



Monitoring Application Health

SL1 version 8.14.0 Beta

Table of Contents

Monitoring Application Health	3
What is an Application?	4
Monitoring Application Availability, Health, and Risk	5
The Application Investigator Page	6
The Tabs on the Application Investigator Page	6
The Info Drop-down on the Application Investigator Page	7
Creating Applications and Application Components	9
Creating an Application	10
Editing an Application	17
Working with Application Components	18
Editing an Application Component	18
Creating a Rule for an Application Component	20
Creating Application Component Criteria	21
Editing a Status Policy	24
Using the Root Cause Analysis Feature	24
Creating an Application Template	26
Creating an Application From a Template	27
Exporting an Application Template	28
Installing a Template from a PowerPack	31
Default Application Policy Settings	31
Managing Application Thresholds	32
Assigning an Icon to an Application or Application Component	33

Chapter 1

Monitoring Application Health



Overview

NOTE: The **Applications** page was removed from the 8.14.0 release. All features on previous versions of this page are considered Beta and experimental.

This manual describes how to use SL1 to monitor application health for your devices.

NOTE: Application Health requires either the **SL1 Extended** architecture (for devices that use SL1 agents) or **SL1 Maps on the Database Server**, which is also called **Maps on CDB** (for devices that do not use SL1 agents). The "Extended" architecture uses a Central Database appliance and multiple storage and data nodes. For more information, see the **Installation** manual. The "Maps on CDB" architecture uses the SL1 Maps images bundle installed on the Central Database appliance. For more information, see the **Maps** manual.

Use the following menu options to navigate the SL1 user interface:

- To view a pop-out list of menu options, click the menu icon (.
- To view a page containing all of the menu options, click the Advanced menu icon (.

This chapter includes the following topics:

What is an Application?	4
Monitoring Application Availability, Health, and Risk	5
The Application Investigator Page	6











What is an Application?

An **application** is a collection of one or more devices running a similar set of software or processes. You can monitor the **application health** of that set of devices in SL1 to ensure that the software running on those devices is performing the actions the software is supposed to be performing. If you are using the SL1 agent or an agent-related PowerPack to collect data, you can monitor the system processes for a dynamic list of devices.

An application is made up of one or more application components and a status policy:

- An **application component** is a specific group of devices running the software or process you want to monitor with SL1. An application component has process rules for matching processes reported by an SL1 agent. These process rules act as a filter, and an SL1 agent device is only considered to be part of an application component if at least one process rule is currently matching. You can also create an application component made up of devices that do *not* use the SL1 agent. An application can contain more than one application component, depending on your monitoring needs.
- A **status policy** contains a set of rules that define the availability, health, and risk criteria for the devices you want to monitor.

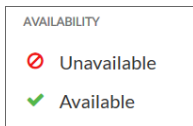
To navigate to the **Applications** page, click the Applications icon ():

NAME	DESCRIPTION	TYPE	ORGANIZATION	AVAILABILITY	HEALTH	RISK	POLICY
 distributed	dist	Application Component	System	✓ Available	● Healthy	—	Application Compone... <small>DEFAULT</small>
 App test by adam	panderp	Application	System	✓ Available	● Healthy	—	Application Policy <small>DEFAULT</small>
 Test Application component b	—	Application Component	System	✓ Available	● Healthy	—	Application Compone... <small>DEFAULT</small>
 Application by laks	test	Application	System	✓ Available	● Healthy	—	Application Policy <small>DEFAULT</small>
 firewall	Monitors firewall process	Application Component	System	✓ Available	● Healthy	—	Application Compone... <small>DEFAULT</small>
 irqbalance	Monitors firewall process	Application Component	System	✓ Available	● Healthy	75%	Application Compone... <small>DEFAULT</small>
 Processor Application	Monitors firewall and irqbalanc...	Application	System	✓ Available	● Minor	80%	Application Policy <small>DEFAULT</small>
 app2	—	Application Component	System	✓ Available	● Major	75%	Application Compone... <small>DEFAULT</small>
 AC by musa	Test	Application Component	System	✓ Available	● Healthy	—	Application Compone... <small>DEFAULT</small>
 application by musa	Test	Application	System	✓ Available	● Healthy	—	Application Policy <small>DEFAULT</small>

Monitoring Application Availability, Health, and Risk

On the **Applications** page you can monitor the availability, health, and risk of your applications and application components. These three values display in the following format and order:

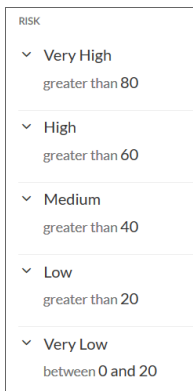
1. **Availability:** Displays whether an application can be used. An application is considered unavailable if SL1 is not able to collect data from the application, or if the application is usable or not usable. A value of 0 means an application is unavailable, and a value of 1 means an application is available. Availability uses the following icons:



2. **Health:** Displays a "severity" icon that represents a numerical value between 0 and 100, which indicates the current status of an application to show if its health is worsening or improving. In most cases, a higher value is preferred. Health uses the following icons by default:




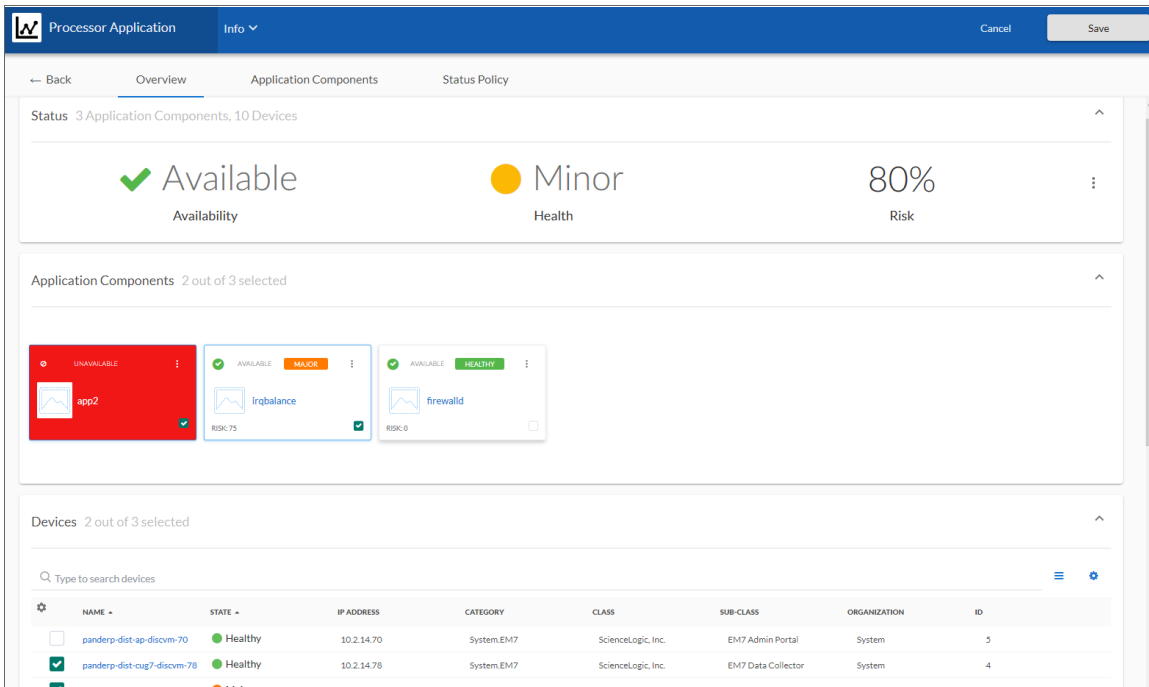
3. **Risk:** Displays a percentage value between 0 and 100 that indicates how close an application is to being in an undesirable state. In most cases, the safest possible risk value is 0%, while the worst risk value is 100%. Risk uses the following settings by default:



These values are computed in this order because SL1 uses *Availability* values to compute *Health* while SL1 uses both *Availability* and *Health* values to compute *Risk*.

The Application Investigator Page

When you select an application or an application component from the **Applications** page () , the **Application Investigator** page appears:




The Tabs on the Application Investigator Page

The **Application Investigator** page contains three tabs:

- **[Overview]**. Displays a "big-number" dashboard version of the most recent Availability, Health, and Risk values for the selected application or application component. This tab also displays a customizable view of the "constituent" components that are part of the application or application component:
 - For an application, this tab displays a summary tile view similar to a dashboard widget for any application components that belong to an application. Selecting the checkbox on an application component tile will display a list of devices that belong to that application component. You can then select one or more devices to see events for those devices.
 - For an application component, this tab displays a list of devices that belong to that application component. You can then select one or more devices to see events for those devices.

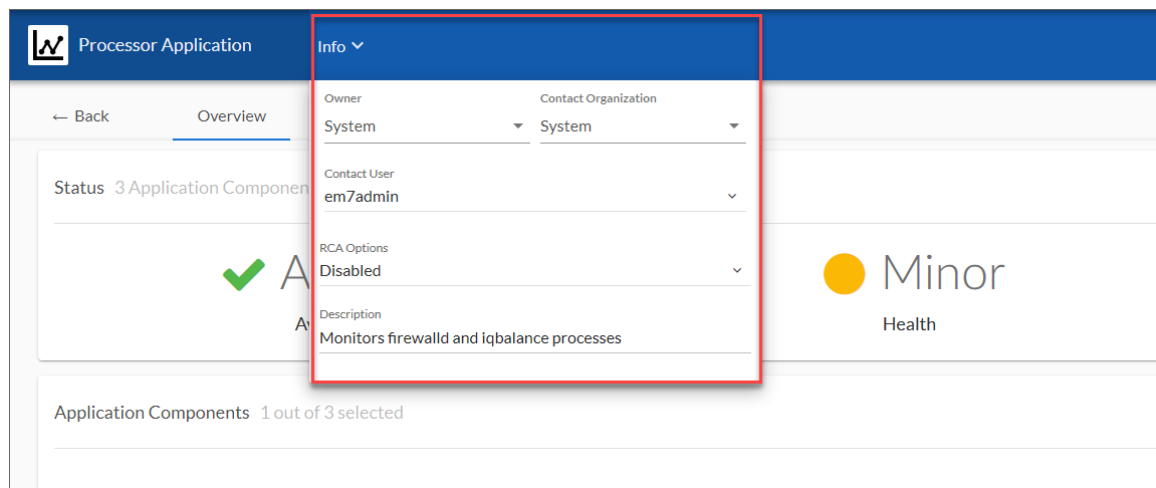
TIP: To view Root Cause Analysis information for a specific application component on an **Application**

Investigator page, click the Actions icon () on the tile for that component. If the Root Cause Analysis option is enabled, you can review data related to troubleshooting for that component. For more information, see [Using the Root Cause Analysis Feature](#).

- **[Application Components]** or **[Devices]**: Displays the application components or devices aligned with the selected application or application component:
 - For an application, the **[Application Components]** tab displays any application components that are currently aligned with that application, along with the process policy associated with that application. On this tab, you can view application component details and add application components to the application.
 - For an application component, the **[Devices]** tab displays any devices that are aligned with that application component. On this tab, you can use the **[Rules]** button to specify process rules that are relevant (if that component has devices with the SL1 agent installed on them). You can also dynamically or statically add devices to that application component.
- **[Status Policy]**. Displays the rules for the status policy that defines the availability, health, and risk for that application or application component. Depending on the thresholds you configured on the **Application Thresholds** page (Applications > Thresholds), SL1 generates an alert message if a threshold is crossed. On this tab, you can change the policy used by the application or application component, edit an existing policy, and create a new policy. A **Default** label appears next to the default policy.

The Info Drop-down on the Application Investigator Page

The **Info** drop-down at the top of the **Application Investigator** page displays the following:



- **Owner**. The organization that owns the application.
- **Contact Organization**. A contact organization for the application.

- **Visible Organizations.** A list of additional organizations other than the contact organization from which you can monitor devices for applications. This option appears only on **Investigator** pages for application components.
- **Contact User.** The contact user for the application.
- **RCA Options.** Allows the user to enable or disable the Root Cause Analysis feature (an advanced feature for troubleshooting). For more information, see [Using the Root Cause Analysis Feature](#).
- **Description.** A description of the application.
- **Include devices from visible organizations.** This option lets you enable or disable the ability to include devices from other organizations in an application component. This option appears only on **Investigator** pages for application components.

TIP: Click the **[Edit]** button to edit the content on all three tabs and to edit the fields on the **Info** drop-down. You can also edit the application or application component name and the icon associated with the application or component. Click **[Save]** to save your changes.

Chapter



2

Creating Applications and Application Components

Overview

This chapter describes how to create applications, application components, and status policies for monitoring application health.

Use the following menu options to navigate the SL1 user interface:

- To view a pop-out list of menu options, click the menu icon ().
- To view a page containing all of the menu options, click the Advanced menu icon ().

This chapter includes the following topics:

<i>Creating an Application</i>	10
<i>Working with Application Components</i>	18
<i>Creating Application Component Criteria</i>	21
<i>Editing a Status Policy</i>	24
<i>Using the Root Cause Analysis Feature</i>	24
<i>Creating an Application Template</i>	26
<i>Default Application Policy Settings</i>	31
<i>Managing Application Thresholds</i>	32
<i>Assigning an Icon to an Application or Application Component</i>	33


Creating an Application

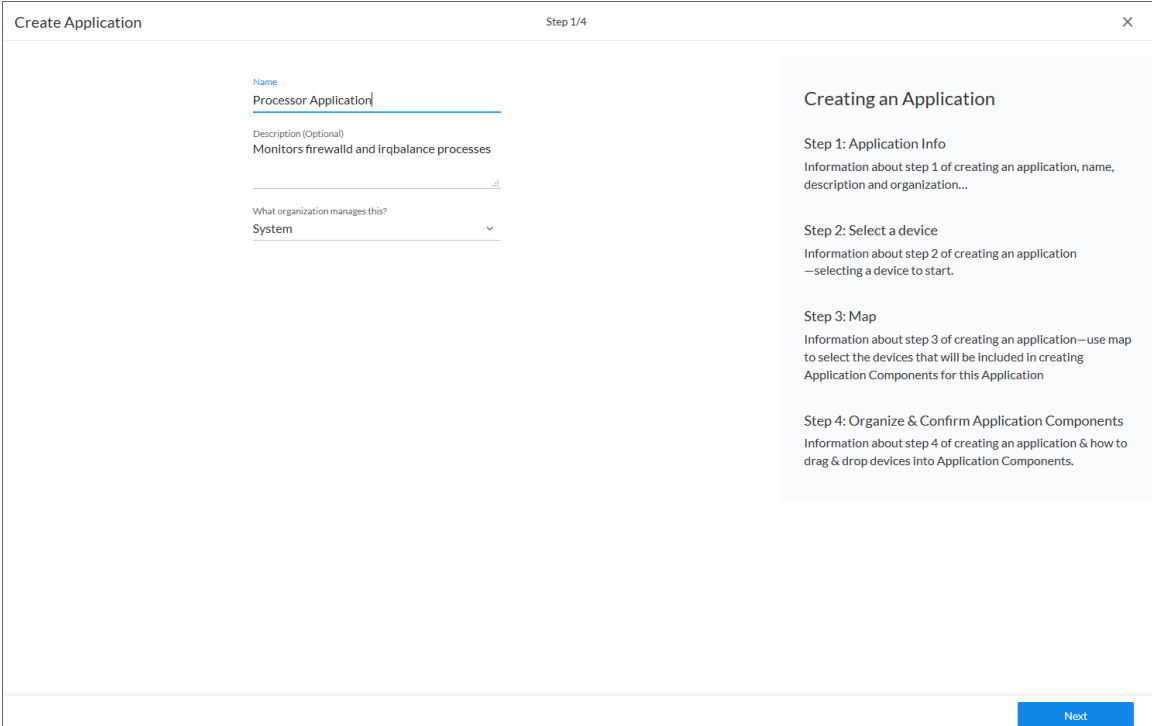
When creating an application or an application component, you can view device data as well as business, IT, and device service data. However, you can only use devices in application components.

The following "guided creation" workflow uses the relationships in a topology map to help you locate all of the devices that are using or communicating with the application you want to monitor. You can then group those devices into application components so that you can monitor the health of the application as a whole.

TIP: Instead of creating a completely new application, you can create an application template from an existing application by clicking the **[Actions]** button (⋮) for that application and selecting *Create Template*. For more information, see [Creating an Application Template](#).

To create a new application using the guided creation workflow:

1. Click the Applications icon () to go to the **Applications** page.
2. Click the **[Create Application]** button. The first **Create Application** window appears:



TIP: You can copy an existing application on the **Applications** page by clicking the **[Actions]** button (⋮) for that application and selecting *Duplicate*. You can also delete unneeded applications by clicking the **[Actions]** button (⋮) and selecting *Delete*.

3. Complete the following fields:

- **Name.** Type a unique name for this application.
- **Description.** Type a short description of this application. Along with the name, the description you type here appears on the **Applications** page. This field is optional.
- **What organization manages this?** Select the name of organization that owns this application.

4. Click the **[Next]** button. The second **Create Application** window appears:

What nodes would you like to start with?

Type to search inventory

device.name: aio

NAME	TYPE
SF-AIO-ERAMIREZ-25	Device
SF-AIO-XIRAMIREZ-26	Device
SF-AIO-BRANDON-27	Device
SF-AIO-LAHAND-20	Device
SF-AIO-MKAMATH-21	Device
SF-AIO-BPEW-22	Device
SF-AIO-ASAHYOUNI-23	Device
sfp-aio-Jandrade-79	Device
sfp-aio-gg-70	Device
sfp-aio-bmacmonigle-intern-44	Device
sfp-aio-mgarrett-56	Device
sfp-aio-asabanovic-20	Device
sfp-aio-tbrindle-34	Device

TYPE	ITEMS FOUND
Device	14

← Back

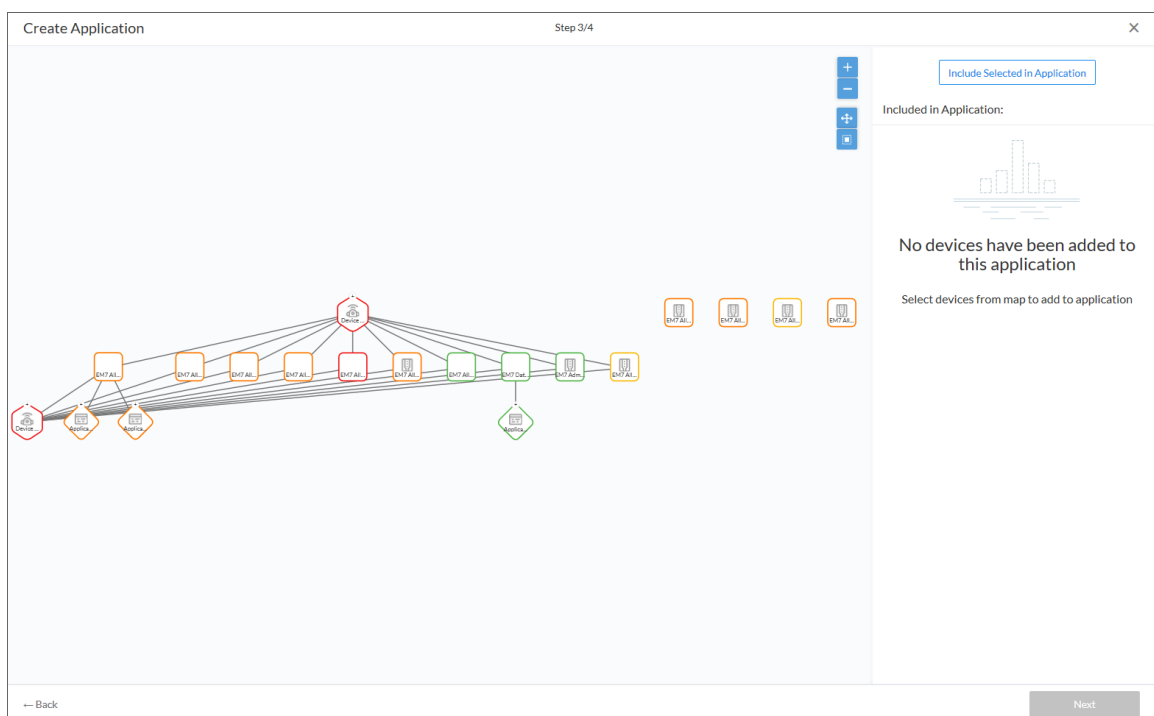
Next

On this page, you can specify the devices that you want to monitor, and you can align those devices to one or more application components.

5. In the **Search** field under **What nodes would you like to start with**, type search criteria for the devices that you want to monitor. On this page, a **node** is the same as a device.

TIP: If you are looking for a very specific set of devices, click the gear icon (⚙️) to the right of the **Search** field and select *Advanced*. In this mode you can create an advanced search using AND or OR for multiple search criteria. For more information, see the "Advanced Search" chapter in the *Introduction to SL1* manual.

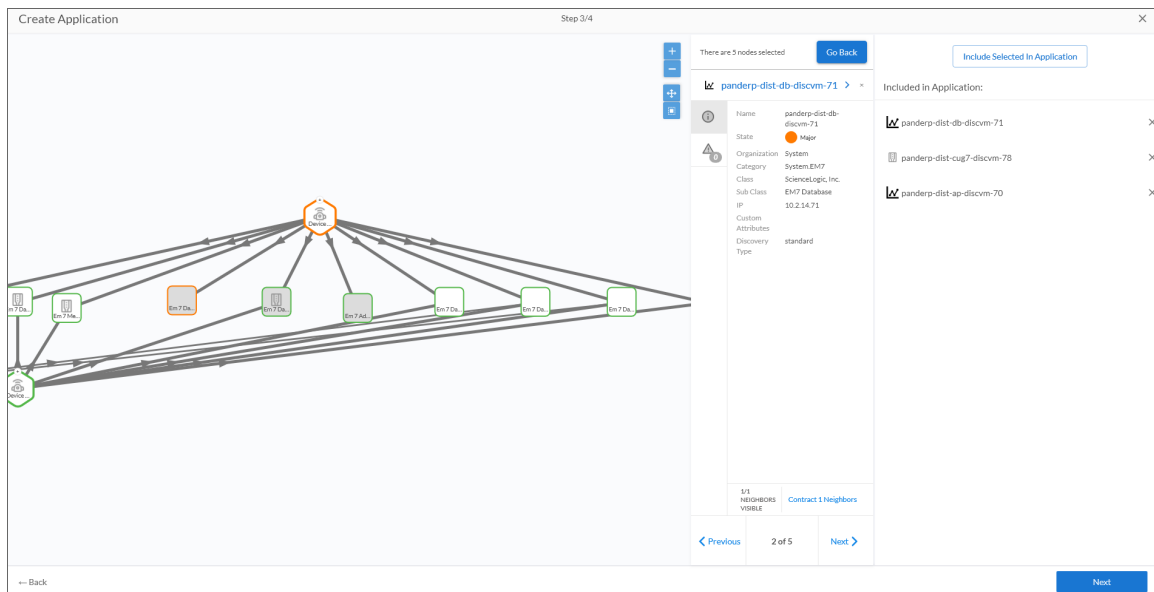
- Adjust your search criteria until you locate the devices that you want to use in your application components. The **Node Type Counts** pane displays the number of matching devices that your search has located.
- Click **[Next]** to continue. The third **Create Application** window appears:



- This page displays a viewing pane with a topology map for the device or devices you selected. Use the following buttons to manipulate the map on the viewing pane:
 - : Zoom in on the map.
 - : Zoom out on the map.
 - : Fit all elements of a map into the viewing pane.
 - : Center all selected elements of a map into the viewing pane.

TIP: This page uses the features of the **Maps** page. For more information on how to manipulate the map in the viewing pane, see the **Maps** manual.

- From the map, select the nodes (devices) that you want to add to this application, and click the **[Include Selected in Application]** button. Use **[Ctrl]** + click to select more than one node, and double-click a node to see more relationships. The selected node or nodes are added to the application:



NOTE: You can only select *devices* for monitoring in an application. The services and other non-device objects are only on the map to help you find devices through their relationships.

10. Click **[Next]** to continue. The fourth and final **Create Application** window appears:

Create Application Step 4/4

Add Device

Device List (5)

<input type="checkbox"/>	NAME	CLASS	SUBCLASS	IP	ORGANIZATION	USED IN
<input type="checkbox"/>	SF-AIO-LANAND-20	ScienceLogic, Inc.	EM7 All-In-One	10.2.23.20	System	0
<input type="checkbox"/>	SF-AIO-MKAMATH-21	ScienceLogic, Inc.	EM7 All-In-One	10.2.23.21	System	0
<input type="checkbox"/>	SF-AIO-BPEW-22	ScienceLogic, Inc.	EM7 All-In-One	10.2.23.22	System	0
<input type="checkbox"/>	SF-AIO-ASAHYOUNI-23	ScienceLogic, Inc.	EM7 All-In-One	10.2.23.23	System	0
<input type="checkbox"/>	sfp-aio-Jandrade-79	ScienceLogic, Inc.	EM7 Data Collector	10.2.14.79	System	0

+ Add Application Component

Create an Application Component and drag Devices from the list above

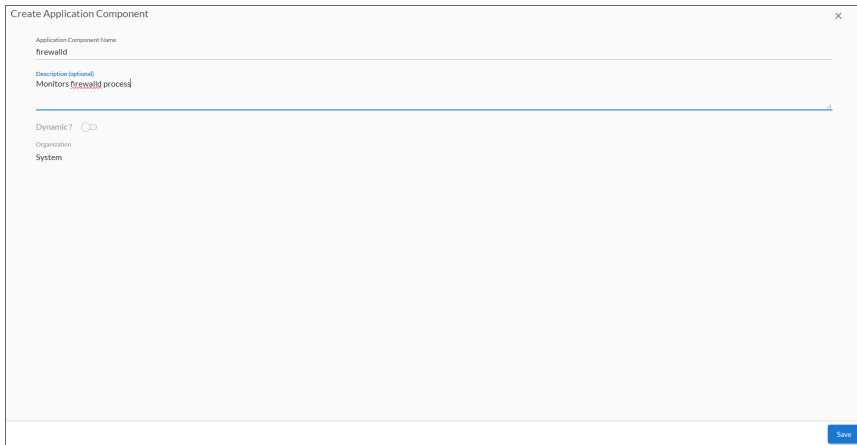
Back Save

On this page you can create application components from the devices you selected on the previous page.

NOTE: If you selected devices that use the SL1 agent to be part of your application component, this page automatically displays suggested application components based on the matching application component criteria that SL1 discovered. This feature only works for SL1 agent devices.

TIP: To add additional devices to the **Device List** pane, click the **[Add Device]** button at the top right and search for the devices you want to add. Select the devices and click the **[Add]** button.

11. Click the **[+Add Application Component]** button. A **Create Application Component** window appears:



12. Complete the following fields:

- **Application Component Name.** Type a unique name for this application component.
- **Description.** Type a short description of this application component. Along with the name, the description you type here appears on the **Applications** page. This field is optional.
- **Application Component Criteria.** If you have already created an Application Component Criteria, select that criteria.

NOTE: This field is optional, and you only need to use this field if you are running devices that use the SL1 agent. For more information, see [Creating Application Component Criteria](#).

- **Dynamic?** Enable this toggle if you want to create this component dynamically, based on your search criteria. If you enable this toggle, the **Visible Organizations** drop-down appears.
- **Visible Organizations.** If you enabled the **Dynamic** option, you can use this drop-down to search for and add devices from other organizations in addition to the organization to which the application component belongs.

13. Click the **[Save]** button.

14. If you enabled the **Dynamic** toggle in step 12, create a dynamic query by typing in the relevant search criteria in the **Search** field and click the **[Save]** button. The new application component is added to the bottom pane of the fourth **Create Application** window.

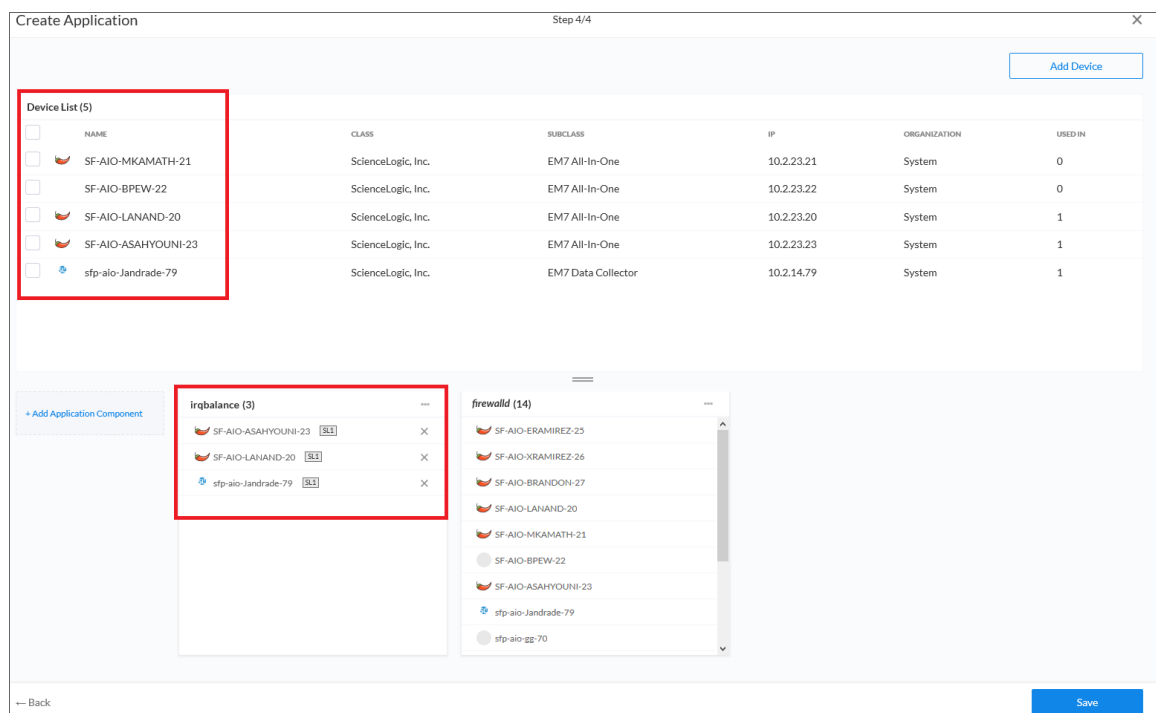
NOTE: To add additional application components, return to step 11, or click the **[Save]** button to save the new application and application component.

NOTE: The "dynamic" application component name displays in ***bold italics***. You cannot add or remove devices to a dynamic application component.

15. If you did *not* enable the **Dynamic** toggle in step 12, the new application component you just created is added to the bottom pane of the fourth **Create Application** window.

NOTE: The "static" application component name displays in **bold**. Also, you can add or remove devices to a static application component.

16. Select one or more nodes (devices) from the **Device List** pane and drag them into the new application component pane for the component you just created.



17. To add additional application components, return to step 11.

TIP: You can use the **[Actions]** button (≡) at the top right of each application component pane to edit, rename, duplicate, and remove (delete) that component.

18. Click **[Save]** to save the new application and application components. You can now access the application and application components on the **Applications** page.

Editing an Application

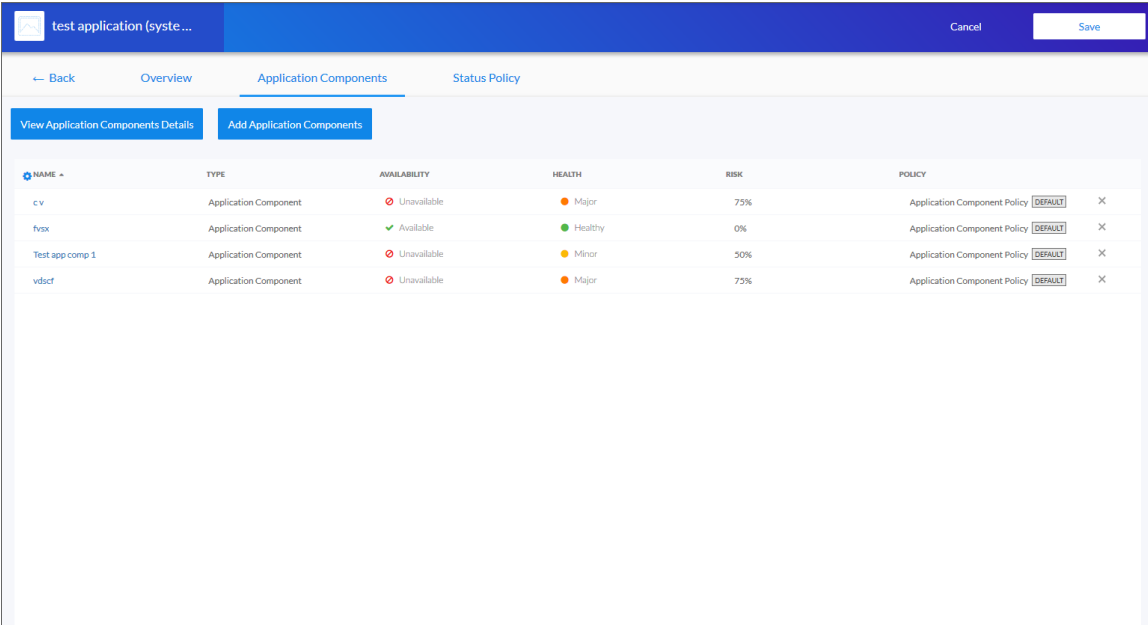
From the **Application Investigator** page, you can view the details of an application, view and add application components to that application, and edit the status policy aligned with that application.

To edit an application:

1. On the **Applications** page, click the **[Actions]** button (☰) for the application you want to edit and select *Edit*. The **Application Investigator** page appears.

TIP: You can also open the application and click the **[Edit]** button on the **Application Investigator** page at any time to edit the application.

2. On the **[Overview]** tab, update the metadata about the application as needed.
3. Click the **[Application Components]** tab:



The screenshot shows the 'test application (system...)' page with the 'Application Components' tab selected. The page has a blue header with 'Cancel' and 'Save' buttons. Below the header are tabs for 'Back', 'Overview', 'Application Components' (active), and 'Status Policy'. Under the 'Application Components' tab, there are two buttons: 'View Application Components Details' and 'Add Application Components'. Below these buttons is a table with the following data:

NAME	TYPE	AVAILABILITY	HEALTH	RISK	POLICY
c.v	Application Component	Unavailable	Major	75%	Application Component Policy [DEFAULT] X
fvvx	Application Component	Available	Healthy	0%	Application Component Policy [DEFAULT] X
Test app comp 1	Application Component	Unavailable	Minor	50%	Application Component Policy [DEFAULT] X
vdscf	Application Component	Unavailable	Major	75%	Application Component Policy [DEFAULT] X

4. Click the **[View Application Components Details]** button to open the **Edit Application** page. You can view and add application components and devices from this page. If you make any changes, click the **[Save]** button before closing this page.
5. Click the **[Add Application Components]** button to open the **Select Application Components** page. You can search for application components and select components from the search results on this page. If you make any changes, click the **[Save]** button before closing this page.
6. From the **[Application Components]** tab, you can also click the name of an application component to view more information about that component. Click your browser's **[Back]** button to return to the **[Application Components]** tab.

7. Click the **[Status Policy]** tab and update or create a new status policy for this application as needed.
8. When you are done editing this application, click the **[Save]** button.
9. Click the **[Back]** button on the **Application Investigator** page to return to the **Applications** page.

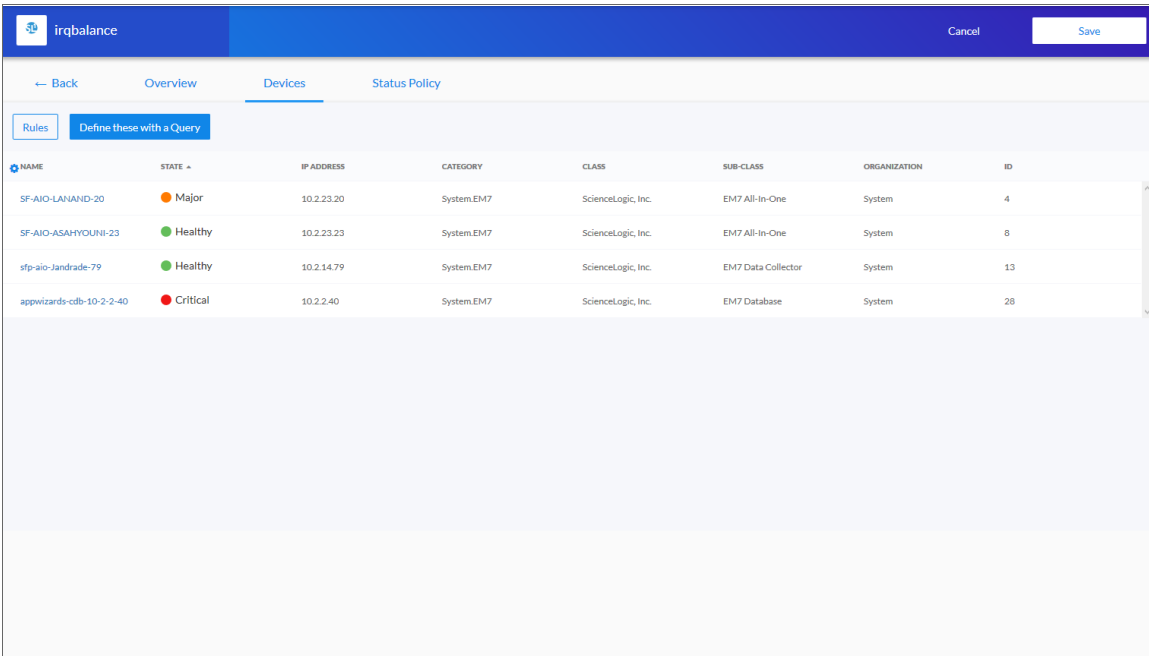
Working with Application Components

If an application is not providing the application health information you need, you can update the devices in your application components, and you can add additional components to an application. You can also add and edit application component criteria and rules for the specific elements of the application you want to monitor.

Editing an Application Component

To edit the set of devices in an application component:

1. From the **Applications** page, select the application component you want to edit and select *Edit*. The **[Devices]** tab of the **Application Investigator** page appears:



The screenshot shows the 'Application Investigator' interface for a component named 'irqbalance'. The 'Devices' tab is active, displaying a table of application components. The table has columns for NAME, STATE, IP ADDRESS, CATEGORY, CLASS, SUB-CLASS, ORGANIZATION, and ID. There are four rows of data, each with a colored circle indicating the state: Major (orange), Healthy (green), Healthy (green), and Critical (red).

NAME	STATE	IP ADDRESS	CATEGORY	CLASS	SUB-CLASS	ORGANIZATION	ID
SF-AIO-LANAND-20	Major	10.2.23.20	System.EM7	ScienceLogic, Inc.	EM7 All-In-One	System	4
SF-AIO-ASAHYOUNI-23	Healthy	10.2.23.23	System.EM7	ScienceLogic, Inc.	EM7 All-In-One	System	6
sfp-aio-Jandrade-79	Healthy	10.2.14.79	System.EM7	ScienceLogic, Inc.	EM7 Data Collector	System	13
appwizards-cdb-10-2-2-40	Critical	10.2.2.40	System.EM7	ScienceLogic, Inc.	EM7 Database	System	28

TIP: You can also open the application component and click the **[Edit]** button on the **Application Investigator** page, and then click the **[Devices]** tab.

2. To define the processes and arguments to monitor for that application component, click the **[Rules]** button and [add a rule](#).
3. To edit the dynamic query for the devices meeting a specific set of search criteria, click the

[Define these with a Query] button. The **Edit Application Component** window appears.

4. Update the search criteria in the **Search** field, and click [Continue].

For example, you could type the following search criteria to dynamically add any device that has "007" in its name: **name contains '007'**. For more information, see the "Advanced Search" chapter in the **Introduction to SL1** manual. The results of the dynamic search display with a blue bar next to them, while the results of the previous search display with a red bar next to them:

The screenshot shows the 'Edit Application Component' window. At the top, there is a search bar with the query 'name contains '007''. Below the search bar, there is a table titled 'Devices currently matching this query'. The table has columns: NAME, STATE, IP ADDRESS, CATEGORY, CLASS, SUB-CLASS, ORGANIZATION, and ID. The table lists five devices, with the first one highlighted by a red box and the last one by a blue box.

NAME	STATE	IP ADDRESS	CATEGORY	CLASS	SUB-CLASS	ORGANIZATION	ID
SF-AIO-LANAND-20	Major	10.2.23.20	System.EM7	ScienceLogic, Inc.	EM7 All-In-One	System	4
SF-AIO-ASAHYOUNI-	Healthy	10.2.23.23	System.EM7	ScienceLogic, Inc.	EM7 All-In-One	System	8
sfp-aio-Jandrade-79	Healthy	10.2.14.79	System.EM7	ScienceLogic, Inc.	EM7 Data Collector	System	13
appwizards-cdb-10-2-	Critical	10.2.2.40	System.EM7	ScienceLogic, Inc.	EM7 Database	System	28
007-sl1-db-50	Healthy	10.2.7.50	Servers	Linux	Oracle Linux 7	System	36

5. On the [Devices] tab, click the [Save] button.

Creating a Rule for an Application Component

An application component can contain one or more **rules** that define which processes you want to monitor for that application component. These rules only execute against process data from the devices running the SL1 agent that are found in the application component.

To create a rule for an application component:

1. From the **Applications** page, select the application component you want to edit and select *Edit*. The **[Devices]** tab of the **Application Investigator** page appears.

TIP: You can also open the application component and click the **[Edit]** button on the **Application Investigator** page, and then click the **[Devices]** tab.

2. Click the **[Rules]** button. A **Rules** window appears:

PROCESS	ARGUMENT
nginx: master process /usr/sbin/nginx	nginx

NOTE: You can also add a rule with the Rule Builder, which lets you type a process or argument and select any device process that matches those criteria to define your rule.

3. Click the **[Add Rule]** button. The **Edit Rule** window appears.
4. Complete the following fields:
 - **Process.** Specify the full path of the program that is running, such as `/usr/sbin/nginx`
 - **Argument.** Specify the full command line showing how the program was invoked, such as `nginx: master process /usr/sbin/nginx -c /etc/nginx/nginx.conf`
5. Click **[Save]**. The rule is added to the list of rules.
6. Add another rule or edit an existing rule as needed.
7. On the **Rules** window, click **[Save]** to return to the **[Devices]** tab. SL1 executes any new rules and adds any devices that fit the rules. These rules will only execute against process data from all SL1 agent devices in the application component.

Creating Application Component Criteria

You can use a group of rules called **application component criteria** to match with related devices to automatically create application components.

NOTE: You can *only* create application component criteria if you are running devices that use the SL1 agent.

To define application component criteria:

1. Go to the **Application Component Criteria** page (Applications > Application Component Criteria):

NAME	DESCRIPTION	ORGANIZATION
Java	php	System
NGINX	Nginx master process	
PHP	Master process	
Python 3.4	Python 3.4	

2. Click the **[Create New]** button. The **Create Application Component Criteria** window appears:

Create Application Component Criteria

Name

Description (optional)

Matched within
default

Organization (optional)

PROCESS

ARGUMENT

No matches found.

Add Rule

Save

3. Complete the following fields on the left:
 - **Name**. Type a name for the application component criteria.
 - **Description**. Type a description of the application component criteria. Along with the name, the description you type here appears on the **Applications** page. This field is optional.
 - **Matched within**. This field specifies the amount of time that a process must be running to be considered "matched" for guided discovery of devices for the component. The default is 180 minutes, and this field is currently not editable.
 - **Organization**. If you want to limit the application component criteria to just organization, select that organization from the drop-down list.
4. Click the **[Add Rule]** button. The **Edit Rule** window appears.
5. Complete the following fields:
 - **Process**. Specify the full path of the program that is running, such as `/usr/sbin/nginx`.
 - **Argument**. Specify the full command line showing how the program was invoked, such as `nginx: master process /usr/sbin/nginx -c /etc/nginx/nginx.conf`.

6. Click **[Save]**. The rule is added to the list of rules. If any rule matches, the whole policy will evaluate to *true*. This applies to application component criteria discovery and to application component health, availability, and risk calculation.
7. To add a rule with the Rule Builder, click the down arrow on the **[Add Rule]** button and select *Add Rule via Rule Builder*. The **Add Rule** window appears:

8. Type a process and an argument in the corresponding fields at the top of the window.
9. Click **Select processes to test rule**. A list of devices appear in the **Device List** pane.
10. In the **Device List** pane, select one or more devices to check for matching processes and arguments on those devices.


TIP: You can hover over an argument name to see the complete text that makes up that argument.

11. Select the devices and processes you want to use for the application component criteria.
12. Click the **[Test Rule]** button. A check mark appears next to any processes that are a match with existing devices.
13. When you are done selecting devices and processes, click the **[Save]** button.
14. Add additional rules to the application component criteria as needed.
15. Click **[Save]** to return to the **Application Component Criteria** page. You can now use the application component criteria when you create an application.


Editing a Status Policy

Each application and application component requires a **status policy** that determines what it monitors. A status policy contains a set of rules and conditions that define the Availability, Health, and Risk values.



When you create an application or application component, SL1 automatically uses the *default* status policy for that application or application component. You can remove the default policy after you create a new policy. The default policies cannot be edited.

TIP: If a policy contains errors, an error icon () appears next to the policy name. To view details about what makes the policy invalid, select the policy and hover over the error icon next to the policy name in the right-hand section. A pop-up window lists the problems with the policy.

To select an existing status policy:

1. On the **Applications** page, select the application or application component that you want to edit. The **[Overview]** tab for the application or application component appears.
2. Click the **[Status Policy]** tab, and select the policy you want to use in the **Policies** pane.
3. To view the details of a selected policy, click the **[Actions]** button () for that policy and select *Edit* (or *View* for the default policy). The **Policy Editor** page appears.
4. Click the **[Cancel]** button when you are done viewing the details for that policy.

TIP: You can copy an existing policy on the **[Status Policy]** tab by clicking the **[Actions]** button () for that policy and selecting *Duplicate*.

5. To add a policy to the application or application component, select the policy in the **Policies** section and click the **[Use Policy]** button in the right-hand section. A check mark icon () appears next to that policy in the **Policies** section, and the words "Current Policy" replace the **[Use Policy]** button in the right-hand section.
6. If you want to *delete* a policy you no longer want to use, click the **[Actions]** button () for that policy, select *Delete*, and then click **[Delete Policy]**. If that policy is used by any other applications or application components, those items are assigned the default policy type. You cannot delete a default policy.

Using the Root Cause Analysis Feature



Advanced SL1 users can use the **Root Cause Analysis** feature to determine what is causing an application or application component to be unhealthy. You can then use the Root Cause Analysis data to troubleshoot that application or component and refine your status policies.

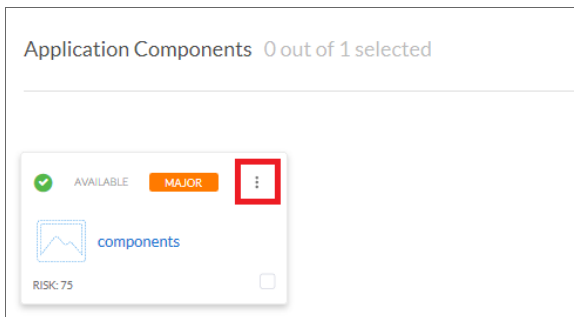
To enable Root Cause Analysis:

1. Open the **Application Investigator** page for an application and click **[Edit]**.
2. Click the **Info** drop-down and select one of the following options from the **RCA Options** drop-down:
 - *Disabled*
 - *Enabled (contributors only)*
 - *Enabled (next run only)*
 - *Enabled*

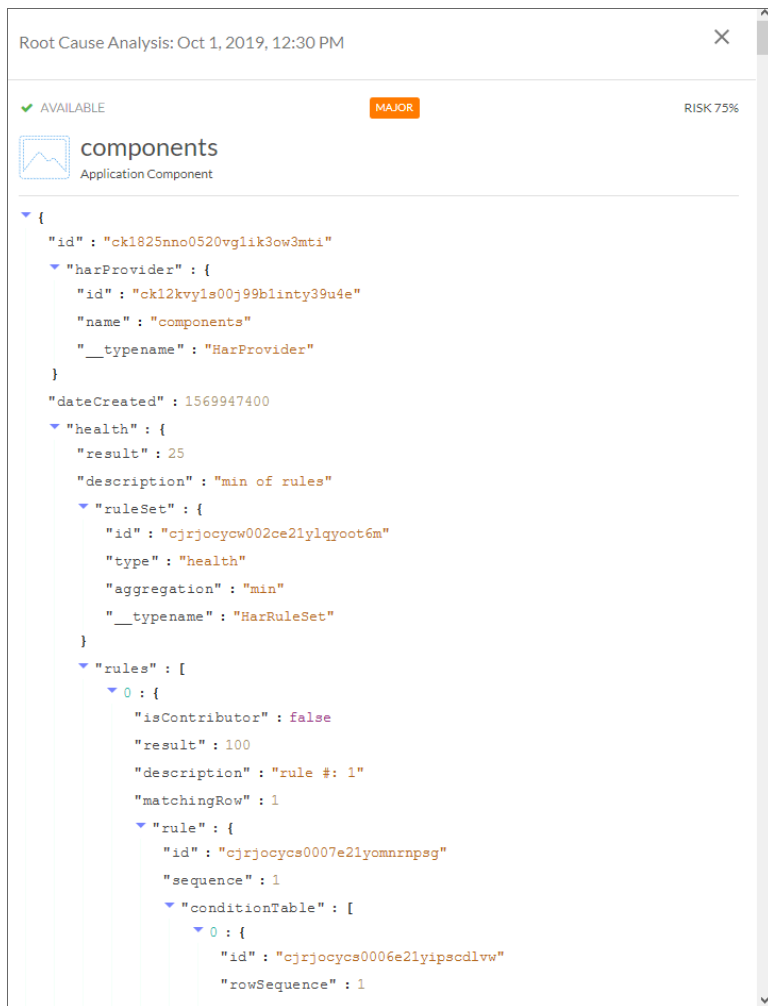
NOTE: You might experience performance slowdown if Root Cause Analysis is continuously enabled.

3. Click **[Save]**.

You can view a **Root Cause Analysis** window by opening the **Investigator** page for an application or application component and clicking the Actions icon () on the **Status** pane. You can also click the Actions icon () on an application component tile (applications only):



A Root Cause Analysis model window appears with more data as a JSON object:




The data is a JSON object of the processing information that was used to compute the Health, Availability and Risk for that application. Within the Root Cause Analysis JSON object, the arrays named "contributors" describe which devices contributed in the calculation for the resulting Health, Availability or Risk for the current application.

Creating an Application Template

You can create an **application template** from an existing application to simplify the process of rebuilding an entire application that uses similar application components.

To create an application template:


1. On the **Applications** page, click the Actions button (☰) for the application you want to use as the basis for your template and select *Create Template*. The **Create Template From Application** window appears.


2. This window contains important information about what you can and cannot do with an application template. After reading this information, click **[Next]**. The next **Create Template From Application** window appears.
3. Type a name for the template in the **Template Name** field, and type a description of the template in the **Description** field, if needed. Click **[Next]**. The next **Create Template From Application** window appears.
4. The left side of the window displays the tree for the application hierarchy that is being made into a template. You can select each application in the tree to see information related to that application on the right side of the window.
5. Click the **Status Policy** tab to view the status policy definition for Availability, Health and Risk for that application.
6. On the **Status Policy** tab for an application component, you can add annotations for the policies in the template. When a new user uses the template on another system, your annotations can help that user understand the purpose of this status policy.
7. To leave an annotation for a status policy or rule, click the talk bubble icon () next to the rule or tab. Type your annotation text in the **Annotation** window and click **[Save]**. The talk bubble icon now displays as solid blue, while empty talk bubble icons contain a plus sign.
8. Click **[Create Template]**. A confirmation window appears stating that you created the template. Click **[Close]**. The template appears on the **Application Templates** page (Applications > Application Templates).

Creating an Application From a Template

To create an application from a template:

1. From the **Applications** page, click the down arrow on the **[Create Application]** button, and select *Create Application from Template*. The **Create Application from Template** window appears.

TIP: You can also create a new application or application component from the list of templates on the **Application Templates** page (Applications > Templates). Click the Actions button () next to the template you want to use and select *Create Application* or *Create Application Component*.

2. Select a template and click **[Next]**. The next **Create Application from Template** window appears.
3. Select an organization from the **What organization manages this application?** drop-down list and click **[Next]**. The next **Create Application from Template** window appears.
4. To edit the names of the applications in the hierarchy at the left, click the application name and update the name. Updating the application names is recommended if you are creating the new application on the same system from which the template was created.
5. Any annotations for an application component that were added when the template was created will be present, and you can edit them and add new annotations.
6. You can edit the rules for Availability, Health, and Risk for an application in the template.
7. To edit a rule, click the pencil icon () next to the rule, and an edit window appears where you can update the rule.

8. Click the **[Save]** button to close the edit window.
9. Click the **[Create Application from Template]** button to save your application. A confirmation window appears.
10. Click the **[Close]** button. The new application appears on the **Applications** page.

Exporting an Application Template

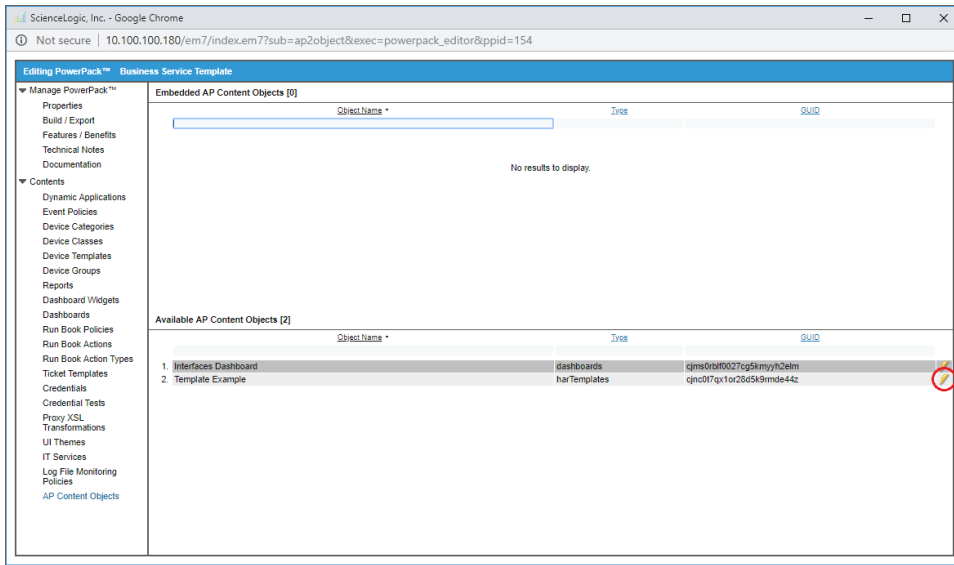
If you want to use an application template on another SL1 system, you can package that template into a PowerPack and export it to the other system.

To package and export an application template:

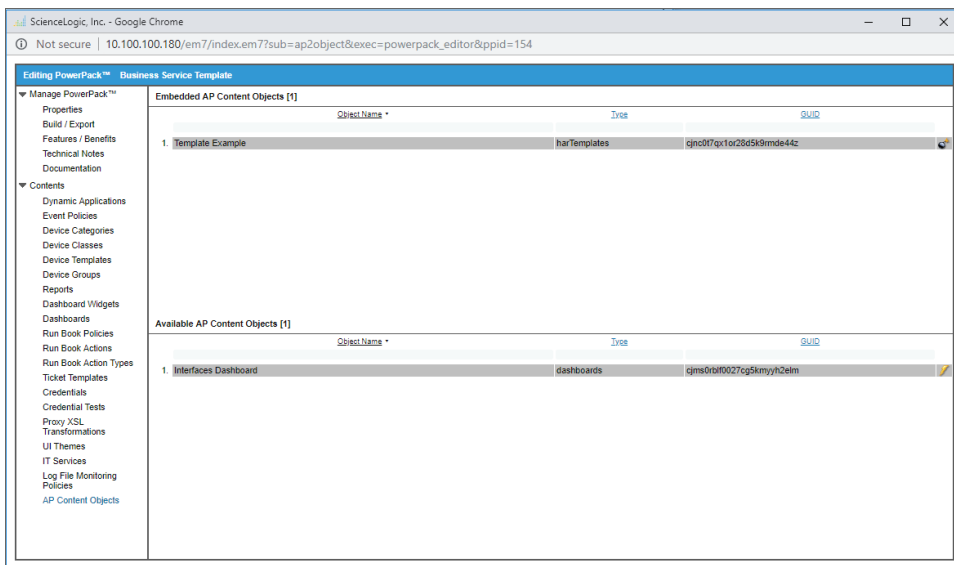
1. Go to the **PowerPack Manager** page (System > Manage > PowerPacks).
2. Click the **[Actions]** button and select *Create a New PowerPack*.
3. On the **PowerPack Properties** page, type a name for the PowerPack in the **Name** field and click **[Save]**.

The screenshot shows a web browser window titled "ScienceLogic, Inc. - Google Chrome" with the URL "10.100.100.180/em7/index.em7?exec=powerpack_editor&sub=props". The page is titled "Create New PowerPack™". On the left is a sidebar menu with categories: "Manage PowerPack™" (Properties, Build / Export, Features / Benefits, Technical Notes, Documentation) and "Contents" (Dynamic Applications, Event Policies, Device Categories, Device Classes, Device Templates, Device Groups, Reports, Dashboard Widgets, Run Book Policies, Run Book Actions, Run Book Action Types, Ticket Templates, Credentials, Credential Tests, Proxy XSL Transformations, UI Themes, IT Services, Log File Monitoring Policies, AP Content Objects). The main area is the "Properties" form. It contains fields for Name (filled with "Business Service Template"), Version (filled with "1"), Publisher, License Key, Creation (filled with "em7admin [2018-10-16 15:19:44]"), Modification (filled with "em7admin [2018-10-16 15:19:44]"), Revision (filled with "0"), ID, Description, Vendor(s) Supported, Model(s) Supported, Version(s) Supported, and Minimum EMT Version. Below these is a "Release Notes and Change Log" section with a rich text editor toolbar and a text area containing "Start typing or drop image here ...". A "Save" button is at the bottom right of the form.

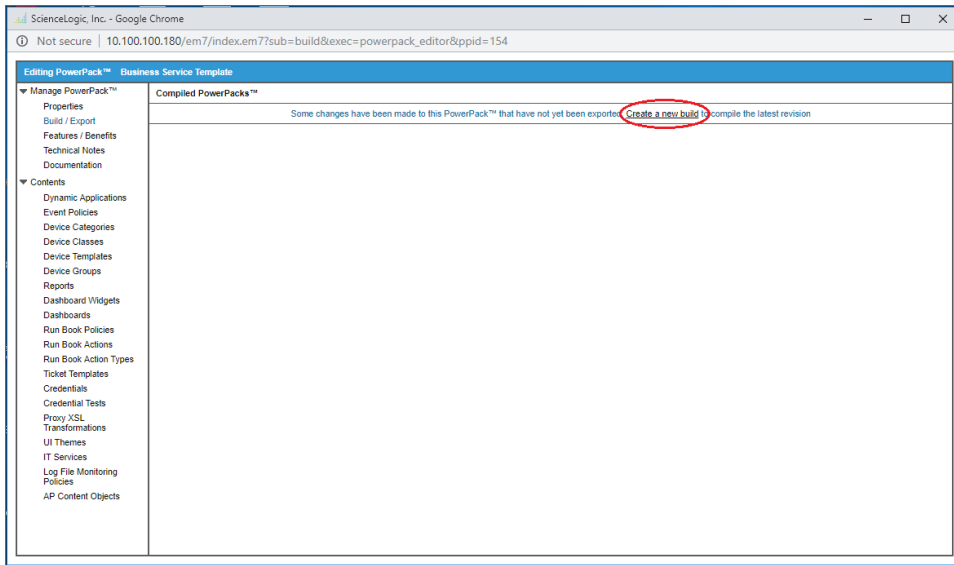
4. Select *AP Content Objects* from the left-nav on the **PowerPack Properties** page. Your template appears in the **Available AP Content Objects** pane:



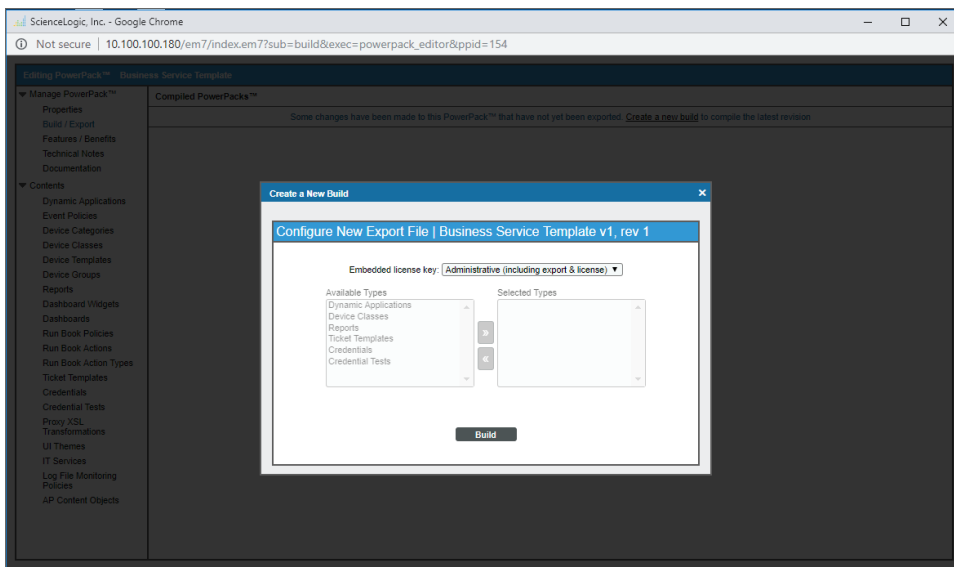
5. Click the lightning bolt icon (⚡) next to the template to add it to the PowerPack. The template moves up to the **Embedded AP Content Objects** pane:



6. Select *Build/Export* from the left-nav to open the **Compiled PowerPacks** window, and then click the *Create a new build* link:




7. In the **Configure New Export File** window, select *Administrative (including export & license)* from the **Embedded license key** drop-down list. Click **[Build]**.



8. When the PowerPack finishes building, you can download the build with the download icon (📄) and use that file to upload the template to a new SL1 system.

Installing a Template from a PowerPack

1. On the SL1 system where you want to install the template, import the PowerPack on the **PowerPack Manager** page (System > Manage > PowerPacks).
2. After you have imported the PowerPack, click the **[Actions]** button and select *Install PowerPack*.
3. Locate the PowerPack you created in the **Imported PowerPacks** window and click its lightning bolt icon ().
4. When the **Install PowerPack** window appears, click the **[Install]** button.

After you install the PowerPack, you can access the template on the **Application Templates** page (Applications > Templates).

Default Application Policy Settings

The following sections describe how the status policies calculate Availability, Health, and Risk for both applications and application components:

Availability. Maximum available: If **one** application or application component is available, then **all** are available.

Health. Based on the **average Health value** of all application components for an application, or the average health of all devices for an application component, then uses the following settings:

- Critical = 0-20
- Major = 21-40
- Minor = 41-60
- Notice = 61-80
- Healthy = 81-100

Risk. Based on the **maximum Risk value** of any application component for an application, or the average health of all devices for an application component, then uses the following percentages:

- Very Low = 0-20%
- Low = 21-40%
- Medium = 41-60%
- High = 61-80%
- Very High = 81-100%

Managing Application Thresholds

When SL1 evaluates the state of an application, it reviews the Health, Availability, and Risk values produced by your applications and application components. SL1 then compares those values against the alert thresholds that are defined on the **Application Thresholds** page (Applications > Thresholds):



TIP: To update the thresholds on this tab, click the **[Edit]** button, select which thresholds should generate an alert message, and then click **[Save]**.

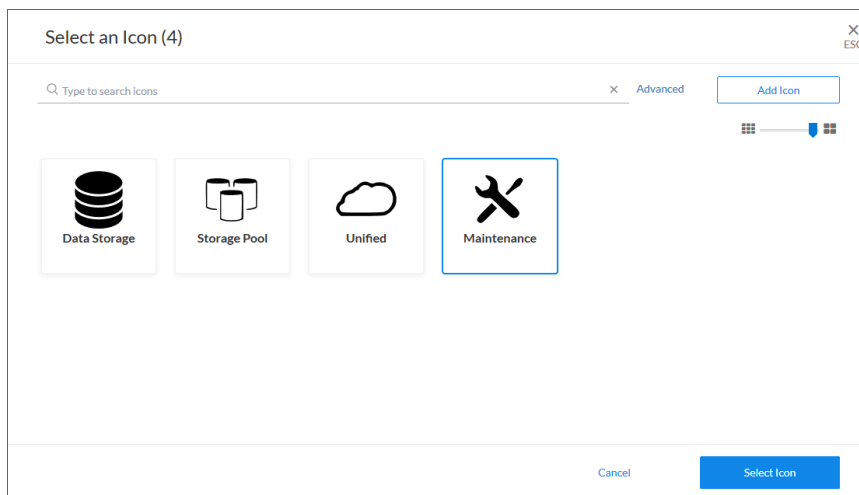
If any of the thresholds on the **Application Thresholds** page are crossed, SL1 generates an alert message. For an event to be produced, you need to create or install an event policy in SL1 that watches for that alert message and produces an event when it sees that alert message. By monitoring the events tied to your applications and application components, you can act quickly if one of them becomes unavailable, unhealthy, or potentially at risk.

NOTE: This feature uses the *Application Management PowerPack*, which contains the relevant set of Event Policies for Applications. The *Application Management PowerPack* is installed with the 8.12.0 and later versions of SL1.

Assigning an Icon to an Application or Application Component

To assign an icon to an application or application component:

1. Click the Applications icon () to go to the **Applications** page.
2. On the **Applications** page, locate the application or application component to which you want to add an icon.
3. Click the **[Actions]** button () for that application or application component and select *Assign Icon*. The **Select an Icon** window appears:

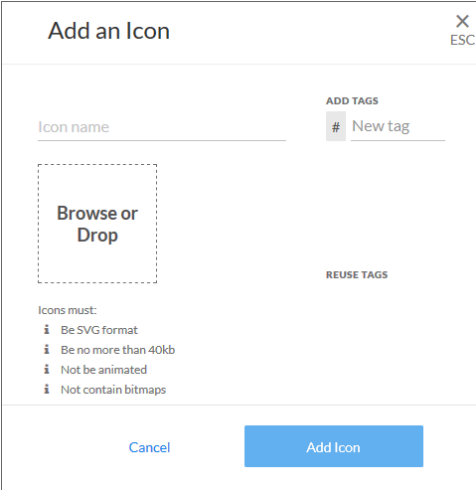


4. To use an existing icon, select that icon from the list of icons and click the **[Select Icon]** button.

TIP: If an icon includes a tag, you can search for that icon by typing some or all of the tag text in the **Search** field.

5. To upload an icon from your local drive, make sure that the image file meets the following criteria:
 - The image file should be in .SVG format.
 - The file should not be larger than 40 KB.
 - The file should not be animated.
 - The file should not contain bitmaps

- To start the upload process, click the **[Add Icon]** button. The **Add an Icon** window appears:



The screenshot shows a dialog window titled "Add an Icon" with a close button (X) and "ESC" key indicator in the top right corner. The dialog is divided into several sections:

- Icon name:** A text input field.
- ADD TAGS:** A section with a "# New tag" input field.
- Browse or Drop:** A large dashed rectangular area for selecting or dropping an icon file.
- REUSE TAGS:** A checkbox.
- Icons must:** A list of requirements:
 - Be SVG format
 - Be no more than 40kb
 - Not be animated
 - Not contain bitmaps
- Buttons:** "Cancel" and "Add Icon" buttons at the bottom.

- In the **Icon name** field, type a name for the icon you want to upload.
- In the **Add Tags** field, type a short descriptor for the icon, without spaces. You can use this tag for searching later.
- You can click the **Browse or Drop** area to browse for and select the icon, or you can drag and drop the icon file onto the **Add an Icon** window.
- Click the **[Add Icon]** button. The icon is added to the **Select an Icon** window.
- Click the **[Select Icon]** button to add the icon to the application or application component.

© 2003 - 2020, ScienceLogic, Inc.

All rights reserved.

LIMITATION OF LIABILITY AND GENERAL DISCLAIMER

ALL INFORMATION AVAILABLE IN THIS GUIDE IS PROVIDED "AS IS," WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED. SCIENCELOGIC™ AND ITS SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT.

Although ScienceLogic™ has attempted to provide accurate information on this Site, information on this Site may contain inadvertent technical inaccuracies or typographical errors, and ScienceLogic™ assumes no responsibility for the accuracy of the information. Information may be changed or updated without notice. ScienceLogic™ may also make improvements and / or changes in the products or services described in this Site at any time without notice.

Copyrights and Trademarks

ScienceLogic, the ScienceLogic logo, and EM7 are trademarks of ScienceLogic, Inc. in the United States, other countries, or both.

Below is a list of trademarks and service marks that should be credited to ScienceLogic, Inc. The ® and ™ symbols reflect the trademark registration status in the U.S. Patent and Trademark Office and may not be appropriate for materials to be distributed outside the United States.

- ScienceLogic™
- EM7™ and em7™
- Simplify IT™
- Dynamic Application™
- Relational Infrastructure Management™

The absence of a product or service name, slogan or logo from this list does not constitute a waiver of ScienceLogic's trademark or other intellectual property rights concerning that name, slogan, or logo.

Please note that laws concerning use of trademarks or product names vary by country. Always consult a local attorney for additional guidance.

Other

If any provision of this agreement shall be unlawful, void, or for any reason unenforceable, then that provision shall be deemed severable from this agreement and shall not affect the validity and enforceability of any remaining provisions. This is the entire agreement between the parties relating to the matters contained herein.

In the U.S. and other jurisdictions, trademark owners have a duty to police the use of their marks. Therefore, if you become aware of any improper use of ScienceLogic Trademarks, including infringement or counterfeiting by third parties, report them to Science Logic's legal department immediately. Report as much detail as possible about the misuse, including the name of the party, contact information, and copies or photographs of the potential misuse to: legal@sciencelogic.com



800-SCI-LOGIC (1-800-724-5644)

International: +1-703-354-1010