User Interface Integration

SL1 version 8.14.0

Table of Contents

Chapter 1

Introduction

Overview

This manual describes how to user the user interface of SL1 to display information from external systems. You can do this with:

- custom Navigation Bars
- custom Navigation Tabs
- Top-N and Context iFrame widgets
- Embedded pages
- Proxied Web Services

Each of these methods is described in this manual.

Chapter 2

Navigation Tabs

Overview

This chapter describes how to view, create, and manage navigation tabs in SL1.

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 are Navigation Tabs?

Navigation Tabs are the menu option panes that appear at the top of the page or at the top of some panels in the classic SL1 user interface.

SL1 allows you to create custom top-level navigation tabs, or add a navigation tab in the **Device Administration** panel, the **Organization Administration** panel, or the **Asset** panel. The new tab can lead to an external page in your network (for example, a web-based control panel), to another page in SL1, or to an external website.

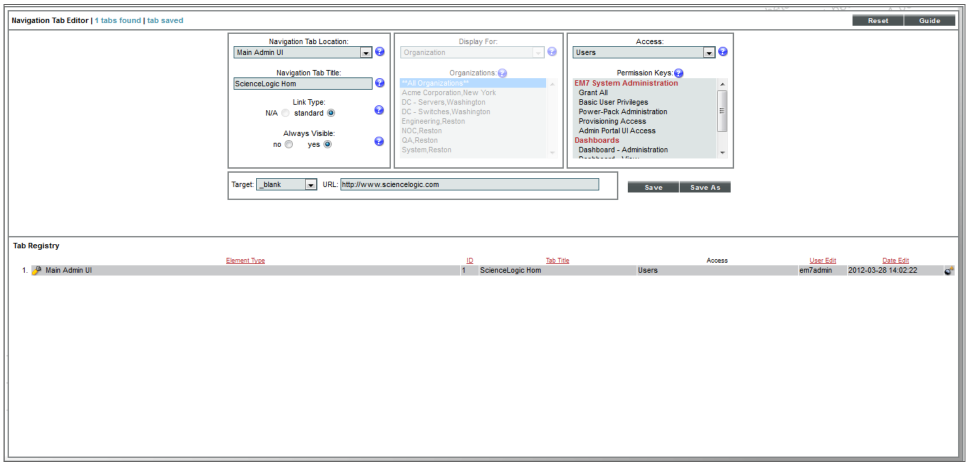
Top-level tabs appear with the other default tabs in SL1 (for example, the **[Views]** tab or the **[Tickets]** tab).

Entity tabs can be created for the **Device Administration** panel, **Organization Administration** panel, and/or the **Asset** panel. You can define access permissions for top-level and entity tabs, and define where they are visible.

Viewing the Navigation Tab Editor Page

The **Navigation Tab Editor** page displays a list of tabs that have been created in SL1. From the **Navigation Tab Editor** page you can also create, edit, and delete a top-level or entity tab. To view a list of created tabs in the **Navigation Tab Editor** page:

1. Go to the **Navigation Tab Editor** page (System > Customize > Navigation Tabs).
2. The **Tab Registry** pane at the bottom of the **Navigation Tab Editor** page displays a list of created tabs. For each tab, the **Navigation Tab Editor** page displays the following information:



Navigation Tab Editor | 1 tabs found | tab saved

Navigation Tab Location: Main Admin UI

Navigation Tab Title: ScienceLogic Hom

Link Type: N/A ○ standard ●

Always Visible: no ○ yes ●

Display For: Organization

Organizations: **All Organizations**, Acme Corporation,New York, DC - Servers,Washington, DC - Switches,Washington, Engineering,Reston, NOC,Reston, QA,Reston, System,Reston

Access: Users

Permission Keys: EM7 System Administration: Grant All, Basic User Privileges, Power-Pack Administration, Provisioning Access, Admin Portal UI Access; Dashboards: Dashboard - Administration

Target: _blank URL: http://www.sciencelogic.com

Tab Registry

	Element Type	ID	Tab Title	Access	User Edit	Date Edit
1.	Main Admin UI	1	ScienceLogic Hom	Users	em7admin	2012-03-28 14:02:22

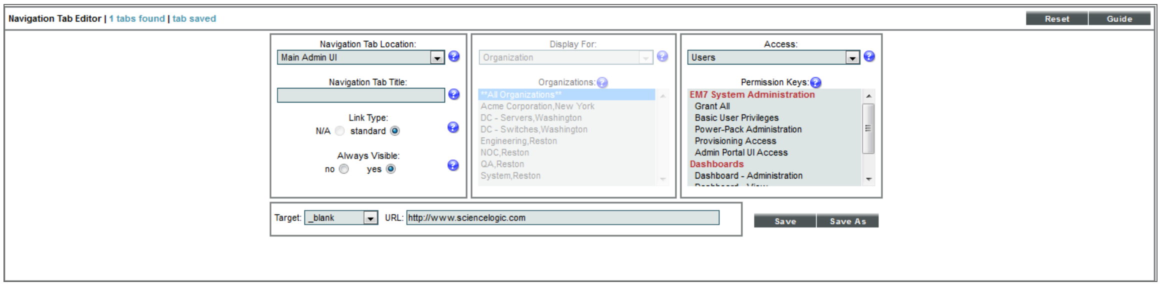
- ***Element Type***. Specifies if the tab is a top-level tab or entity level tab.
    - A top level tab is defined as *Main Admin UI*.
    - An entity level tab is displayed as *Device*, *Organization*, or *Asset*.
- ***ID***. Numeric identifier automatically assigned to the tab by SL1.
- ***Tab Title***. Name given to the tab.
- ***Access***. Type of user account that can access the tab. Options are *Administrators* or *Users*.
- ***User Edit***. User who created or last edited the tab.
- ***Date Edit***. Time the tab was created or last edited.

Creating a Top-Level Tab

In the **Navigation Tab Editor** page you can create a top-level tab that will appear with the default top-level tabs in SL1. The new tab can contain only a URL and will display the page specified in the URL you have designated. The URL can lead to a page in SL1 or a page in an external website (for example, a web-based control panel).

To create a new top-level tab:

1. Go to the **Navigation Tab Editor** page (System > Customize > Navigation Tabs).
2. In the **Navigation Tab Editor** page, select the **[Reset]** button to clear any fields from the **Editor** pane.
3. In the **Editor** pane at the top of the page, supply a value in each field:



Navigation Tab Editor | 1 tabs found | tab saved

Navigation Tab Location: Main Admin UI

Navigation Tab Title:

Link Type: N/A ○ standard ●

Always Visible: no ○ yes ●

Display For: Organization

Organizations:
All Organizations
Acme Corporation,New York
DC - Servers,Washington
DC - Switches,Washington
Engineering,Reston
NOC,Reston
QA,Reston
System,Reston

Access: Users

Permission Keys:
EM7 System Administration
Grant All
Basic User Privileges
Power-Pack Administration
Provisioning Access
Admin Portal UI Access
Dashboards
Dashboard - Administration

Target: _blank URL: http://www.sciencelogic.com

- *Navigation Tab Location*. Specifies whether to display the new tab as a top-level tab in SL1 or as part of the **Organization Administration** panel, **Device Administration** panel, or **Asset** panel. Select:

  - *Main Admin UI*. The new tab will appear as a top-level tab in SL1.

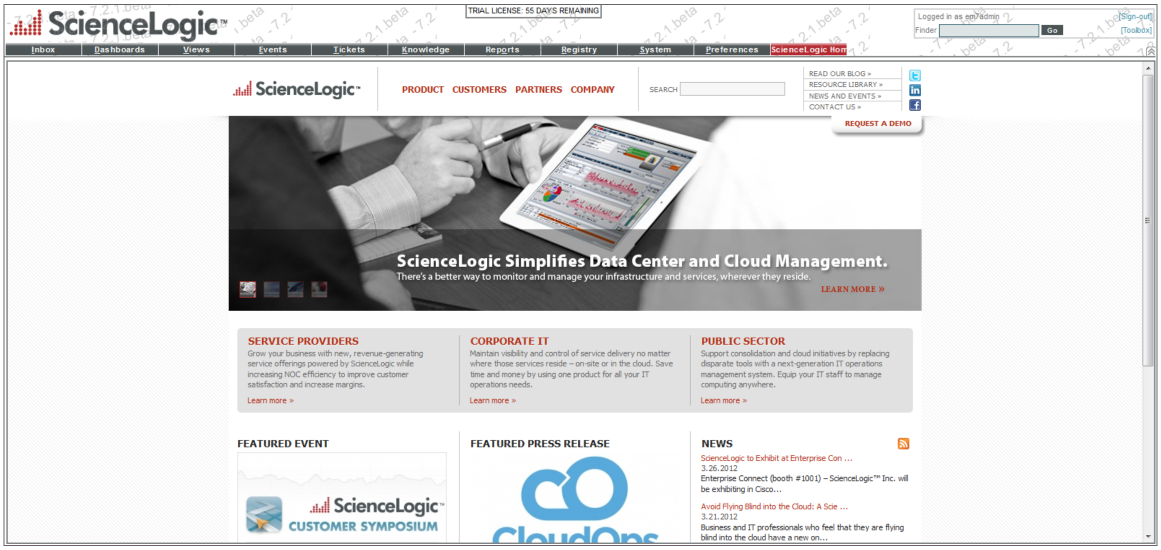
- *Navigation Tab Title*. Tab's label. This is the text that users will see on the tab.
- *Link Type*. For future use. Do not use this field.
- *Always Visible*. Specifies whether or not users who are not allowed to access the tab will be able to view the tab in SL1. Choices are:

  - No. Tab will not appear in SL1 for users who do not have the appropriate permission keys to access the tab.
  - Yes. Tab will always appear in SL1 and will be visible to users who do not have the appropriate permission keys to access the tab.

- *Display For*. If you selected *Main Admin UI* in the *Navigation Tab Location* field, this field is grayed out.

- *Entity Selector*. If you selected *Main Admin UI* in the *Navigation Tab Location* field, this field is grayed out.

- ***Access***. Users who will be allowed to access the tab, based on the type of user account. The choices are:
    - *Administrators*. Only users with account type "administrator" are allowed to access this tab.
    - *Users*. Both users with account type "user" and users with account type "administrator" are allowed to access this tab.
- ***Permission Keys***. Select zero, one, or more access keys in this field. To access this tab, a user account must be granted at least one of the selected access keys. Access Keys are defined by the SL1 system administrator from the**Access Keys** page (System > Manage > Access Keys).
- ***Target***. Specifies how the URL will be opened after the tab has been selected. Choices are:
    - *_self*. The specified URL will open and replace SL1 in your browser.
    - *_blank*. The specified URL will open in a new tab or new window, and SL1 will remain available in a separate tab or window.
    - *Zoombox*. The specific URL will be opened in a new window in front of SL1.
    - *iframe*. The specific URL will open in the pane below the header and top-level navigation tabs. For example, if you select *iframe* and enter "http://www.sciencelogic.com/" in the ***URL*** field, the following page is displayed when the tab is selected:



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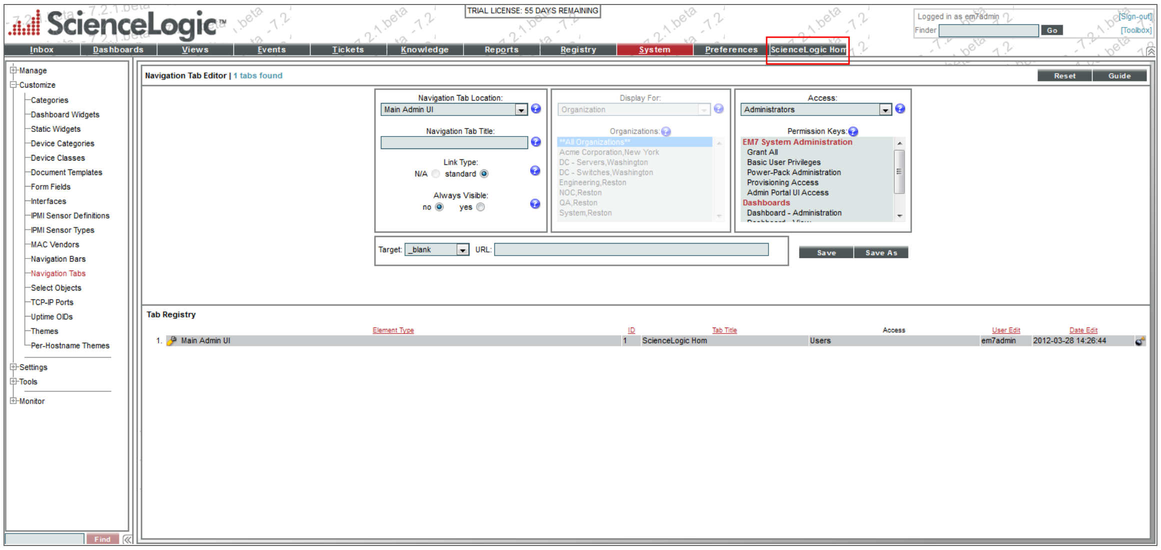
- ***URL***. Full URL or link for the page that will be displayed in the tab.

4. Select the **[Save]** button to save the tab. The tab will be displayed with the default top-level tabs and will lead to the URL you have specified.



Navigation Tab Editor | 1 tabs found

Navigation Tab Location: Main Admin UI

Navigation Tab Title:

Link Type: N/A ○ standard ●

Always Visible: no ● yes ○

Display For: Organization

Organizations: **All Organizations**, Acme Corporation,New York, DC - Servers,Washington, DC - Switches,Washington, Engineering,Reston, NOC,Reston, QA,Reston, System,Reston

Access: Administrators

Permission Keys: EM7 System Administration: Grant All, Basic User Privileges, Power-Pack Administration, Provisioning Access, Admin Portal UI Access; Dashboards: Dashboard - Administration

Target: _blank URL:

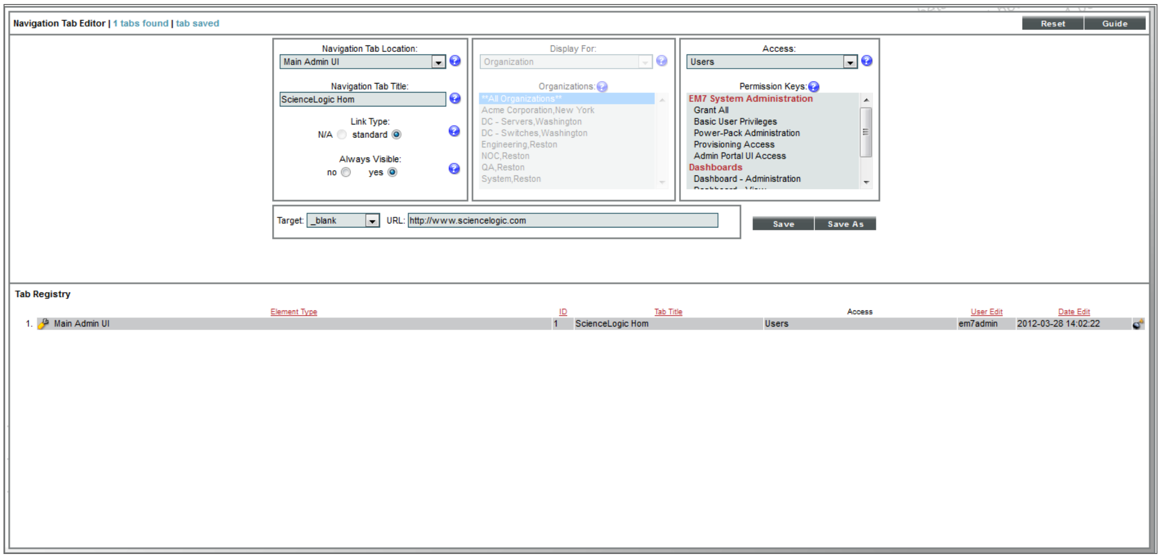
Tab Registry

	Element Type	ID	Tab Title	Access	User Edit	Date Edit
1.	Main Admin UI	1	ScienceLogic Hom	Users	em7admin	2012-03-28 14:26:44

Creating an Entity-Level Tab

An entity-level tab can be created in the **Device Administration** panel, **Organization** panel, or the **Asset** panel. You can create an entity-level tab from the **Navigation Tab Editor** page. To create an entity-level tab:

1. Go to the **Navigation Tab Editor** page (System > Customize > Navigation Tabs).
2. In the **Navigation Tab Editor** page, select the **[Reset]** button to clear any fields from the **Editor** pane.
3. In the **Editor** pane at the top of the page, supply a value in each field:



Navigation Tab Editor | 1 tabs found | tab saved

Navigation Tab Location: Main Admin UI

Navigation Tab Title: ScienceLogic Hom

Link Type: N/A ○ standard ●

Always Visible: no ○ yes ●

Display For: Organization

Organizations: **All Organizations**, Acme Corporation,New York, DC - Servers,Washington, DC - Switches,Washington, Engineering,Reston, NOC,Reston, QA,Reston, System,Reston

Access: Users

Permission Keys: EM7 System Administration: Grant All, Basic User Privileges, Power-Pack Administration, Provisioning Access, Admin Portal UI Access; Dashboards: Dashboard - Administration

Target: _blank URL: http://www.sciencelogic.com

Tab Registry

	Element Type	ID	Tab Title	Access	User Edit	Date Edit
1.	Main Admin UI	1	ScienceLogic Hom	Users	em7admin	2012-03-28 14:02:22

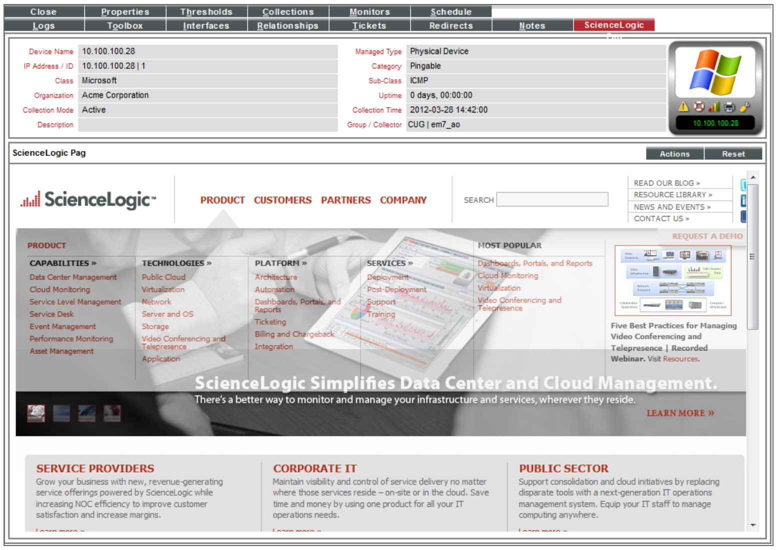
- *Navigation Tab Location*. Specifies whether to display the new tab as a top-level tab in SL1 or as part of the **Organization Administration** panel, **Device Administration** panel, or **Asset** panel.

Select:

- *Entity Page(s)*. The new tab will appear as part of the **Organization Administration** panel, **Device Administration** panel, or **Asset** panel.

- ***Navigation Tab Title***. Tab's label. This is the text that users will see on the tab.
- ***Link Type***. For future use. Do not use this field.
- ***Always Visible***. Specifies whether or not users who are not allowed to access the tab will be able to view the tab in SL1. Choices are:
  - *No*. Tab will not appear in the product for users who do not have the appropriate permission keys to access the tab.
  - *Yes*. Tab will always appear in the product and will be visible to users who do not have the appropriate permission keys to access the tab.
- ***Display For***. In this field, you specify the area in SL1 where you want to the tab to appear. The choices are:
  - *Organization*. The new tab will appear in the **Organization Administration** panel for selected organizations.
  - *Device*. The new tab will appear in the **Device Administration** panel for selected devices.
  - *Asset*. The new tab will appear in the **Asset Administration** panel for selected assets.
- ***Entity Selector***. Depending on the entity you selected in the ***Display For*** field, you can select which organization/device/asset(s) will display the new tab in this field. You can choose to display the new tab in the panel for all, one, or multiple organizations/devices/assets.
  - To select all entities, select the entry *All Organizations/Devices/Assets*
  - To select a single organization/device/asset, highlight it.
  - To select multiple organizations/devices/assets, left click while holding down the **<Shift>** key.
- ***Access***. Users who will be allowed to access the tab, based on the type of user account. The choices are:
  - *Administrators*. Only users with account type "administrator" are allowed to access this tab.
  - *Users*. Both users with account type "user" and users with account type "administrator" are allowed to access this tab.
- ***Permission Keys***. Select zero, one, or more access keys in this field. To access this tab, a user account must be granted at least one of the selected access keys. Access Keys are defined by the system administrator from the **Access Keys** page (System > Manage > Access Keys). To learn more about access keys and permissions, see the ***Access Permissions*** manual.

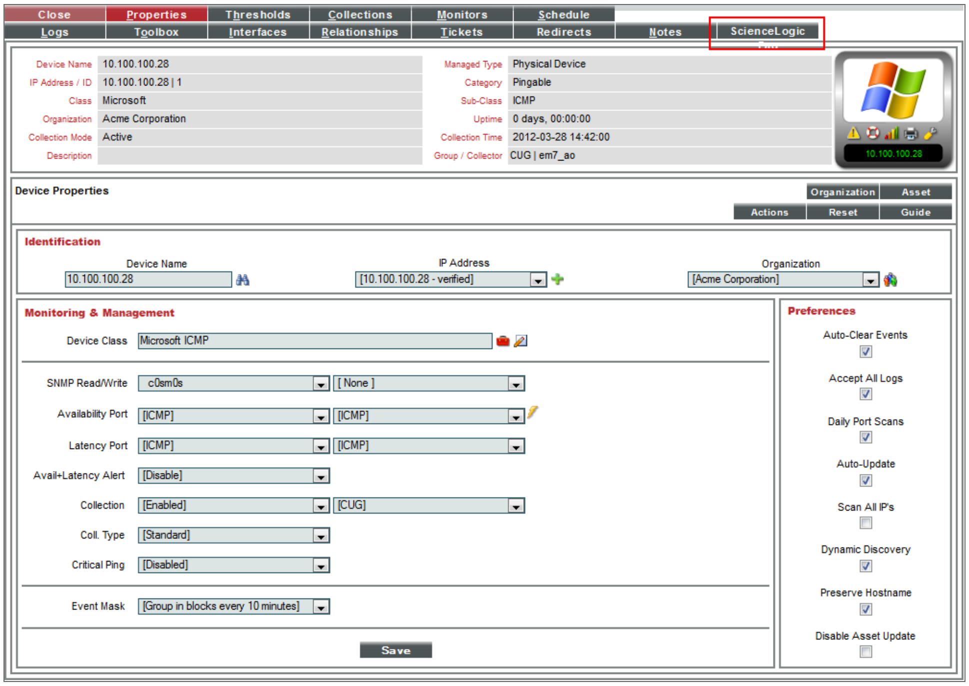
- ***Target***. Specifies how the URL will be opened once the tab has been selected. Choices are:
  - *_self*. The specified URL will open and replace SL1 in your browser.
  - *_blank*. The specified URL will open in a new tab or new window, and SL1 will remain available in a separate tab or window.
  - *zoombox*. The specific URL will be opened in a new window in front of SL1.
  - *iframe*. This option is available only if *Device* is selected in the ***Display For*** field. The specific URL will open in the pane below the read-only information in the **Device Administration** panel. For example, if you select *iframe* and enter "http://www.sciencelogic.com/" in the ***URL*** field, the following page is displayed when the tab is selected:



Device Name: 10.100.100.28
IP Address / ID: 10.100.100.28 | 1
Class: Microsoft
Organization: Acme Corporation
Collection Mode: Active
Description:
Managed Type: Physical Device
Category: Pingable
Sub-Class: ICMP
Uptime: 0 days, 00:00:00
Collection Time: 2012-03-28 14:42:00
Group / Collector: CUG | em7_ao

- ***URL/Link***. Full URL or link for the page that will be displayed in the tab.

Select the **[Save]** button to save the tab. The tab will be displayed in the **Device Administration** panel, **Organization Administration** panel, or **Asset Administration** panel as you have specified. For example, if you created an entity-level tab for the **Device Administration** panel, it could appear similar to the image below:



Device Name	10.100.100.28	Managed Type	Physical Device
IP Address / ID	10.100.100.28 | 1	Category	Pingable
Class	Microsoft	Sub-Class	ICMP
Organization	Acme Corporation	Uptime	0 days, 00:00:00
Collection Mode	Active	Collection Time	2012-03-28 14:42:00
Description		Group / Collector	CUG | em7_ao

10.100.100.28

Device Properties

Identification

Device Name: 10.100.100.28
IP Address: [10.100.100.28 - verified]
Organization: [Acme Corporation]

Monitoring & Management

Device Class: Microsoft ICMP
SNMP Read/Write: c0sm0s | [None]
Availability Port: [ICMP] | [ICMP]
Latency Port: [ICMP] | [ICMP]
Avail+Latency Alert: [Disable]
Collection: [Enabled] | [CUG]
Coll. Type: [Standard]
Critical Ping: [Disabled]
Event Mask: [Group in blocks every 10 minutes]

Preferences

Auto-Clear Events ☑
Accept All Logs ☑
Daily Port Scans ☑
Auto-Update ☑
Scan All IP's ☐
Dynamic Discovery ☑
Preserve Hostname ☑
Disable Asset Update ☐

Editing and Deleting a Tab

After you have created a custom navigation tab you can edit and delete it from the **Navigation Tab Editor** page. You can edit one or more parameters of a custom tab. You can also delete a custom tab.

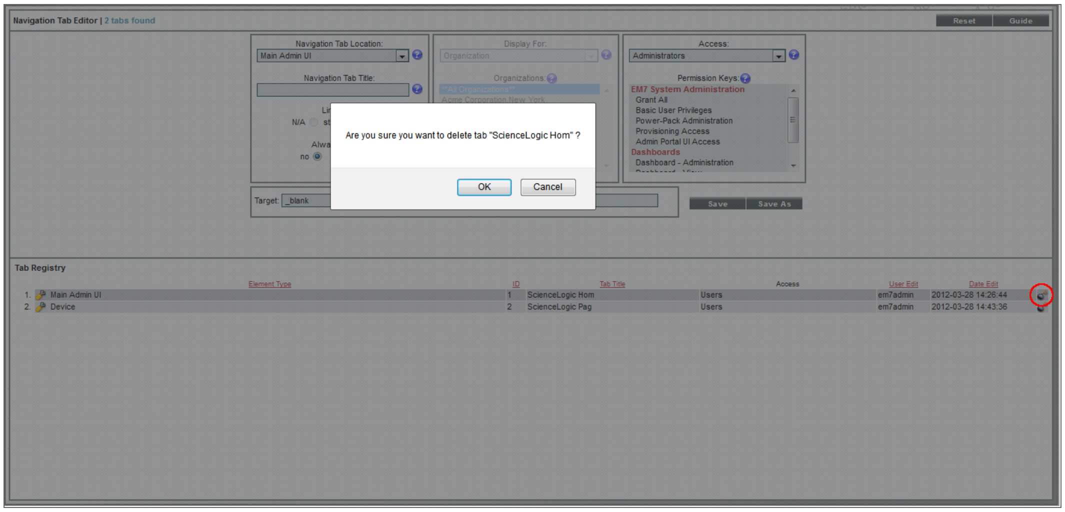
To edit a custom tab:

1. Go to the **Navigation Tab Editor** page (System > Customize > Navigation Tabs).
2. In the **Navigation Tab Editor** page, select the **[Reset]** button to clear any fields from the **Editor** pane.
3. In the **Tab Registry** pane at the bottom of the page, find the tab you want to edit. Select its wrench icon (🔧).
4. The **Editor** pane (at the bottom of the page) is populated with values from the selected tab.
5. To save your changes, select the **[Save]** button.
6. If you would like to save your changes as a new tab without making changes to the tab you selected to edit, supply a new name in the ***Navigation Tab Title*** field and select the **[Save As]** button. The new tab will be added to the **Navigation Tab Editor** page.

You can delete a custom navigation tab from the **Navigation Tab Editor** page. You can delete only one custom tab at a time.

To delete a custom navigation tab:

1. Go to the **Navigation Tab Editor** page (System > Customize > Navigation Tabs).
2. In the **Tab Registry** pane, find the navigation tab you want to delete. Select its bomb icon (💣).
3. You will be prompted to confirm the tab deletion. Select the **[OK]** button to delete the navigation tab. Select the **[Cancel]** button to return to the **Navigation Tab Editor** page.



Navigation Tab Editor | 2 tabs found

Navigation Tab Location: Main Admin UI

Navigation Tab Title:

Display For: Organization

Organizations: **All Organizations**, Acme Corporation New York

Access: Administrators

Permission Keys: EM7 System Administration, Grant All, Basic User Privileges, Power-Pack Administration, Provisioning Access, Admin Portal UI Access, Dashboards, Dashboard - Administration

Target: _blank

Are you sure you want to delete tab "ScienceLogic Hom" ?

Tab Registry

	Element Type	ID	Tab Title	Access	User Edit	Date Edit
1.	Main Admin UI	1	ScienceLogic Hom	Users	em7admin	2012-03-28 14:26:44
2.	Device	2	ScienceLogic Pag	Users	em7admin	2012-03-28 14:43:36

Chapter

3

Navigation Bars

Overview

This chapter describes how to view, create, and manage navigation bars in SL1.

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 are Navigation Bars?

Navigation Bars (or "NavBars", for short) are the menu option panes that appear on the left side of the page in the classic SL1 user interface.

SL1 allows you to add new entries to the NavBar panes that appear on some pages. You can add new entries to the NavBar panes for the following top-level tabs:

- **[System]**
- **[Registry]**
- **[Reports]**
- **[Preferences]**
- **[Knowledge]**

CAUTION: Due to security vulnerabilities, ScienceLogic recommends that customers who installed SL1 prior to 8.9.2 disable the Knowledge Base. For details, see the release notes for version 8.9.2 of SL1.

NOTE: Advanced users can associate a custom-written Java executable with a navigation bar entry. Contact ScienceLogic for information on creating a new navigation bar entry using a Java executable.

Viewing the Navigation Bar Editor Entries

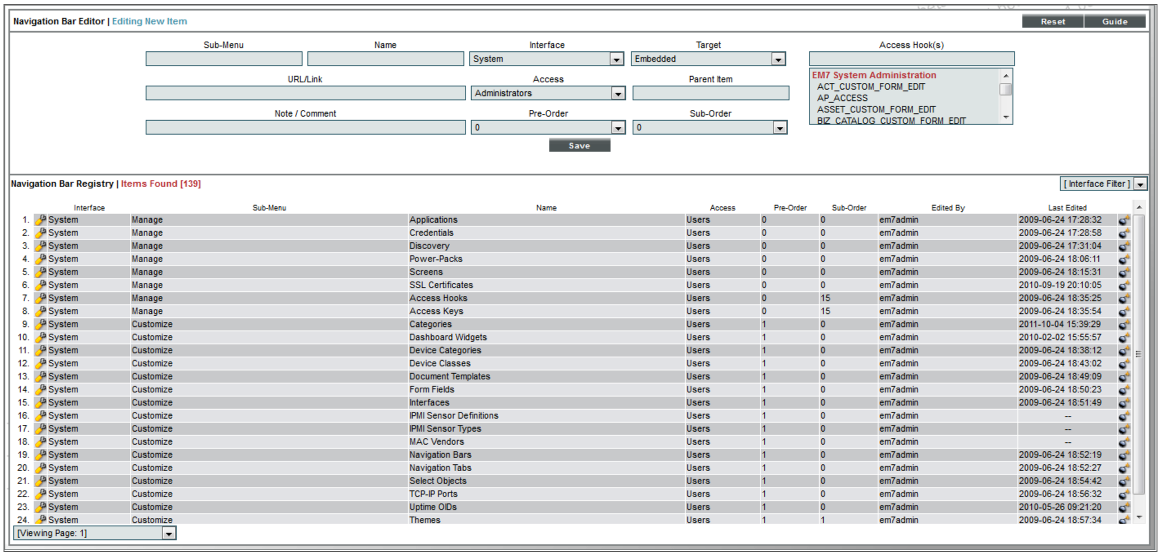
You can view the list of all existing entries in each navigation bar for the tabs listed above in the **Navigation Bar Editor** page. The **Navigation Bar Editor** page contains two panes:

- The **Navigation Bar Editor**, where you can create and edit custom Navigation Bar entries.
- The **Navigation Bar Registry**, where you can view a list of all Navigation Bar entries, including the default entries defined by ScienceLogic.

NOTE: You cannot edit the NavBar entries that are included in SL1 by default.

This section will discuss the **Navigation Bar Registry** pane. To view the list of all existing navigation bar entries:

1. Go to the **Navigation Bar Editor** page (System > Customize > Navigation Bars).
2. The **Navigation Bar Editor** in the lower half of the page displays the entries for each tab. By default, the registry pane displays a list of entries that appear under the **[System]** tab. You can view the entries for other tabs by using the ***Interface Filter*** drop-down. To learn how to use the ***Interface Filter*** drop-down, see the section *Filtering the List of Entries in the Navigation Bar Registry*.
3. The **Navigation Bar Registry** pane displays the following about each entry:



Navigation Bar Editor | Editing New Item

Sub-Menu:
Name:
Interface: System
Target: Embedded
Access Hook(s):
URL/Link:
Access: Administrators
Parent Item:
Note / Comment:
Pre-Order: 0
Sub-Order: 0

EM7 System Administration
ACT_CUSTOM_FORM_EDIT
AP_ACCESS
ASSET_CUSTOM_FORM_EDIT
BIZ_CATALOG_CUSTOM_FORM_EDIT

Navigation Bar Registry | Items Found [139]

	Interface	Sub-Menu	Name	Access	Pre-Order	Sub-Order	Edited By	Last Edited
1.	System	Manage	Applications	Users	0	0	em7admin	2009-06-24 17:28:32
2.	System	Manage	Credentials	Users	0	0	em7admin	2009-06-24 17:28:58
3.	System	Manage	Discovery	Users	0	0	em7admin	2009-06-24 17:31:04
4.	System	Manage	Power-Packs	Users	0	0	em7admin	2009-06-24 18:06:11
5.	System	Manage	Screens	Users	0	0	em7admin	2009-06-24 18:15:31
6.	System	Manage	SSL Certificates	Users	0	0	em7admin	2010-09-19 20:10:05
7.	System	Manage	Access Hooks	Users	0	15	em7admin	2009-06-24 18:35:25
8.	System	Manage	Access Keys	Users	0	15	em7admin	2009-06-24 18:35:54
9.	System	Customize	Categories	Users	1	0	em7admin	2011-10-04 15:39:29
10.	System	Customize	Dashboard Widgets	Users	1	0	em7admin	2010-02-02 15:55:57
11.	System	Customize	Device Categories	Users	1	0	em7admin	2009-06-24 18:38:12
12.	System	Customize	Device Classes	Users	1	0	em7admin	2009-06-24 18:43:02
13.	System	Customize	Document Templates	Users	1	0	em7admin	2009-06-24 18:49:09
14.	System	Customize	Form Fields	Users	1	0	em7admin	2009-06-24 18:50:23
15.	System	Customize	Interfaces	Users	1	0	em7admin	2009-06-24 18:51:49
16.	System	Customize	IPMI Sensor Definitions	Users	1	0	em7admin	--
17.	System	Customize	IPMI Sensor Types	Users	1	0	em7admin	--
18.	System	Customize	MAC Vendors	Users	1	0	em7admin	--
19.	System	Customize	Navigation Bars	Users	1	0	em7admin	2009-06-24 18:52:19
20.	System	Customize	Navigation Tabs	Users	1	0	em7admin	2009-06-24 18:52:27
21.	System	Customize	Select Objects	Users	1	0	em7admin	2009-06-24 18:54:42
22.	System	Customize	TCP-IP Ports	Users	1	0	em7admin	2009-06-24 18:56:32
23.	System	Customize	Uptime OIDs	Users	1	0	em7admin	2010-05-26 09:21:20
24.	System	Customize	Themes	Users	1	1	em7admin	2009-06-24 18:57:34

- ***Interface***. The top-level tab in SL1 where the NavBar entry will appear. The choices are:
  - *System*
  - *Registry*
  - *Reports*
  - *Preferences*
  - *Knowledge Base*

- ***Sub-Menu***. Sub-heading within the navigation bar, under which the navigation bar entry will appear.
- ***Name***. Name of the navigation bar entry.
- ***Access***. Users who will be allowed to access the navigation bar entry, based on the type of user account. The choices are:
  - *Administrators*. Only users with account type "administrator" are allowed to access this navigation bar entry.
  - *Users*. Both users with account type "user" and users with account type "administrator" are allowed to access this navigation bar entry.

- ***Pre-Order***. Defines the sort order for the sub-menu.
- **Sub-Order**. Sort order for the entries in each sub-menu. The lowest numbered entry appears first under the sub-menu; the highest numbered entry appears last in the sub-menu.
- ***Edited By***. Name of the user who last edited this entry.
- ***Last Edited***. Date and time entry was last edited.

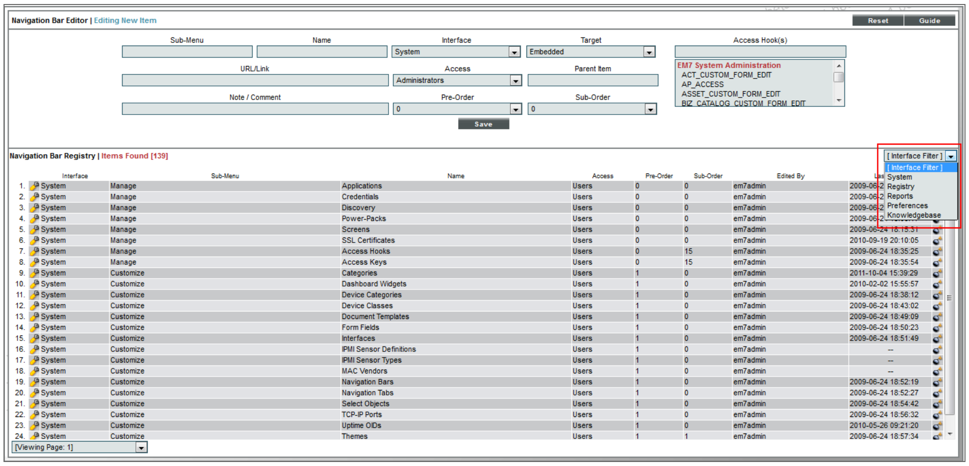
Filtering the List of Entries in the Navigation Bar Registry

The **Navigation Bar Editor** page includes an **[Interface Filter]** option to view entries for only a specific tab: **[System]**, **[Registry]**, **[Reports]**, **[Preferences]**, or **[Knowledge]**.

To filter the list of entries in the **Navigation Bar Registry**:

1. Go to the **Navigation Bar Editor** page (System > Customize > Navigation Bars).

2. In the **Navigation Bar Registry** pane, select the **[Interface Filter]** field to filter the list of entries by a specific tab. The choices are:



Navigation Bar Editor | Editing New Item

Sub-Menu:
Name:
Interface: System
Target: Embedded
Access Hook(s):
URL/Link:
Access: Administrators
Parent Item:
Note / Comment:
Pre-Order: 0
Sub-Order: 0

EM7 System Administration
ACT_CUSTOM_FORM_EDIT
AP_ACCESS
ASSET_CUSTOM_FORM_EDIT
BIZ_CATALOG_CUSTOM_FORM_EDIT

Navigation Bar Registry | Items Found [139]

	Interface	Sub-Menu	Name	Access	Pre-Order	Sub-Order	Edited By	Las
1.	System	Manage	Applications	Users	0	0	em7admin	2009-06-2
2.	System	Manage	Credentials	Users	0	0	em7admin	2009-06-2
3.	System	Manage	Discovery	Users	0	0	em7admin	2009-06-2
4.	System	Manage	Power-Packs	Users	0	0	em7admin	2009-06-2
5.	System	Manage	Screens	Users	0	0	em7admin	2009-06-24 18:15:31
6.	System	Manage	SSL Certificates	Users	0	0	em7admin	2010-09-19 20:10:05
7.	System	Manage	Access Hooks	Users	0	15	em7admin	2009-06-24 18:35:25
8.	System	Manage	Access Keys	Users	0	15	em7admin	2009-06-24 18:35:54
9.	System	Customize	Categories	Users	1	0	em7admin	2011-10-04 15:39:29
10.	System	Customize	Dashboard Widgets	Users	1	0	em7admin	2010-02-02 15:55:57
11.	System	Customize	Device Categories	Users	1	0	em7admin	2009-06-24 18:38:12
12.	System	Customize	Device Classes	Users	1	0	em7admin	2009-06-24 18:43:02
13.	System	Customize	Document Templates	Users	1	0	em7admin	2009-06-24 18:49:09
14.	System	Customize	Form Fields	Users	1	0	em7admin	2009-06-24 18:50:23
15.	System	Customize	Interfaces	Users	1	0	em7admin	2009-06-24 18:51:49
16.	System	Customize	IPMI Sensor Definitions	Users	1	0	em7admin	--
17.	System	Customize	IPMI Sensor Types	Users	1	0	em7admin	--
18.	System	Customize	MAC Vendors	Users	1	0	em7admin	--
19.	System	Customize	Navigation Bars	Users	1	0	em7admin	2009-06-24 18:52:19
20.	System	Customize	Navigation Tabs	Users	1	0	em7admin	2009-06-24 18:52:27
21.	System	Customize	Select Objects	Users	1	0	em7admin	2009-06-24 18:54:42
22.	System	Customize	TCP-IP Ports	Users	1	0	em7admin	2009-06-24 18:56:32
23.	System	Customize	Uptime OIDs	Users	1	0	em7admin	2010-05-26 09:21:20
24.	System	Customize	Themes	Users	1	1	em7admin	2009-06-24 18:57:34

- **[System]**. Only NavBar entries that appear in the **[System]** tab will be displayed.
- **[Registry]**. Only NavBar entries that appear in the **[Registry]** tab will be displayed.
- **[Reports]**. Only NavBar entries that appear in the **[Reports]** tab will be displayed.
- **[Preferences]**. Only NavBar entries that appear in the **[Preferences]** tab will be displayed.
- **[Knowledge]**. Only Navigation Bar entries that appear in the **[Knowledge]** tab will be displayed.

3. After selecting one of the filter options, the entries in the **Navigation Bar Registry** pane will be filtered to display entries from only the selected tab.

Creating a Navigation Bar Entry

You can create a custom navigation bar entry to link to an external website or page in SL1. You can create a custom navigation bar entry from the **Navigation Bar Editor** page.

To create a new navigation bar entry:

1. Go to the **Navigation Bar Editor** page (System > Customize > Navigation Bars).
2. In the **Navigation Bar Editor** page, select the **[Reset]** button to clear any fields in the **Navigation Bar Editor** pane.
3. In the **Editor** pane, define values in the following fields:

    - ***Sub-Menu***. Top-level category in the navigation bar under which the new entry will appear. This category is not a link itself, but instead is a heading under which to group links. For example, for the NavBar entry that leads to the current page, this value would be "Customize". You can specify an existing sub-menu or define a new sub-menu. This field can contain any combination of alphanumeric characters, with a maximum length of 32 characters.
    - ***Name***. Name of the link as it will appear in the NavBar. This field can contain any combination of alphanumeric characters, with a maximum length of 32 characters.
    - ***Interface***. The top-level tab in SL1 where the NavBar entry will appears. The choices are:

        - **[System]**
        - **[Registry]**
        - **[Reports]**
        - **[Preferences]**
        - **[Knowledge]**

    - ***Target***. Specifies the HTML "target" for the new link. This field specifies how the URL will be displayed. The choices are:

        - *Embedded*. Includes a browser plug-in in the current window.
        - *Popup*. Opens the URL in a separate window, on top of the current page.
        - *iframe*. Opens the URL in a frame within the current page.
        - *_self*. Opens the URL in the currently active window (usually the frame to the right of the navigation bar).
        - *_blank*. Opens the URL in a new window.

    - ***URL/Link***. The URL of the page that is displayed when a user selects the navigation bar item. This can be the URL of a page in SL1 or the URL of a page outside SL1. This field can contain any combination of alphanumeric characters, with a maximum length of 128 characters. Forward slash (/), underscore (_), and question mark (?) are allowed.

    - ***Access***. Users who will be allowed to access the NavBar entry, based on the type of user account. The choices are:

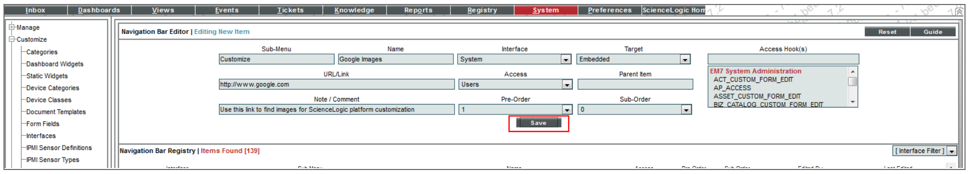
        - *Administrators*. Only users with account type "administrator" are allowed to access this navigation bar entry.
        - *Users*. Both users with account type "user" and users with account type "administrator" are allowed to access this NavBar entry.

- ***Parent Item***. This field is not currently used.
- ***Note/Comment***. Any notes or comments about the entry.
- ***Pre-Order***. Sort order for the sub-menu. The lowest numbered sub-menu appears first in the navigation bar; the highest numbered sub-menu appears last in the navigation bar. If all sub-menus in a navigation bar have the same number, SL1 sorts the sub-menus alphabetically.

> **Note**: When creating a new entry in a navigation bar entry and in an existing sub-menu, you must retain the pre-order already defined for the sub-menu.

- ***Sub-Order***. Sort order for the entries in each sub-menu. The lowest numbered entry appears first under the sub-menu; the highest numbered entry appears last in the sub-menu. If all entries in a sub-menu have the same number, SL1 sorts the entries alphabetically.
- ***Access Key(s)***. The access key required to access the entry in the NavBar. Access Keys define the tabs and pages users have access to and the actions that a user may perform. These Access Keys are defined by the system administrator from the **Access Keys** page (System > Manage > Access Keys). To learn more about Access Keys, see the ***Access Permissions*** manual.

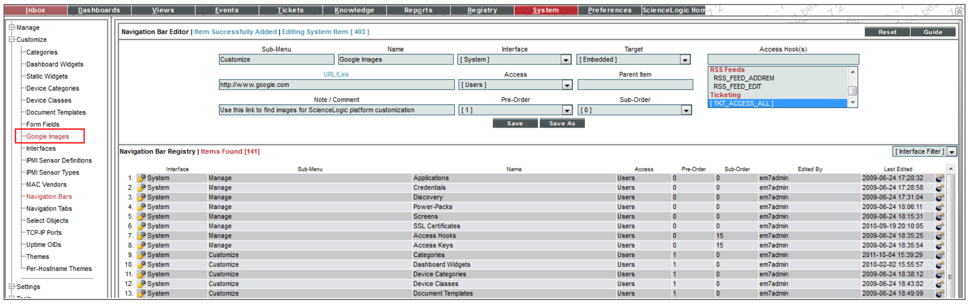
4. Select the **[Save]** button to save the new entry. To view the new entry, go to the page where the new entry resides and refresh the page. The new entry will appear in the NavBar.



Navigation Bar Editor | Editing New Item

Sub-Menu: Customize
Name: Google Images
Interface: System
Target: Embedded
URL/Link: http://www.google.com
Access: Users
Parent Item:
Note / Comment: Use this link to find images for ScienceLogic platform customization
Pre-Order: 1
Sub-Order: 0
Access Hook(s): EM7 System Administration
ACT_CUSTOM_FORM_EDIT
AP_ACCESS
ASSET_CUSTOM_FORM_EDIT
BIZ_CATALOG_CUSTOM_FORM_EDIT

Navigation Bar Registry | Items Found [139]



Navigation Bar Editor | Item Successfully Added | Editing System Item [403]

Sub-Menu: Customize
Name: Google Images
Interface: [System]
Target: [Embedded]
URL/Link: http://www.google.com
Access: [Users]
Parent Item:
Note / Comment: Use this link to find images for ScienceLogic platform customization
Pre-Order: [1]
Sub-Order: [0]
Access Hook(s): RSS Feeds
RSS_FEED_ADDREM
RSS_FEED_EDIT
Ticketing
[TKT_ACCESS_ALL]

Navigation Bar Registry | Items Found [141]

	Interface	Sub-Menu	Name	Access	Pre-Order	Sub-Order	Edited By	Last Edited
1.	System	Manage	Applications	Users	0	0	em7admin	2009-06-24 17:28:32
2.	System	Manage	Credentials	Users	0	0	em7admin	2009-06-24 17:28:58
3.	System	Manage	Discovery	Users	0	0	em7admin	2009-06-24 17:31:04
4.	System	Manage	Power-Packs	Users	0	0	em7admin	2009-06-24 18:06:11
5.	System	Manage	Screens	Users	0	0	em7admin	2009-06-24 18:15:31
6.	System	Manage	SSL Certificates	Users	0	0	em7admin	2010-09-19 20:10:05
7.	System	Manage	Access Hooks	Users	0	15	em7admin	2009-06-24 18:35:25
8.	System	Manage	Access Keys	Users	0	15	em7admin	2009-06-24 18:35:54
9.	System	Customize	Categories	Users	1	0	em7admin	2011-10-04 15:39:29
10.	System	Customize	Dashboard Widgets	Users	1	0	em7admin	2010-02-02 15:55:57
11.	System	Customize	Device Categories	Users	1	0	em7admin	2009-06-24 18:38:12
12.	System	Customize	Device Classes	Users	1	0	em7admin	2009-06-24 18:43:02
13.	System	Customize	Document Templates	Users	1	0	em7admin	2009-06-24 18:49:09

Creating a New Navigation Bar Entry From an Existing Entry

You cannot edit a default NavBar entry. However, you can create a new navigation bar entry from an existing default entry. For example, if you wanted to create a new navigation bar in the "Customize" sub-menu, you could add an entry by selecting an existing NavBar and editing its information. To create a new NavBar entry from an existing entry:

1. Go to the **Navigation Bar Editor** page (System > Customize > Navigation Bars).
2. Use the ***Interface Filter*** field to find the existing entry you want to copy. In the **Navigation Bar Registry** pane (at the bottom of the page), find the entry you want to use as a template and select its grayed-out wrench icon (🔧).
3. The **Editor** pane at the top of the **Navigation Bar Editor** pane will be populated with the values from the selected entry. You can edit one or more of these fields.
4. To save the new navigation bar entry, select the **[Save As]** button. The information for the original, existing NavBar entry you selected will not be overwritten.
5. To view the new entry, go to the page where the new entry resides and refresh the page. The new entry will appear in the NavBar.

Editing a Navigation Bar Entry

In the **Navigation Bar Editor** page, you can edit a custom entry for a NavBar. You cannot edit a default entry for a navigation bar.

To edit a custom entry for a navigation bar:

1. Go to the **Navigation Bar Editor** page (System > Customize > Navigation Bars).
2. In the **Navigation Bar Editor** page, use the ***Interface Filter*** field to find the entry you want to edit.
3. In the **Navigation Bar Registry** pane, find the entry you want to edit. Select its wrench icon (🔧).
4. The **Navigation Bar Editor** pane will be populated with values from the selected entry.
5. To save your edits, select the **[Save]** button.
6. To create a new NavBar entry without overwriting entry you selected, click the **[Save As]** button.

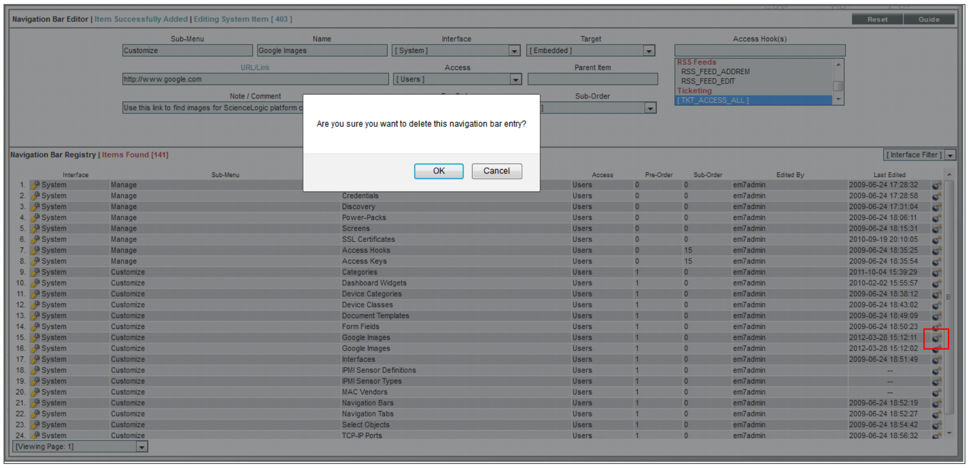
Deleting a Navigation Bar Entry

In the **Navigation Bar Editor** page, you can delete a custom entry from a NavBar. You cannot delete a default entry from a NavBar.

To delete a custom entry from a NavBar:

> CAUTION: : Use caution when deleting an entry from a NavBar. If you decide to delete an entry, be sure to note its field values, so you can restore the entry if necessary.

1. Go to the **Navigation Bar Editor** page (System > Customize > Navigation Bars).
2. In the **Navigation Bar Editor** page, use the ***Interface Filter*** field to find the entry you want to delete.
3. In the **Navigation Bar Registry** pane, find the entry you want to delete. Select its bomb icon (💣).



Navigation Bar Editor | Item Successfully Added | Editing System Item [403]

Sub-Menu: Customize

Name: Google Images

Interface: [System]

Target: [Embedded]

Access Hook(s):
RSS Feeds
RSS_FEED_ADDREM
RSS_FEED_EDIT
Ticketing
[TKT_ACCESS_ALL]

URL/Link: http://www.google.com

Access: [Users]

Parent Item:

Note / Comment: Use this link to find images for ScienceLogic platform c

Sub-Order:]

Are you sure you want to delete this navigation bar entry?

Navigation Bar Registry | Items Found [141]

	Interface	Sub-Menu		Access	Pre-Order	Sub-Order	Edited By	Last Edited
1.	System	Manage		Users	0	0	em7admin	2009-06-24 17:28:32
2.	System	Manage	Credentials	Users	0	0	em7admin	2009-06-24 17:28:58
3.	System	Manage	Discovery	Users	0	0	em7admin	2009-06-24 17:31:04
4.	System	Manage	Power-Packs	Users	0	0	em7admin	2009-06-24 18:06:11
5.	System	Manage	Screens	Users	0	0	em7admin	2009-06-24 18:15:31
6.	System	Manage	SSL Certificates	Users	0	0	em7admin	2010-09-19 20:10:05
7.	System	Manage	Access Hooks	Users	0	15	em7admin	2009-06-24 18:35:25
8.	System	Manage	Access Keys	Users	0	15	em7admin	2009-06-24 18:35:54
9.	System	Customize	Categories	Users	1	0	em7admin	2011-10-04 15:39:29
10.	System	Customize	Dashboard Widgets	Users	1	0	em7admin	2010-02-02 15:55:57
11.	System	Customize	Device Categories	Users	1	0	em7admin	2009-06-24 18:38:12
12.	System	Customize	Device Classes	Users	1	0	em7admin	2009-06-24 18:43:02
13.	System	Customize	Document Templates	Users	1	0	em7admin	2009-06-24 18:49:09
14.	System	Customize	Form Fields	Users	1	0	em7admin	2009-06-24 18:50:23
15.	System	Customize	Google Images	Users	1	0	em7admin	2012-03-28 15:12:11
16.	System	Customize	Google Images	Users	1	0	em7admin	2012-03-28 15:12:02
17.	System	Customize	Interfaces	Users	1	0	em7admin	2009-06-24 18:51:49
18.	System	Customize	IPMI Sensor Definitions	Users	1	0	em7admin	--
19.	System	Customize	IPMI Sensor Types	Users	1	0	em7admin	--
20.	System	Customize	MAC Vendors	Users	1	0	em7admin	--
21.	System	Customize	Navigation Bars	Users	1	0	em7admin	2009-06-24 18:52:19
22.	System	Customize	Navigation Tabs	Users	1	0	em7admin	2009-06-24 18:52:27
23.	System	Customize	Select Objects	Users	1	0	em7admin	2009-06-24 18:54:42
24.	System	Customize	TCP-IP Ports	Users	1	0	em7admin	2009-06-24 18:56:32

4. You will be prompted to confirm the NavBar entry. Select the **[OK]** button to delete the entry from the NavBar. Select the **[Cancel]** button to cancel the deletion and return to the **Navigation Bar Editor** page.

Chapter

4

Base Widgets

Overview

SL1 includes several built-in (base) widget definitions that are designed to display most of the data in SL1.

This chapter describes how to configure these base widgets and what is displayed in each base widget. It includes the following topics:

NOTE: For descriptions of additional widgets, see the ***Dashboards*** manual.

Common Fields

The following fields appear in ***all*** widget configuration panes:

- ***Widget Name***. Enter a title for the widget. This title is displayed in the header that appears at the top of the widget. If you leave the default value of "{auto}" in this field, SL1 will automatically generate a title for the widget based on what is currently being displayed in the widget.

- ***Widget Refresh Rate***. Specify how frequently the widget will be automatically updated with new data. The choices are:
    - *Widget Default*. The widget will refresh at its default refresh rate, as defined by the widget developer. You can view and edit the default refresh rate in the **Dashboard Widgets** page (System > Customize > Classic Dashboard Widgets) by selecting the wrench icon (🔧) for a widget.
    - *Auto-refresh disabled*. The widget will not automatically refresh.
    - *1 minute*. The widget will automatically refresh every minute.
    - *5 minutes*. The widget will automatically refresh every 5 minutes.
    - *10 minutes*. The widget will automatically refresh every 10 minutes.
    - *15 minutes*. The widget will automatically refresh every 15 minutes.
    - *30 minutes*. The widget will automatically refresh every 30 minutes.
    - *45 minutes*. The widget will automatically refresh every 45 minutes.
    - *1 hour*. The widget will automatically refresh once an hour.

> **NOTE:** For widgets with a ***Display Type*** option, if you do not select a display type for the widget, the dashboard automatically defaults to the first display type in the list of display types for that widget.

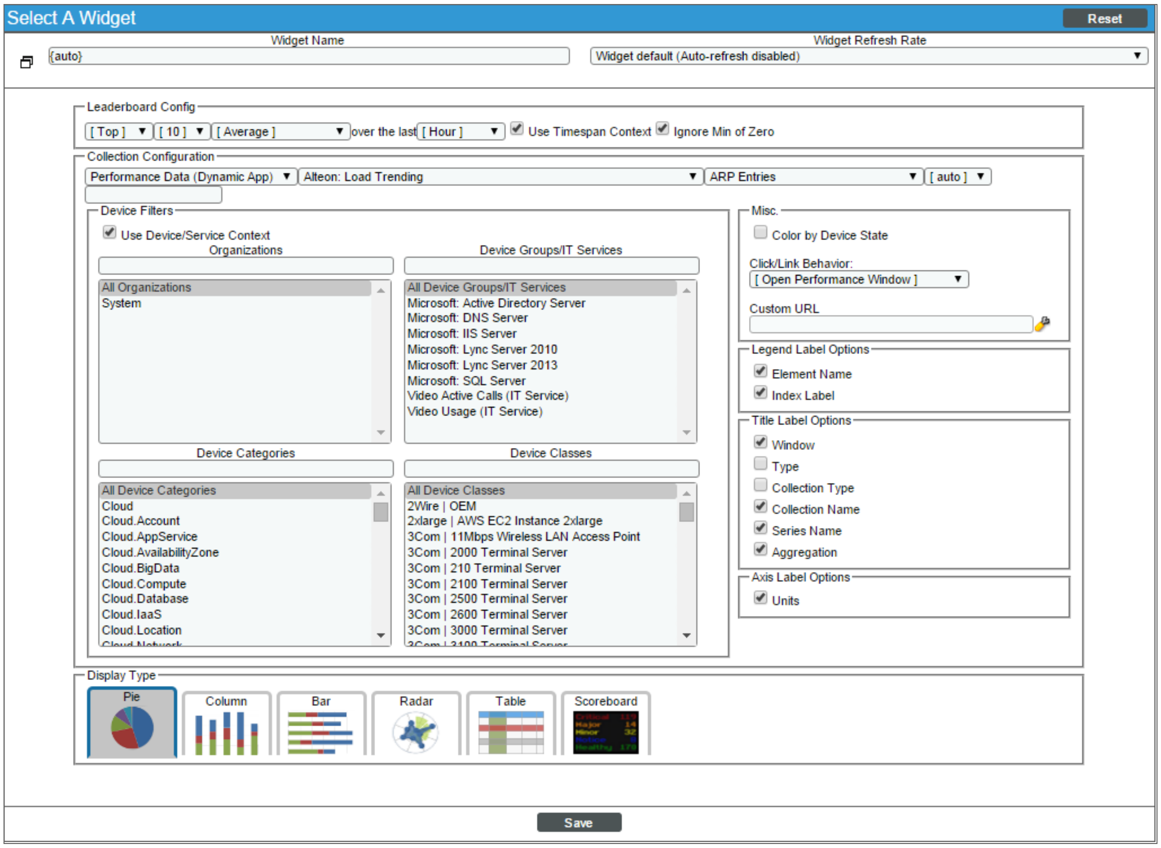
Snapshot/Single Series > Performance > (base) Leaderboard/Top-N

The **Leaderboard/Top-N** widget displays utilization statistics for a specific performance metric. The widget displays utilization for the devices with the highest or lowest values for the performance metric.

You can configure this widget to use a ***Custom URL*** that points outside SL1. The ***Custom URL*** field affects what is displayed when a user clicks on a data point in a graph. You can specify that an external URL is displayed. You can use variables to include information from SL1about the data point (like device name or interface ID) in the URL.

Configuring the Leaderboard/Top-N Widget

To configure a **Leaderboard/Top-N** widget, supply values in the following fields:



Select A Widget

Widget Name: {auto}

Widget Refresh Rate: Widget default (Auto-refresh disabled)

Leaderboard Config: [Top] [10] [Average] over the last [Hour] ☑ Use Timespan Context ☑ Ignore Min of Zero

Collection Configuration: Performance Data (Dynamic App) | Alteon: Load Trending | ARP Entries | [auto]

Device Filters

☑ Use Device/Service Context

Organizations:
All Organizations
System

Device Groups/IT Services:
All Device Groups/IT Services
Microsoft: Active Directory Server
Microsoft: DNS Server
Microsoft: IIS Server
Microsoft: Lync Server 2010
Microsoft: Lync Server 2013
Microsoft: SQL Server
Video Active Calls (IT Service)
Video Usage (IT Service)

Device Categories:
All Device Categories
Cloud
Cloud.Account
Cloud.AppService
Cloud.AvailabilityZone
Cloud.BigData
Cloud.Compute
Cloud.Database
Cloud.IaaS
Cloud.Location

Device Classes:
All Device Classes
2Wire | OEM
2xlarge | AWS EC2 Instance 2xlarge
3Com | 11Mbps Wireless LAN Access Point
3Com | 2000 Terminal Server
3Com | 210 Terminal Server
3Com | 2100 Terminal Server
3Com | 2500 Terminal Server
3Com | 2600 Terminal Server
3Com | 3000 Terminal Server

Misc.

☐ Color by Device State

Click/Link Behavior: [Open Performance Window]

Custom URL:

Legend Label Options: ☑ Element Name ☑ Index Label

Title Label Options: ☑ Window ☐ Type ☐ Collection Type ☑ Collection Name ☑ Series Name ☑ Aggregation

Axis Label Options: ☑ Units

Display Type: Pie | Column | Bar | Radar | Table | Scoreboard

- ***Leaderboard Config***. Select the devices or IT Services that will be included in the graph.
  - Specify whether the graph will display devices with the highest (*Top*) or lowest (*Bottom*) utilization for the selected metric.
  - Select the number of devices to include in the widget.
  - Select whether the *Average*, *Minimum*, *Maximum*, *Total*, or *Standard Deviation* of the metric over the selected time period should be used.
  - Select the time period over which the metric should be evaluated. Choices are *Hour* or *24 Hours*.
  - *Use Timespan Context*. If you select this checkbox, the time period over which the metric will be evaluated can be selected in another widget in the dashboard.
  - *Ignore Min of 0*. If you select this checkbox, the widget will not include devices with a value of zero for the selected metric over the selected time period.

- ***Collection Configuration***. Select the metric for the widget using the following fields:
  - *Collection Type*. Select the source of data that will be displayed in the widget.
  - *Collection*. Select the type of metric that will be displayed in the widget. The options available in this field are based on your selection in the **Collection Type** field.

  - *Series*. If applicable, select the specific metric to display in the widget. The options available in this field are based on your selection in the ***Collection*** field.
  - *Scale Prefix*. Allows the user to select a unit scale for the widget's y-axis that is appropriate for their data series. If the user does not select a scale prefix, the widget will auto-scale the y-axis to an appropriate scale based on the values being displayed.
  - *Filter*. For Dynamic Applications, the *Filter* field will match indexes and/or labels; for interfaces the *Filter* field will match ifName/ifDescr/ifAlias or interface tags; for monitors (port, CV, process, etc.), the *Filter* field will match the appropriate unique element of that monitor (port number, hostname, etc.).

- ***Device Filters***. Select which devices will be evaluated for inclusion in the widget. You can limit the devices that will be included in the widget by selecting one or more *Organizations*, *Device Groups*, *IT Services*, *Device Categories*, or *Device Classes*.

> **NOTE**: In widgets that allow you to filter the list of devices by the device class or device category, merged devices include special behavior. For merged devices, you can select either the device class or device category of the physical device or the device class or device category of the component device. If both device classes or device categories are selected, a merged device will appear twice in a single widget.

  - If you select the ***Use Device-related Context***, the list of devices that will be evaluated for inclusion in the widget can be selected in another widget in the dashboard.

- ***Misc***. Additional settings that affect the display of the graph.
  - *Use Old (Flash) Graphs*. This feature is no longer supported.
  - *Color by Device State*. If you select this checkbox, each graphical element in the dashboard will be colorized based on device state.
  - *Click/Link Behavior*. Select how the widget will behave if a user selects a graphical element in the widget.
    - **Auto-Select Device/Service**. When the dashboard is loaded the first entry in this widget is selected. The selected metrics control what is displayed in other widgets in the dashboard.
    - **No Action (Disabled)**. No action is performed.
    - **Open Custom URL in Kiosk Mode**. Use the selected entity to populate the variable(s) in a custom URL (specified in the *Custom URL* field). Display the populated custom URL in a kiosk window. In the *Custom URL* field, you must specify a URL to populate.
    - **Open Custom URL in New Window**. Use the selected entity to populate the variable(s) in the custom URL (specified in the *Custom URL* field). Display the populated custom URL in a new window. In the *Custom URL* field, you must specify a URL to populate.
    - **Open in Kiosk Mode**. A new window opens and displays a time-series performance graph in kiosk mode. In kiosk mode, the options that are normally available in the **Device Performance** page will not be displayed. For example, if a service provider is configuring a dashboard for their customers, kiosk mode will allow the customer to drill-down to the raw data for a metric without giving them full access to the **Device Performance** page.

  - **Open Performance Window**. A new window opens and displays a time-series performance graph of the selected metric.
  - **Select Device/Service**. The selected metrics control what is displayed in other widgets in the dashboard.

- *Custom URL*. Specify the custom URL that you want to populate with the *Open Custom URL* selection.

  You can include one or more variables in a custom URL. You can use the variables in place of a value from SL1. Variables are surrounded in curly braces.

  You can click the wrench icon (🔧) in the *Custom URL* field to open the field in a larger window. This window includes a **Token Builder** that enables you to build variables into the custom URL. When you select a series of tokens in the **Token Builder** pane, the corresponding variables are inserted into the custom URL.

  The variables use the syntax:

  ```
  {X.Y}
  ```

  where :

  X is one of the following entities:

  - deviceObject. Contains attributes associated with the selected device.
  - interfaceObject. Contains attributes associated with the selected interface.
  - serviceObject. Contains attributes associated with the selected IT service.
  - timespan. Contains attributes associated with the selected timespan.

  Y is an attribute for that entity. For all entities except timespan, the available attributes are the attributes from the API that do not return lists or links (i.e. single fields). For timespan, you can specify the following attributes:

  - {timespan.start}
  - {timespan.end}
  - {timespan.duration}

  The following are the most commonly used device attributes:

  - ***id***. The numeric ID of the device.
  - ***hostname***. The hostname of the device discovered via hostname discovery.
  - ***ip***. The IP address SL1 uses to communicate with the device.
  - ***name***. The name of the device.
  - ***organization***. The organization of the device. If you use this attribute, you must specify the organization attribute that you want to use. If you use this attribute, you must use the following variable syntax:

```
    {context.deviceObjects.<entity index>.organization.<organization
    attribute>}
    ```

    - Any Base or Extended Custom Attributes that have been added to your SL1 system.

  The following are the most commonly used interface attributes:

    - ***device***. The device with which the interface is associated. If you use this attribute, you must specify the device attribute that you want to use. If you use this attribute, you must use the following variable syntax:

      ```
      {context.interfaceObjects.<entity index>.device.<device attribute>}
      ```

    - ***organization***. The organization with which the interface is associated. If you use this attribute, you must specify the organization attribute that you want to use. If you use this attribute, you must use the following variable syntax:

      ```
      {context.interfaceObjects.<entity index>.organization.<organization
      attribute>}
      ```

    - ***ifIndex***. The SNMP index associated with the interface.
    - ***ifDescr***. The description of the interface.
    - ***alias***. The alias of the interface.
    - ***name***. The name of the interface.

  The following are the most commonly used IT service attributes:

    - ***service_id***. The numeric ID of the IT service.
    - ***service_name***. The name of the IT service.

  The following are the most commonly used organization attributes:

    - ***company***. The name of the organization.
    - ***billing_id***. The billing ID of the organization.
    - ***crm_id***. The CRM ID of the organization.

  For example, a custom URL could be:

  ```
  http://my.website.com/{deviceObject.id}
  ```

  where {deviceObject.id} is the device selected in another widget.

- ***Legend Label Options***. Specifies the information that is included in the legend for the widget. Choices are:

    - *Element Names*. Displays the names of the device(s) or IT Service(s) in the legend.
    - *Index Label*. If you selected a performance Dynamic Application in the ***Collection*** field, you use the ***Index*** field to select the data series to display in the widget. If you select the ***Index Label*** checkbox, the widget includes the name of the index in the legend.

- ***Title Label Options***. Each selected option will appear in the title of the widget. Choices are:

  - *Window*. Displays the value from the ***Widget Name*** field.
  - *Type*. Displays the value from the ***Type*** field.
  - *Collection Type*. Displays the value from the ***Collection Type*** field.
  - *Collection Name*. Displays the value from the ***Collection*** field.
  - *Series Name*. Displays the value from the ***Series*** field.
  - *Aggregation*. Displays the value from the ***Aggregation*** field.

- ***Axis Label Options***. Select optional methods for labeling information on the X-axis. Choices are:

  - *Units*. If this check box is selected, numbers along the X-axis include units of measurement; otherwise, units of measurement are not included.

- ***Display Type***. Select how the information will be displayed in the widget:

  - *Pie*. Widget will be displayed in a pie graph. Displays each event as percentage of total events. Slice color represents the severity of the event.
  - *Column*. Widget will be displayed in a bar graph. Displays number of occurrences on the y-axis. On the x-axis, displays each event in its own colored vertical bar. Bar color represents the severity of the event.
  - *Horizontal Bar*. Widget will be displayed in a horizontal bar graph. Displays number of occurrences on the x-axis. On the y-axis, displays each event in its own colored horizontal bar. Bar color represents the severity of the event.
  - *Radar*. Displays a multi-pointed, color-coded polygon or circle. Users determine if the radar is a polygon or circle by selecting *Arc* or *Line* in the ***Grid Lines*** field. Each point on the polygon or circle represents an event. The number of event instances is measured by the concentric rings. The number value of each concentric ring increases from center to perimeter.
  - *Spreadsheet*. Widget will be displayed as a spreadsheet. Displays each event in its own row. Each event has its own column, with number of occurrences. Clicking on the event name displays the **Event Console** page, with only the occurrences of the selected event displayed.
  - *Scoreboard*. For the selected events, displays each event name and the number of occurrences for each event. Events are ordered by severity, with critical first. Display is tally-style, in large format for easy viewing.

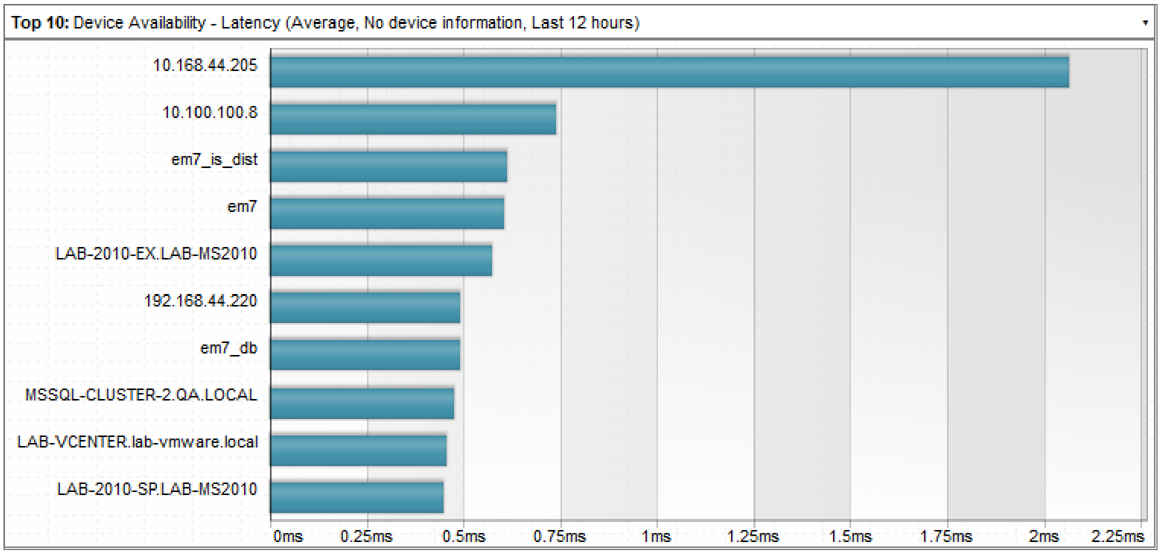
- ***Display Options***. Specify how the graph will be formatted.
  - *Chart minimum*. You can accept the minimum value that SL1 determines, usually the lowest collected value or lowest calculated value (*Automatic*), or you can specify a minimum value (*Fixed Value*).
  - *Chart maximum*. You can accept the maximum value that SL1 determines, usually the highest collected value or highest calculated value (*Automatic*), or you can specify a maximum value (*Fixed Value*).
  - *Axis Scaling*. You can select either linear or logarithmic scaling for the widget.
  - *Threshold value*. You can select *Enabled* and then enter a threshold value in this field. SL1 will then include a heavy line in the graph that indicates the threshold.
  - *Severity ranges*. Select whether a low value (*Increasing*) or a high value (*Decreasing*) indicates a healthy state.
  - *Severity Slider*. Use the sliders and/or supply values in the slider fields to define the range of values at which the metric is in a healthy, normal, minor, major, and critical state. If you select *Gauge* in the ***Display Type*** field, you can also define the minimum value and maximum value that will be displayed in the gauge.

Viewing the Leaderboard/Top-N Widget

The **Leaderboard/Top-N** widget displays utilization statistics for a specific performance metric. The widget displays utilization for the devices with the highest or lowest values for the performance metric.

> **NOTE**: If the **Leaderboard/Top-N** widget has been defined with the ***Use Device-related Context*** checkbox selected, and a selected Device Group or selected IT Service does not contain any devices, the **Leaderboard/Top-N** widget will display a message saying the context contains no devices.

For example, an instance of the **Leaderboard/Top-N** widget that is configured to display the 10 devices with the highest average latency in a bar graph looks like this:



The **Leaderboard/Top-N** widget can be configured to display:

- Any performance metric collected by SL1.
- The devices with the highest or lowest minimum, maximum, average, total, or standard deviation for the selected performance metric during the last frequent normalization period (5 - 30 minutes), hourly normalization period, or daily normalization period.
- 5, 10, 15, 20, 25, 30, 35, 40, 45, or 50 devices. The selection of devices that will be evaluated for highest or lowest utilization can be limited to only devices in specific organizations, device groups, device categories, or device classes.

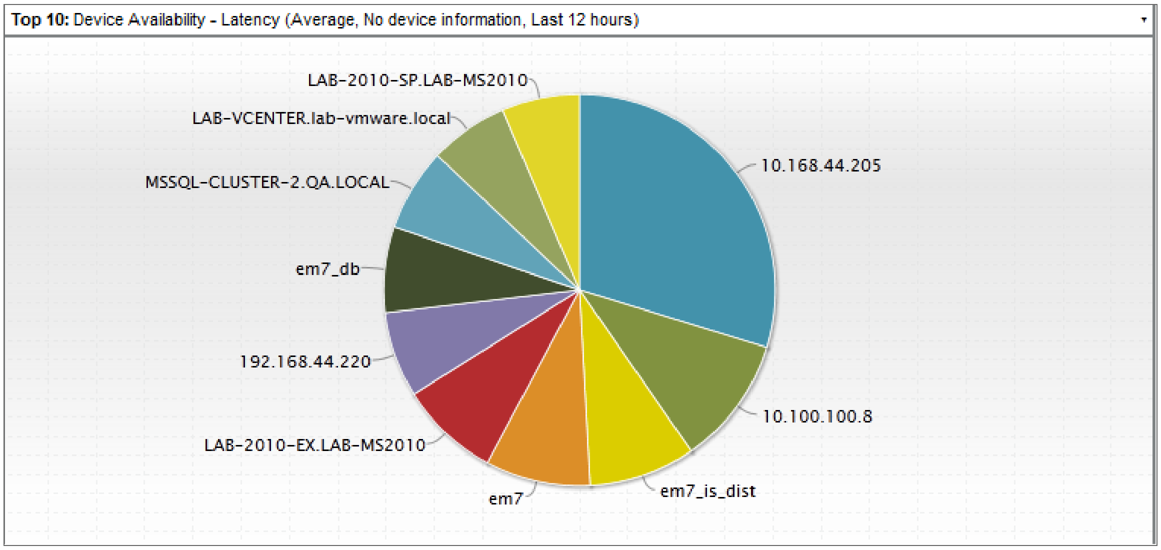
The following table lists the required Access Hooks (in addition to the "Dash:View" and "Dash:View Shared" Access Hooks) that users need to view specific types of data in the **Leaderboard/Top-N** Widget:

Data	Required Access Hook IDs	Required Access Hook Names
Availability	DEV_VIEW	Dev:View
Click Actions for Devices	DEV_PERF_REPORT_VIEW	Dev:Performance Graphs
Click Actions for IT Services	ITS_SERVICE_VIEW	IT Service: View
Content Verification	DEV_VIEW	Dev:View
DLAG	DEV_VIEW	Dev:View
DNS Policies	N/A	N/A
Dynamic Applications	DEV_VIEW SYS_DYN_APP_MANAGEMENT	Dev:View System>Manage>Applications

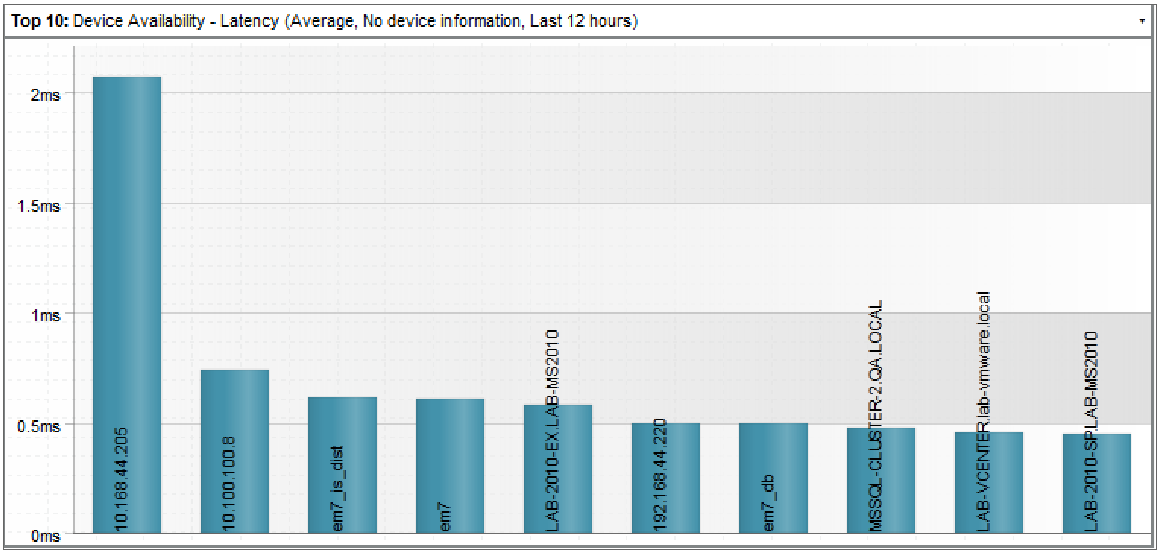
E-mail Round Trip	DEV_VIEW	Dev:View
File Systems	DEV_VIEW	Dev:View
Interfaces	DEV_VIEW	Dev:View
IT Services	DGRP_VIEW	DevGroup:View
Port Monitors	DEV_VIEW	Dev:View
Process Monitors	DEV_VIEW	Dev:View
Transaction Verification	DEV_VIEW	Dev:View
Video Performance	DEV_VIEW	Dev:View
Vitals	DEV_VIEW	Dev:View
Windows Service Monitors	DEV_VIEW	Dev:View

The **Leaderboard/Top-N** widget can be configured to display in one of the following formats:

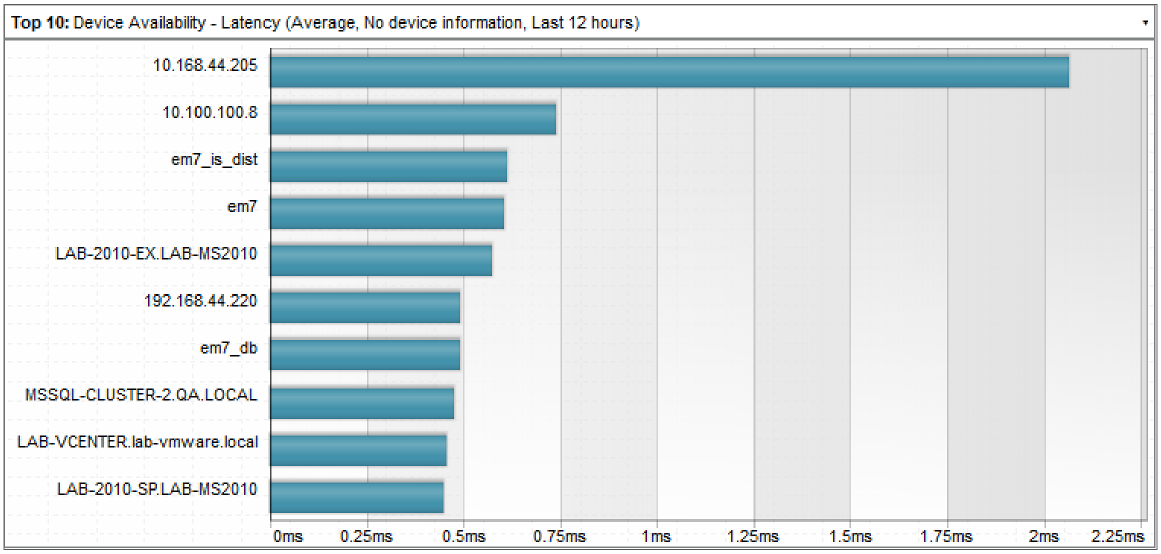
- ***Pie Chart***



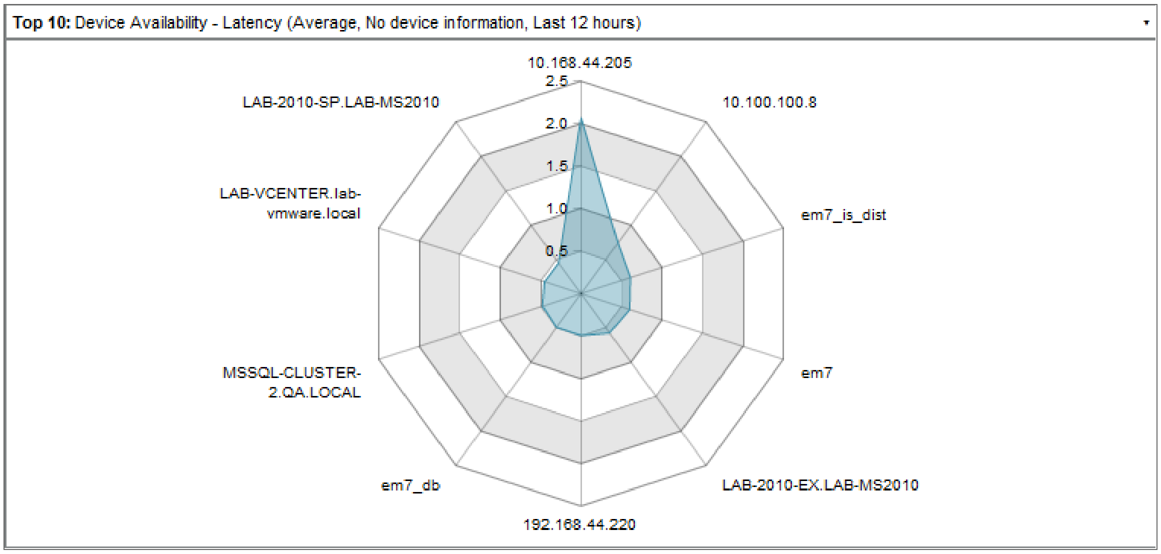
- *Column graph*



- *Horizontal Bar graph*

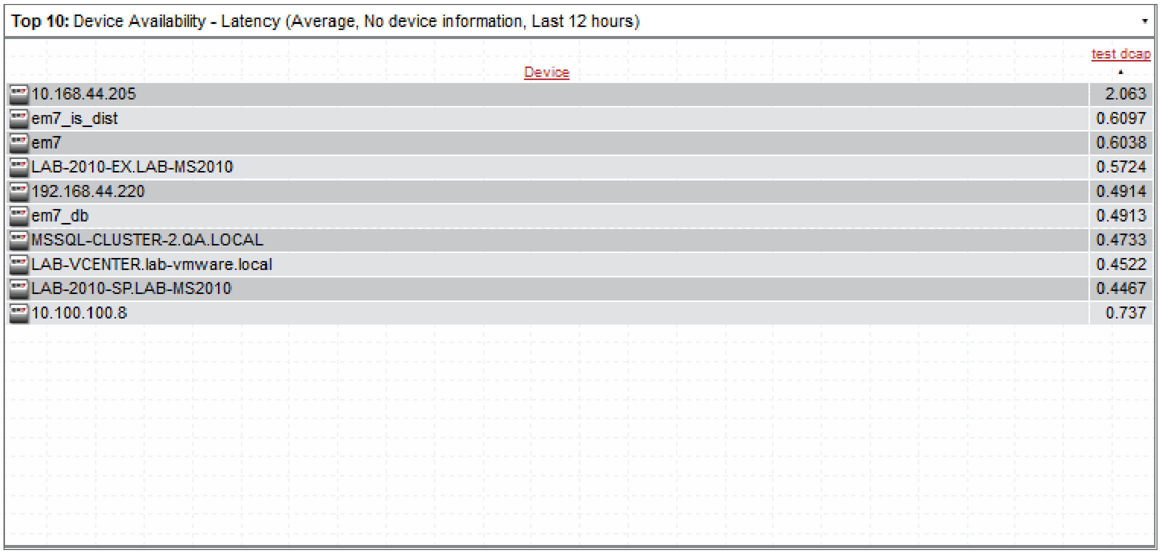


- *Radar chart*



Top 10: Device Availability - Latency (Average, No device information, Last 12 hours)

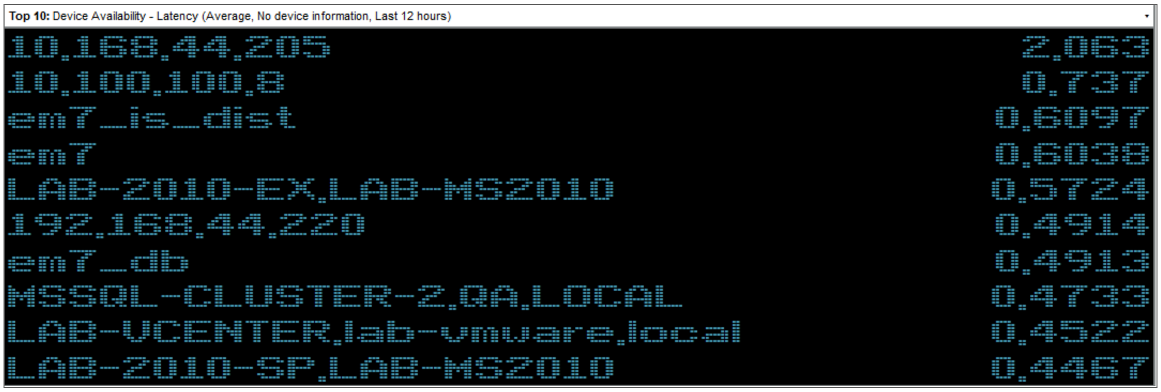
- *Spreadsheet*



Top 10: Device Availability - Latency (Average, No device information, Last 12 hours)

Device	test dcap
10.168.44.205	2.063
em7_is_dist	0.6097
em7	0.6038
LAB-2010-EX.LAB-MS2010	0.5724
192.168.44.220	0.4914
em7_db	0.4913
MSSQL-CLUSTER-2.QA.LOCAL	0.4733
LAB-VCENTER.lab-vmware.local	0.4522
LAB-2010-SP.LAB-MS2010	0.4467
10.100.100.8	0.737

- *Scoreboard*



Top 10: Device Availability - Latency (Average, No device information, Last 12 hours)

10.168.44.205	2.063
10.100.100.8	0.737
em7_is_dist	0.6097
em7	0.6038
LAB-2010-EX.LAB-MS2010	0.5724
192.168.44.220	0.4914
em7_db	0.4913
MSSQL-CLUSTER-2.QA.LOCAL	0.4733
LAB-VCENTER.lab-vmware.local	0.4522
LAB-2010-SP.LAB-MS2010	0.4467

Depending on the configuration of the widget, selecting a metric performs one of the following actions:

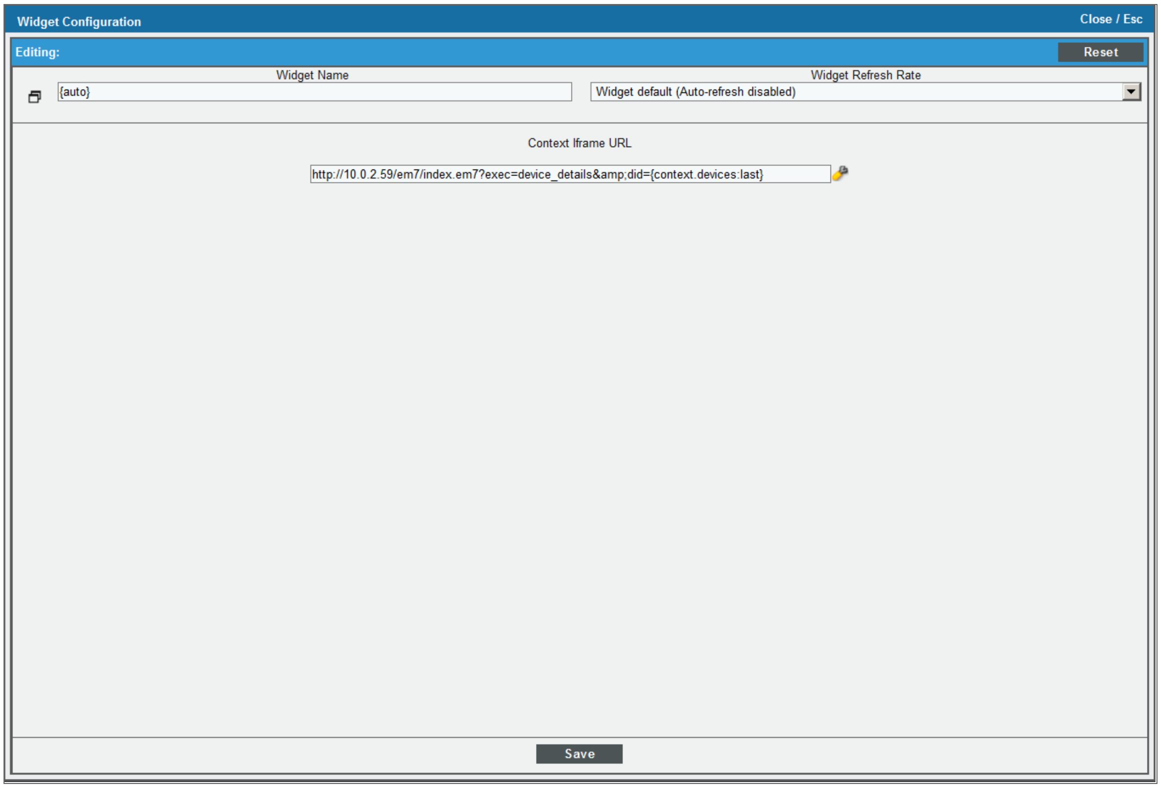
- The **Device Performance** page will open in a separate window with the graph for the selected metric displayed.
- Your selection will define what is displayed in other widgets in the dashboard. You can select multiple elements by holding down the **[Ctrl]** key (or **[Command]** on Apple computers).
- A custom URL will open in a separate window.
- No action will be performed.

Custom > Tools > (base) Context Iframe Content

The Context Iframe Content widget accepts a URL as input and then displays the page specified by the URL. The URL can include device variables that are populated by the device context, such as when you select a device in another widget.

Configuring the Context Iframe Content Widget

To configure the Context Iframe Content widget, supply a value in the following field:



Widget Name: {auto}

Widget Refresh Rate: Widget default (Auto-refresh disabled)

Context Iframe URL: http://10.0.2.59/em7/index.em7?exec=device_details&amp;did={context.devices:last}

- ***Context Iframe URL***. Enter the URL to display in the Iframe widget.
    - You can enter a relative or absolute URL.
    - You can use HTTP or HTTPS.
    - You can include variables that specify attributes of a device, interface, IT service, or organization selected in another widget.

Click the wrench icon (🔧) in the *Context Iframe URL* field to open the field in a larger window. This window includes a **Token Builder** that enables you to build variables into the URL. When you select a series of tokens in the **Token Builder** pane, the corresponding variables are inserted into the URL.

Variables in the ***Context Iframe URL*** field are specified in the following format:

```
{context.<entity type>.<entity index>.<attribute>}
```

The following are valid entity type values for variables:

- ***deviceObjects***. Contains attributes associated with the devices selected in another widget.
- ***interfaceObjects***. Contains attributes associated with the interfaces selected in another widget.
- ***organizationObjects***. Contains attributes associated with the organizations selected in another widget.
- ***serviceObjects***. Contains attributes associated with the organizations selected in another widget.

The following are valid values for specifying an entity index in variables:

- ***first***. The attribute used to populate the variable will be from the first entity a user selected in another widget.
- ***last***. The attribute used to populate the variable will be from the last entity a user selected in another widget.
- An integer value that specifies an index in the list of selected devices.

For example, to use an attribute from the last device selected by the user in another widget, you would use the following variable, substituting the attribute name where indicated:

```
{context.deviceObjects.last.<attribute>}
```

The attributes that are available for devices, interfaces, IT services, and organizations are the same as the non-list attributes available for the equivalent ScienceLogic API resource. For example, the attributes available for devices are the same as the attributes for a /device resource in the API. Non-list attributes are attributes that have single assigned value; for example, the child_devices attribute for devices cannot be used as it is a list that can include multiple values.

The following are the most commonly used device attributes:

- ***id***. The numeric ID of the device.
- ***hostname***. The hostname of the device discovered via hostname discovery.
- ***ip***. The IP address SL1 uses to communicate with the device.
- ***name***. The name of the device.
- ***organization***. The organization of the device. If you use this attribute, you must specify the organization attribute that you want to use. If you use this attribute, you must use the following variable syntax:

  ```
  {context.deviceObjects.<entity index>.organization.<organization attribute>}
  ```

- Any Base or Extended Custom Attributes that have been added to your SL1 system.

The following are the most commonly used interface attributes:

- ***device***. The device with which the interface is associated. If you use this attribute, you must specify the device attribute that you want to use. If you use this attribute, you must use the following variable syntax:

  ```
  {context.interfaceObjects.<entity index>.device.<device attribute>}
  ```

- ***organization***. The organization with which the interface is associated. If you use this attribute, you must specify the organization attribute that you want to use. If you use this attribute, you must use the following variable syntax:

  ```
  {context.interfaceObjects.<entity index>.organization.<organization attribute>}
  ```

- ***ifIndex***. The SNMP index associated with the interface.

- ***ifDescr***. The description of the interface.
- ***alias***. The alias of the interface.
- ***name***. The name of the interface.

The following are the most commonly used IT service attributes:

- ***service_id***. The numeric ID of the IT service.
- ***service_name***. The name of the IT service.

The following are the most commonly used organization attributes:

- ***company***. The name of the organization.
- ***billing_id***. The billing ID of the organization.
- ***crm_id***. The CRM ID of the organization.

For example, suppose you want to display the **Device Properties** page for the last selected device. In our test system, the URL for the **Device Properties** page for the device with a device ID of "201" is:

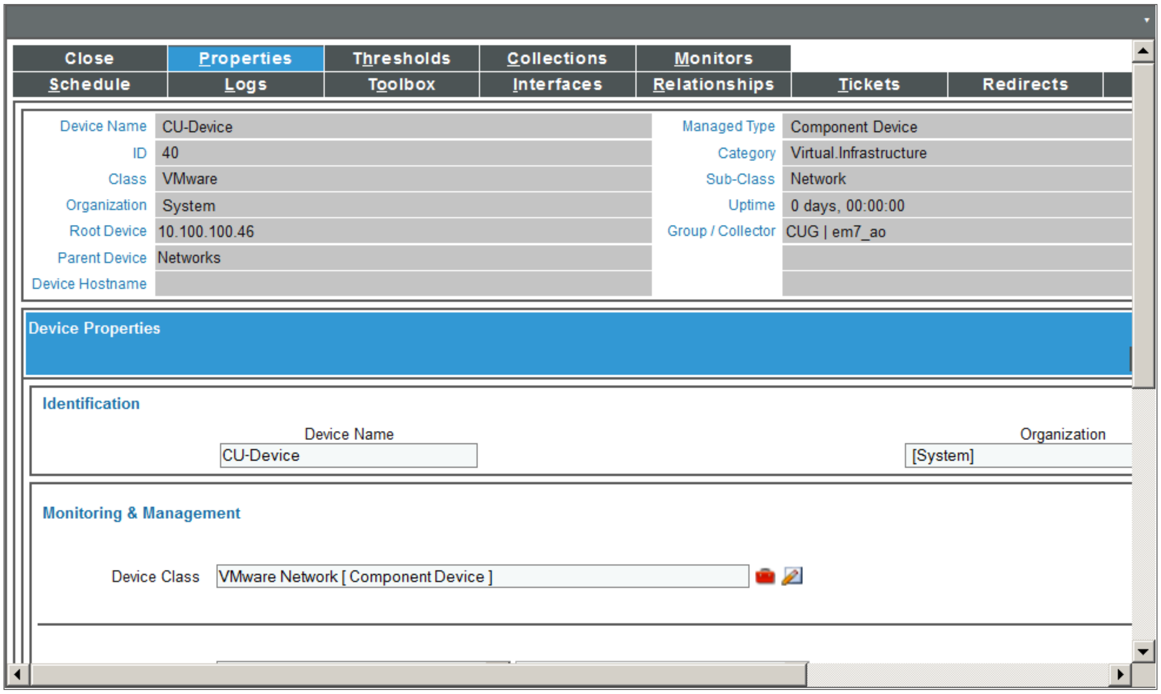
```
http://10.0.2.59/em7/index.em7?exec=device_details&did=201
```

We could then edit this URL to specify that instead of the device with the device ID 201, we want to display the **Device Properties** page for the last selected device. We would specify the following:

```
http://10.0.2.59/em7/index.em7?exec=device_details&did=
{context.deviceObjects.last.id}
```

Viewing the Context Iframe Content Widget

If you specified that you want to view the **Device Properties** page for the last selected device, the Context Iframe Content widget might look like this:



Device Name	CU-Device	Managed Type	Component Device
ID	40	Category	Virtual.Infrastructure
Class	VMware	Sub-Class	Network
Organization	System	Uptime	0 days, 00:00:00
Root Device	10.100.100.46	Group / Collector	CUG | em7_ao
Parent Device	Networks		
Device Hostname			

Device Properties

Identification

Device Name: CU-Device

Organization: [System]

Monitoring & Management

Device Class: VMware Network [Component Device]

Chapter

5

Embedding Content from SL1 in Another Web Page

Overview

This chapter describes how to embed content from SL1 in another web page. It includes the following topics:

Embedding a Page from SL1 in Another Web Page

The web interface provided by Administration Portals, Database Servers, and All-In-One Appliances supports HTTP authentication. HTTP authentication allows you to embed pages from the user interface in an external web portal.

> NOTE: The examples in this section use secure HTTPS. HTTP authentication can also be used with unsecure HTTP.

To access an SL1 page using HTTP authentication, perform the following:

1. Login to the Administration Portals, Database Servers, and All-In-One Appliances. Navigate to the page you want to embed in the external web page.
2. Copy the URL of the page. For example, suppose you wanted to access a dashboard using HTTP authentication. The URL for a dashboard in SL1 looks like this:

```
https://ip-address-of-appliance/em7/index.em7?exec=dashboards&dash_id=X
```

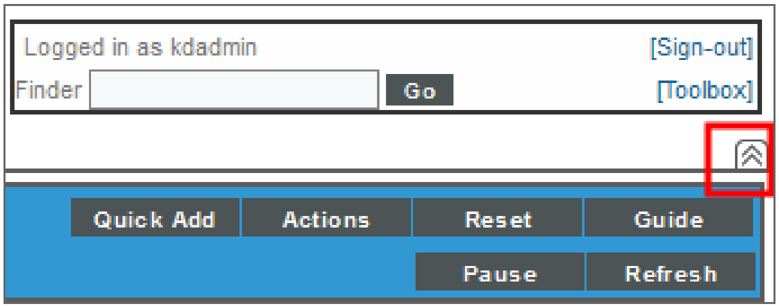
Where the "X" at the end of the URL is the ID for the dashboard.

3. Append "&use_http_auth=1" to the end of the URL. For example, to request dashboard ID 1 using HTTP authentication, you would use the following URL and supply a username and password in the request:

   ```
   https://ip-address-of-appliance/em7/index.em7?exec=dashboards&dash_id=1&use_
   http_auth=1
   ```

4. Several pages in SL1 allow you to hide the header bar and left NavBar. If you hide the header bar or the left NavBar on a page, the URL will change to reflect your choice and can be used to request the page without the header bar and/or the left NavBar.

   For example, if you hide the header bar for a dashboard by selecting the up arrow button:



   The URL changes to:

   ```
   https://ip-address-of-appliance/em7/index.em7?exec=dashboards&dash_id=X#em7_
   mainnav=hide
   ```

   Where "X" is the ID for the dashboard.

5. To request dashboard ID 1 without the header bar using HTTP authentication, you would use the following URL and supply a username and password in the request:

   ```
   https://ip-address-of-appliance/em7/index.em7?exec=dashboards&dash_id=1&use_
   http_auth=1#em7_mainnav=hide
   ```

6. To you use the URL of the SL1 page in an HTTP request from an external web page:

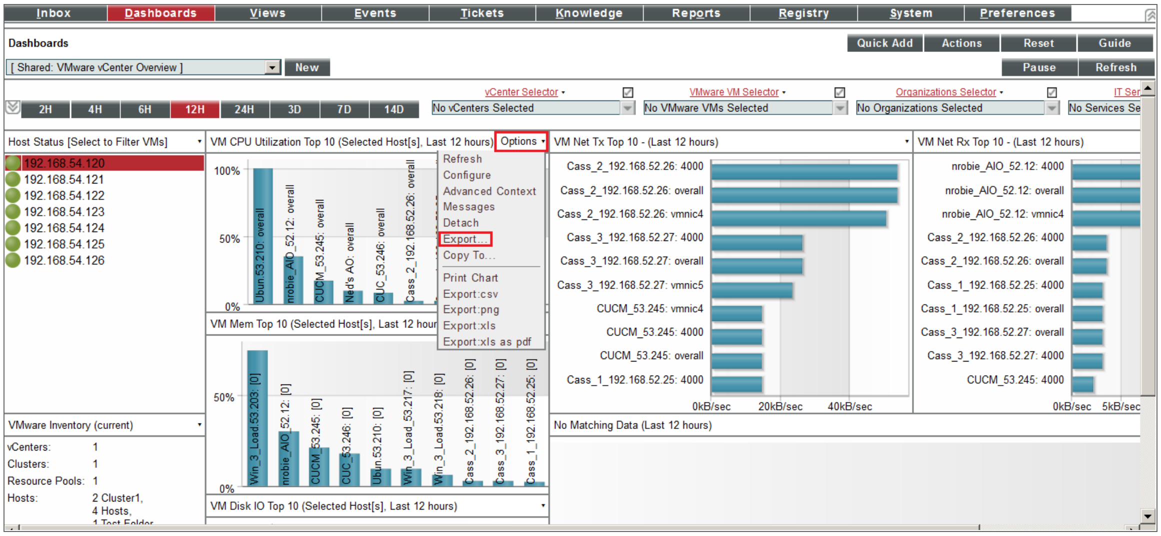
   - The URL query string for the SL1 page must include the option "use_http_auth=1".
   - You must pass an SL1 username and password using the standard HTTP authentication mechanism.

Embedding a Single Widget from SL1 in Another Web Page

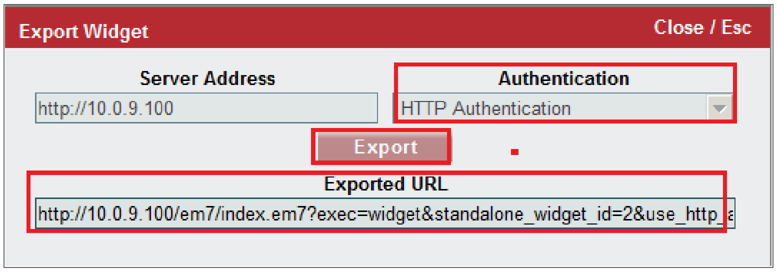
SL1 allows you to embed a single widget from a dashboard in an external web page and use HTTP authentication to dynamically update the data in the widget.

To include a single widget in an external web page:

1. Go to the **Dashboards** page. Create a dashboard and configure the widget you want to export, and select any necessary contextual items, so that the widget includes the data you want to display. For details on creating a dashboard and configuring widgets, see the manual ***Dashboards***.



2. Find the widget you want to export. Select the ***Options*** menu for the widget. Select *Export*.



Server Address: http://10.0.9.100

Authentication: HTTP Authentication

Exported URL: http://10.0.9.100/em7/index.em7?exec=widget&standalone_widget_id=2&use_http_a

3. In the **Export Widget** modal page:

   - ***Authentication***. Select *HTTP Authentication*.
   - ***Export***. Select this button.
   - ***Exported URL***. Copy this URL. This URL is unique for this widget, populated with the specified data and with the specified context selected.

4. To you use the URL of the widget in an HTTP request from an external web page, you must pass an SL1 username and password using the standard HTTP authentication mechanism.

Chapter 6

Proxied Web Services

Overview

This chapter describes how to use proxied web services in SL1. It includes the following topics:

What is a Proxied Web Service?

A proxied web service defines how SL1 should perform requests to an external web service. When you define a proxied web service in SL1, SL1 automatically authenticates with the external web service and retrieves data from the external web service so that each user can view the data in a graphical report. The definition of a proxied web service includes:

- The URL of the web service.
- The method for passing authentication information to the external web service, so the user does not have to provide a username and password to view information from the web service.
- Optional XSL transformations to apply to the data retrieved from the external web service.
- Other options that must be included in the request, for example, special headers or options.

You can use a proxied web service to create a ***Proxied Web Service Widget***. A proxied web service widget displays the response from the web service in a graphical report in a dashboard. Every time a user views a dashboard that contains a ***Proxied Web Service Widget***, SL1 uses the username, Email address and/or password of that user to authenticate the request to the external web service.

Defining a Proxied Web Service

To use a proxied web service in a dashboard:

1. Create a SOAP/XML credential for the web service.
2. Define the proxied web service in the **Proxied Web Services** page (Registry > Web Proxies > Proxied Web Services).
3. Optionally, you might want to apply XSL transformations to the data returned by the web service.
4. Optionally, you might want to define a DNS-Based Proxy, to ensure that SL1 can accurate resolve all links in the returned data.
5. To display the data returned by the external web service, you must define a widget in a dashboard page.

For details on web-based proxy, see the ***chapter on web-based proxy***.

Authentication Types

SL1 can use the following methods to authenticate requests to the external web service:

- ***HTTP Authentication***. Use this method for web services that authenticate using standard HTTP authentication, such as an Integration Server. SL1 can pass a username, Email address, and/or password to the web service. For details, see the section on ***Credentials***. For an example of HTTP Authentication, see the section on ***Using HTTP for Authentication***.
- ***Custom Header***. Use this method for web services that authenticate requests by examining the source IP and a custom HTTP header. For example, the web service for a Splunk server uses this type of authentication. Each time a user views a widget (report in the **Dashboards tab** page) that contains dynamic data from Splunk, SL1 builds a custom request header that includes the username, and/or Email address of the user viewing the widget and sends the custom request header to Splunk. To use a custom header, typically you must configure the external web service to include the Administration Portal or All-In-One Appliance in the list of trusted IP addresses For details, see the section on ***Credentials***. For an example of using a custom header, see the section on ***Using a Custom Header for Authentication***.
- ***PHP script***. Use this method for web services that cannot be authenticated using the ***HTTP Authentication*** or ***Custom Header*** methods. SL1 executes a custom PHP script to authenticate requests. For details, see the section on ***Credentials***. For an example of using a PHP script, see the section on ***Using PHP for Authentication***.

XSL Transformations

In addition to specifying how SL1 should perform requests on a web service, you can also specify an optional XSL transformation to apply to the response. SL1 will perform the XSL transformation on the response to generate the output that will be displayed to the user. For SL1 to apply an XSL transformation to a response from a proxied web service:

1. You must upload the XSL stylesheet to SL1 in the **Proxy Service Files** page (Registry > Web Proxies > Proxy Service Files).
2. The XSL stylesheet can include references to additional files, such as CSS or XSL template files. However, you must upload each additional files to SL1 in the **Proxy Service Files** page (Registry > Web Proxies > Proxy Service Files).
3. You must create an XSL transformation definition in the **Proxy XSL Transformations** page. An XSL transformation definition specifies:
    - The name SL1 will use to refer to the XSL transformation in the user interface.
    - The XSL Stylesheet that will be used to perform the transformation.
    - Any additional files that are used by the XSL Stylesheet.
4. In the Proxied Web Service definition, you can specify one or more XSL transformation definitions that can be applied to the responses from that web service.
5. In the widget definition, the user must select the XSL transformation definition that SL1 will use to transform the responses for that instance of the widget. Users can select from the list of XSL transformations specified in the definition for that proxied web service.

For details, see the ***chapter on XSL Transformations***.

DNS-Based Proxy

For some web services, the default method SL1 uses to send proxy requests causes URI references in the response to be unresolvable. For example, if the response links to a CSS or JavaScript file outside of the scope of the proxy, those files will not be available when the page is displayed in a dashboard.

If the response from a web service includes URIs that SL1 cannot resolve using the default proxy method, you can configure a DNS-Based Proxy. Configuring a DNS-Based Proxy allows SL1 to resolve URIs that cannot be resolved using the default method. However, to use a DNS-Based Proxy, you must define a ***wildcard DNS CNAME record*** that:

- Resolves to the Administration Portal or All-In-One Appliance that the user is connecting to.
- Can be resolved by the system running the client browser.

When you define a wildcard CNAME record for the Administration Portal or All-In-One Appliance , the URL for those servers will resolve to the Administration Portal regardless of the text at the front of the URL. During requests to proxied web services, SL1 then creates a custom URL for the Administration Portal. SL1 inserts information about the current session (user ID and browser session) into the front of the URL for the Administration Portal. The custom URL allows SL1 to resolve absolute URLs even when the request doesn't include a referrer header.

To configure DNS-Based Proxy, you must define rules in the **DNS-Based Proxy Rules** page (Registry > Web Proxies > DNS-Based Proxy). If your SL1 system includes multiple Administration Portals or if different CNAME records apply to different users based on their network location, you can define multiple DNS-Based Proxy rules.

A DNS-Based Proxy rule defines:

- The users who will use this DNS-Based Proxy rule, based on the address the user supplied to connect to the Administration Portal or All-In-One Appliance.
- The order in which SL1 should use the DNS-Based proxy rules.
- The domain specified in the DNS CNAME record.
- The protocol (HTTP or HTTPS) to use. You can also specify that you want to disable the protocol. If the protocol is disabled, SL1 will use the default, non DNS-Based, proxy method for users that match this DNS-Based proxy rule.

For details on DNS-based Proxy, see the chapter on ***DNS-Based Proxy***.

Chapter

7

Creating a Credential for a Proxied Web Service

Overview

This chapter describes how to create a credential for a proxied web service. It includes the following topics:

Credential Authentication Methods

Before creating a proxied web service, you must create a credential for that web service. Proxied Web Services use SOAP/XML credentials. Before creating a credential, however, you must determine how SL1 will authenticate requests to the external web service. SL1 can use the following authentication methods:

- ***HTTP Authentication***. Use this method for web services that authenticate using standard HTTP authentication, such as an Integration Server. SL1 can pass a username, email address and/or password to the web service.
- ***Custom Header***. Use this method for web services that authenticate the user if the request comes from a trusted IP address and a custom HTTP header for the request includes specific user information. For example, you can use this type of authentication to retrieve data from a Splunk server. SL1 authenticates by including the username, and/or Email address of the user viewing the proxied web service widget in the request headers. Typically, you must configure the external web service to include the Administration Portal or All-In-One Appliance in the list of trusted IP addresses.

- ***PHP script***. Use this method for web services that cannot be authenticated using the ***HTTP Authentication*** or ***Custom Header*** methods. SL1 executes a custom PHP script to authenticate requests.

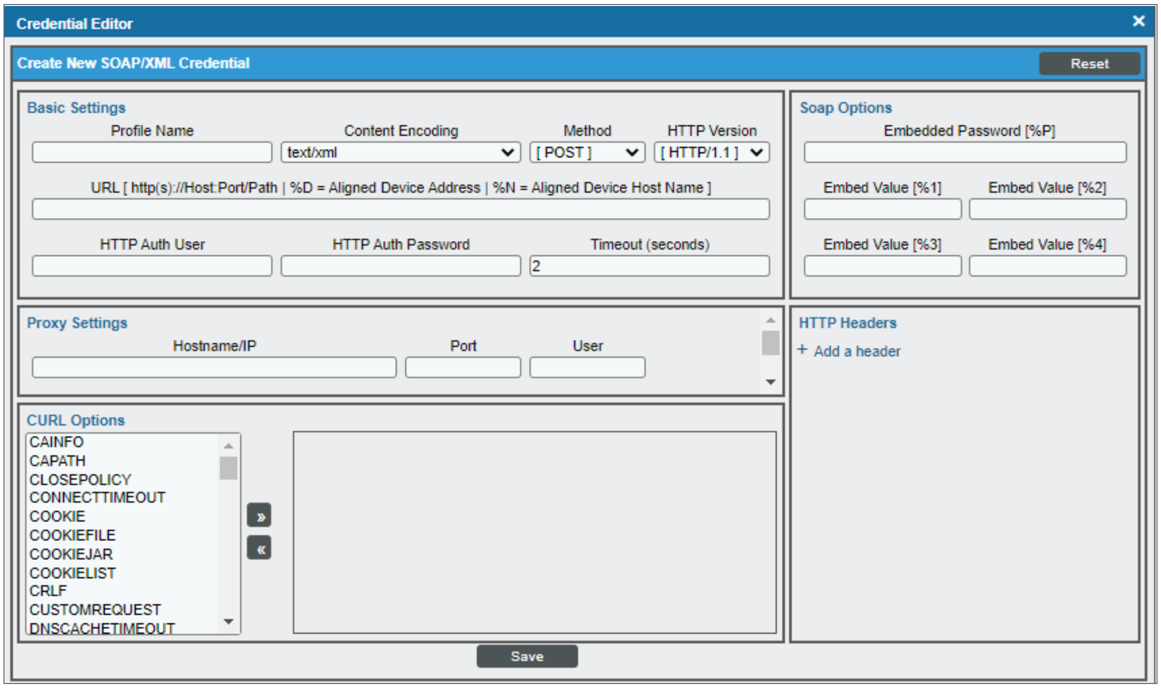
This chapter will discuss how to create a credential for each type of authentication method.

Creating a Credential for HTTP Authentication

You can use HTTP Authentication for web services that authenticate using standard HTTP authentication, such as an Integration Server. SL1 can pass the username, Email address and/or password of the user viewing the proxied web service widget to the web service.

To create a credential for a proxied web service using the HTTP authentication method:

1. Go to the **Credential Management** page (System > Manage > Credentials).
2. In the **Credential Management** page, select the **[Create]** button in the upper right of the page. Select *SOAP/XML Host Credential*.
3. The **Credential Editor** page appears. SL1 will use the following fields when using the SOAP/XML credential for a proxied web service using HTTP Authentication:



Credential Editor

Create New SOAP/XML Credential

Basic Settings

Content Encoding: text/xml

Method: [POST]

HTTP Version: [HTTP/1.1]

URL [http(s)://Host:Port/Path | %D = Aligned Device Address | %N = Aligned Device Host Name]

Timeout (seconds): 2

- ***Profile Name***. Name of the profile. Can be any combination of alphanumeric characters.
- ***URL***. If you are creating a credential to use with a proxied web service, you can enter any valid URL in this field. The proxied web service does not use this value, but the **Credential Editor** page requires a value in this field.

- ***HTTP Auth User***. User name with which to log in to the web server. You can include one or more of the following variables in this field:
  - *%u*. Username of the user currently logged in to the Administration Portal or All-In-One Appliance.
  - *%e*. Email address of the user currently logged in to the Administration Portal or All-In-One Appliance.
- ***HTTP Auth Password***. Password with which to access the web server. You can include the following variable in this field:
  - *%p*. Password of the user currently logged in to the Administration Portal or All-In-One Appliance.
- ***Proxy Settings***. This is an optional field. If you use a proxy server in front of the web server(s) you want to communicate with, enter values in these fields:
  - *IP*. IP address of the proxy server.
  - *Port*. Port on the proxy server to which you will connect.
  - *User*. Username to use to access the proxy server.
  - *Password*. Password to use to access the proxy server.
- ***Curl Options***. This is an optional field. You can include cURL options in your credential. This field includes the list of cURL options you can include in your credential. To include a cURL option in the credential, select it and then select the right-arrow icon. You can then supply arguments in the field to the right of the option.
- ***HTTP Headers***. If you require custom HTTP headers to communicate with the web server, you can build the custom header here. However, if you are using the HTTP Authentication method to connect to an external web service, you cannot use substitution characters in this field.

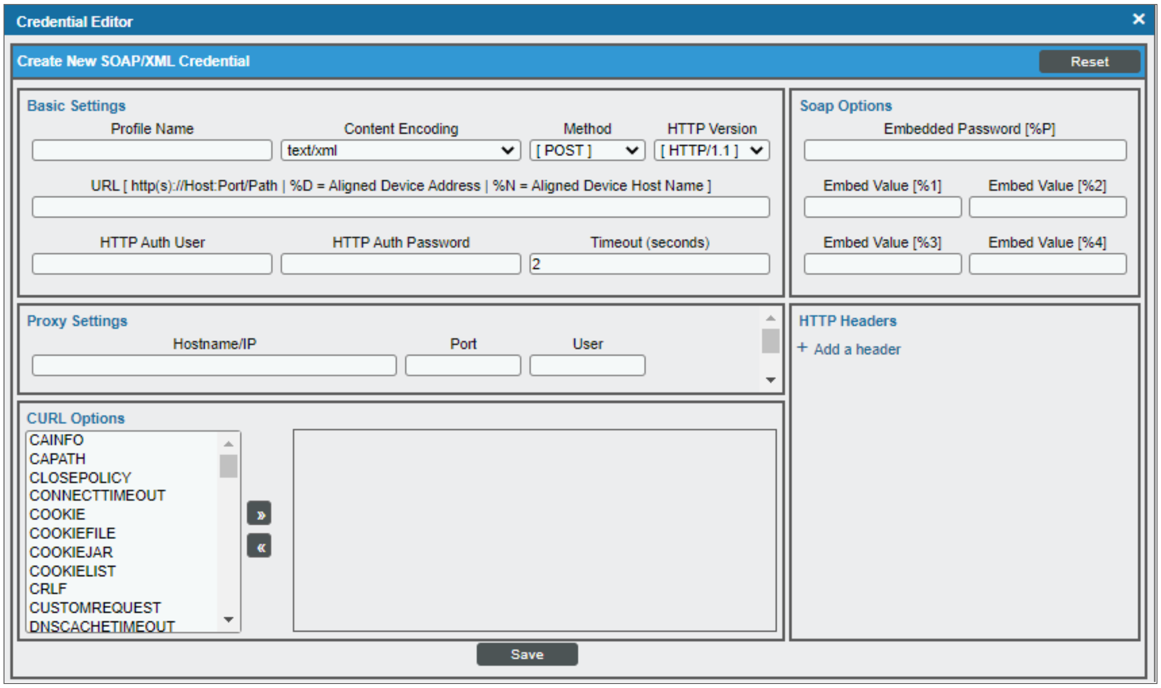
For an example of HTTP Authentication, see the ***chapter on Using HTTP for Authentication***.

Creating a Credential for Custom Header Authentication

You can use Custom Header authentication for web services that authenticate the user if the request comes from a trusted IP address and if the request includes a custom HTTP header that contains specific user information.

To create a credential for a proxied web service using the Custom Header authentication method:

1. Go to the **Credential Management** page (System > Manage > Credentials).
2. In the **Credential Management** page, select the **[Create]** button in the upper right of the page. Select *SOAP/XML Host Credential*.



Content Encoding: text/xml

Method: [POST]

HTTP Version: [HTTP/1.1]

Timeout (seconds): 2

3. The **Credential Editor** page appears. SL1 will use the following fields when using the SOAP/XML credential for a proxied web service using Custom Header Authentication:

   - ***Profile Name***. Name of the profile. Can be any combination of alphanumeric characters.
   - ***URL***. If you are creating a credential to use with a proxied web service, you can enter any valid URL in this field. The proxied web service does not use this value, but the **Credential Editor** page requires a value in this field.
   - ***HTTP Auth User***. Username with which to access the web server. This field is optional. If you are using the Custom Header authentication method, you cannot use substitution characters in this field.
   - ***HTTP Auth Password***. Password with which to access the web server. This field is optional. If you are using the Custom Header authentication method, you cannot use substitution characters in this field.
   - ***Proxy Settings***. This is an optional field. If you use a proxy server in front of the web server(s) you want to communicate with, enter values in these fields:

     - *IP*. IP address of the proxy server.
     - *Port*. Port on the proxy server to which you will connect.
     - *User*.User name to use to access the proxy server.
     - *Password*. Password to use to access the proxy server.

   - ***Curl Options***. This is an optional field. You can include cURL options in your credential. This field displays a list of all the cURL options you can include in your credential. To include a cURL option in the credential, select it and then select the right-arrow icon. You can then supply arguments in the field to the right of the option.

- ***HTTP Headers***. If you require custom HTTP headers to communicate with a web server, you can build the custom header here. For a credential that you will use with the Custom Header Authentication option, you can include one or more of the following variables in this field:
  - *%u*. Username of the user currently logged in to the Administration Portal or All-In-One Appliance.
  - *%e*. Email address of the user currently logged in to the Administration Portal or All-In-One Appliance.
  - *%p*. Password of the user currently logged in to the Administration Portal or All-In-One Appliance.

For an example of using a custom header, see the ***chapter on Using a Custom Header for Authentication***.

Creating a Credential for PHP Script Authentication

You can use a custom PHP Script to authenticate with web services that cannot be authenticated using the ***HTTP Authentication*** or ***Custom Header*** methods. SL1 executes a custom PHP script to supply the required authentication information to the web service.

When you use the PHP Script method for authentication, SL1 performs requests to the proxied web service in the following way:

SL1 constructs a PECL (PHP Extension Community Library) HTTP request using the information provided in the associated SOAP/XML credential and the URL provided in the proxied web service definition.

1. SL1 executes the PHP script. The PHP script can define HTTP headers, PECL options, and HTTP authentication settings.
2. SL1 adds the information defined by the PHP script to the PECL HTTP request.
3. SL1 sends the request to the web service.

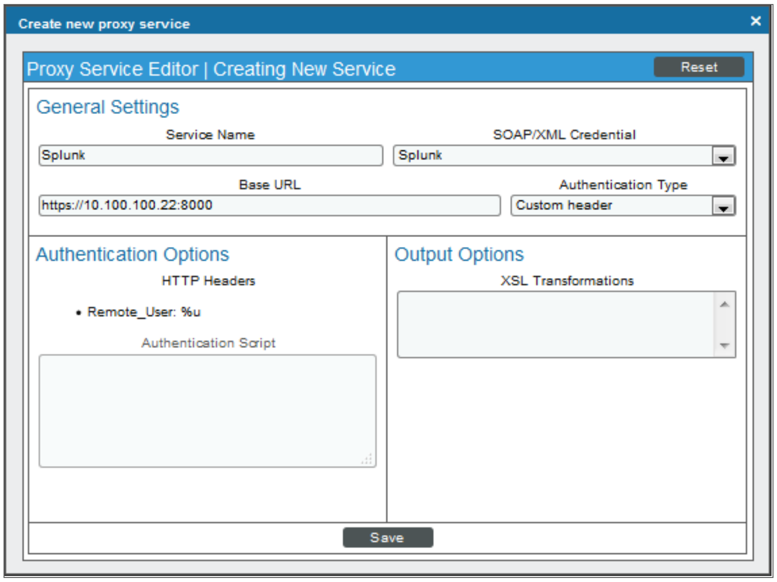
To create a credential for a proxied web service using the PHP Script authentication method, you must:

- Define the credential that will provide additional information for authentication.
- Define the PHP script that will generate the authentication information.

To create the PHP script:

1. Go to the **Proxied Web Services** page (Registry > Web Proxies > Proxied Web Services).
2. You must include the PHP script within the definition of the proxied web service that uses the PHP script.
   - ***If you have not yet defined the proxied web service***, you can supply only a name and the PHP script. Select the **[Create]** button to create a new Proxied Web Service.
   - ***If you have already defined a proxied web service*** and want to use a PHP script during authentication, select the wrench icon (🔧) for the Proxied Web Service.

3. The **Proxy Service Editor** page appears. In this page, supply values in the following fields:



Service Name: Splunk

SOAP/XML Credential: Splunk

Base URL: https://10.100.100.22:8000

Authentication Type: Custom header

HTTP Headers

- Remote_User: %u

Authentication Script

XSL Transformations

NOTE: This section describes only the fields related to creating a custom PHP script for authentication. The remaining fields are described in detail in the section ***Defining a Proxied Web Service***.

- ***Service Name***. Name of the proxied web service.
- ***SOAP/XML Credential***. Select from a list of all SOAP/XML Credentials. Best practice is to create a credential specifically for this proxied web service. Select the credentials you created earlier in this section.
- ***Base URL***. Enter the URL for the web service. This field defaults to the URL defined in the credential you selected in the ***SOAP/XML Credential*** field; however, you can change the default URL.
- ***Authentication Type***. Specifies how SL1 should perform authentication with the external web service. Select *PHP Script*.
- ***Authentication Script***. Enter the text of the PHP script in this field.

NOTE: For an example of an authentication script, see the section ***Example: Using a PHP Script for Authentication***.

When SL1 executes the PHP script, SL1 passes the following ***PHP variables*** to the PHP script:

- ***$service_id***. The numeric ID for the proxied web service.
- ***$auth_user***. The username of the currently logged in user.

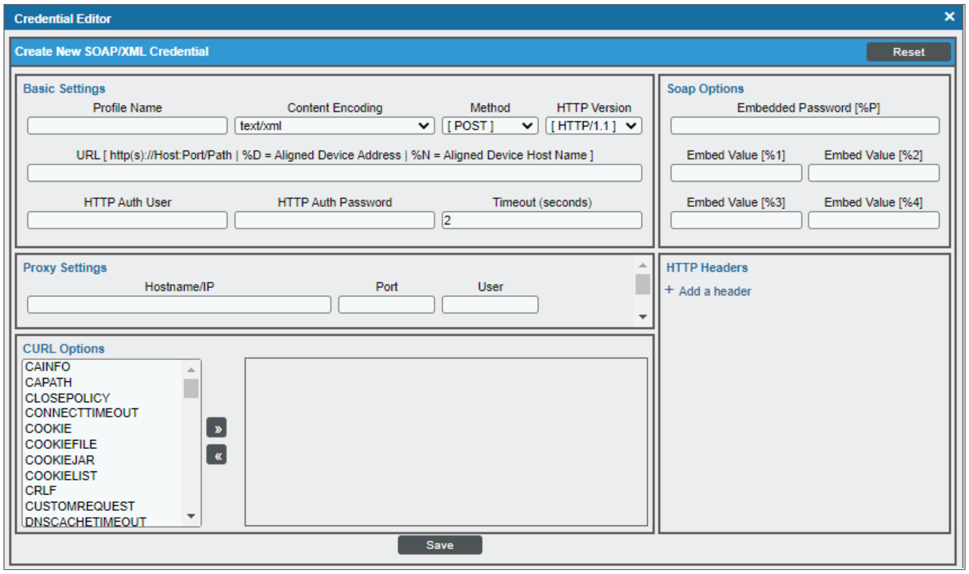
The PHP script can modify the following ***PHP arrays***:

- ***$headers***. An associative array that SL1 supplies as a parameter for the setHeaders function. The setHeaders function is used to build the PECL HTTP request and allows you to define a custom header for our request. The array keys in the***$headers*** array must be set to the name of the header. Each key must point to a value for that header. For more information about the setHeaders function, see http://www.php.net/manual/en/function.httprequest-setheaders.php.
- ***$options***. An associative array that SL1 supplies as a parameter for the setOptions function. The setOptions function is used to build the PECL HTTP request and allows us to specify options to include in the HTPP request (for example, URL, port, redirects, referer). For more information about the setOptions function, see http://www.php.net/manual/en/function.httprequest-setoptions.php

The PHP script can modify the following PHP variables:

- ***$http_user***. You can assign a value to this variable. If this variable and the ***$http_password*** variable are both not NULL, SL1 will use the value in this variable (in combination with the value in the variable ***$http_password***) to perform HTTP authentication. SL1 will use this value to build the *httpauth* option in the ***setOptions*** function.
- ***$http_password***. You can assign a value to this variable. If this variable and the ***$http_user*** variable are both not NULL, SL1 will use the value in this variable (in combination with the value in the variable ***$http_user***) to perform HTTP authentication. SL1 will use this value to build the *httpauth* option in the ***setOptions*** function.

4. Select the **[Save]** button to save the PHP script.
5. Next you must define the credential that supplies additional values during authentication with the web service.
6. Go to the **Credential Management** page (System > Manage > Credentials).
7. In the **Credential Management** page, select the **[Create]** button in the upper right of the page. Select *SOAP/XML Host Credential*.



Content Encoding: text/xml

Method: [POST]

HTTP Version: [HTTP/1.1]

Timeout (seconds): 2

8. The **Credential Editor** page appears. SL1 will use the following fields when creating the SOAP/XML credential for a proxied web service using HTTP Authentication:

   - ***Profile Name***. Name of the profile. Can be any combination of alphanumeric characters.
   - ***URL***. If you are creating a credential to use with a proxied web service, you can enter any valid URL in this field. The proxied web service does not use this value, but the **Credential Editor** page requires a value in this field.
   - ***HTTP Auth User***. If you supply a value in this field, SL1 will use the specified user name when building the authentication request. If your PHP script defines a value for the ***$http_user***and ***$http_password*** variables, the value in this field will not be used.
   - ***HTTP Auth Password***. If you supply a value in this field, SL1 will use the specified password when building the authentication request. If your PHP script defines a value for the ***$http_user***and ***$http_password*** variables, the value in this field will not be used.
   - ***Proxy Settings***. These are optional fields. SL1 will include these fields when building the authentication request. If you use a proxy server in front of the web server(s) you want to communicate with, enter values in these fields:

     - *IP*. IP address of the proxy server.
     - *Port*. Port on the proxy server to which you will connect.
     - *User*. Username to use to access the proxy server.
     - *Password*. Password to use to access the proxy server.

   - ***CURL Options***. This is an optional field. You can include cURL options in your credential. This field displays a list of all the cURL options you can include in your credential. To include a cURL option in the credential, select it and then select the right-arrow icon. You can then supply arguments in the field to the right of the option. SL1 will include these cURL options when building the authentication request.
   - ***HTTP Headers***. If you require custom HTTP headers to communicate with a web server, you can build the custom header here. However, if you are using the PHP Script Authentication method to connect to an external web service, you cannot use substitution characters in this field.

Chapter 8

Defining Proxied Web Services

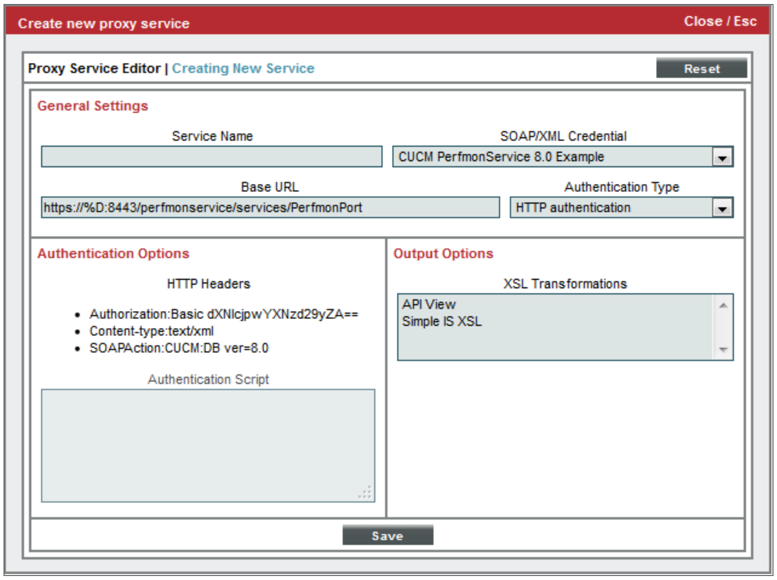
Overview

After you have created a credential for the proxied web service, you can create, edit, and delete the definition of the proxied web service. This chapter describes how to do these things, and includes the following topics:

Creating a Proxied Web Service

You can create a proxied web service in the **Proxied Web Services** page. To create a proxied web service:

1. Go to the **Proxied Web Services** page (Registry > Web Proxies > Proxied Web Services).
2. Select the **[Create]** button in the upper right of the page. The **Proxy Service Editor** page appears.
3. The **Proxy Service Editor** page includes the following fields:



Service Name:

SOAP/XML Credential: CUCM PerfmonService 8.0 Example

Base URL: https://%D:8443/perfmonservice/services/PerfmonPort

Authentication Type: HTTP authentication

HTTP Headers

- Authorization:Basic dXNlcjpwYXNzd29yZA==
- Content-type:text/xml
- SOAPAction:CUCM:DB ver=8.0

Authentication Script

XSL Transformations: API View, Simple IS XSL

- ***Service Name***. Name of the proxied web service.
- ***SOAP/XML Credential***. Select from a list of all SOAP/XML Credentials. Best practice is to create a credential specifically for this proxied web service. Select the appropriate credential from this list.
- ***Base URL***. This value is initially populated using the URL defined in the selected credential. However, you can modify the default value to ensure that this field specifies the URL of the external web service that you want to display in a widget. When SL1 forwards a request from the browser, the request will always start with this URL. Although the user can follow links that include this URL, SL1 will not let the user make a request outside this URL. The ***Base URL*** field enforces access control.
- ***Authentication Type***. Specifies how SL1 should perform authentication with the external web service. Choices are:
  - *HTTP Authentication*. Use this method for web services that authenticate using standard HTTP authentication, such as the Integration Server. SL1 can pass the username, Email address, and/or password of the current user (viewing the proxied web service widget) to the web service. SL1 uses the user name, Email address, and/or password from the aligned credential.
    - If the ***HTTP Auth User*** field in the credential and/or the ***HTTP Auth Password*** field in the credential include substitution variables, SL1 will replace each variable with values from the current session.
    - For details, see the section ***Creating a Credential for a Proxied Web Service***.
  - *Custom Header*. Use this method for web services that authenticate based on:
    - request is sent from a trusted IP address. You must configure the external web service to include the Administration Portal or All-In-One Appliance in the list of trusted IP addresses.
    - request includes a custom HTTP header. Usually this header must use a header name known to the web service and include a value (for example, the username) known to the web service. This custom header is defined in the aligned credential.

        - If the ***HTTP Headers*** field in the credential includes substitution variables, SL1 will replace each variable with values from the current session.
        - For details see the section ***Creating a Credential for a Proxied Web Service***.

    For example, the web service for a Splunk server uses this type of authentication. SL1 authenticates by including the username of the current user (who is viewing the proxied web service widget) in a custom request header.

    - *PHP script*. Use this method for web services that cannot be authenticated using the *HTTP Authentication* or *Custom Header* option. SL1 executes a custom PHP script to authenticate requests. The script is defined in the ***Authentication Script*** field in this page. For details on how SL1 uses this script and the variables that must be defined by the PHP script, see the section ***Creating a Credential for a Proxied Web Service***.

- ***Authentication Options***. This pane includes custom headers and custom PHP authentication scripts.

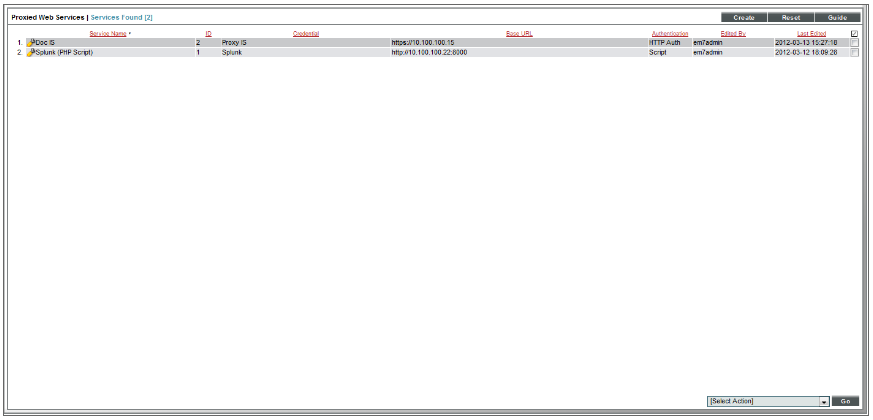
    - *HTTP Headers*. If the aligned credential includes HTTP Headers, each header appears in a list in this pane.
    - *Authentication Script*. If you selected *PHP Script* in the ***Authentication Type*** field, enter the PHP script in this field.

- ***Output Options***. If you have defined one or more Proxy XSL Transformations, each Proxy XSL Transformation appears in this field. You can select one more Proxy XSL Transformations to align with this proxied web service. When you align an XSL transformation with a proxied web service, you are indicating to SL1 that the XSL transformation is valid and can be used to transform the response from the web service. The selected XSL transformations will be available as options when a widget is created for the proxied web service. To learn more about XSL Transformations, see the ***XSL Transformations*** section.

Viewing the List of Proxied Web Services

The **Proxied Web Services** page displays a list of existing proxied web services. To view a list of proxied web services:

1. Go to the **Proxied Web Services** page (Registry > Web Proxies > Proxied Web Services). For each policy, the **Proxied Web Services** page displays:



	Service Name ▾	ID	Credential	Base URL	Authentication	Edited By	Last Edited	☑
1.	Doc IS	2	Proxy IS	https://10.100.100.15	HTTP Auth	em7admin	2012-03-13 15:27:18	□
2.	Splunk (PHP Script)	1	Splunk	http://10.100.100.22:8000	Script	em7admin	2012-03-12 18:09:28	□

- ***Service Name***. Name of the Proxied Web Service.
- ***Credential***. Name of the credential aligned with the Proxied Web Service.
- ***Base URL***. URL and optionally the port to which the Proxied Web Service will send requests.
- ***Authentication***. Authentication method for the Proxied Web Service. Choices are:
  - *HTTP Authentication*. To authenticate requests to the web service, SL1 passes the username, Email address, and/or password of the current user using HTTP authentication.
  - *Custom Header*. To authenticate requests to the web service, SL1 includes a custom header in each request.
  - *PHP Script*. SL1 executes a custom PHP script to authenticate requests to the web service.
- ***Edited By***. User who created or last edited the policy.
- ***Last Edited***. Date and time the policy was created or last edited.

Editing and Deleting a Proxied Web Service

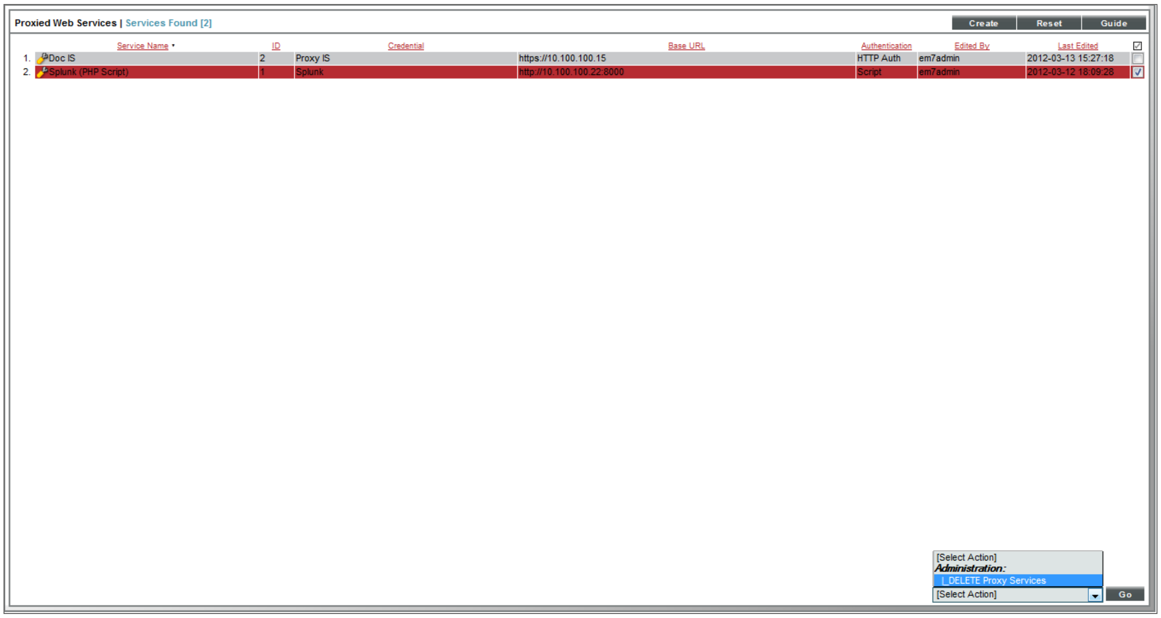
You can edit an existing Proxied Web Service. To do this:

1. Go to the **Proxied Web Services** page (Registry > Web Proxies > Proxied Web Services).
2. Find the proxied web service you want to edit. Select its wrench icon (🔧).
3. In the **Proxy Service Editor** modal page, you can edit the value in one or more fields described in the section ***Creating a Proxied Web Service.***
4. Select **[Save]** to save your changes to the Proxied Web Service.
5. If you have already ***created a widget*** that displays the retrieved data from the Proxied Web Service, the widget will update dynamically to display the changes in the Proxied Web Service.

Deleting a Proxied Web Service

To delete one or more proxied web services:

1. Go to the **Proxied Web Services** page (Registry > Web Proxies > Proxied Web Services).
2. Find the Proxied Web Service you want to delete. Select its checkbox (☑).
3. Select the checkbox for any more Proxied Web Services you want to delete.
4. Go to the ***Select Action*** field in the lower right of the page. Select *Delete Proxy Services*. Select the **[Go]** button.



Proxied Web Services | Services Found [2]

	Service Name	ID	Credential	Base URL	Authentication	Edited By	Last Edited	☑
1.	Doc IS	2	Proxy IS	https://10.100.100.15	HTTP Auth	em7admin	2012-03-13 15:27:18	□
2.	Splunk (PHP Script)	1	Splunk	http://10.100.100.22:8000	Script	em7admin	2012-03-12 18:09:28	☑

5. Each selected Proxied Web Service is removed from SL1.

Defining Host Name-Based Proxy Services

If your organization does not allow wildcard domains and the corresponding SSL certificates, you can define a Host Name-based proxy. If you use host name-based proxy:

- you are not required to define the proxy service as a sub-domain of the SL1 hostname.
- you can use the hostname in an ***iFrame*** widget, instead of the ***Proxied Web Service*** widget.

Host Name-based Proxy defines multiple "internal servers" that are made available via SL1 dashaboards. Users can access these servers without direct IP access and without certificates.

Chapter

9

Using the Proxied Web Service Widget

Overview

This chapter describes how to use the Proxied Web Service widget in SL1. It includes the following topics:

Dashboards and the Proxied Web Service Widget

A ***dashboard*** is a page that displays one or more graphical reports, called widgets. SL1 includes pre-defined widget definitions that can be customized and displayed in the **Dashboards tab** page.

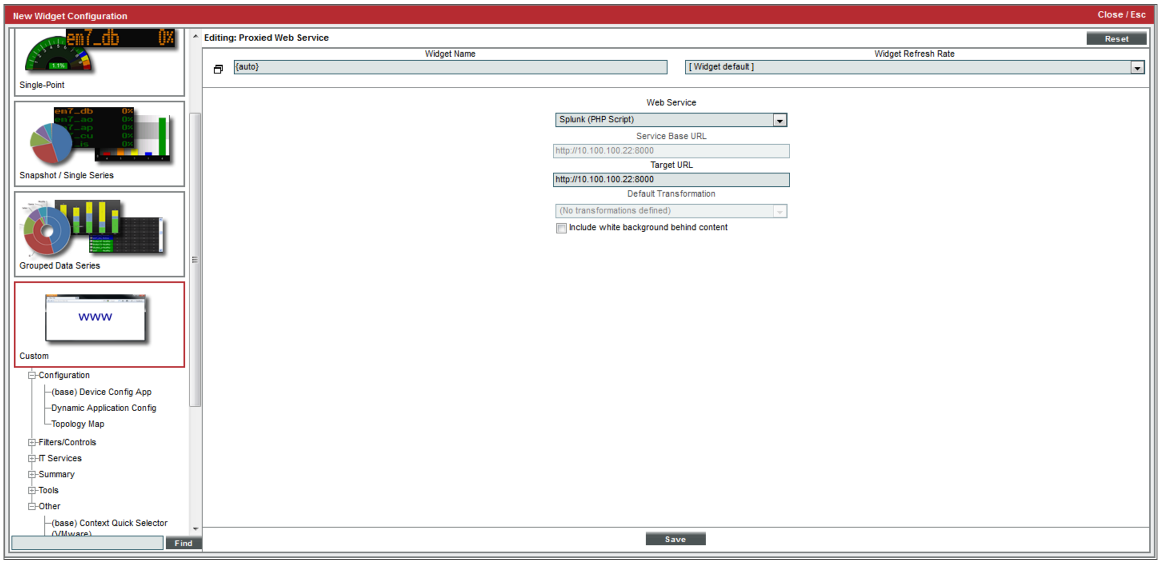
You can use the ***Proxied Web Service widget*** to view data retrieved from an external website.

For more information on Dashboards, see the ***Dashboards*** manual.

The Proxied Web Service Widget

You can view the proxied web service widget in the **Dashboards tab** page (**[Dashboards]** tab). To view the proxied web service widget:

1. Go to the **Dashboards tab** page (**[Dashboards]** tab).
2. After you have configured your Dashboard, select the ***Proxied Web Service*** widget type.



Editing: Proxied Web Service

Widget Name: {auto}

Widget Refresh Rate: [Widget default]

Web Service: Splunk (PHP Script)

Service Base URL: http://10.100.100.22:8000

Target URL: http://10.100.100.22:8000

Default Transformation: (No transformations defined)

□ Include white background behind content

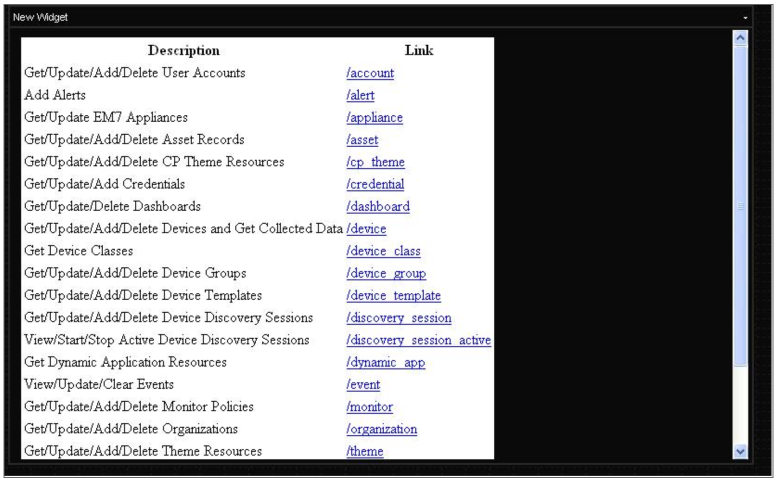
3. You have the following options when configuring the **Proxied Web Service** widget:

    - ***Web Service***. Select from a list of proxied web services in SL1. Data from the URL specified in the proxied web service will be displayed in the widget. SL1 will automatically pass authentication data to the external web service.
    - ***Service Base URL***. A read-only file, populated automatically by SL1 when you select a value in the ***Web Service*** field. This value is the URL of the external web service that you want to display in a widget. When SL1 forwards a request from the browser, the request will always start with this URL. Although the user can follow links that include this URL. SL1 will not let the user make a request outside this URL.
    - ***Target URL***. This field is optional. If you would like to include an additional directory in the ***Service Base URL***, you can specify that in this field. For example, suppose the ***Service Base URL*** displays the top-level overview page of a web service, like "www.webservice.com/intro". Suppose you always want the widget to display the sub-page "Account Details", like "www.webservice.com/intro/account". You could specify the URL of the sub-page in the ***Target URL*** field.
    - ***Default Transformation***. SL1 allows you to apply an XSL transformation to the data displayed in a widget. Select from the list of allowable XSLT transformations for this proxied web service.
    - ***Include white background behind content***. Select this checkbox if you want a white background for your widget.

4. The **Options** menu drop-down in the upper right of the Proxied Web Service widget has the following options:

    - ***Show URL***. Displays the URL of the proxied web service.
    - ***No Transformation***. The widget will be displayed without XSL Transformations applied.
    - ***XSL Transformations***. Will display any possible XSL Transformations for the proxied web service widget.

Depending on your selections, your **Proxied Web Service** widget might look like this:



Description	Link
Get/Update/Add/Delete User Accounts	/account
Add Alerts	/alert
Get/Update EM7 Appliances	/appliance
Get/Update/Add/Delete Asset Records	/asset
Get/Update/Add/Delete CP Theme Resources	/cp_theme
Get/Update/Add Credentials	/credential
Get/Update/Delete Dashboards	/dashboard
Get/Update/Add/Delete Devices and Get Collected Data	/device
Get Device Classes	/device_class
Get/Update/Add/Delete Device Groups	/device_group
Get/Update/Add/Delete Device Templates	/device_template
Get/Update/Add/Delete Device Discovery Sessions	/discovery_session
View/Start/Stop Active Device Discovery Sessions	/discovery_session_active
Get Dynamic Application Resources	/dynamic_app
View/Update/Clear Events	/event
Get/Update/Add/Delete Monitor Policies	/monitor
Get/Update/Add/Delete Organizations	/organization
Get/Update/Add/Delete Theme Resources	/theme

Chapter 10

XSL Transformations

Overview

This chapter describes how to create, upload, and manage XSL transformations in SL1, and how to use them with proxied web services. It includes the following topics:

XSL Transformations in SL1

You can specify an optional XSL transformation to apply to the response from a web service. SL1 will perform the XSL transformation on the response and generate the output to be displayed to the user.

For proxied web services, you can use an XSL transformation to prepare the retrieved data for displays in a widget. Some retrieved data requires a transformation before it looks pleasing in a widget.

For SL1 to apply an XSL transformation to a response from a proxied web service:

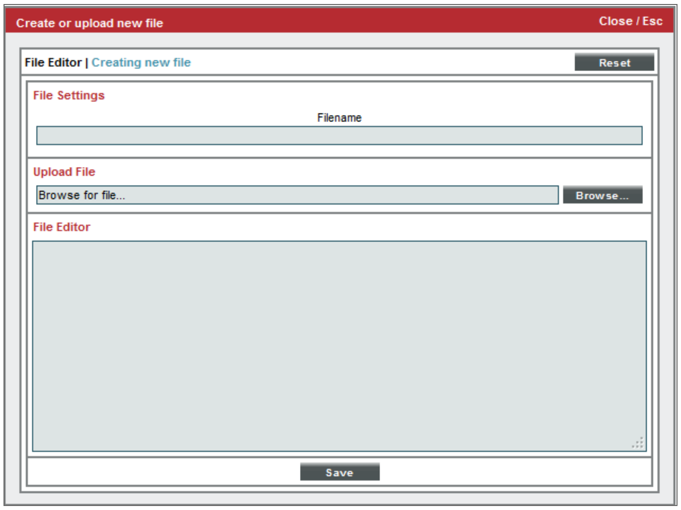
1. You must upload the XSL stylesheet to SL1 in the **Proxy Service Files** page (Registry > Web Proxies > Proxy Service Files).
2. The XSL stylesheet can include references to additional files, such as CSS or XSL template files. However, you must upload each additional file to SL1 in the **Proxy Service Files** page (Registry > Web Proxies > Proxy Service Files).
3. You must create an XSL transformation definition in the **Proxy XSL Transformations** page. An XSL transformation definition specifies:
    - The name SL1 will use to refer to the XSL transformation in the user interface.
    - The XSL Stylesheet that will be used to perform the transformation.
    - Any additional files that are used by the XSL Stylesheet.
4. In the Proxied Web Service definition, you must specify one or more XSL transformation definitions that can be applied to the responses from that web service.
5. In the widget definition, the user must select the XSL transformation definition that SL1 will use to transform the responses for that instance of the widget. Users can select from the list of allowable XSL transformations specified in the definition for that proxied web service.

Uploading Service Files

The **Proxy Service Files** page allows you to view and upload XSLT stylesheets and associated files to SL1. You can then use the uploaded files to define a Proxy XSL Transformation.

To upload a proxy service file:

1. Go to the **Proxy Service Files** page (Registry > Web Proxies > Proxy Service Files).
2. In the **Proxy Service Files** page, select the **[Create]** button.
3. The **File Editor** page appears. Define values in the following fields:



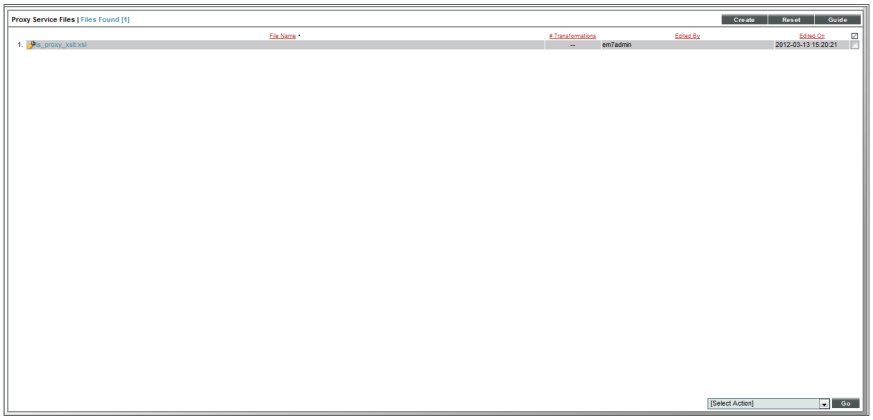
- ***File Name***. The name of the Proxy Service File. This name will appear as a choice in the **Proxy Service Editor** page, in the ***Service Files Used*** and ***XSL Stylesheet*** fields.
- ***Upload File***. Specify the file you want to upload. To select a file to upload, select the **[Browse]** button.
- ***File Editor***. If you are uploading a new Proxy Service File, leave this field blank. If you are editing an existing Proxy Service File, you can edit the file in this field without uploading the file again.

4. Select the **[Save]** button to upload the Proxy Service File to SL1. You can now use the Proxy Service file in the definition of a proxy XSL transformation.

Viewing The List of Service Files

The **Proxy Service Files** page displays a list of all Proxy Service Files that can be used with proxy XSL transformations. To view the list of Proxy Service Files:

1. Go to the **Proxy Service Files** page: (Registry > Web Proxies > Proxy Service Files).
2. For each Proxy Service File, the **Proxy Service Files** page displays the following:



	File Name	# Transformations	Edited By	Edited On	☑
1.	is_proxy_xslt.xsl	--	em7admin	2012-03-13 15:20:21	□

- ***File Name***. Name of this Proxy Service file.
- ***# Transformations***. Number proxy XSL transformations that use this Proxy Service File.
- ***Edited By***. User who created or last edited this Proxy Service File.
- ***Last Edited***. Date and time this Proxy Service File was created or last edited.

Editing a Service File

To edit an existing Proxy Service file:

1. Go to the **Proxy Service Files** page (Registry > Web Proxies > Proxy Service Files).
2. In the **Proxy Service Files** page, find the Proxy Service file you want to edit. Select its wrench icon (🔧).

3. In the **File Editor** modal page, edit the value in one or more fields described in the section ***Viewing the List of Service Files***.
4. Select the **[Save]** button to save your changes to the Proxy Service File.

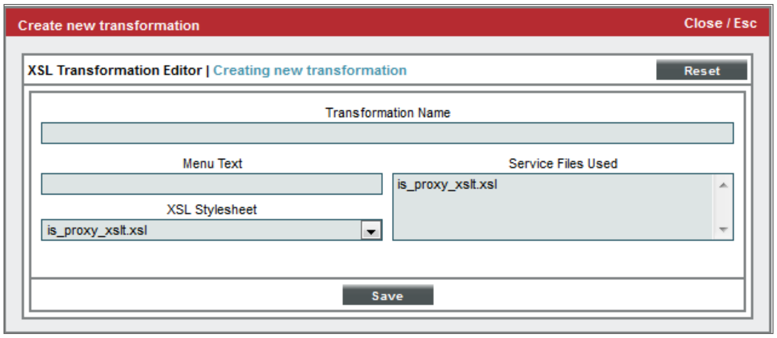
Creating a Proxy XSL Transformation

To define an XSL Transformation for use with a proxied web service, you must first perform the following steps:

- Do not create the XSL Transformation stylesheet in SL1. You must first retrieve output from the web service, using the same URL you will use in the proxied web service (you might have to perform a login step when you access the service outside of SL1). You must then examine the output and develop the XSL Transformation style sheet outside of SL1.
- When you have finished developing the XSL Transformation stylesheet, you must then upload the stylesheet and associated files to SL1. You do this through the **Proxy Service Files** page. To learn how to upload a service file, see the section on ***Uploading Service Files***.

After performing these steps, you can define a Proxy XSL Transformation in SL1. To define a Proxy XSL Transformation:

1. Go to the **Proxy XSL Transformations** page (Registry > Web Proxies > Proxy XSL Transformations).
2. In the **Proxy XSL Transformations** page, select the **[Create]** button.
3. The **XSL Transformation Editor** page appears. Define values in the following fields:


Create new transformation
Close / Esc
XSL Transformation Editor | Creating new transformation
Reset
Transformation Name
Menu Text
Service Files Used
XSL Stylesheet
Save

is_proxy_xslt.xsl

is_proxy_xslt.xsl

- ***Transformation Name***. The name of the XSL Transformation. This name will appear as a choice in the **Proxy Service Editor** page, in the ***Output Options*** field.
- ***Menu Text***. Another name for the XSL Transformation. This name will appear in the **Widget Configuration** page for a widget of type *Proxied Web Service*, in the ***Default Transformation*** field. This name will also appear in the ***Options*** menu in the upper right of each widget in the **Dashboards tab** page.
- ***Service Files Used***. This field displays a list of all files in the **Proxy Service Files** page. Select each file that is called, included, or referenced from your XSLT stylesheet. You must have already uploaded these files to the **Proxy Service Files** page.

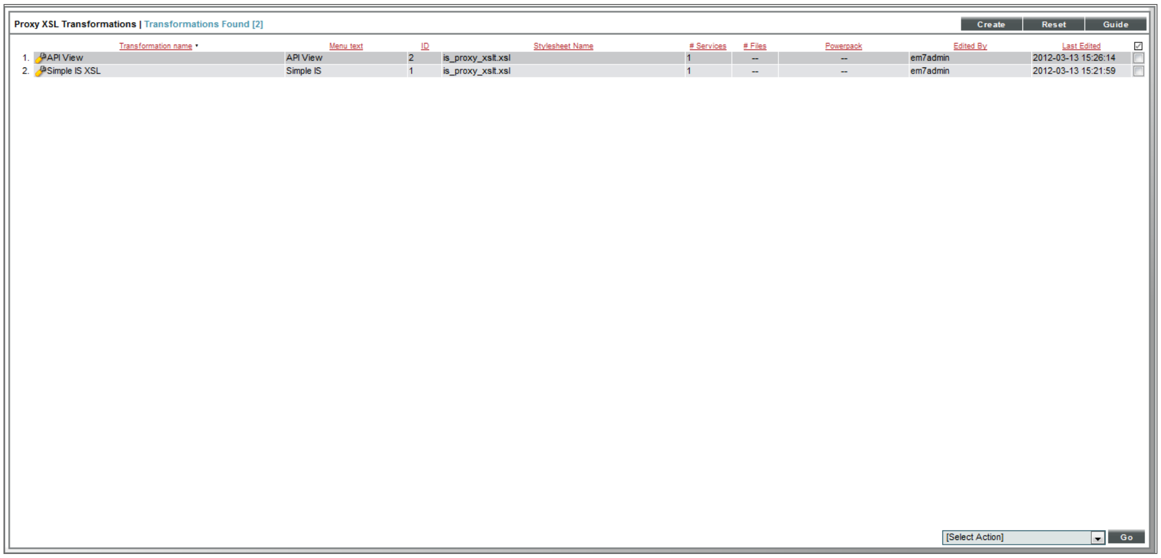
- ***XSL Stylesheet***. This field displays a list of all files in the **Proxy Service Files** page that end with .xsl. Select the XSL stylesheet that defines this XSL Transformation.

4. Select the **[Save]** button to save the XSL Transformation.
5. You can now use the XSL Transformation in the definition of a ***proxied web service*** and for use in a ***widget*** in the **[Dashboards]** tab.

Viewing the List of Proxy XSL Transformations

The **Proxy XSL Transformations** page displays a list of all XSL Transformations that can be used with proxied web services. To view the list of XSL Transformations:

1. Go to the **Proxy XSL Transformations** page (Registry > Web Proxies > Proxy XSL Transformations).
2. For each XSL Transformation, the **Proxy XSL Transformations** page displays the following:



Proxy XSL Transformations | Transformations Found [2]

	Transformation name ▾	Menu text	ID	Stylesheet Name	# Services	# Files	Powerpack	Edited By	Last Edited	☑
1.	API View	API View	2	is_proxy_xslt.xsl	1	--	--	em7admin	2012-03-13 15:26:14	□
2.	Simple IS XSL	Simple IS	1	is_proxy_xslt.xsl	1	--	--	em7admin	2012-03-13 15:21:59	□

- ***Transformation name***. Name of this XSL Transformation.
- ***Menu Text***. Name of this XSL Transformation as it appears in menus in the **[Dashboards]** tab.
- ***ID***. Unique numeric ID automatically assigned to this XSL Transformation by SL1.
- ***Stylesheet Name***. Name of the XSL stylesheet associated with this XSL Transformation.
- ***# Services***. Number of proxied web services that are aligned with this XSL Transformation.
- ***# Files***. Number of service files used by this XSL Transformation.
- ***Powerpack***. Name of the PowerPack that includes this XSL Transformation.
- ***Edited By***. User who created or last edited this XSL Transformation.
- ***Last Edited***. Date and time this XSL Transformation was created or last edited.

Editing and Deleting a Proxy XSL Transformation

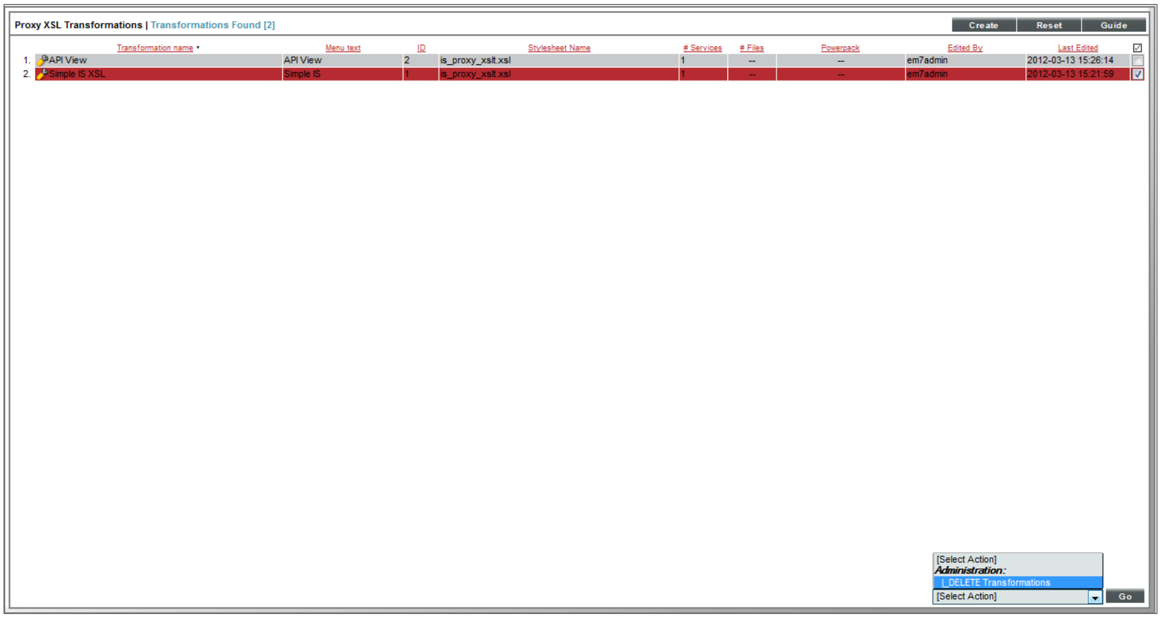
You can edit an existing Proxy XSL Transformation from the **Proxy XSL Transformations** page. To edit a Proxy XSL Transformation:

1. Go to the **Proxy XSL Transformations** page (Registry > Web Proxies > Proxy XSL Transformations).
2. In the **Proxy XSL Transformations** page, find the XSL Transformation you want to edit. Select its wrench icon (🔧).
3. In the **XSL Transformation Editor** modal page, edit the value in one or more fields described in the section *Creating a Proxy XSL Transformation*.
4. Select **[Save]** to save your changes to the XSL Transformation.
5. If you have already aligned the XSL Transformation with a widget, the widget will update dynamically to display the changes in the XSL Transformation.

Deleting a Proxy XSL Transformation

You can delete one or more Proxy XSL Transformations from the **Proxy XSL Transformations** page. To do this:

1. Go to the **Proxy XSL Transformations** page (Registry > Web Proxies > Proxy XSL Transformations).
2. Find the XSL Transformation you want to delete. Select its checkbox (☑).
3. Select the checkbox for each XSL Transformation you want to delete.
4. Go to the ***Select Action*** field in the lower right of the page. Select *Delete Transformations*. Select the **[Go]** button.



Proxy XSL Transformations | Transformations Found [2]

	Transformation name	Menu text	ID	Stylesheet Name	# Services	# Files	Powerpack	Edited By	Last Edited	☑
1.	API View	API View	2	is_proxy_xslt.xsl	1	--	--	em7admin	2012-03-13 15:26:14	□
2.	Simple IS XSL	Simple IS	1	is_proxy_xslt.xsl	1	--	--	em7admin	2012-03-13 15:21:59	☑

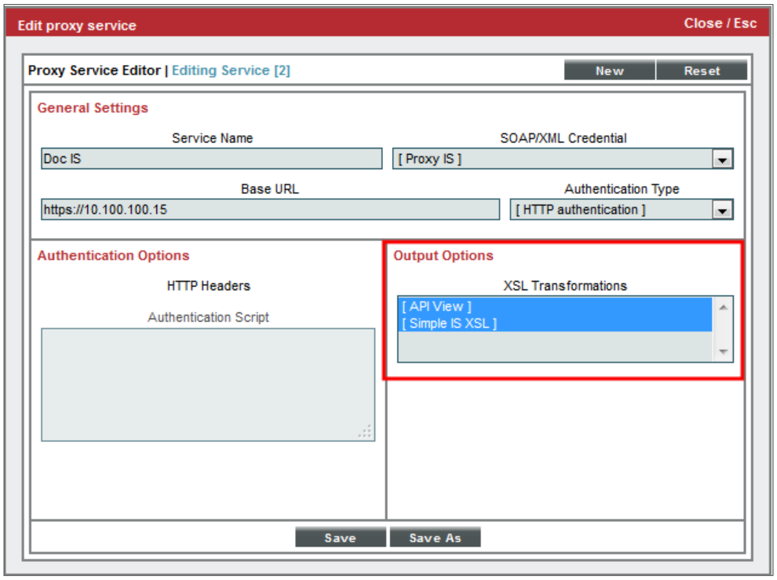
5. Each selected XSL Transformation is removed from SL1. SL1 does not delete the files used by the XSL Transformation. The files, including the stylesheet, still appear in the **Proxy Service Files** page.

Associating an XSL Transformation with a Proxied Web Service

You can specify one or more XSL transformations in the definition of a proxied web service. When you specify an XSL transformation in the definition of a proxied web service, you are telling SL1 that the XSL transformation is valid for that proxied web service.

To specify an XSLT stylesheet in the definition of a proxied web service:

1. Go to the **Proxied Web Services** page (Registry > Web Proxies > Proxied Web Services).
2. Find the Proxied Web Service you want to associate with an XSL Transformation. Select its wrench icon (🔧).
3. In the **Proxy Service Editor** page, select the stylesheet(s) you want to apply to the proxied web service.



Service Name: Doc IS

SOAP/XML Credential: [Proxy IS]

Base URL: https://10.100.100.15

Authentication Type: [HTTP authentication]

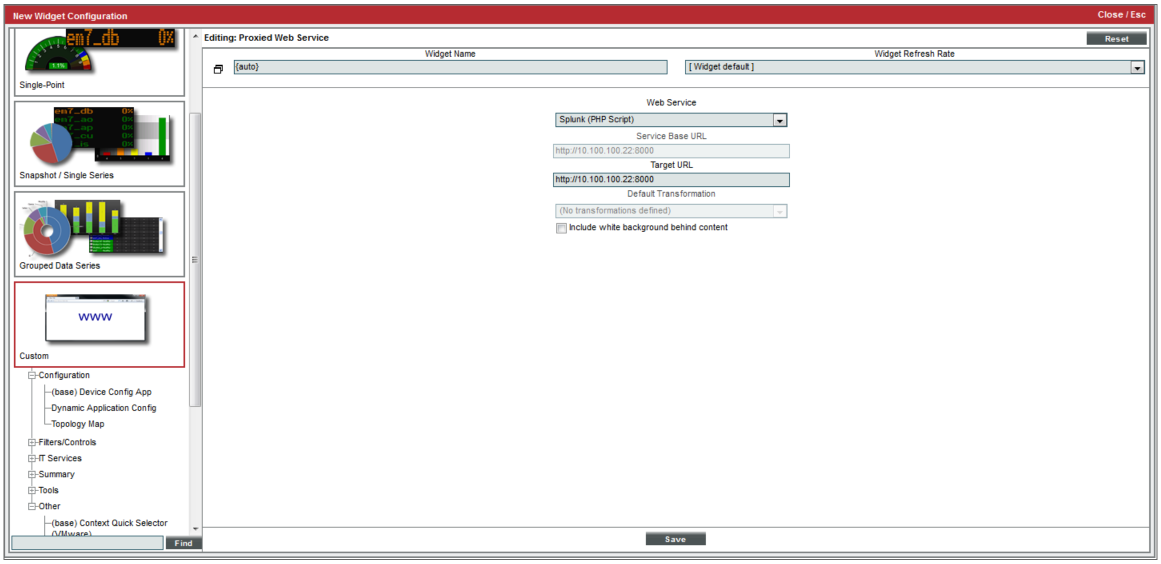
XSL Transformations: [API View] [Simple IS XSL]

4. Select the **[Save]** button to apply the changes. The selected XSL transformations will be available as options when a widget is created for the proxied web service.

Using an XSL Transformation with the Proxied Web Service Widget

If you have aligned one or more XSLT stylesheets to a proxied web service, you can toggle among the XSLT stylesheets in the Proxied Web Service widget. To do so:

1. Go to the **Dashboards tab** page (**[Dashboards]** tab).
2. After you have configured your Dashboard, select the ***Proxied Web Service*** widget type.
3. In the **Widget Configuration** page, the following option relates to XSL Transformations:



Editing: Proxied Web Service

Widget Name: {auto}

Widget Refresh Rate: [Widget default]

Web Service: Splunk (PHP Script)

Service Base URL: http://10.100.100.22:8000

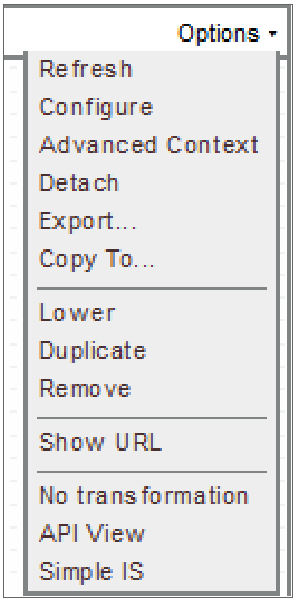
Target URL: http://10.100.100.22:8000

Default Transformation: (No transformations defined)

□ Include white background behind content

- ***Default Transformation***. SL1 allows you to apply an XSL transformation to the data displayed in a widget. If the author of the proxied web service aligned one or more XSL transformations with the proxied web service, those aligned XSL transformations appear in this field. Select from the list of allowable XSLT transformations for this proxied web service.

4. After you have configured the Proxied Web Service widget, you can apply a different XSL transformation to the data displayed in a widget. Select the **[Options]** menu drop-down to view any other XSL Transformations associated with the selected proxied web service. If the author of the proxied web service aligned one or more XSL transformations with the proxied web service, those aligned XSL transformations appear in this list. Select from the list of allowable XSLT transformations for this proxied web service. You can also select to view the raw data, without any XSL transformation.



To learn more about the Proxied Web Service widget, see the ***Using the Proxied Web Service Widget*** section.

Chapter

11

DNS-Based Proxies

Overview

This chapter describes how to define and manage DNS-based proxies in SL1. It includes the following topics:

What is a DNS-Based Proxy?

Some web services might include absolute URLs that refer to files outside of the ***Base URL*** specified in the definition of a Proxied Web Service. In this situation, when retrieving data from an external web service, SL1 might return a 404 "file not found" error. For example, if the response from a proxied web service includes links to a CSS or JavaScript file outside of the ***Base URL***, those files will not be available when the page is displayed in a dashboard widget.

When this happens, SL1 will ask the browser to search its stored hierarchy (for the proxied web service) and try again to find the file. However, this method does not work for every web service. For example, certain Ajax requests don't send a referrer header, so SL1 will not be able to determine which proxied web service generated the "404" error.

To avoid the "file not found" error, you can define a DNS-Based Proxy. A DNS-Based Proxy allows you to define a CNAME record for the Administration Portal or All-In-One Appliance that includes an initial wildcard. This means that URL will resolve to the Administration Portal or All-In-One Appliance regardless of the text at the front of the URL. During requests to proxied web services, SL1 then creates a custom URL for the Administration Portal or All-In-One Appliance. SL1 inserts information about the current session (user ID and browser session) into the front of the URL for the Administration Portal or All-In-One Appliance. The custom URL allows SL1 to resolve absolute URLs even when the request doesn't include a referrer header.

If your SL1 system includes multiple Administration Portals or if different CNAME records apply to different users based on their network location, you can define multiple DNS-Based Proxy rules.

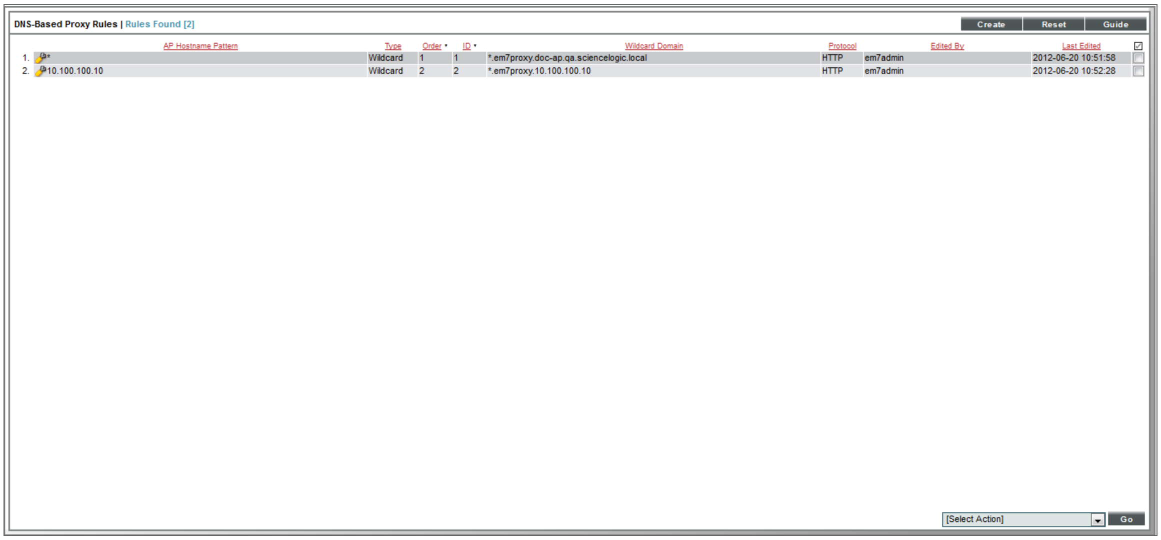
A DNS-Based Proxy rule specifies:

- The users to whom this DNS-based proxy rule applies, based on the address the user supplied to connect to the Administration Portal or All-In-One Appliance.
- The order in which SL1 should use the DNS-Based proxy rules.
- The wildcard domain (specified in the DNS CNAME record) that allows SL1 to resolve absolute URLs in the proxied web service.
- The protocol (HTTP or HTTPS) to use. If you specify "Disabled", users who mach the rule will ***not*** use DNS-based proxy.

Viewing a List of DNS-Based Proxies

The **DNS-Based Proxy Rules** page displays a list of all DNS proxy rules that are defined in SL1. To view the list of DNS-Based Proxy Rules:

1. Go to the **DNS-Based Proxy Rules** page (Registry > Web Proxies > DNS-Based Proxy).



DNS-Based Proxy Rules | Rules Found [2]

	AP Hostname Pattern	Type	Order •	ID •	Wildcard Domain	Protocol	Edited By	Last Edited	☑
1.	*	Wildcard	1	1	*.em7proxy.doc-ap.qa.sciencelogic.local	HTTP	em7admin	2012-06-20 10:51:58	□
2.	10.100.100.10	Wildcard	2	2	*.em7proxy.10.100.100.10	HTTP	em7admin	2012-06-20 10:52:28	□

2. For each DNS-Based Proxy Rule, the **DNS-Based Proxy Rules** page displays the following:

- ***AP Hostname Pattern***. Specifies the users to whom this DNS-based proxy rule applies. When a user accesses the Administration Portal or All-In-One Appliance using this pattern, SL1 will apply the DNS-based proxy rule when executing a proxied web service.
- ***Type***. Method SL1 uses to match the ***AP Hostname Pattern*** against session information on the Administration Portal or All-In-One Appliance. Choices are "Wildcard" or "Regex".
- ***Order***. If there are multiple DNS-based proxy rules, precedence for this rule.
- ***ID***. Unique numeric ID automatically assigned to this DNS-based proxy rule by SL1.
- ***Wildcard Domain***. The wildcard domain that will replace the standard IP address or URL of the Administration Portal or All-In-One Appliance during requests to the proxied web service. This domain always begins with "*.em7proxy.".
- ***Protocol***. Protocol SL1 will use to contact the wildcard domain. Choices are: HTTP, HTTPS, and Disabled. If you specify "Disabled", users who mach the rules will ***not*** use DNS-based proxy.
- ***Edited By***. User who created or last edited this DNS-based proxy rule.
- ***Last Edited***. Date and time this DNS-based proxy rule was created or last edited.

Prerequisites for Defining a DNS-Based Proxy

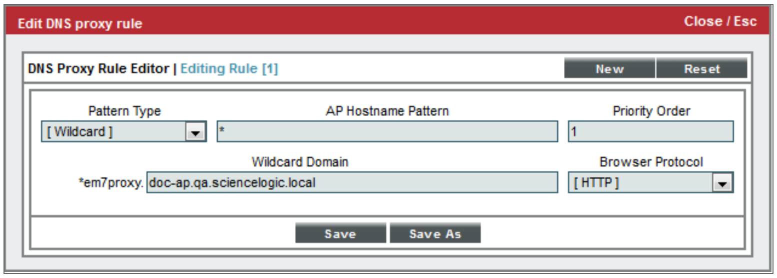
Before you can define a DNS-based proxy rule in SL1, you must perform the following:

1. Create a **CNAME** entry in your DNS system.
2. This domain for this CNAME entry must start with "*". This new domain, called the wildcard domain, can be the normal domain for the Administration Portal, Database Server, or All-In-One Appliance preceded by "*"
3. For example, if the URL of your Administration Portal is "MyAdministrationPortal.com", you might enter "*MyAdministrationPortal.com"
4. The CNAME entry must map to the IP address of the Administration Portal, Database Server, or All-In-One Appliance.
5. The browser for each user who views the data from the proxied web service must be able to access the DNS CNAME entry.

Defining a DNS-Based Proxy

After performing the steps in the ***Prerequisites***, you can define a DNS-based proxy rule, using the newly defined wildcard domain. To define a DNS-based proxy rule:

1. Go to the **DNS-Based Proxy Rules** page (Registry > Web Proxies > DNS-Based Proxy).
2. In the **DNS-Based Proxy Rules** page, select the **[Create]** button.
3. The **DNS Proxy Rule Editor** modal page appears:



DNS Proxy Rule Editor | Editing Rule [1]

Pattern Type: [Wildcard]

AP Hostname Pattern: *

Priority Order: 1

Wildcard Domain: *em7proxy. doc-ap.qa.sciencelogic.local

Browser Protocol: [HTTP]

4. In the **DNS Proxy Rule Editor** modal page, supply a value in the following fields.

   - ***Pattern Type***. Specifies how SL1 will evaluate the value in the ***AP Hostname Pattern*** field. Choices are:

     - *Wildcard*. SL1 will perform a text match, with wildcard characters.
     - *Regex*. SL1 will use regular expressions to compare the AP Hostname Pattern to the current session information.

   - ***AP Hostname Pattern***. This field allows SL1 to examine sessions on the Administration Portal or All-In-One Appliance and determine if SL1 should apply the DNS-based proxy rule to the session. Specifically, SL1 examines the URL or IP address that the user specified in the browser to connect to the Administration Portal or All-In-One Appliance. If the URL or IP address matches the value in this field, SL1 applies the DNS-based proxy rule to the current session.

     - For example, if we specified "*" (asterisk), any IP address or URL will match. SL1 will then use this DNS-based proxy rule for every session on the Administration Portal or All-In-One Appliance.
     - If we entered "192.168.38.235", each session on the Administration Portal or All-In-One Appliance where the user enters "192.168.38.235" into the browser will match this DNS-based proxy rule.
     - If we entered ".sciencelogic.local", each session on the Administration Portal or All-In-One Appliance where the user enters ".sciencelogic.local" into the browser will match this DNS-based proxy rule.

   - ***Priority Order***. If your SL1 system includes multiple DNS-based proxy rule, SL1 evaluates the rules in priority order, ascending. The first rule that matches the current session on the Administration Portal or All-In-One Appliance will be used during the current session.

   - ***Wildcard Domain***. Enter the wildcard domain you defined in the DNS CNAME record for the Administration Portal or All-In-One Appliance, excluding the "*." from the URL. For example, if your DNS CNAME record specifies "*.MyAdministrationPortal.com", enter "MyAdministrationPortal.com. When a session on the Administration Portal or All-In-One Appliance matches the ***AP Hostname Pattern***, SL1 will substitute this wildcard domain into the URL of the Administration Portal or All-In-One Appliance during requests to the proxied web service. The wildcard domain always begins with "*.em7proxy.", which is added automatically by SL1.

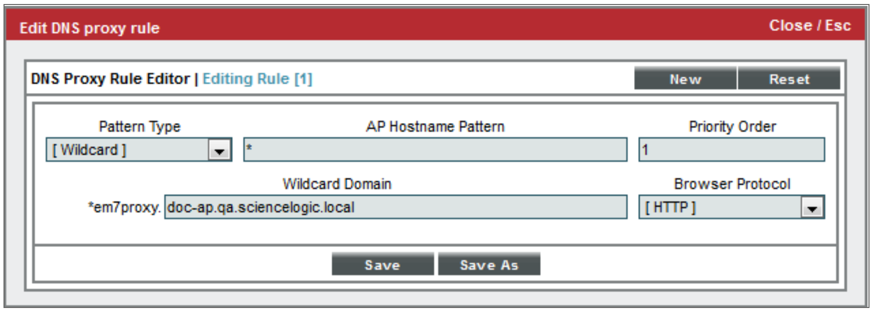
- ***Browser Protocol***. Protocol SL1 will use to contact the wildcard domain. Choices are:
  - *HTTP*
  - *HTTPS*
  - *Disabled*. If you select this option, sessions that match the AP Hostname Pattern will ***not*** use DNS-based proxy.

5. Select the **[Save]** button to save your new DNS-based proxy rule .
6. Each time a user access the Administration Portal or All-In-One Appliance in a manner that matches the new DNS-based proxy rule, SL1 will apply the DNS-based proxy rule. SL1 will substitute the wildcard domain for the URL of the Administration Portal or All-In-One Appliance service when making requests to the proxied web service.

Editing a DNS-Based Proxy

To edit an existing DNS-based proxy rule:

1. Go to the **DNS-Based Proxy Rules** page (Registry > Web Proxies > DNS-Based Proxy).
2. In the **DNS-Based Proxy Rules** page, find the rule you want to edit. Select its wrench icon (🔧).
3. The **DNS Proxy Rule Editor** modal page appears.



Edit DNS proxy rule

DNS Proxy Rule Editor | Editing Rule [1]

Pattern Type: [Wildcard]

AP Hostname Pattern: *

Priority Order: 1

Wildcard Domain: *em7proxy. doc-ap.qa.sciencelogic.local

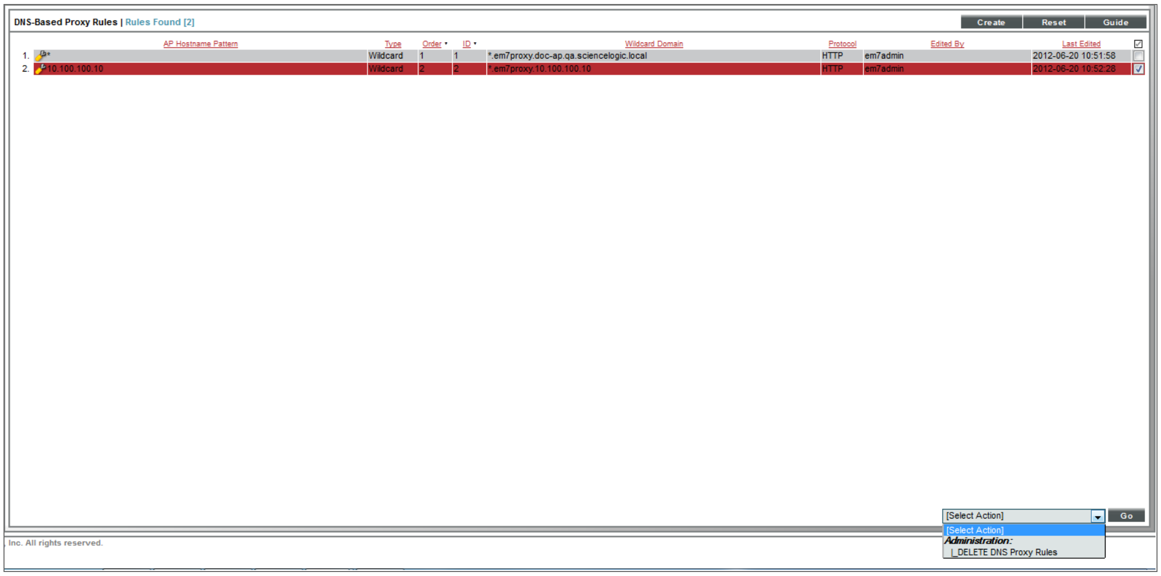
Browser Protocol: [HTTP]

4. In the **DNS Proxy Rule Editor** modal page, edit the values in one or more fields. For details on each field, see the section on ***defining a DNS-based proxy***.
5. Select the **[Save]** button to save your changes to the DNS-based proxy rule.

Deleting a DNS-Based Proxy

To delete one or more DNS-based proxy rules:

1. Go to the **DNS-Based Proxy Rules** page (Registry > Web Proxies > DNS-Based Proxy).



DNS-Based Proxy Rules | Rules Found [2]

	AP Hostname Pattern	Type	Order	ID	Wildcard Domain	Protocol	Edited By	Last Edited	☑
1.	*	Wildcard	1	1	*.em7proxy.doc-ap.qa.sciencelogic.local	HTTP	em7admin	2012-06-20 10:51:58	□
2.	10.100.100.10	Wildcard	2	2	*.em7proxy.10.100.100.10	HTTP	em7admin	2012-06-20 10:52:28	☑

2. In the **DNS-Based Proxy Rules** page, find the rule you want to delete. Select its checkbox (☑).
3. Select the checkbox for each rule you want to delete.
4. Go to the ***Select Action*** field in the lower right of the page. Select *Delete Proxy Rule*. Select the **[Go]** button.
5. Each selected rule is removed from SL1.

Chapter 12

Host Name-Based Proxies

Overview

This chapter describes how to configure a host name-based proxy service in SL1. It includes the following topics:

What is a Host Name-Based Proxy?

If your organization does not allow wildcard domains and the corresponding SSL certificates, you can define a Host Name-based proxy. If you use host name-based proxy:

- you are not required to define the proxy service as a sub-domain of the SL1 hostname.
- you can use the hostname in an ***iFrame*** widget, instead of the ***Proxied Web Service*** widget.

Host Name-based Proxy defines multiple "internal servers" that are made available via SL1 dashaboards. Users can access these servers without direct IP access and without certificates.

Prerequisites

Before defining a host-based proxy, you must perform the following configuration steps:

- Create a DNS entry for the Administration Portal or the All-In-One Appliance. Do this during deployment of the appliance.

- Define a CNAME entry for each web page or server that you want to use as an "internal server". The "internal server" should use the same IP address as the Administration Portal or All-In-One Appliance.

Creating a Host Name-Based Proxy Service

To configure a host name-based proxy:

1. Go to the **Proxied Web Services** page (Registry > Web Proxies > Proxied Web Services).
2. Select the **[Create]** button in the upper right of the page. Create a Proxied Web Service for each "internal server". For details on creating a proxied web service, see the previous ***sections***.
3. Go to the console of the Administration Portal or All-In-One Applianceor use SSH to login to the Administration Portal or All-In-One Appliance.
4. Use vi (or a text editor or your choice) to create the file /opt/em7/share/config/nginx.d/custom_proxy_common.fragment.
5. Enter the following in the file /opt/em7/share/config/nginx.d/custom_proxy_common.fragment:

```
listen 80;
listen 443 ssl http2;
ssl_certificate /etc/nginx/silossl.pem;
ssl_certificate_key /etc/nginx/silossl.key;
access_log /var/log/em7/em7ngx_proxy.access.log main;
error_log /var/log/em7/em7ngx_proxy.error.log warn;
```

6. Save the file.
7. Use vi (or a text editor or your choice) to create the file /opt/em7/share/config/nginx.d/custom_proxy_location_common.fragment.
8. Enter the following in the file:

```
fastcgi_split_path_info ^()(/.+)$;
fastcgi_pass unix:/var/run/php-fpm/em7.sock;
fastcgi_param SCRIPT_FILENAME /opt/em7/gui/ap/www/em7/libs/proxy_service.em7;
include fastcgi_params;
```

9. Save the file.
10. For each host for which you want to create a proxy, use vi (or a text editor or your choice) to create the file /opt/em7/share/config/nginx.d/custom_proxy_*identifier*.conf

    - where ***identifier*** is an identifier for the host. For example, *splunk_host*.

11. Enter the following in the file /opt/em7/share/config/nginx.d/custom_proxy_*identifier*.conf

```
server {
  # the wildcard at the end works around a name matching issue
  # in nginx
  server_name fully_qualified_domain_name_of_the_host*;

  include /opt/em7/share/config/nginx.d/custom_proxy_common.fragment;
  location ~ .* {
    # Specify which proxy service to use here:
    # fastcgi_param EM7_PROXY_NAME "name_of_the_proxy";
    # OR use the ID of the proxy service instead of the name.
    # Less readable, but no chance of collision:
    # fastcgi_param EM7_PROXY_ID (proxy_id_number);
    include /opt/em7/share/config/nginx.d/custom_proxy_location_
    common.fragment;
  }
}
```

where:

- ***fully_qualified_domain_name_of_the_host***is the fully qualified domain name for the host, as you defined in the CNAME entry.
- ***name_of_proxy*** is the name of the proxied web service you created for the host. You can view this name in the **Proxied Web Services** page (Registry > Web Proxies > Proxied Web Services). If you choose to use the name instead of the ***proxy_id_number***, remove the "#" character at the beginning of this line.
- ***proxy_id_number*** is the ID number of the proxied web server you created for the host. You can view this ID in the in the **Proxied Web Services** page (Registry > Web Proxies > Proxied Web Services). If you choose to use the proxy ID number instead of the ***name_of_proxy***, remove the "#" character at the beginning of this line.

12. Save the file.
13. Restart nginx. To do this, enter the following at the shell prompt:

```
sudo systemctl restart nginx
```

Example 13

Web Proxy Using a Custom Header for Authentication

Overview

This example will walk you the steps to create a web proxy that requests data from the web interface of a Splunk server. SL1 then displays the top-level page of the Splunk web interface in a Dashboard widget.

This example uses a ***Custom Header*** for authentication. SL1 will send a custom header to the web service for Splunk. Splunk will examine the custom header and the originating IP address (the IP address of the Administration Portal or All-In-One Appliance) to authenticate SL1.

The following steps are covered in this example:

Configuring Splunk to Accept Requests from SL1

NOTE: To download a trial copy of Splunk, go to http://www.splunk.com/download. Download the version that is appropriate for your operating system. Install and configure according to Splunk's instructions.

To allow Splunk to authenticate SL1 using the custom header option, edit the following files on the Splunk Server:

1. Go to /opt/splunk/etc/system/local/web.conf and open with a text editor (like vi).
2. We have to tell Splunk the name of the custom header we will be sending (Remote_User). Find the following section and edit it to look like this:

   ```
   # Remote user HTTP header sent by the authenticating proxy server.
   # This header should be set to the authenticated user.
   #
   remoteUser = Remote_User
   ```

3. We have to tell Splunk the IP address of the Administration Portal or All-In-One Appliance. Find the following section and edit it to look like this:

   ```
   # Trusted IP. This is the IP address of the authenticating proxy.
   # Splunkweb verifies it is receiving data from the proxy host for all
   # SSO requests.
   # Uncomment and set to a valid IP address to enable SSO.
   #
   # trustedIP = 127.0.0.1
   trustedIP = enter the IP address of your All-In-One appliance or your
   Administration Portal We entered 10.100.100.10
   ```

4. In the [settings] section of the file, add or change the following settings to look like this:

   ```
   x_frame_options_sameorigin = False
   SSOMode = permissive
   ```

5. Save your changes and exit the file (in vi, :wq).
6. Go to /opt/splunk/etc/system/local/server.conf and open with a text editor (like vi).
7. Tell Splunk to trust itself. Find the following section and edit it to look like this:

   ```
   [general]
   guid = This value will be unique to your Splunk server. Don't edit this entry.
   serverName = splunk
   trustedIP = 127.0.0.1
   ```

8. Save your changes and exit the file (:wq).
9. For more information on configuring Splunk to use single sign-on and authenticate using a custom header, see:

   http://www.splunk.com/base/Documentation/latest/Admin/Usesinglesign-onwithSplunk

Testing the Request

To test the request to the web interface of Splunk:

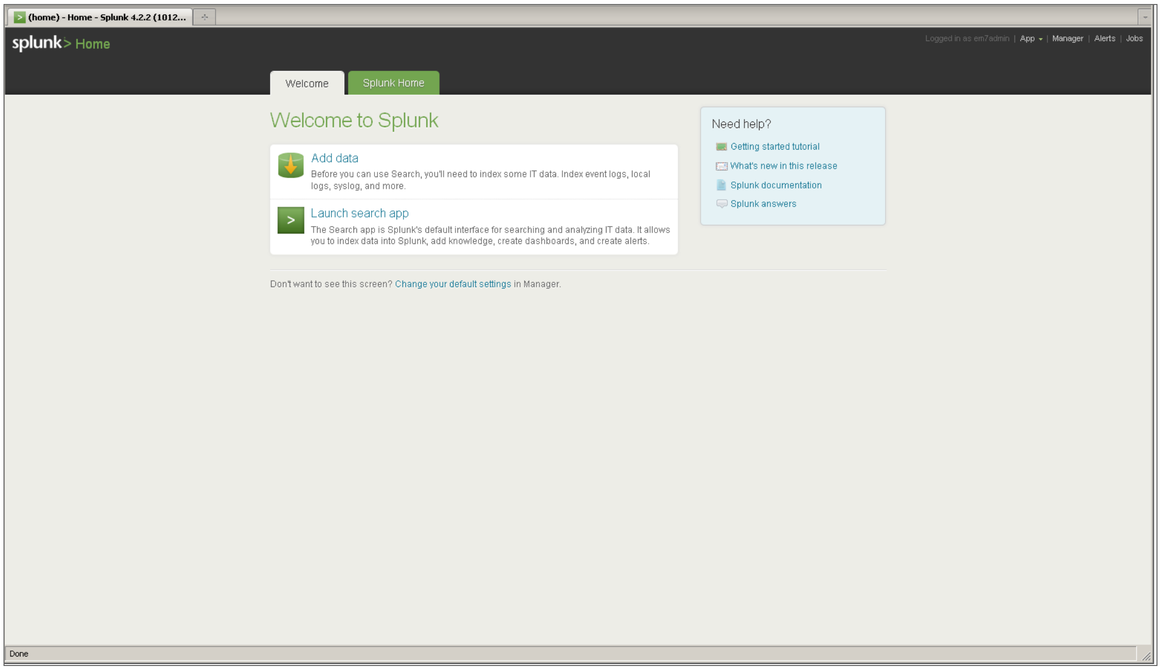
1. Open a browser session. Enter the following in the URL bar:

   ```
   http://URL or IP address of the Splunk server:8000
   ```

We entered:

```
http://10.100.100.22:8000
```

2. When prompted, enter your username and password. Your username and password for the Splunk web interface must be the same as your username and password for SL1.
3. You should see something like this:


(home) - Home - Splunk 4.2.2 (1012...
splunk> Home
Logged in as em7admin | App | Manager | Alerts | Jobs
Welcome
Splunk Home
Need help?
Getting started tutorial
What's new in this release
Splunk documentation
Splunk answers
Done

Welcome to Splunk

Add data

Before you can use Search, you'll need to index some IT data. Index event logs, local logs, syslog, and more.

Launch search app

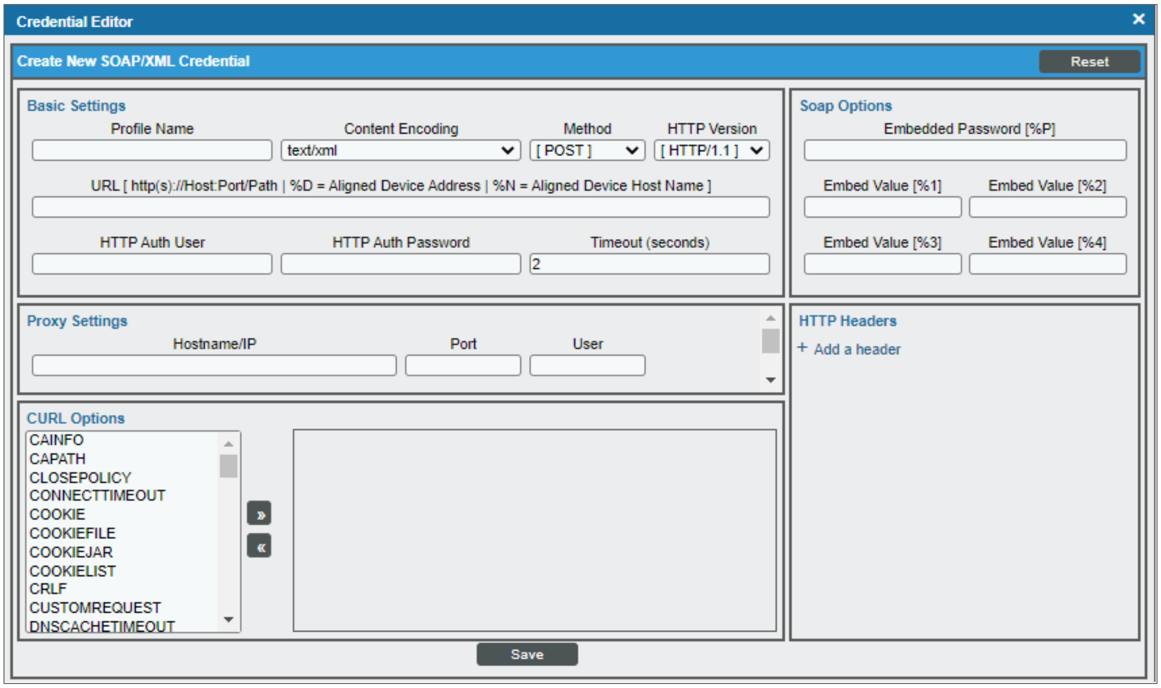
The Search app is Splunk's default interface for searching and analyzing IT data. It allows you to index data into Splunk, add knowledge, create dashboards, and create alerts.

Don't want to see this screen? Change your default settings in Manager.

Creating a Credential

Next, we must create a credential for our example. Our example uses a custom header for authentication. To create a credential that provides the information for this type of authentication:

1. Go to the **Credential Management** page (System > Manage > Credentials).
2. In the **Credential Management** page, select the **[Create]** button in the upper right of the page. Select *SOAP/XML Host Credential*.
3. The **Credential Editor** page appears.



Content Encoding: text/xml

Method: [POST]

HTTP Version: [HTTP/1.1]

Timeout (seconds): 2

4. In the **Credential Editor** page, supply values in the following fields. If a field is not specified, SL1 does not use that field when authenticating a proxied web service. You can accept the default values for fields that are not specifically described in this section. SL1 will use the following fields when creating the SOAP/XML credential for a proxied web service using custom-header authentication:

   - ***Profile Name***. Name of the profile. We entered *Splunk*.
   - ***URL***. If you are creating a credential to use with a proxied web service, you can enter any valid URL in this field. The proxied web service does not use this value, but the **Credential Editor** page requires a value in this field. We entered the URL for the web interface to our Splunk server, *https://10.100.100.22:8000*.
   - ***HTTP Auth User***. We did not enter a value in this field. SL1 will authenticate using the custom header and the IP address of the Administration Portal or All-In-One Appliance.
   - ***HTTP Auth Password***. We did not enter a value in this field. SL1 will authenticate using the custom header and the IP address of the Administration Portal or All-In-One Appliance.
   - ***Proxy Settings***. This is an optional field. We didn't enter any values in these fields.
   - ***Curl Options***. This is an optional field. We didn't enter any values in this field.

- ***HTTP Headers***. We clicked on the link for Add a Header and defined the following customer HTTP header:

  ```
  Remote_User: %u
  ```

  - *Remote_User* is the name of the custom HTTP header configured in Splunk.
  - *%u* is a variable. SL1 will substitute the user name of the user currently logged in to the Administration Portal or All-In-One Appliance.

TIP: If your Splunk system does not include the same user account information as SL1, you could configure SL1 to use a single user account for authentication by replacing %u with the username of that account.

5. Select the **[Save]** button to save the new credential.

Defining a DNS-based Proxy

To communicate with the web interface for a Splunk server, you must first create a DNS-based proxy. This is because the Splunk server includes links that can't be resolved by the Administration Portal or All-In-One Appliance.

A DNS-based proxy ensures that the Administration Portal or All-In-One Appliance will be able to resolve links embedded in the results of a request to an external web service.

A DNS-Based Proxy requires a CNAME record for the Administration Portal or All-In-One Appliance. This CNAME record includes an initial wildcard. This means that URL will resolve to the Administration Portal or All-In-One Appliance regardless of the text at the front of the URL.

During requests to proxied web services, SL1 then creates a custom URL for the Administration Portal or All-In-One Appliance. SL1 inserts information about the current session (user ID and browser session) into the front of the URL for the Administration Portal.

First, you must create a CNAME record for your Administration Portal or the All-In-One Appliance that will send requests to the Splunk server.

NOTE: If your SL1 system includes multiple Administration Portals or if different CNAME records apply to different users based on their network location, you can define multiple DNS-Based Proxy rules. For guidance, consult your DNS administrator.

The format of the CNAME record should be:

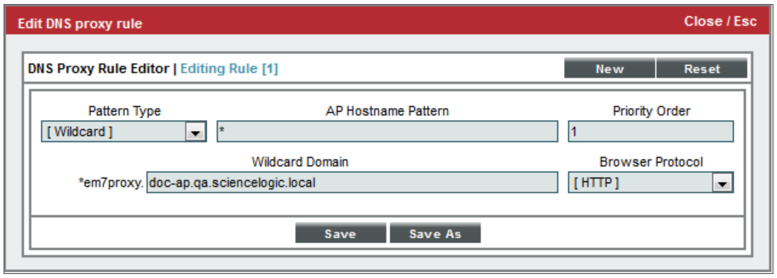
```
*.domain name of the            IN      CNAME    domain name of the Administration
Administration Portal or All-In-                 Portal or All-In-One Appliance.
One Appliance
```

For example, if your Administration Portal has a domain name of "MyAdministrationPortal.com", we could create the following CNAME record:

```
*.MyAdministrationPortal.com       IN       CNAME    MyAdministrationPortal.com.
```

Next, you must define the DNS-based proxy in SL1. To do this:

1. Go to the **DNS-Based Proxy Rules** page (Registry > Web Proxies > DNS-Based Proxy).
2. In the **DNS-Based Proxy Rules** page, select the **[Create]** button.
3. The **DNS Proxy Rule Editor** modal page appears:



Edit DNS proxy rule

DNS Proxy Rule Editor | Editing Rule [1]

Pattern Type: [Wildcard]

AP Hostname Pattern: *

Priority Order: 1

Wildcard Domain: *em7proxy. doc-ap.qa.sciencelogic.local

Browser Protocol: [HTTP]

4. In the **DNS Proxy Rule Editor** modal page, supply a value in the following fields.

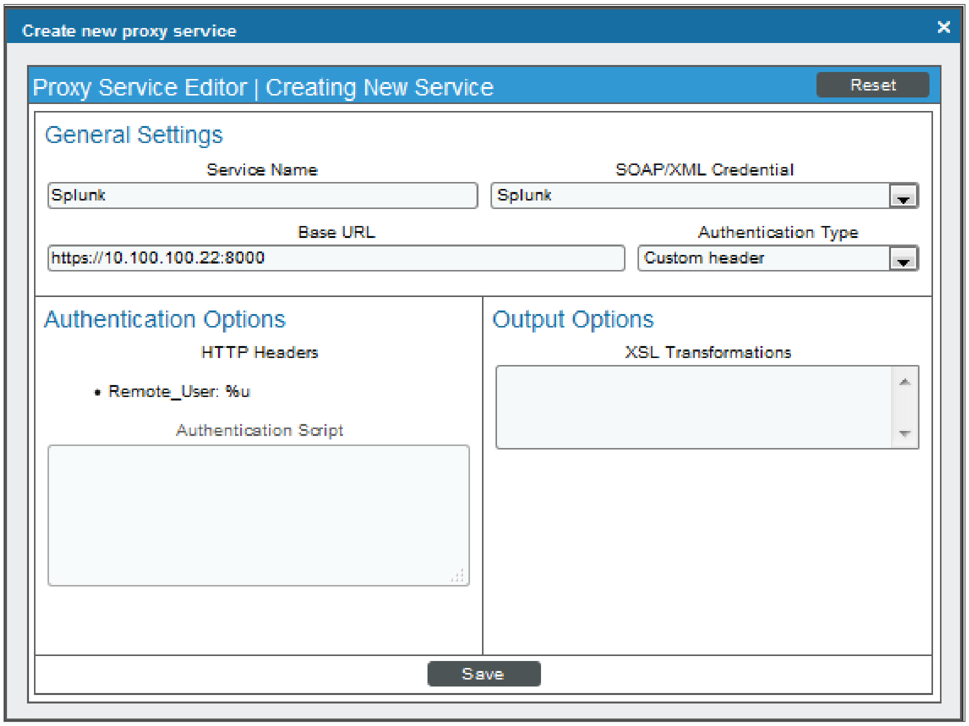
   - ***Pattern Type***. We selected *Wildcard*.
   - ***AP Hostname Pattern***. We entered * (asterisk), meaning "use the DNS-based proxy rule for every session on the Administration Portal or All-In-One Appliance". SL1 examines the URL or IP address that the user specified in the browser to connect to the Administration Portal or All-In-One Appliance. If the URL or IP address matches the value in this field, SL1 applies the DNS-based proxy rule to the current session.
   - ***Priority Order***. We specified *1*. This DNS-based proxy rule will be applied before other matching rules.
   - ***Wildcard Domain***. Enter the wildcard domain you defined in the DNS CNAME record for the Administration Portal or All-In-One Appliance, excluding the "*.". We entered the domain for our Administration Portal (*doc-ap.qa.sciencelogic.local*). When a session on the Administration Portal or All-In-One Appliance matches the ***AP Hostname Pattern***, SL1 will substitute this wildcard domain into the URL of the Administration Portal or All-In-One Appliance during requests to the proxied web service. The wildcard domain always begins with "*.em7proxy.", which is automatically included by SL1
   - ***Browser Protocol***. Select *HTTP*.

5. Select the **[Save]** button to save your new DNS-based proxy rule .
6. Each time a user access the Administration Portal or All-In-One Appliance in a manner that matches the new DNS-based proxy rule, SL1 will apply the DNS-based proxy rule. SL1 will substitute the wildcard domain for the URL of the Administration Portal or All-In-One Appliance service when making requests to the proxied web service.

Defining a Proxy Web Service in SL1

Proxied Web Services page. To create a proxied web service:

1. Go to the **Proxied Web Services** page (Registry > Web Proxies > Proxied Web Services).
2. Select the **[Create]** button in the upper right of the page.
3. The **Proxy Service Editor** page appears.



Service Name: Splunk

SOAP/XML Credential: Splunk

Base URL: https://10.100.100.22:8000

Authentication Type: Custom header

HTTP Headers

- Remote_User: %u

4. In the **Proxy Service Editor** page, supply a value in the following fields:

   - ***Service Name***. Name of the proxied web service. We entered *Splunk*.
   - ***SOAP/XML Credential***. We selected the credential we created in the ***previous section***. We selected *Splunk*.
   - ***Base URL***. We entered the URL for the web interface of our Splunk server. If you are using your own Splunk server with this example, enter the URL of the web interface for your Splunk server.
   - ***Authentication Type***. We selected *Custom header*. SL1 will pass the user name in a custom header. Splunk will examine this custom header and the IP address of the Administration Portal (or All-In-One Appliance) to authenticate the request.

   - ***Authentication Options***. Because we selected *Splunk* min the SOAP/XML Credential field, SL1 included our custom HTTP header from that credential.

- ***Output Options***. We did not select a Proxy XSL Transformation.

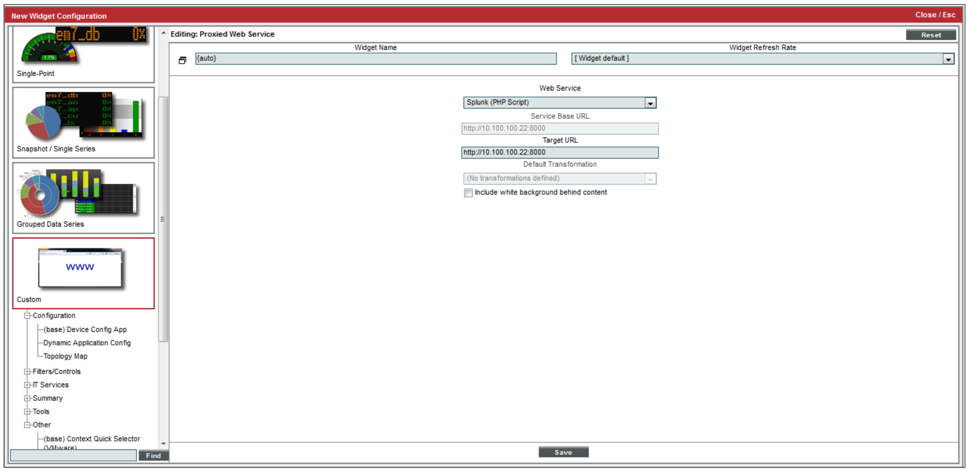
5. Select the **[Save]** button to save the new web proxy service.

Define a Dashboard Widget to Display the Results

You can use the ***proxied web service widget*** to view data retrieved from an external website. You can view the proxied web service widget in the **Dashboards tab** page (**[Dashboards]** tab).

To view data from our example proxied web service:

1. Go to the **Dashboards tab** page (**[Dashboards]** tab).
2. After you have configured your Dashboard and added a widget, select the ***Proxied Web Service*** widget type in the left NavBar of the **New Widget Configuration** page.



New Widget Configuration

Editing: Proxied Web Service

Widget Name: {auto}

Widget Refresh Rate: [Widget default]

Web Service: Splunk (PHP Script)

Service Base URL: http://10.100.100.22:8000

Target URL: http://10.100.100.22:8000

Default Transformation: (No transformations defined)

□ Include white background behind content

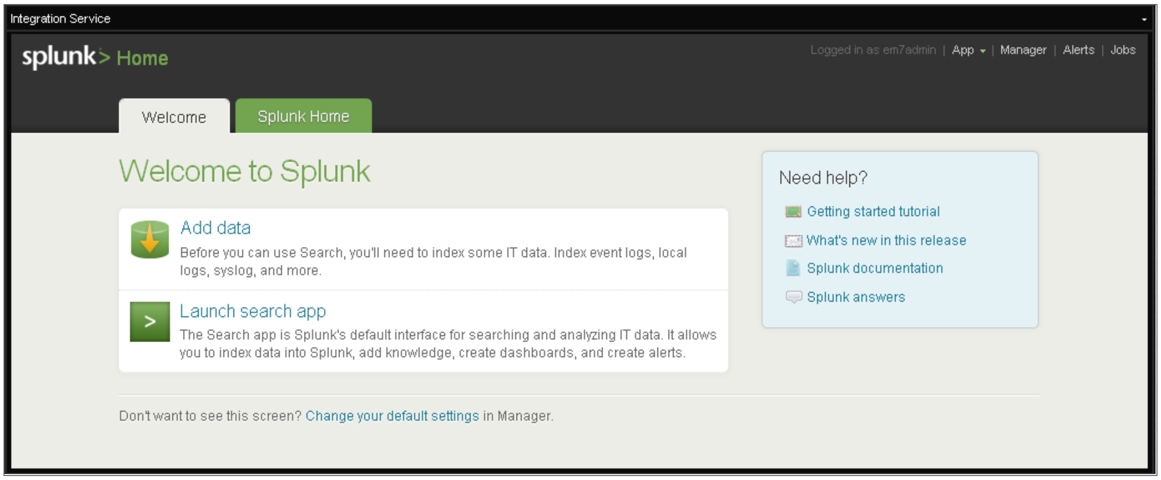
NOTE: For details on configuring Dashboards and adding widgets, see the ***Dashboards*** manual.

3. In the **Widget Configuration** page, supply values in the following fields:

- ***Widget Type***. We selected *Proxied Web Service*.
- ***Widget Title***. We entered *Integration Service*.
- ***Widget Refresh***. Accept the default value.
- ***Web Service***. Select the proxied web service we defined in the ***previous section***. We selected *Splunk*.
- ***Service Base URL***. We accepted the default value.

- ***Target URL***. We entered the base URL for the web interface to our Splunk server. We entered *https://10.100.100.22:8000*. If you would like to include an additional directory in the ***Service Base URL***, you can specify that in this field. For example, suppose the ***Service Base URL*** displays the top-level overview page of a web service, like "www.webservice.com/intro". Suppose you always want the widget to display the sub-page "Account Details", like "www.webservice.com/intro/account". You could specify the URL of the sub-page in the ***Target URL*** field.
- ***Default Transformation***. We did not select an XSL transformation.
- ***Include white background behind content***. We did not select this checkbox.

4. The widget will display the following:



Welcome to Splunk

Add data

Before you can use Search, you'll need to index some IT data. Index event logs, local logs, syslog, and more.

Launch search app

The Search app is Splunk's default interface for searching and analyzing IT data. It allows you to index data into Splunk, add knowledge, create dashboards, and create alerts.

Don't want to see this screen? Change your default settings in Manager.

5. You can click on the links in the widget, and the widget will display the next page of data.

Example 14

Web Proxy Using HTTP Authentication

Overview

This example will walk you through the steps to create a web proxy that requests data from the Integration Server and displays the requested data in a Dashboard widget.

The example uses ***HTTP Authentication***. SL1 will use standard HTTP authentication and pass a username and password to the web service on the Integration Server.

The following steps are covered in this example:

Testing the Request

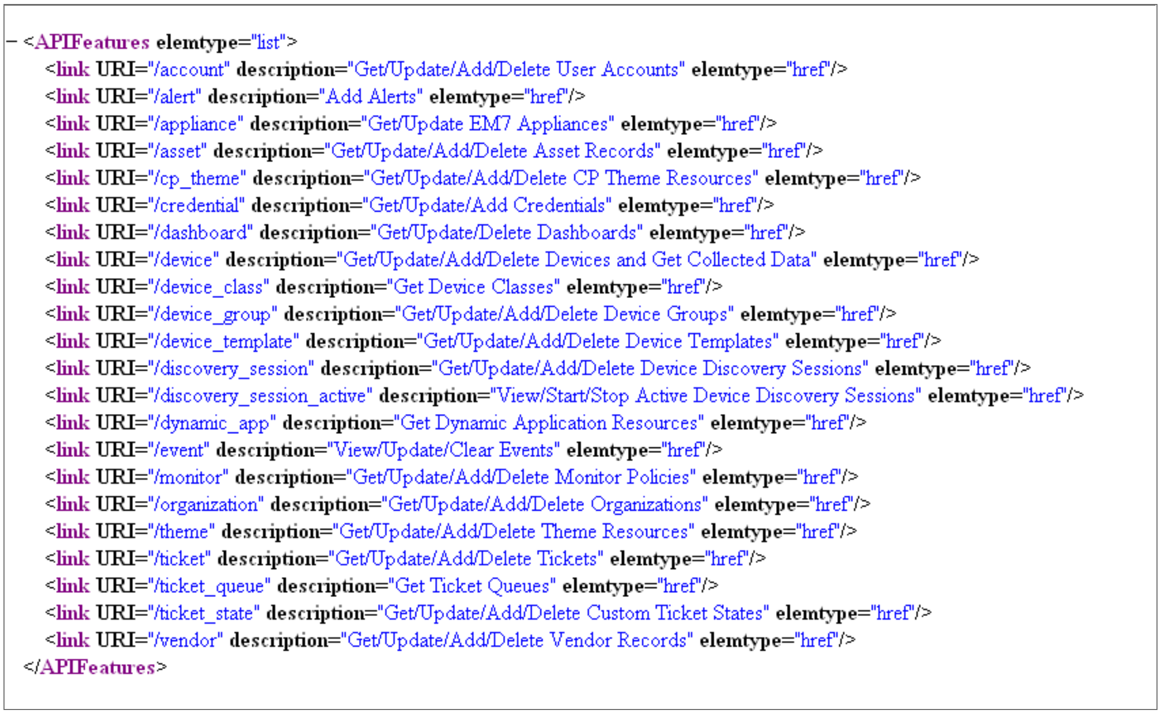
In this example, we are going to send a request to the Integration Server.

Our Integration Server resides at IP address 10.100.100.16. To run this example on your Integration Server, substitute the IP address or URL of your Integration Server.

1. We opened a browser session and entered the following in the URL bar:

```
https://10.100.100.16
```

2. We were prompted to enter the user name and password for the Integration Server. We did so.
3. Here is the result of our request to the top-level of the Integration Server:



```
- <APIFeatures elemtype="list">
    <link URI="/account" description="Get/Update/Add/Delete User Accounts" elemtype="href"/>
    <link URI="/alert" description="Add Alerts" elemtype="href"/>
    <link URI="/appliance" description="Get/Update EM7 Appliances" elemtype="href"/>
    <link URI="/asset" description="Get/Update/Add/Delete Asset Records" elemtype="href"/>
    <link URI="/cp_theme" description="Get/Update/Add/Delete CP Theme Resources" elemtype="href"/>
    <link URI="/credential" description="Get/Update/Add Credentials" elemtype="href"/>
    <link URI="/dashboard" description="Get/Update/Delete Dashboards" elemtype="href"/>
    <link URI="/device" description="Get/Update/Add/Delete Devices and Get Collected Data" elemtype="href"/>
    <link URI="/device_class" description="Get Device Classes" elemtype="href"/>
    <link URI="/device_group" description="Get/Update/Add/Delete Device Groups" elemtype="href"/>
    <link URI="/device_template" description="Get/Update/Add/Delete Device Templates" elemtype="href"/>
    <link URI="/discovery_session" description="Get/Update/Add/Delete Device Discovery Sessions" elemtype="href"/>
    <link URI="/discovery_session_active" description="View/Start/Stop Active Device Discovery Sessions" elemtype="href"/>
    <link URI="/dynamic_app" description="Get Dynamic Application Resources" elemtype="href"/>
    <link URI="/event" description="View/Update/Clear Events" elemtype="href"/>
    <link URI="/monitor" description="Get/Update/Add/Delete Monitor Policies" elemtype="href"/>
    <link URI="/organization" description="Get/Update/Add/Delete Organizations" elemtype="href"/>
    <link URI="/theme" description="Get/Update/Add/Delete Theme Resources" elemtype="href"/>
    <link URI="/ticket" description="Get/Update/Add/Delete Tickets" elemtype="href"/>
    <link URI="/ticket_queue" description="Get Ticket Queues" elemtype="href"/>
    <link URI="/ticket_state" description="Get/Update/Add/Delete Custom Ticket States" elemtype="href"/>
    <link URI="/vendor" description="Get/Update/Add/Delete Vendor Records" elemtype="href"/>
  </APIFeatures>
```

4. To specify one of the links within this result, we opened a browser session and entered the following in the URL bar:

```
https://10.100.100.16/account
```

5. Here is the result:

```
<accounts>
<searchspec>
[XML fields that are not relevant to our example]
</searchspec>
<total_matched>15</total_matched>
<total_returned>15</total_returned>
<result_set elemtype="list">
<link URI="/account/28" description="acmeuser" elemtype="href"/>
<link URI="/account/32" description="bcorgan" elemtype="href"/>
<link URI="/account/19" description="dashboard" elemtype="href"/>
<link URI="/account/22" description="dashboard_admin" elemtype="href"/>
<link URI="/account/26" description="dkahane" elemtype="href"/>
<link URI="/account/1" description="em7admin" elemtype="href"/>
<link URI="/account/33" description="jproctor" elemtype="href"/>
<link URI="/account/35" description="kgibson" elemtype="href"/>
<link URI="/account/34" description="mwashington" elemtype="href"/>
<link URI="/account/30" description="prevere" elemtype="href"/>
<link URI="/account/3" description="qauser" elemtype="href"/>
<link URI="/account/31" description="samadams" elemtype="href"/>
<link URI="/account/27" description="sjohnson" elemtype="href"/>
```

```
<link URI="/account/2" description="sysuser" elemtype="href"/>
<link URI="/account/20" description="testcustomer" elemtype="href"/>
</result_set>
</accounts>
```

Creating an XSL Transformation

Without an XSL transformation, our results are not very usable in a Dashboard Widget.

- The information is not laid out in an easily viewable table.
- There are not clickable hyperlinks but instead hrefs to other pages of data.

To convert the results of our request into a table that includes clickable hyperlinks, we wrote the following XSLT stylesheet. This stylesheet converts the top-level results (***APIFeatures***) into a table format, with clickable hyperlinks. If a user selects a link in the top-level results, this stylesheet converts the new page of results (***result_set***) into a table format, with clickable hyperlinks.

We saved this XSLT stylesheet in a file called ***IS_proxy_xslt.xsl***.

NOTE: For details on XSLT stylesheets, see the website http://www.w3schools.com/xsl/xsl_intro.asp. If you are familiar with XSLT, you can use this XSLT stylesheet to transform the output from your Integration Server.

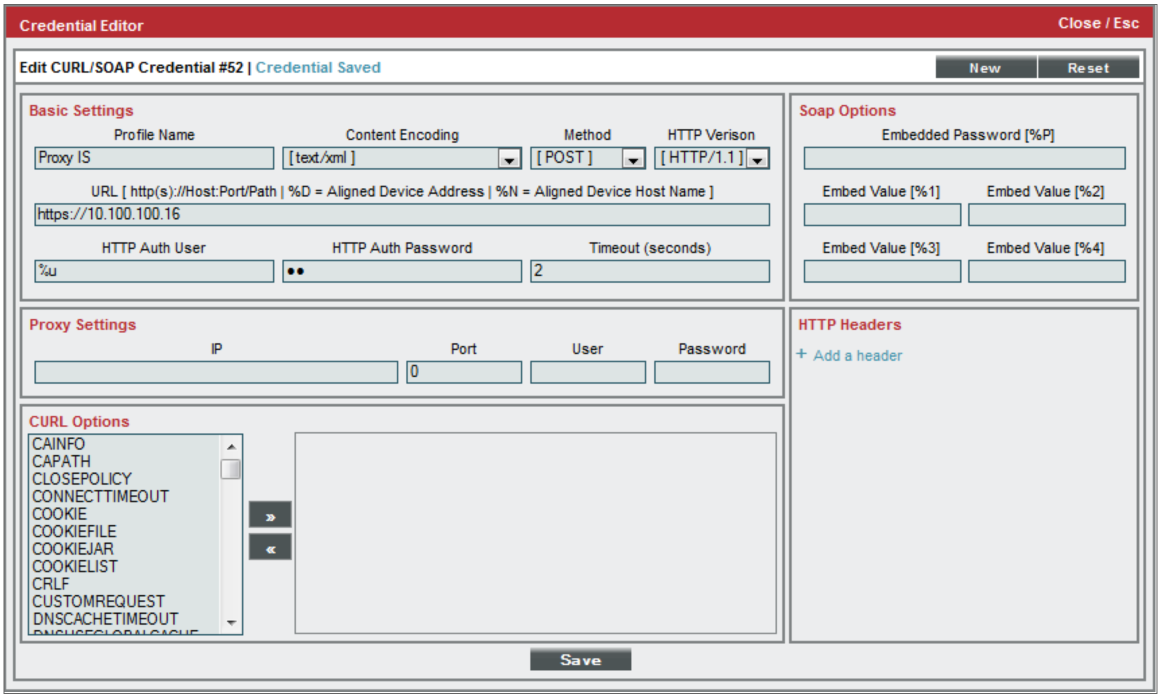
```
<?xml version="1.0" encoding="ISO-8859-1"?>
<xsl:stylesheet version="1.0"
xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
<xsl:template match="/">
  <html>
  <body>
  <xsl:choose>
    <xsl:when test="APIFeatures">
    <table bgcolor="#FFFFFF">
      <tr>
          <th>Description</th>
          <th>Link</th>
      </tr>
      <xsl:for-each select="APIFeatures/link">
      <tr>
        <td>
          <xsl:value-of select="@description" />
        </td>
        <td>
          <a><xsl:attribute name="href"><xsl:value-of select="substring(@URI,2)"
          /></xsl:attribute><xsl:value-of select="@URI" /></a>
        </td>
      </tr>
      </xsl:for-each>
    </table>
    </xsl:when>

    <xsl:when test="//result_set"> (when a link is selected)
    <table bgcolor="#FFFFFF">
      <tr>
```

```
          <th>Description</th>
          <th>Link</th>
        </tr>
        <xsl:for-each select="//result_set/link">
        <tr>
          <td>
            <xsl:value-of select="@description" />
          </td>
          <td>
            <a><xsl:attribute name="href"><xsl:value-of select="substring(@URI,2)"
            /></xsl:attribute><xsl:value-of select="@URI" /></a>
          </td>
        </tr>
        </xsl:for-each>
      </table>
      </xsl:when>

      <xsl:otherwise>
          <table bgcolor="#FFFFFF">
          <tr>
            <th>Description</th>
            <th>Value</th>
          </tr>
          <xsl:for-each select="//*">
          <xsl:if test="(@elemtype != 'list') or (not(@elemtype))">
          <xsl:if test="position()!=1">
          <tr>
            <td>
              <xsl:value-of select="local-name()"/>
            </td>
            <td>
              <xsl:value-of select="."/>
            </td>
          </tr>
          </xsl:if>
          </xsl:if>
          </xsl:for-each>
          </table>
      </xsl:otherwise>
    </xsl:choose>
    </body>
    </html>
  </xsl:template>
  </xsl:stylesheet>
```

Creating a Credential

Next, we must create a credential for our example. Our example uses standard HTTP authentication. To create a credential that provides the information for standard HTTP authentication:

1. Go to the **Credential Management** page (System > Manage > Credentials).
2. In the **Credential Management** page, select the **[Create]** button in the upper right of the page. Select *SOAP/XML Host Credential*.
3. The **Credential Editor** page appears.



Credential Editor

Edit CURL/SOAP Credential #52 | Credential Saved

Basic Settings

Profile Name	Content Encoding	Method	HTTP Verison
Proxy IS	[text/xml]	[POST]	[HTTP/1.1]

URL [http(s)://Host:Port/Path | %D = Aligned Device Address | %N = Aligned Device Host Name]: https://10.100.100.16

HTTP Auth User	HTTP Auth Password	Timeout (seconds)
%u	••	2

Soap Options

Embedded Password [%P]		
Embed Value [%1]		Embed Value [%2]
Embed Value [%3]		Embed Value [%4]

Proxy Settings

IP	Port	User	Password
	0		

HTTP Headers

CURL Options

4. In the **Credential Editor** page, supply values in the following fields. If a field is not specified, SL1 does not use that field when authenticating a proxied web service. You can accept the default values for fields that are not specifically described in this section. SL1 will use the following fields when creating the SOAP/XML credential for a proxied web service using HTTP Authentication:

    - ***Profile Name***. Name of the profile. We entered *Proxy IS*.
    - ***URL***. If you are creating a credential to use with a proxied web service, you can enter any valid URL in this field. The proxied web service does not use this value, but the **Credential Editor** page requires a value in this field. We entered the URL for our Integration Server, *https://10.100.100.16*.
    - ***HTTP Auth User***. Username with which to log in to the web server. We entered *%u*.
        - *%u*. Username of the user currently logged in to the Administration Portal or All-In-One Appliance.
    - ***HTTP Auth Password***. Password with which to access the web server. We entered *%p* in this field.
        - *%p*. Password of the user currently logged in to the Administration Portal or All-In-One Appliance.
    - ***Proxy Settings***. This is an optional field. We didn't enter any values in these fields.
    - ***Curl Options***. This is an optional field. We didn't enter any values in this field.
    - ***HTTP Headers***. We did not include a custom HTTP header in this credential.

5. Select the **[Save]** button to save the new credential.

Defining an XSL Transformation in SL1

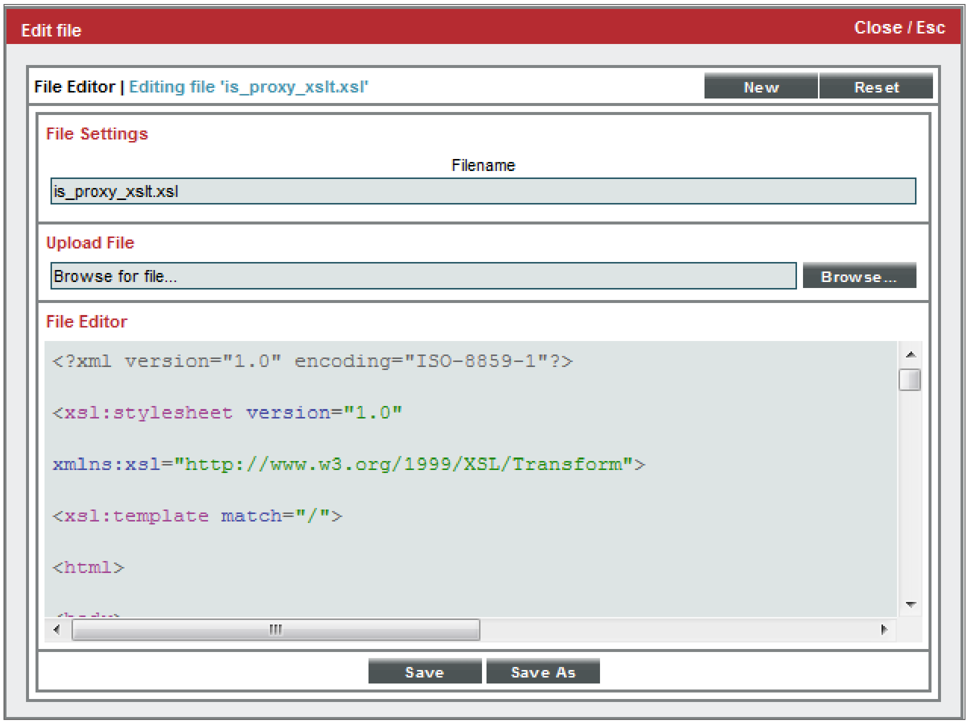
To define an XSL Transformation in SL1, we must perform two steps:

1. Upload the stylesheet and any dependent files to SL1.
2. Create a definition of the XSL Transformation in SL1, referencing the uploaded files.

This section will explain how to perform these steps for our example Web Proxy.

Remember that in an earlier section, we created an XSLT stylesheet named ***IS_proxy_xslt.xsl***. We must now upload the stylesheet to SL1:

1. Make sure that the file ***IS_proxy_xslt.xsl*** is available from your local computer.
2. Go to the **Proxy Service Files** page (Registry > Web Proxies > Proxy Service Files).
3. In the **Proxy Service Files** page, select the **[Create]** button.
4. The **File Editor** page appears.



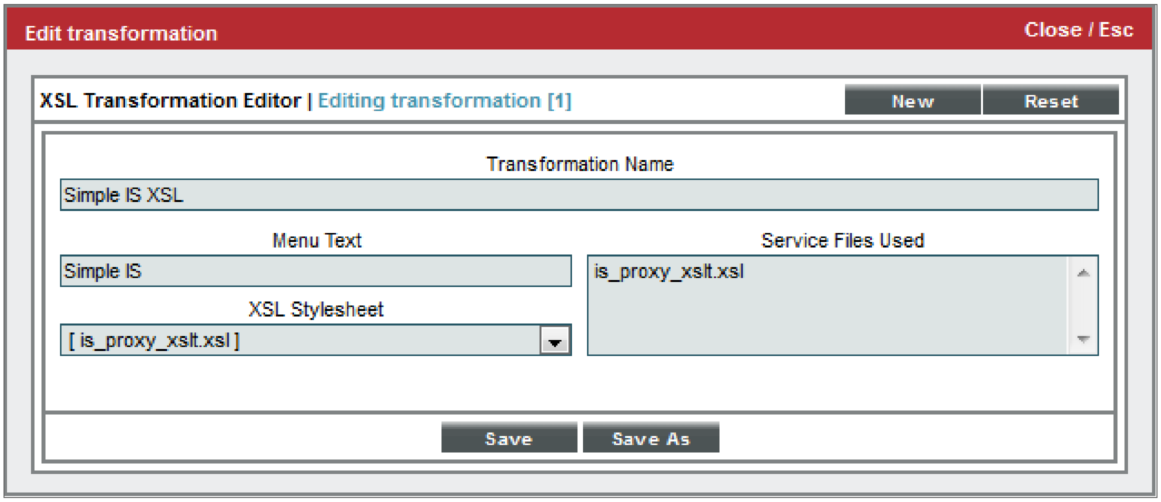
Filename: is_proxy_xslt.xsl

```
<?xml version="1.0" encoding="ISO-8859-1"?>

<xsl:stylesheet version="1.0"

xmlns:xsl="http://www.w3.org/1999/XSL/Transform">

<xsl:template match="/">

<html>
```

5. In the **File Editor** page, define values in the following fields:

    - ***File Name***. We specified the name of our XSLT stylesheet, *IS_proxy_xslt.xsl*. This name will appear as a choice in the **Proxy Service Editor** page, in the ***Service Files Used*** and ***XSL Stylesheet*** fields.
    - ***Upload File***. Use this field to navigate to the stylesheet.
    - ***File Editor***. If you are uploading a new Proxy Service File, leave this field blank. If you are editing an existing Proxy Service File, you can edit the file in this field without uploading the file again.

6. Select the **[Save]** button to upload the Proxy Service File to SL1.
7. You can now use the Proxy Service file in the definition of a proxy XSL transformation.
8. To define the XSL transformation in SL1, go to the **Proxy XSL Transformations** page (Registry > Web Proxies > Proxy XSL Transformations).
9. In the **Proxy XSL Transformations** page, select the **[Create]** button.
10. The **XSL Transformation Editor** page appears.



Transformation Name: Simple IS XSL

Menu Text: Simple IS

Service Files Used: is_proxy_xslt.xsl

XSL Stylesheet: [is_proxy_xslt.xsl]

11. In the **XSL Transformation Editor** page, enter values in the following fields:

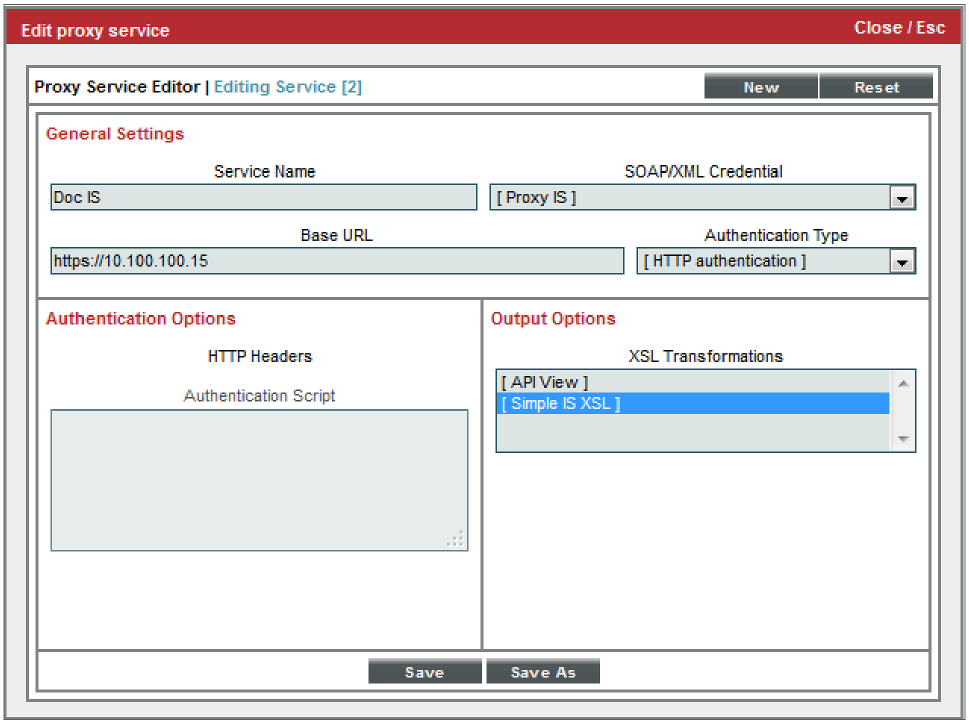
    - ***Transformation Name***. We entered *Simple IS XSL*. This name will appear as a choice in the **Proxy Service Editor** page, in the ***Output Options*** field.
    - ***Menu Text***. Another name for the XSL Transformation. We entered *Simple IS*. This name will appear in the **Widget Configuration** page for a widget of type *Proxied Web Service*, in the ***Default Transformation*** field. This name will also appear in the ***Options*** menu in the upper right of each widget in the **Dashboards tab** page.
    - ***Service Files Used***. Because our XSL transformation did not call, include, or reference any additional files, we did not select any files in this field.
    - ***XSL Stylesheet***. We selected the stylesheet we uploaded earlier in this section. We selected *IS_proxy_xslt.xsl*.

12. Select the **[Save]** button to save the XSL Transformation. This XSL Transformation can now be applied from within SL1.

Defining a Proxy Web Service in SL1

You can create a proxied web service in the **Proxied Web Services** page. To create a proxied web service:

1. Go to the **Proxied Web Services** page (Registry > Web Proxies > Proxied Web Services).
2. Select the **[Create]** button in the upper right of the page. The **Proxy Service Editor** page appears.
3. The **Proxy Service Editor** page includes the following fields:



Edit proxy service

Proxy Service Editor | Editing Service [2]

General Settings

Service Name: Doc IS

SOAP/XML Credential: [Proxy IS]

Base URL: https://10.100.100.15

Authentication Type: [HTTP authentication]

Authentication Options

HTTP Headers

Authentication Script:

Output Options

XSL Transformations: [API View], [Simple IS XSL]

- ***Service Name***. Name of the proxied web service. We entered *Doc IS*.
- ***SOAP/XML Credential***. We selected the credential we created in the ***previous section***. We selected *Proxy IS*.
- ***Base URL***. We entered the URL for our Integration Server. If you are using your own Integration Server with this example, enter the URL of your Integration Server. Remember to use **https** at the beginning of the URL.
- ***Authentication Type***. We select *HTTP Authentication*. SL1 will pass the username and password of the current user to the Integration Server.
- ***Authentication Options***. We did not include any additional Authentication Options.

- ***Output Options***. We selected the Proxy XSL Transformation we created in the ***previous section***. We selected *Simple IS XSL*. This XSL transformation will appear as an option when a widget is created for the proxied web service.

4. Select the **[Save]** button to save the new web proxy service.

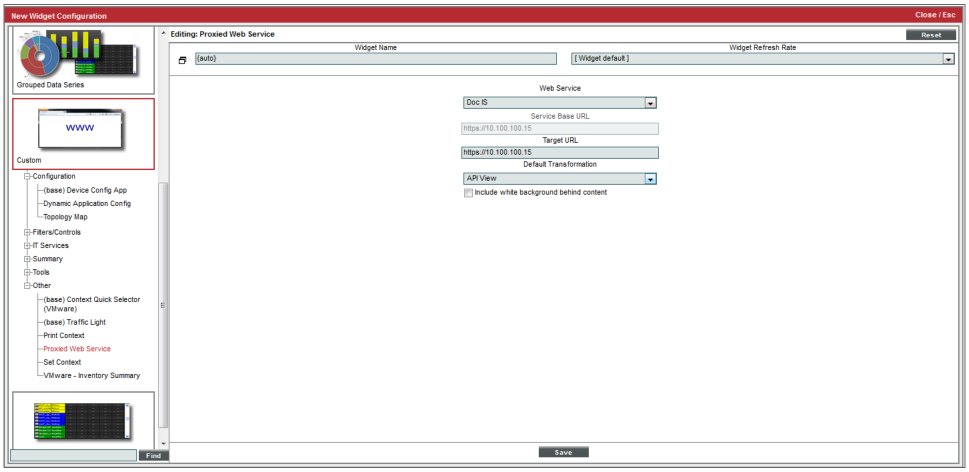
Defining a Dashboard Widget

You can use the ***proxied web service widget*** to view data retrieved from an external website. You can view the proxied web service widget in the **Dashboards tab** page (**[Dashboards]** tab).

To view data from our example proxied web service:

1. Go to the **Dashboards tab** page (**[Dashboards]** tab).
2. After you have configured your Dashboard and added a widget, select the ***Proxied Web Service*** widget type in the left NavBar of the **New Widget Configuration** page.

NOTE: For details on configuring Dashboards and adding widgets, see the ***Dashboards*** manual.



New Widget Configuration

Editing: Proxied Web Service

Widget Name: {auto}

Widget Refresh Rate: [Widget default]

Web Service: Doc IS

Service Base URL: https://10.100.100.15

Target URL: https://10.100.100.15

Default Transformation: API View

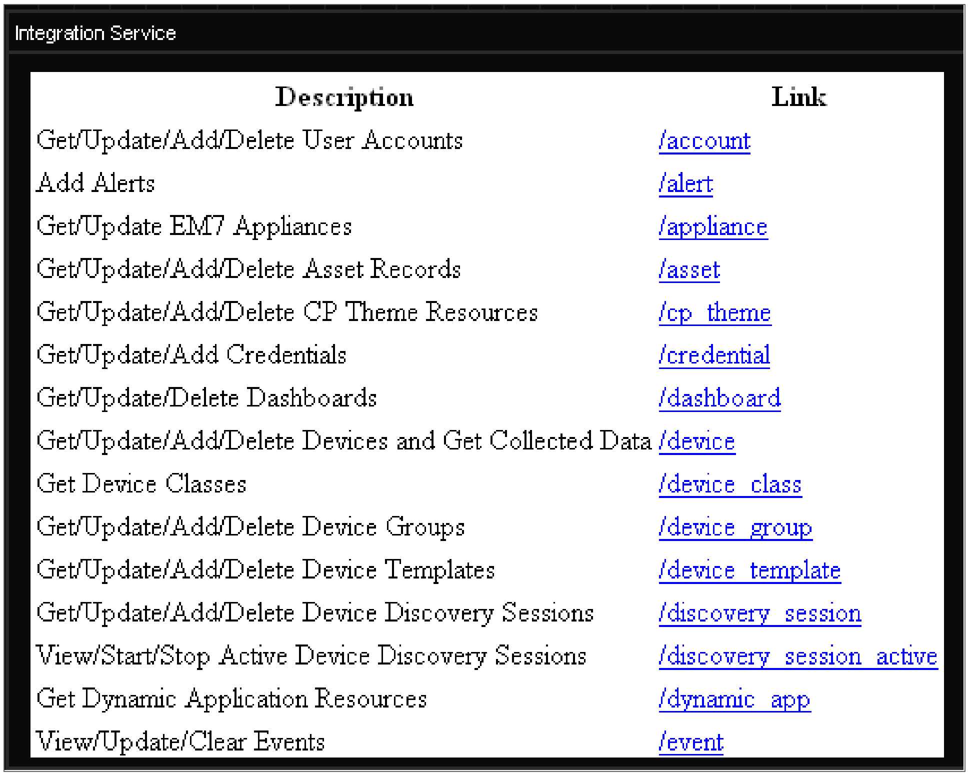
□ Include white background behind content

3. In the **Widget Configuration** page, supply values in the following fields:

- ***Widget Type***. We selected *Proxied Web Service*.
- ***Widget Title***. We entered *Integration Service*.
- ***Widget Refresh***. Accept the default value.
- ***Web Service***. Select the proxied web service we defined in the ***previous section***. We selected *Doc IS*.

- ***Service Base URL***. A read-only field, populated automatically by SL1 when you select a value in the ***Web Service*** field. This value is the URL of the external web service that you want to display in a widget. When SL1 forwards a request from the browser, the request will always start with this URL. Although the user can follow links that include this URL. SL1 will not let the user make a request outside this URL.
- ***Target URL***. We entered the base URL for our Integration Server. We entered *https://10.100.100.16*. If you would like to include an additional directory in the ***Service Base URL***, you can specify that in this field. For example, suppose the ***Service Base URL*** displays the top-level overview page of a web service, like "www.webservice.com/intro". Suppose you always want the widget to display the sub-page "Account Details", like "www.webservice.com/intro/account". You could specify the URL of the sub-page in the ***Target URL*** field.
- ***Default Transformation***. We selected the XSL transformation we defined in the previous sections and aligned with the proxied web service. We selected *Simple IS*.
- ***Include white background behind content***. We did not select this checkbox..

4. The widget will display the following:



Integration Service

Description	Link
Get/Update/Add/Delete User Accounts	/account
Add Alerts	/alert
Get/Update EM7 Appliances	/appliance
Get/Update/Add/Delete Asset Records	/asset
Get/Update/Add/Delete CP Theme Resources	/cp_theme
Get/Update/Add Credentials	/credential
Get/Update/Delete Dashboards	/dashboard
Get/Update/Add/Delete Devices and Get Collected Data	/device
Get Device Classes	/device_class
Get/Update/Add/Delete Device Groups	/device_group
Get/Update/Add/Delete Device Templates	/device_template
Get/Update/Add/Delete Device Discovery Sessions	/discovery_session
View/Start/Stop Active Device Discovery Sessions	/discovery_session_active
Get Dynamic Application Resources	/dynamic_app
View/Update/Clear Events	/event

5. You can click on the links in the widget, and the widget will display the next page of data.

6. To view a page without the XSL Transformation applied, select the ***Options*** menu in the upper right of the widget and then select *No Transformation*.

Example

14

Web Proxy Using a PHP Script for Authentication

Overview

This example will walk you through creating a web proxy that requests data from the web interface of a Splunk server. SL1 then displays the top-level page of the Splunk web interface in a Dashboard widget.

The example uses a ***PHP Script*** for authentication. The result of this example is identical to the result of the *Example Using a Custom Header for Authentication*. However, the Example Using a Custom Header for Authentication is easier to implement than this example, so the Example Using a Custom Header for Authentication would typically be used to create a web proxy for Splunk. This example is designed to demonstrate the features of the PHP Script Authentication method by building on the previous example.

You can use a custom PHP Script to authenticate with web services that cannot be authenticated using the ***HTTP Authentication*** or ***Custom Header*** methods. SL1 executes a custom PHP script to supply the required authentication information to the web service.

When you use the PHP Script method for authentication, SL1 constructs a PECL (PHP Extension Community Library) HTTP request and sends the request to the web service. The PECL HTTP request includes information from a standard credential and information from the custom PHP script.

To create a credential for a proxied web service using the PHP Script authentication method, you must:

- Define the credential that will provide additional information for authentication.
- Define the PHP script that will generate the authentication information.

The following steps are covered in this example:

Configuring Splunk to Accept Requests from SL1

NOTE: To download a trial copy of Splunk, go to http://www.splunk.com/download. Download the version that is appropriate for your operating system. Install and configure according to Splunk's instructions.

To allow Splunk to authenticate SL1 using the custom header option, edit the following files on the Splunk Server:

1. Go to /opt/splunk/etc/system/local/web.conf and open with a text editor (like vi).
2. We have to tell Splunk the name of the custom header we will be sending (Remote_User). Find the following section and edit it to look like this:

   ```
   # Remote user HTTP header sent by the authenticating proxy server.
   # This header should be set to the authenticated user.
   #
   remoteUser = Remote_User
   ```

3. We have to tell Splunk the IP address of the Administration Portal or All-In-One Appliance. Find the following section and edit it to look like this:

   ```
   # Trusted IP. This is the IP address of the authenticating proxy.
   # Splunkweb verifies it is receiving data from the proxy host for all
   # SSO requests.
   # Uncomment and set to a valid IP address to enable SSO.
   #
   # trustedIP = 127.0.0.1
   trustedIP = enter the IP address of your All-In-One appliance or your
   Administration Portal We entered 10.100.100.10
   ```

4. In the [settings] section of the file, add or change the following settings to look like this:

   ```
   x_frame_options_sameorigin = False
   SSOMode = permissive
   ```

5. Save your changes and exit the file (in vi, :wq).
6. Go to /opt/splunk/etc/system/local/server.conf and open with a text editor (like vi).
7. Tell Splunk to trust itself. Find the following section and edit it to look like this:

   ```
   [general]
   guid = This value will be unique to your Splunk server. Don't edit this entry.
   serverName = splunk
   trustedIP = 127.0.0.1
   ```

8. Save your changes and exit the file (:wq).
9. For more information on configuring Splunk to use single sign-on and authenticate using a custom header, see:

   http://www.splunk.com/base/Documentation/latest/Admin/Usesinglesign-onwithSplunk

Testing the Request

To test the request to the web interface of Splunk:

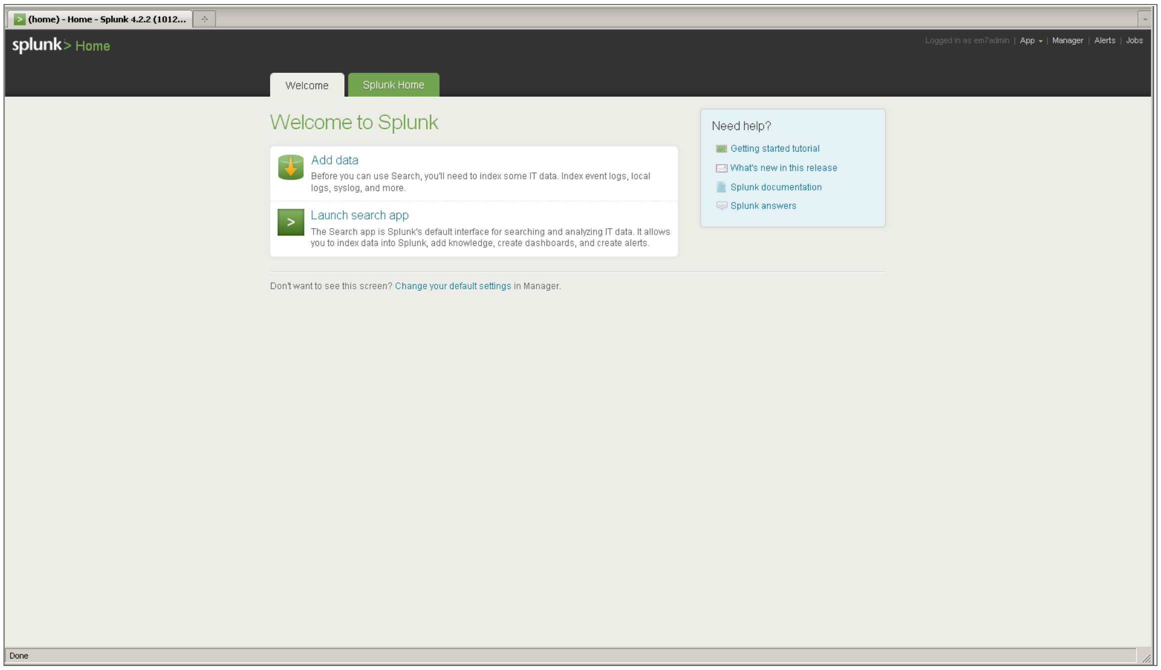
1. Open a browser session. Enter the following in the URL bar:

   ```
   http://URL or IP address of the Splunk server:8000
   ```

   We entered:

   ```
   http://10.100.100.22:8000
   ```

2. When prompted, enter your username and password. Your username and password for the Splunk web interface must be the same as your username and password for SL1.
3. You should see something like this:



(home) - Home - Splunk 4.2.2 (1012...
splunk> Home
Logged in as em7admin | App | Manager | Alerts | Jobs
Welcome
Splunk Home

Welcome to Splunk

Add data

Before you can use Search, you'll need to index some IT data. Index event logs, local logs, syslog, and more.

Launch search app

The Search app is Splunk's default interface for searching and analyzing IT data. It allows you to index data into Splunk, add knowledge, create dashboards, and create alerts.

Need help?

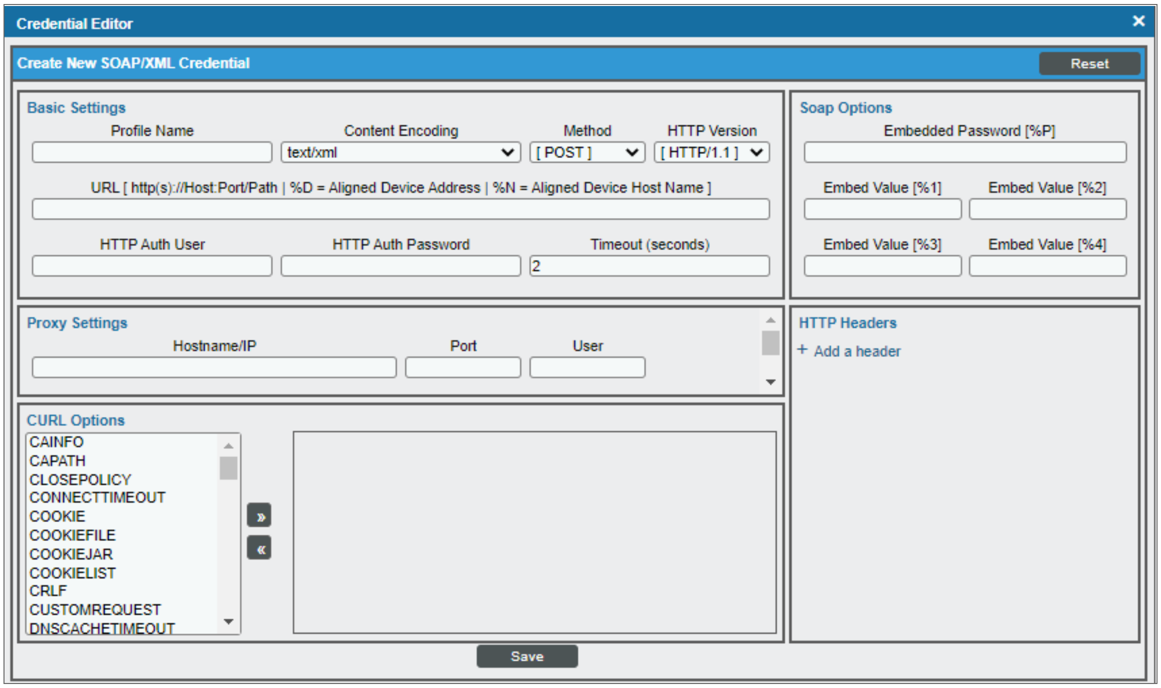
- Getting started tutorial
- What's new in this release
- Splunk documentation
- Splunk answers

Don't want to see this screen? Change your default settings in Manager.

Creating the Credential

Next, we must create a credential for our example. Our example uses a PHP script for authentication. To create a credential that provides the information for this type of authentication:

1. Go to the **Credential Management** page (System > Manage > Credentials).
2. In the **Credential Management** page, select the **[Create]** button in the upper right of the page. Select *SOAP/XML Host Credential*.
3. The **Credential Editor** page appears:



Content Encoding: text/xml

Method: [POST]

HTTP Version: [HTTP/1.1]

Timeout (seconds): 2

4. In the **Credential Editor** page, supply values in the following fields. If a field is not specified, SL1 does not use that field when authenticating a proxied web service. You can accept the default values for fields that are not specifically described in this section. SL1 will use the following fields when creating the SOAP/XML credential for a proxied web service using a PHP script for authentication:

   - ***Profile Name***. Name of the profile. We entered *Splunk (PHP Script)*.
   - ***URL***. If you are creating a credential to use with a proxied web service, you can enter any valid URL in this field. The proxied web service does not use this value, but the **Credential Editor** page requires a value in this field. We entered the URL for the web interface to our Splunk server, *https://10.100.100.2:8000*.
   - ***HTTP Auth User***. We did not enter a value in this field. SL1 will authenticate using the custom header we build and send with our PHP script and the IP address of the Administration Portal or All-In-One Appliance.
   - ***HTTP Auth Password***. We did not enter a value in this field. SL1 will authenticate using the custom header we build and send with our PHP script and the IP address of the Administration Portal or All-In-One Appliance.
   - ***Proxy Settings***. This is an optional field. We didn't enter any values in these fields.
   - ***Curl Options***. This is an optional field. We didn't enter any values in this field.
   - ***HTTP Headers***. We did not create a custom header for this credential.

5. Select the **[Save]** button to save the new credential.

Defining a DNS-based Proxy

To communicate with the web interface for a Splunk server, you must first create a DNS-based proxy. This is because the Splunk server includes links that can't be resolved by the Administration Portal or All-In-One Appliance.

A DNS-based proxy ensures that the Administration Portal or All-In-One Appliance will be able to resolve links embedded in the results of a request to an external web service.

A DNS-Based Proxy requires a CNAME record for the Administration Portal or All-In-One Appliance. This CNAME record includes an initial wildcard. This means that URL will resolve to the Administration Portal or All-In-One Appliance regardless of the text at the front of the URL.

During requests to proxied web services, SL1 then creates a custom URL for the Administration Portal or All-In-One Appliance. SL1 inserts information about the current session (user ID and browser session) into the front of the URL for the Administration Portal.

First, you must create a CNAME record for your Administration Portal or the All-In-One Appliance that will send requests to the Splunk server.

NOTE: If your SL1 system includes multiple Administration Portals or if different CNAME records apply to different users based on their network location, you can define multiple DNS-Based Proxy rules. For guidance, consult your DNS administrator.

The format of the CNAME record should be:

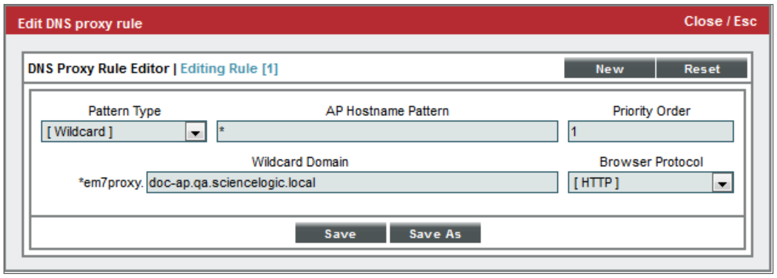
```
*.domain name of the               IN      CNAME    domain name of the Administration
Administration Portal or All-In-                    Portal or All-In-One Appliance.
One Appliance
```

For example, if your Administration Portal has a domain name of "MyAdministrationPortal.com", we could create the following CNAME record:

```
*.MyAdministrationPortal.com       IN      CNAME    MyAdministrationPortal.com.
```

Next, you must define the DNS-based proxy in SL1. To do this:

1. Go to the **DNS-Based Proxy Rules** page (Registry > Web Proxies > DNS-Based Proxy).
2. In the **DNS-Based Proxy Rules** page, select the **[Create]** button.
3. The **DNS Proxy Rule Editor** modal page appears:



Pattern Type: [Wildcard]
AP Hostname Pattern: *
Priority Order: 1
Wildcard Domain: *em7proxy. doc-ap.qa.sciencelogic.local
Browser Protocol: [HTTP]

4. In the **DNS Proxy Rule Editor** modal page, supply a value in the following fields.

   - ***Pattern Type***. We selected *Wildcard*.
   - ***AP Hostname Pattern***. We entered * (asterisk), meaning "use the DNS-based proxy rule for every session on the Administration Portal or All-In-One Appliance". SL1 examines the URL or IP address that the user specified in the browser to connect to the Administration Portal or All-In-One Appliance. If the URL or IP address matches the value in this field, SL1 applies the DNS-based proxy rule to the current session.
   - ***Priority Order***. We specified *1*. This DNS-based proxy rule will be applied before other matching rules.

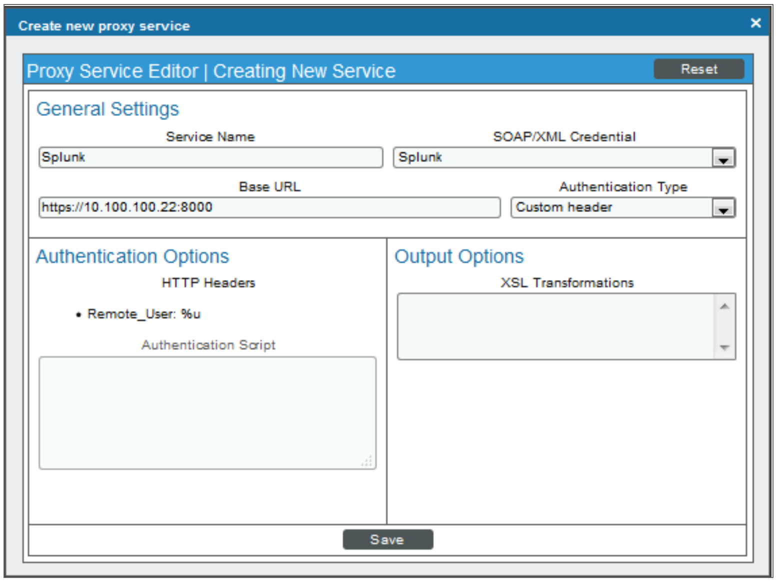
- ***Wildcard Domain***. Enter the wildcard domain you defined in the DNS CNAME record for the Administration Portal or All-In-One Appliance, excluding the "*.". We entered the domain for our Administration Portal (*doc-ap.qa.sciencelogic.local*). When a session on the Administration Portal or All-In-One Appliance matches the ***AP Hostname Pattern***, SL1 will substitute this wildcard domain into the URL of the Administration Portal or All-In-One Appliance during requests to the proxied web service. The wildcard domain always begins with "*.em7proxy.", which is automatically included by SL1
- ***Browser Protocol***. Select *HTTP*.

5. Select the **[Save]** button to save your new DNS-based proxy rule .
6. Each time a user access the Administration Portal or All-In-One Appliance in a manner that matches the new DNS-based proxy rule, SL1 will apply the DNS-based proxy rule. SL1 will substitute the wildcard domain for the URL of the Administration Portal or All-In-One Appliance service when making requests to the proxied web service.

Defining a Proxy Web Service and a PHP Script in SL1

You can create a proxied web service in the **Proxied Web Services** page and include a PHP script to use during authentication. To create our example proxied web service:

1. Go to the **Proxied Web Services** page (Registry > Web Proxies > Proxied Web Services).
2. Select the **[Create]** button in the upper right of the page.
3. The **Proxy Service Editor** page appears.



Service Name: Splunk

SOAP/XML Credential: Splunk

Base URL: https://10.100.100.22:8000

Authentication Type: Custom header

HTTP Headers

- Remote_User: %u

Authentication Script

4. In the **Proxy Service Editor** page, supply a value in the following fields:

- ***Service Name***. Name of the proxied web service. We entered *Splunk (PHP)*.
- ***SOAP/XML Credential***. We selected the credential we created in the ***previous section***. We selected *Splunk (PHP Script)*.
- ***Base URL***. We entered the URL for the web interface of our Splunk server (*http://10.100.100.22:8000*). If you are using your own Splunk server with this example, enter the URL of the web interface for your Splunk server.
- ***Authentication Type***. We selected *PHP script*. SL1 will use the PHP script specified in the ***Authentication Script*** field to supply some of the authentication data.
- ***Authentication Script***. We entered the following PHP script in this field:

  ```
  <?PHP
  $headers['REMOTE-USER'] = $auth_user;
  ?>
  ```

  - ***$headers***. An associative array that SL1 supplies as a parameter for the setHeaders function. The setHeaders function is used to build the PECL HTTP request and allows you to define a custom header for our request. The array keys in the***$headers*** array must be set to the name of the header. Each key must point to a value for that header. For more information about the setHeaders function, see http://www.php.net/manual/en/function.httprequest-setheaders.php
  - ***REMOTE-USER***. The name of the custom header that the setHeaders function will build.
  - ***$auth_user***. The username of the currently logged in user. This value will be stored in the REMOTE-USER header.
- ***Output Options***. We did not select a Proxy XSL Transformation.

5. Select the **[Save]** button to save the new web proxy service.

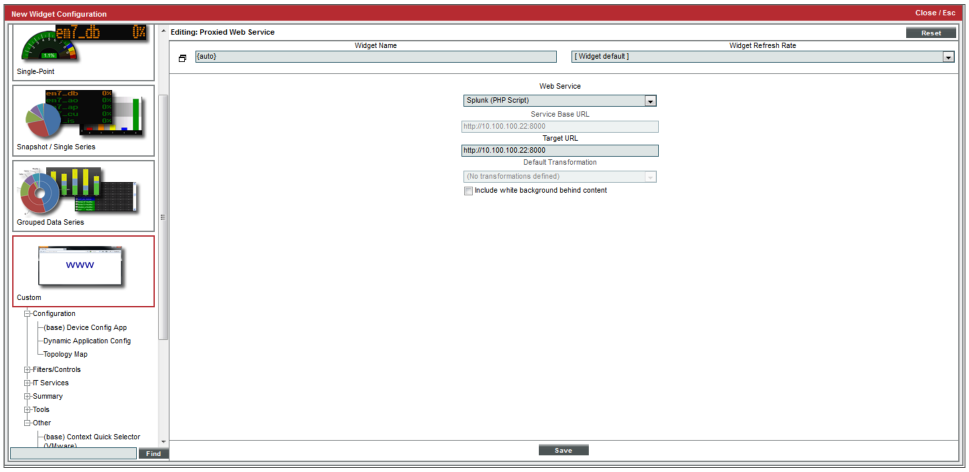
Defining a Dashboard Widget to Display the Results

You can use the ***proxied web service widget*** to view data retrieved from an external website. You can view the proxied web service widget in the **Dashboards tab** page (**[Dashboards]** tab).

To view data from our example proxied web service:

1. Go to the **Dashboards tab** page (**[Dashboards]** tab).
2. After you have configured your Dashboard and added a widget, select the ***Proxied Web Service*** widget type.

NOTE: For details on configuring Dashboards and adding widgets, see the ***Dashboards*** manual.



Editing: Proxied Web Service

Widget Name: {auto}

Widget Refresh Rate: [Widget default]

Web Service: Splunk (PHP Script)

Service Base URL: http://10.100.100.22:8000

Target URL: http://10.100.100.22:8000

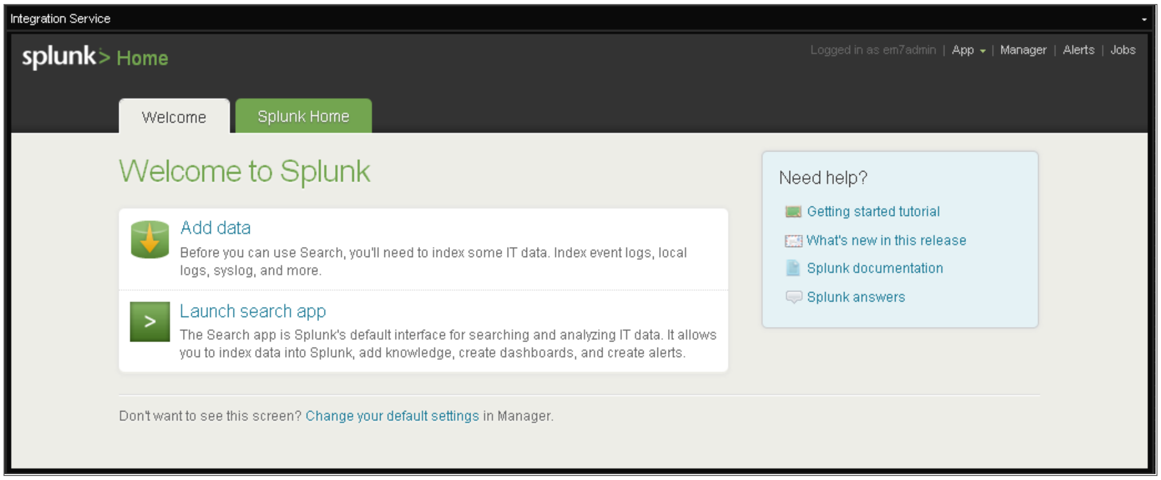
Default Transformation: (No transformations defined)

□ Include white background behind content

3. In the **Widget Configuration** page, supply values in the following fields:

   - ***Widget Type***. We selected *Proxied Web Service*.
   - ***Widget Title***. We entered *Splunk (PHP Script)*.
   - ***Widget Refresh***. Accept the default value.
   - ***Web Service***. Select the proxied web service we defined in the ***previous section***. We selected *Splunk*.
   - ***Service Base URL***. We accepted the default value.
   - ***Target URL***. We entered the base URL for the web interface to our Splunk server. We entered *https://10.100.100.22:8000*. If you would like to include an additional directory in the ***Service Base URL***, you can specify that in this field. For example, suppose the ***Service Base URL*** displays the top-level overview page of a web service, like "www.webservice.com/intro". Suppose you always want the widget to display the sub-page "Account Details", like "www.webservice.com/intro/account". You could specify the URL of the sub-page in the ***Target URL*** field.
   - ***Default Transformation***. We did not select an XSL transformation.
   - ***Include white background behind content***. We did not select this checkbox.

4. The widget will display the following:



Welcome to Splunk

Add data

Before you can use Search, you'll need to index some IT data. Index event logs, local logs, syslog, and more.

Launch search app

The Search app is Splunk's default interface for searching and analyzing IT data. It allows you to index data into Splunk, add knowledge, create dashboards, and create alerts.

Need help?

- Getting started tutorial
- What's new in this release
- Splunk documentation
- Splunk answers

Don't want to see this screen? Change your default settings in Manager.

5. You can click on the links in the widget, and the widget will display the next page of data.

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