you can perform this task without opening the board or the business service. From the Boards page, click the icon in the top corner of the board, or from the Business Services page, click the icon at the end of the entry for the business service. Select the appropriate menus and options.

Schedule Maintenance Mode for a Board or Business Service

1. From the Data Analysis menu, select one of the following options:

- **Boards**
- **Business Services**

2. Open a board or a business service, and click the **Members** tab.
3. Click the **Action** button and then click the **Schedule Maintenance Mode** button. A dialog box displays.
4. To schedule a maintenance period, enter the following information:

Field	Description
Recurrence Interval	Choose one of the following: • Once • Daily • Weekly • Monthly
Duration	
Start Time	Enter a start time
End Time	Choose one of the following options: • Set a duration (in minutes) for the maintenance period. • Enter a specific time for the maintenance period to end.
Schedule Start and Expiration	
Timezone	Select a timezone from the drop-down list.
Effective Date	Select a start date for the maintenance period.
Expiry Date	Select an end date for the maintenance period. For Daily, Weekly, or Monthly schedules only.

5. Click **Save**.

Tip: Alternatively, you can perform this task without opening the board or the business service. From the Boards page, click the icon in the top corner of the board, or from the Business Services page, click the icon at the end of the entry for the business service. Select the appropriate menus and options.

Tip: You can disable a scheduled maintenance period by using the toggle at the top of the Maintenance Mode dialog box.

Share a Board or Business Service

Use this procedure when you want to give a specified group of users access to a board or business service.

1. From the Data Analysis menu, select one of the following options:
   - **Boards**
   - **Business Services**
2. Open a board or a business service, and click the **Members** tab.
3. Click the **Action** button and then click the **Share** icon.
   A dialog box displays a list of roles.
4. Select a role (a group of users) to share the board with.
5. Click **Save**.

Tip: Alternatively, you can perform this task without opening the board or the business service. From the Boards page, click the icon in the top corner of the board, or from the Business Services page, click the icon at the end of the entry for the business service. Select the appropriate menus and options.

Locate Critical Issues

You can use the Explorer to locate critical issues in your network.

1. Choose one of the following options:
   - On the main menu, select **Data Analysis > Boards**. Open a board and click the **Explorer** tab.
   - On the main menu, click **Explore**. Click **Groups & Services** and select a group or service. Click the **More Details** icon and then select the **Explorer** tab.
   - On the main menu, click **Explore**. Click **Components** and select an object. Click the **More Details** icon and then select the **Explorer** tab.
2. Click the **Action** button and click the **Critical Issue Locator** icon.
   The diagram expands, if needed, to show critical issues. Click on the item to display detailed information.

Filter Boards

You can show a maximum of 20, 50, or 100 boards on the Boards page; you can reduce the page load time by decreasing the number of boards to show. Use this procedure to filter the boards.

1. On the main menu, select **Data Analysis > Boards**.
2. Click the arrow on the left side to display the **Filters** panel.
3. Click the **Display Top** drop-down and choose to show a maximum of 20, 50, or 100 boards on the page.
   The page header displays the current number of boards shown out of the total number of available boards.
4. Optional. Click the **Visualize By** drop-down and select the how you want the boards to display information.
5. Optional. Click the **Sort By** drop-down and select how you want the boards sorted on the page.
6. Optional. To display a specific set of boards, enter a search term into the **Search** bar and press **Enter**. You can use the filtering options to further filter the search results.
7. Select the filtering options:
   - **Display Board States**—Filter the boards based on the state of the board. Select one or more states.
   - **Health Rollup Types**—Filter the boards based on the type of health rollup configured for the board. Select one or more rollup types.
   - **Exclude Child Boards**—This option is selected by default. When this is selected, only top-level boards display. Boards that roll up their health state to a higher-level board are not shown.
   - **Display boards with**—Filter the boards based on whether incident automation or notifications are enabled for the board.

Search for Boards

Use this procedure to quickly search for a board.

1. From the main menu, select **Boards**.
2. Click the **Search** button.
3. Enter the search term.
4. Sort and filter the results by selecting any of the following options:
   - **Sort By**—List the search results according to the board state or the board name.
   - **Board States**—Filter the results based on the state of the board. Select one or more states.
   - **Health Rollup Types**—Filter the results based on the type of health rollup configured for the board. Select one or more rollup types.

- **Incident Automation**—Filter the results based on whether incident automation is enabled for the board.

Use the Board Explorer

1. From the main menu, select **Data Analysis > Boards**.
2. Open a board and click the **Explorer** tab.
3. Perform any of the following tasks:

Button	Function/Task	Description
–	Change the layout	Drag nodes/items to change how they are displayed.
–	View object information	Hover over the item to see its name. Click on the item/object to open a details pane.
	Action	This button provides access to the following options:
	Save	Save all changes that you made to the layout of the topology diagram.
	Get All Nodes	Expand nested boards and display the nodes in a tree diagram.
	Center	Center the diagram on the page.
	Revert Network	Revert the diagram to its default display.
	Critical Issue Locator	Show critical issues. The diagram expands, if needed, to show the location of critical issues.
	Refresh Explorer Data	Refresh the data shown in the diagram.

Use the Groups and Services Explorer

1. From the main menu, click on **Explore**.
2. Select the **Groups & Services** tab.
3. Select a group or service and click the **More Details** icon.
   A new page displays.

4. Click the **Explorer** tab.
5. Perform any of the following tasks:

Button	Function/Task	Description
–	Change the layout	Drag nodes/items to change how they are displayed.
–	View object information	Hover over the item to see its name. Click on the item/object to open a details pane.
	Action	This button provides access to the following options:
	Save	Save all changes that you made to the layout of the topology diagram.
	Get All Nodes	Expand nested groups and display the nodes in a tree diagram.
	Center	Center the diagram on the page.
	Revert Network	Revert the diagram to its default display.
	Critical Issue Locator	Show critical issues. The diagram expands, if needed, to show the location of critical issues.
	Refresh Explorer Data	Refresh the data shown in the diagram.

Use the Components Explorer

1. From the main menu, click on **Explore**.
2. Select the **Components** tab.
3. Select a group or service and click the **More Details** icon.
   A new page displays.
4. Click the **Explorer** tab.
5. Perform any of the following tasks:

Button	Function/Task	Description
–	Change the layout	Drag nodes/items to change how they are displayed.
–	View object information	Hover over the item to see its name. Click on the item/object to open a details pane.
	Action	This button provides access to the following options:
	Save	Save all changes that you made to the layout of the topology diagram.
	Get All Nodes	Expand nested groups and display the nodes in a tree diagram.
	Center	Center the diagram on the page.
	Revert Network	Revert the diagram to its default display.
	Critical Issue Locator	Show critical issues. The diagram expands, if needed, to show the location of critical issues.
	Refresh Explorer Data	Refresh the data shown in the diagram.

CHAPTER 8

Managing SLA Reporting

Delete this text and replace it with your own content.

Task	Description
"Configure SLO for a Business Service" on page 47	For each business service that you configure, you can set service level objectives (SLO). You can set the SLA goal, as well as the time period and business hours to use in SLA calculations. If you do not want to set SLOs for each business service, you can use the default settings provided by ITOps Board
"Configure Downtime for SLA Reporting" on page 49	Configure the health states that you want to include in downtime calculations.
"View and Save SLA Availability Data for a Business Service" on page 49	View SLA performance data for a business service and generate a PDF report.
"Generate an On-Demand SLA Report for Multiple Business Services" on page 50	Generate a PDF report of the SLA performance data for multiple business services.
"Exclude Component Outages from SLA Calculations" on page 52	Select one or more components that contributed to downtime and exclude them from SLA calculations.

Configure SLO for a Business Service

Set service level objectives (SLO) for each business service that you configure. This procedure explains how to set the SLA goal, as well as the time period and business hours to use in SLA calculations. To configure the health states that you want to include in downtime calculations, see "Configure Downtime for SLA Reporting" on page 49.

If you do not want to set the SLO for each business service, you can use the default settings provided by ITOps Board. The default settings are as following:

- The SLA goal is 99%.
- The week begins on the first day of the week configured for your server, which varies according to your location. For example, in some countries, the first day of the week is Monday, while in other countries it is Sunday.
- The time zone is based on the local time of the web server.
- The time period for the calculation is one month.
- Business hours and days are disabled; availability is calculated over a 24-hour period, 7 days a week.

If you edit the SLO settings after you initially configure them, or change the components included in the business service, the SLA calculations are updated for the time period since the change was made. Calculations are not made retroactively.

1. From the main menu, select **Data Analysis > Business Services**.
2. Open a business service and click the **SLA** tab.
3. Click the **Action** button and then click the **Service Level Objectives** button.
4. Enter the following information in the dialog box:
   - **Set a Goal**—Enter the percentage of availability that the service requires. You can enter a percentage with up to three decimal places. If you configure notifications for the business service, ITOps Board triggers a notification when this goal is breached.
   - **Set a Threshold**— Use this field in conjunction with the notification feature. If you configure notifications for the business service, ITOps Board can choose to trigger a notification when this threshold is breached. ITOps Board automatically calculates a threshold based on the goal that you set; however, you can change this value. Because this threshold is always higher than your goal, it allows ITOps Board to warn you when your SLA goal is close to being breached.
   - **Set a time period**—Select whether you want the SLA calculated over a day, a week, or a month.
   - **Set a time zone**—Select the time zone to use for calculations.
   - **Toggle**—Use the toggle to control whether any downtime that occurs in a 24-hour period impacts your SLA calculations, or whether only downtime that occurs during business hours is used in your SLA calculations. If you choose to use business hours only, define the hours and days.
5. Click **Save**.

Tip: Alternatively, you can perform this task without opening the business service. From the Business Services page, click the icon at the end of the entry for the business service and select the appropriate menus and options.

Configure Downtime for SLA Reporting

Use this procedure to configure the health states that you want to include in downtime calculations. You must be an administrator to perform this procedure.

1. From the main menu, select **Settings > General Settings**.
2. In the **Downtime** section, select the states that you want to include in downtime reporting.

Related Topics

- To configure service level objectives, see "Configure SLO for a Business Service" on page 47.
- To see SLA performance, see "View and Save SLA Availability Data for a Business Service" on page 49.
- To generate an SLA performance report for multiple business services, see "Generate an On-Demand SLA Report for Multiple Business Services" on page 50

View and Save SLA Availability Data for a Business Service

Use this procedure to view SLA availability data for a business service and generate a PDF report. If you edited the SLO settings after you initially configure them, or changed the components in the business service, ensure that you reload the page to see updated data.

The SLA availability data includes the following information:

- **Summary**—Shows the following information about the current SLA status:
  - The availability of the service as a percentage of the SLA goal.
  - The SLA goal.
  - The amount of uptime, in hours, during the specified time period.
  - The targeted amount of uptime, in hours, during the specified time period.
- **Timeline**—Shows the daily status for the selected time period. The SLA goal displays as a line, and bar graphs show the daily status in comparison to the SLA goal. You can hover over the bar graph to see hourly information.
- **Components impacting SLA**—A list of the components that have impacted the SLA during the period shown in the graph. The list shows the duration of the impact, the name of the component, the perspective, the start and end time of the impact, and the source integration.

1. From the main menu, select **Data Analysis > Business Services**.
2. Open a business service and click the **SLA** tab.
3. Optional. To save SLA data in a PDF, click the **Action** icon and click the **PDF** button.

Generate an On-Demand SLA Report for Multiple Business Services

Generate a PDF report for multiple business services. You can choose a weekly or monthly view of SLA data. For a weekly view, you can choose a time period of one week up to 26 weeks. For a monthly view, you can choose a time period of one month up to 36 months.

To successfully generate a complete multi-service SLA report, the SLO settings for all of the business services to be included in the report should be consistent. The business service SLO settings affect the report generation as follows:

- All business services to be included in the report must have the same weekly or monthly SLO time period. You cannot generate a report for business services with a mix of weekly or monthly SLOs.
- If the business services in the report have different SLO goals, time zones, or business hours, the report does not include combined SLA statistics for all of the business services in the report.

The report contains a general summary of the report information, followed by the combined SLA statistics for all business services included in the report. The remainder of the report contains a breakdown of SLA statistics for each individual business service.

The report includes the following information:

- **Report summary**—Shows general report information including report title, number of services included, weekly or monthly time increments, the specified date range, the health states defined as downtime for the services (as configured in the administrator General Settings), and the report description.
- **Combined SLA statistics**—Shows a view of the combined SLA statistics for all business services in the report:
  - A graph shows the combined actual percent SLA availability versus the configured SLA percent availability goal for all services for the entire reporting period.
  - A graph shows the combined actual uptime versus the targeted amount of uptime for all services for the entire reporting period.
  - A table lists the combined average SLA availability for each week or month in the reporting period. For any weeks or months in the reporting period with SLA issues, the services that most impacted the SLA availability for those weeks or months are also listed.
- **Individual SLA statistics**—Shows a view of the individual SLA statistics for each business service in the report:
  - A graph shows the actual percent SLA availability versus the configured SLA percent availability goal for this service for the entire reporting period.
  - A graph shows the actual uptime versus the targeted amount of uptime for this service for the entire reporting period.
  - SLA per period—A table lists the average SLA availability for this service for each week or month in the reporting period.

- Timeline—A chart shows the SLA status for this service over the reporting time period. The average SLA % displays as a line, and bar graphs show a color representation of the SLA status for the weeks or months in the reporting time period according to the SLA goal.
- Components impacting SLA—A table lists information about the components that have impacted the SLA for this service during the reporting period, including the duration of the impact, the name of the component, the perspective, the start and end time of the impact, and the source integration.
- Component outages—Tables list details about any component outages, including the outage start time and duration, and whether the outage has been included or excluded from the SLA statistics (as configured on the business service SLA tab).

Use this procedure to generate an SLA availability report for multiple business services.

1. From the main menu, select **Data Analysis > Business Services**.
2. Select multiple services and click **Generate SLA Report**.
   A dialog box displays.
3. In the **Report Options** tab of the dialog box, choose the desired type of view:
   - Month
   - Week
4. Select the start week or month, and the end week or month for the desired time period.
5. Enter a title and description for the report.
   The **Issues** tab displays any potential issues with the selected report options, including SLO setting discrepancies for the selected services to be included in the report.
6. If applicable, review and fix any issues displayed on the **Issues** tab.
7. Click **Generate**, and then click **Close**.
   The report generation begins and continues in the background. When the report is complete, an Information Event notification displays, indicating that the report is ready for download. The notification remains available for 24 hours.
8. When the notification displays, click the notifications icon, and then click **Download**.
   The report opens and can be saved to a local drive.

Related Topics

- To specify how downtime is calculated, see "Configure Downtime for SLA Reporting" on page 49.
- To configure service level objectives, see "Configure SLO for a Business Service" on page 47.
- To exclude components and recalculate SLA information, see "Exclude Component Outages from SLA Calculations" on page 52.

- To view and save SLA data for a single business service, see "View and Save SLA Availability Data for a Business Service" on page 49.

Exclude Component Outages from SLA Calculations

Use this procedure to select one or more outages that contributed to downtime and exclude them from SLA calculations. For example, if a component was out of service due to maintenance, but maintenance mode was not scheduled, you can choose that specific outage and exclude it from the SLA calculations.

When you exclude an outage, it takes a few minutes before ITOps Board recalculates the SLA. An exclamation icon (!) displays while SLA calculations are outdated. ITOps Board automatically updates the calculation after a few minutes and the icon is cleared. You can update the calculation manually by clicking the Refresh icon on the SLA tab, or the Refresh button on the business services overview page.

1. From the main menu, select **Data Analysis > Business Services**.
2. Open a business service and click the **SLA** tab.
3. On the **SLA** tab, review the **Components Impacting SLA** table and locate the entry that you want to exclude.
4. Expand the entry, select the check box, and click **Exclude**.
5. In the dialog box, add a note and click **Save**.
   The SLA calculations update automatically.

CHAPTER 9

Managing Notifications and Alerts

Use the information in this section to complete the following tasks:

Task	Description
Notifications for Boards and Business Services	
"Configure Notifications for Boards and Business Services" on page 53	Configure a notification that is triggered when a board or business service is shared, when its state changes, or when there is a new alert or new incident. Notifications can also be triggered when an SLA goal has been breached, or when it is about to be breached.
Notifications for Saved Searches	
"Configure Notifications for Saved Searches" on page 56	Configure notifications that are triggered when search criteria is met.
Alerts	
"Resolve an Alert" on page 57	When an alert on a board or business service has been resolved, you can close the incident from within ITOps Board.
"Configure the Interval for Notifications and Incidents" on page 1	Optional. Configure the time interval at which ITOps Board sends notifications. If your organization is using incident automation, the setting also determines the interval at which ITOps Board creates incidents.

Configure Notifications for Boards and Business Services

You can configure ITOps Board to send a notification when a board or business service is shared, when its state changes, or when there is a new alert is raised or resolved, or when there is a new incident. You can also receive notifications when your SLA goal has been breached, or when it is about to be breached.

ITOps Board checks for these events every 5 minutes. At the end of the 5-minute interval, ITOps Board sends a separate notification for each type of event. The following table lists the types of events that can trigger a notification, and describes how notifications are sent for that event.

Table 1: Notifications in ITOps Board

Event	Description
Alerts	ITOps Board sends one notification that contains information about all the alerts that have occurred within the last 5 minutes.
Incidents	ITOps Board sends one notification that contains information about all the incidents that have been created within the last 5 minutes.
State changes for boards and business services	ITOps Board sends one notification for a state change that has occurred within the last 5 minutes. If the state has changed multiple times within that 5-minute interval, only the most recent change is reported.
Shared boards and business services	ITOps Board sends a notification only when the board or business service is shared with another role.
Service SLA about to breach	ITOps Board checks the SLA calculations for business services every 5 minutes and sends sends one notification if the threshold that you set has been breached in that interval.
Service SLA breached	ITOps Board checks the SLA calculations for business services every 5 minutes and sends sends one notification if the goal that you set has been breached in that interval.

You can configure notifications to send emails or to execute PowerShell scripts. The option to execute PowerShell scripts gives you the flexibility to configure a range of actions in response to the notification. For example, you can execute a PowerShell script that generates an SMS message or that sends a message to a Slack channel. If you choose to execute a PowerShell script, ITOps Board sends the following data:

- [String] $notificationtrigger
- [String] $destinationemails
- [String] $destinationphone
- [String] $destinationaccount
- [String] $userrole
- [Int32] $userroleid
- [String] $affecteditemkey

- [String] $affecteditemname
- [String] $affecteditemtype
- [String] $message
- [String] $title
- [String] $severity
- [DateTime] $timestamp
- [String] $details
- [String] $url

Before you Begin

- You must have added an integration for email notifications or for PowerShell to use this feature.
- If you are configuring a notification to trigger a PowerShell script, ensure that you copy the script to the correct location:
  - If the script is on the server where ITOps Board is installed, copy the script to the **ITOps Board > PSScripts** folder.
  - If you are using a remote agent and the script is on a machine where the remote agent is installed, ensure that you copy the script to the following folder:**C:\Program files\Paessler\ITOps Board\PSScripts**. You must also ensure that you enter the full name of the PowerShell script in the integration settings.

1. From the Data Analysis menu, select one of the following options:
   - **Boards**
   - **Business Services**
2. Open a board or a business service, and click the **Members** tab.
3. Click the **Action** button and then click the **Notification Settings** button.
   A dialog box displays.
4. Select an option from the **Trigger** drop-down list.
5. Select an option from the **Action** drop-down list:
   - Email Notification
   - PowerShell script—Select a PowerShell script from the drop-down menu.

   The available Action options are dependent on the integrations that are configured for your environment.
6. Click **+** to add the notification.
7. Select the **Recipient List** tab. Adding recipients is only required for email notifications.
   The option to Notify All Recipients is enabled by default.
8. To send notifications to specific recipients, click the slider to disable the default and select recipients from the list.
9. Click **Save**.

Tip: Alternatively, you can perform this task without opening the board or the business service. From the Boards page, click the icon in the top corner of the board, or from the Business Services page, click the icon at the end of the entry for the business service. Select the appropriate menus and options.

Related Topics

To configure email addresses for Active Directory users, see "Add an Email Address for a User" on page 61.

Configure Notifications for Saved Searches

You can configure notifications based on saved searches. Notifications that are based on saved searches work differently than other notifications in ITOps Board:

- Notifications for boards and business services are triggered when there are changes to the state of the board or business service, when a board or business service is shared, or when an SLA threshold is reached.
- Notifications based on saved searches are triggered when the search criteria is met.

For example, you can use the saved search for "Critical Computers" and be notified whenever the search finds results. To use this feature, each search must be pinned to its own board. You can then configure a notification that is triggered whenever the search criteria is met.

Because each search is pinned to its own dedicated board, the health state of the board is determined by the search results. If there are no results that match the search criteria—for example, if there are no computers in a critical state—the health state of the board is green. If there are results that match the search criteria, the health state of the board is red.

Use the following procedure to configure notifications based on searches.

1. Select a pre-defined search from the **Explore** menu, or select a search from the **Saved Searches** tab.
2. In the Search bar, click **Save**.
3. Enter a name for the search. We recommend that you use a name that describes the search; this name will be used as the board name by default.
4. From the **Target Tabs** drop-down, select the tab where you want the search results to display.
5. Click **Save and Add Rule**.
6. Enable the toggle so that the board status is based on whether the search returned results. If there are no results that match the search criteria—for example, if there are no users who experienced poor calls within the past 24 hours—the health state of the board is green. If there are results that match the search criteria, the health state of the board is red.

7. Click **Add Rule to a Board**.
8. Click **Create a Board**.

> **Note:**
> You can add one query to a board. We recommend that you create a new board specifically for each query. If you use an existing board, ensure that there are no other rules or queries associated with it.

9. Click **Pin It**. Do not select a Health Roll-up Type; the board status is not based on this criteria and this setting is not needed.
   A confirmation message displays and provides a link to the new board.
10. Click the link to navigate to the new board.
11. Click the **More** icon (three dots) in the top corner of the board and select **Edit > Notifications**.
    A dialog box displays.
12. From the **Trigger** drop-down list, select **Board State Change**.
13. Select an option from the **Action** drop-down list.
14. Click **+** to add the notification.
15. Select the **Recipient List** tab. Adding recipients is only required for email notifications.
    The option to Notify All Recipients is enabled by default.
16. To send notifications to specific recipients, click the slider to disable the default and select recipients from the list.
17. Click **Save**.

Resolve an Alert

Use this procedure when an alert on a board or business service has been resolved and you want to close the incident from within ITOps Board.

1. From the Data Analysis menu, perform one of the following steps:
   - Click on **Explore** and click the **Alerts** tab.
   - Select **Boards**. Open a board and select the **Alerts** tab.
   - Select **Business Services**. Open a business service and select the **Alerts** tab.
2. From the **Alerts** tab, select an alert.
   A window opens to show the alert details.
3. Click the **Action** icon and click the **Resolve** button.
   A message displays to confirm that the alert is resolved.

CHAPTER 10

Managing Users

ITOps Board uses Active Directory to authenticate users. ITOps Board administrators can choose which users and groups in Active Directory are permitted to access ITOps Board. Built-in groups in Active Directory, such as Domain Admins or Domain Users, cannot access ITOps Board. If a user belongs only to a built-in group, that user cannot access ITOps Board. Ensure that you give the user permission to access ITOps Board, or that you add the user to one of your custom groups.

User permissions in ITOps Board are based on roles. ITOps Board includes two default roles:

- **Administrators**—Users assigned to this role have read-write access to everything in ITOps Board.
- **Operators**—Users assigned to this role have access to any integrations, boards, and business services that the administrator provisions for the role.

Administrators can create additional roles, and can further refine permissions by scoping the extent of information that users can access.

Use the information in this section to complete the following tasks:

Task	Description
"Create a Role" on page 59	Create roles for the different types of users in your organization.
"Assign Users to Roles" on page 59	Assign users to a specific role.
"Add Integrations to a Role" on page 60	Manage the integrations that can be viewed by users in different roles.
"Add Boards or Business Services to a Role" on page 60	Manage how users in different roles can access boards and business services.

Task	Description
"Scope Access" on page 60	When a user accesses a board or service, the board or service may contain components from an integration that the user does not have permission to access. Configure whether the user can view all information on a board, regardless of the source, or limit the user to viewing data from specified integrations. The scope setting is global, and applies to all roles that are defined in ITOps Board.
"Add an Email Address for a User" on page 61	Add an email address for a user that can be used for notifications.
"Create a Consent Message" on page 61	Create a custom message that displays in a banner at the bottom of the page. Users must accept the message to remove the banner.
"Configure Access to Saved Searches" on page 62	Control who can see and use saved searches.

Create a Role

Use this procedure to create roles for the different types of users in your organization. You can use roles to manage access to data and functionality in ITOps Board.

You must be an administrator to perform this procedure.

1. From the main menu, select **Settings**.
2. Click the **Authorization** tab.
3. Click the **Add** button.
4. Enter a name for the role and click **Create**.

Assign Users to Roles

Use this procedure to assign users to a specific role.

You must be an administrator to perform this procedure.

1. From the main menu, select **Settings**.
2. Click the **Authorization** tab.
3. Select a role from the list.
4. Click the **Add** button.
5. Enter the name of the user you want to add and click **Search**.
   A list displays.
6. Select the user and click **Add**.

Add Integrations to a Role

Use this procedure to manage the integrations that can be viewed by users in different roles.

Use this procedure to manage the integrations that can be viewed by administrators and operators in your organization. If you are providing access to the ITOps Board interface to your customers, use this procedure to specify the integrations that your customers can view.

You must be an administrator to perform this procedure.

1. From the main menu, select **Settings**.
2. Click the **Authorization** tab and select a role.
   A new page displays.
3. Click a role and select **Integrations**.
4. Click the **Add** button.
5. Select an integration from the list and click **Add**.
6. Optional. If you want users in this role to have read-only access to the integration, select the **Read-only** box.

Add Boards or Business Services to a Role

Use this procedure to allow users in a specified role to access boards and business services.

You must be an administrator to perform this procedure.

1. From the main menu, select **Settings**.
2. Click the **Authorization** tab and select a role.
   A new page displays.
3. Select one of the following options:
   - **Boards**
   - **Business Services**
4. Click the **Add** button
5. Select one or more boards or business services from the list and click **Add**.
6. Optional. If you want users in this role to have read-only access to the board or business service, select the **Read-only** box.

Scope Access

You can refine roles by specifying the extent—or the scope—of information that users can access. The scope setting is global, and applies to all roles that are defined in ITOps Board.

When you configure roles, you specify the integrations and the boards and services that users assigned to the role can access. However, boards and services may display components that are monitored by an integration that is not configured for a specific role. You can use the scope setting to determine whether:

- Users can view details about all components on a board or service, regardless of the source.
- Users are limited to viewing data from specified integrations.

1. From the main menu, select **Settings > Authorization**.
2. In the **Scope Components By Boards and Services** section, select one of the following options:
   - **Scope by source**—Users are restricted to viewing components from integrations they have access to. If you are using Vantage DX to provide managed services, you must select this option.
   - **Scope by boards and services**—Users can view details about all components on a board or service, even if the component is from an integration that they do not have access to. Detailed information includes properties, related alerts, and incidents.

Related Topics

- To manage the integrations that users can access, see "Add Integrations to a Role" on page 60.
- To manage the boards and business services that users can access, see "Add Boards or Business Services to a Role" on page 60.

Add an Email Address for a User

Use this procedure to add an email address that can be used to send notifications to a user.

1. From the main menu, select **Settings**.
2. Click the **Authorization** tab.
3. Select a role to see a list of users.
4. Click the **Edit** button next to the user name and enter an email address.
5. Click the check mark to save the change.

> **Tip:** Advise your users to check the Junk folder in their email clients to ensure that notifications are not being directed there.

Create a Consent Message

Use this procedure to add a message that displays in a banner at the bottom of the page. You can customize the message according to user roles. Users must accept the message to remove the banner.

You must be an administrator to perform this procedure.

1. From the main menu, select **Settings > General Settings**.

2. In the **Consent Messages** section, click the **Add** button.
3. Configure the following settings:
   - **Title**—Enter a descriptive title for the message.
   - **Roles**—Use the list to select the types of users who will see the message.
   - **Message**—Enter the text of your message.
   - **Disable background**—Select this option to require the user to accept the message before using the interface.
   - **Show every session**—Select this option to show the message every time the user accesses ITOps Board.
4. Click **Save**.

Configure Access to Saved Searches

Use this procedure to control who can see and use saved searches.

You must be an administrator to perform this procedure.

1. From the main menu, select **Settings > Authorization**.
2. In the **Saved Searches Visibility** section, select one of the following options:
   - **Admin only**—If you are using Vantage DX to provide managed services, you must select this option.
   - **Everyone**

CHAPTER 11

Managing Licensing

Use the information in this section to complete the following tasks:

Task	Description
"View License Information" on page 63	View information about your license, such as the expiry date.

Add a License Key

After you purchase a license, the support team sends you an email with the license key attached in a text file. Use this procedure to activate the license.

1. From the main menu, select **Settings**.
2. Click the **Licensing** tab.
3. Click the **Add License** button.
4. Paste your license key in the dialog box and click **Activate**.

View License Information

Use this procedure to view information about your license, such as:

- The type of license you have.
- The number of integrations supported for that license.
- The number of integrations currently configured.
- The expiry date.

1. From the main menu, select **Settings**.
2. Click the **Licensing** tab.
3. Click on a license to view details.

CHAPTER 12

Managing Storage

Use the information in this section to complete the following tasks:

Task	Description
"Configure Storage Options" on page 64	Configure the length of time that data is stored in ITOps Board.
"View Storage" on page 64	See the amount of storage spaced used by each integration.

Configure Storage Options

Use this procedure to configure the length of time that data is stored in ITOps Board. By default, ITOps Board retains data for 90 days.

1. From the main menu, select **Settings**.
2. Click the **Storage** tab.
3. Under **Storage Retention**, enter the number of days that you want to retain data.
4. Click **Save**.

View Storage

Use this procedure to see the amount of storage spaced used by each integration.

1. From the main menu, select **Settings**.
2. Click the **Storage** tab.
3. Review the list of integrations to see the amount of data stored for each one.
   The total storage used is shown at the bottom of the list.