SL1 Upgrade Planning and Checklist

Updating SL1 is a multiple-step process that you should review and plan out carefully before starting. The checklists and tables below list the different aspects that you will need to consider before upgrading to any SL1 release.

Planning the Update

Before upgrading SL1, perform the following steps that are specific to your organization:

1. Read the *release notes* to determine:

    - What is fixed?

    - What is new?

    - What has changed?

    - What has been deprecated?

    - What are the supported upgrade paths?

    - What are the important notes that you need to know before upgrading?

2. Read the **Known Issues** for the release. These can be found in the release notes and at https://support.sciencelogic.com/s/known-issues.

3. Identify all integrations and third-party applications that access the SL1 database or manipulate data on SL1. Determine how to disable these integrations during the deployment and re-enable after deployment.

4. Identify activities and customers that will be affected by maintenance windows and schedule and inform appropriately.

5. Identify any custom work, such as changes to PowerPacks, run book automations, event policies, and dashboard widgets, and ensure that all custom work is backed up so you can restore it if necessary.

NOTE: Ensure that the each SL1 node or appliance has at least 4 GB of free space in the **/var** partition for pre-upgrade and deployment. Ensure that each SL1 node or appliance has at least 1 GB of free space in **/** (the root partition) to allow you to deploy the upgrade; however, depending on the appliance type and version you are upgrading from, you might need up to 3 GB of free space in **/** (the root partition).

NOTE: The option to enable a Military Unique Deployment (MUD) configuration is not available for SL1 12.1.x or 12.2.0 installations or upgrades.

SL1 Upgrade Checklist

The checklist below provides the required steps you should considered before updating your SL1 platform to a major release version:

Step	Actions
☐ 1.	**Determine the recommended upgrade path availability:** a. Review the *SL1 Recommended Upgrade Paths.* b. Identify your target SL1 release version. c. Confirm that upgrade limitations or constraints do not apply.

☐ 2.	**Review your infrastructure system requirements:**
	
	a. Verify that your hardware specifications meet the minimum requirements for the target version at the ScienceLogic Support site:
	
	   ◦ Customer Premise-Virtual
	   ◦ Customer Premise-Hardware
	   ◦ Cloud-AWS
	   ◦ Cloud-Azure
	
	b. Ensure that sufficient disk space is available on all appliances.
	c. Check network connectivity between all SL1 components.
	d. Verify DNS resolution for all SL1 appliances.
	e. Confirm that the current SL1 version is supported for a direct upgrade to the target version.
	f. Check for any required intermediate upgrades.
	g. Verify that all SL1 appliances are running the same version.
	h. Ensure that all system packages are up to date.

☐ 3.	**Consider the SL1 requirements:** a. Review the compatibility of currently installed PowerPacks with the target SL1 version. b. Check for any custom scripts or integrations that might need updating. c. Verify that the database schema is compatible with the target version of SL1. d. Ensure that all required licenses are valid and up to date.
☐ 4.	**Review the SL1 Upgrade Workflow steps:** 1. *Plan the update.* 2. *Schedule maintenance windows.* 3. *Review pre-upgrade best practices for SL1.* 4. *Verify PowerPack version compatibility.* 5. *Back up SSL certificates.*

Step	Actions
	6. *Set the timeout for PhoneHome Watchdog.* (Only required if upgrading from SL1 11.1.x or earlier.)
	7. *Run the Pre-Upgrade Test for PhoneHome Database Servers*. (Only required if upgrading from SL1 11.1.x or earlier.)
	8. *Adjust the timeout for slow connections.*
	9. *Run the system status script* on the Database Server or All-In-One Appliance before upgrading.
	10. *Update the SL1 Distributed Architecture* using the System Update tool.
	11. *Upgrade MariaDB*, if there is a version difference.
	12. *Reboot SL1 appliances*, if needed.
	13. *Upgrade to Aurora 3 RDS (MySQL 8.0)*. (Only required if deployed on AWS and currently on Aurora 2.)
	14. *Restore SSL Certificates.*
	15. *Reset the timeout for PhoneHome Watchdog.* (Only required if previously adjusted.)
	16. *Update default PowerPacks.*
	17. *Configure Subscription Billing* (required one time only).
□ 5.	**Run the pre-upgrade Health Checks:**
	a. Run the built-in *pre-upgrade check tool* .
	b. Verify that all services are running and healthy.
	c. Check for any active alarms or critical events.
	d. Review system logs for any recurring errors or warnings.
	e. Perform a database integrity check.
	f. Verify that backup systems are functioning and up to date.
	g. Ensure that each SL1 node or appliance has at least 4 GB of free space in the `/var` partition for pre-upgrade and deployment.
	h. Ensure that each SL1 node or appliance has at least 1 GB of free space in `/` (the root partition) to allow you to deploy the upgrade. Depending on the appliance type and version you are upgrading from, you might need up to 3 GB of free space in `/` (the root partition).
□ 6.	**Upgrade preparation steps:**
	a. *Create a full and a configuration backup* of all SL1 appliances.
	b. Document your current configuration settings.
	c. Notify users of the planned maintenance window.
□ 7.	**Update the SL1 Distributed Architecture:**
	a. *Download the update.*
	b. *Import the update.*
	c. *Stage the update.*

Step	Actions
	d. *Run the pre-upgrade check.*
	e. *Place all SL1 appliances in Maintenance Mode.*
	f. *Deploy the update.*
	g. *Remove all SL1 appliances from Maintenance Mode*

SL1 Recommended Upgrade Paths

If you are on an older SL1 version, you will need to upgrade multiple times to get to the 11.x release line before you can upgrade to 12.1.x or later. This is the result of significant platform changes with each major release that an older platform must consume before you can continue upgrading to newer SL1 release versions.

7.x/8.x Upgrade Path: 7.x/8.x → 10.1.x → 11.3.x → 12.1.x

10.x Upgrade Path: 10.x → 11.3.x → 12.1.x

After making these initial upgrades, you can then use the SL1 Upgrade Path Matrix in the next section to determine the best path to upgrade to your target SL1 version.

SL1 Upgrade Path Matrix

The following matrix is for typical SL1 configurations deployed on customer premises (on-prem), customer cloud (IaaS), or ScienceLogic cloud (SaaS).

> **IMPORTANT:** See the following topics for more information on additional configurations:
> - *AWS SaaS or PaaS*
> - *Security Technical Implementation Guide (STIG) or Military Unique Deployment (MUD) configurations*

How to read the tables:

1. The first column lists the user's current SL1 version.

2. The top row represents the target upgrade version.

3. Each potential upgrade path has one of the following values:

   - **YES** - This upgrade path is supported.

   - NOT ADVISED - This upgrade path is technically feasible but not recommended, often due to technical limitations, known issues, caveats, or other considerations that are explained in the *Notes*.

   - NO - This upgrade path is not supported.

4. ScienceLogic typically recommends upgrading to the latest available version for the target SL1 release line.

5. Review the *Notes* for any limitations or considerations.

Upgrading to SL1 12.1.x

Current SL1 Version	Target Upgrade SL1 Version		
	12.1.0.2	12.1.1	12.1.2
11.3.0	YES	YES	YES

Current SL1 Version	Target Upgrade SL1 Version		
	12.1.0.2	12.1.1	12.1.2
11.3.1	YES	YES	YES
11.3.2	NO	YES	YES
12.1.0.2		YES	YES
12.1.1			YES
12.1.2			

Upgrading to SL1 12.2.x

Current SL1 Version	Target Upgrade SL1 Version						
	12.2.0	12.2.1.1	12.2.1.2	12.2.3	12.2.4.1	12.2.5	12.2.6
11.3.x	NO	NO	NO	NO	NO	NO	NO
12.1.0.2	NOT ADVISED	NO	NOT ADVISED	NOT ADVISED	NOT ADVISED	NOT ADVISED	NOT ADVISED
12.1.1	NOT ADVISED	NO	NOT ADVISED	NOT ADVISED	NOT ADVISED	NOT ADVISED	NOT ADVISED
12.1.2	NO	NO	NO	NO	NO	NO	NO
12.2.0		NO	YES	NO	NO	NO	NO
12.2.1.1			YES	YES (See *Notes*)	YES (See *Notes*)	YES (See *Notes*)	YES (See *Notes*)
12.2.1.2				YES	YES	YES	YES
12.2.3					YES	YES	YES
12.2.4.1						YES	YES
12.2.5							YES

Upgrading to SL1 12.3.x

Current SL1 Version	Target Upgrade SL1 Version	
	12.3.0	12.3.1
11.3.x	NO	NO
12.1.0.2	NOT ADVISED	YES (See *Notes*)
12.1.1	NOT ADVISED	YES (See *Notes*)
12.1.2	NOT ADVISED	YES (See *Notes*)

Current SL1 Version	Target Upgrade SL1 Version	
	12.3.0	12.3.1
12.2.0	NO	NO
12.2.1.1	**YES** (See *Notes*)	**YES** (See *Notes*)
12.2.1.2	**YES**	**YES**
12.2.3	**YES**	**YES**
12.2.4.1	NO	**YES**
12.2.5	NO	**YES**
12.2.6	NO	NO
12.3.0		**YES**
12.3.1		

Notes:

1. From 11.3.x, you cannot directly upgrade to version 12.2.x or later. You must first upgrade to 12.1.1 or 12.1.2 and complete an Oracle Linux 8 (OL8) conversion before you can upgrade to later releases.

2. From 12.1.0.2 or 12.1.1, you can upgrade to the 12.3.x release line, but you *must* first upgrade to 12.1.2 to consume the data pull enhancement in that release and convert all of your SL1 appliances to OL8 if you have not already done so before you upgrade further. In this scenario, ScienceLogic strongly recommends upgrading to 12.3.1 to avoid a known technical issue that impacts the 12.1.2 to 12.3.0 upgrade path.

3. From 12.1.0.2 or 12.1.1, you alternatively can upgrade to most 12.2.x releases if all of your SL1 appliances are already running on OL8. (You cannot if they are still on OL7.) However, this is *not* a recommended upgrade path. If you are upgrading from 12.1.0.2 or 12.1.1, ScienceLogic strongly recommends that you instead upgrade to 12.1.2, convert all of your SL1 appliances to OL8 if you have not already done so, and then upgrade to 12.3.1. If you do upgrade from 12.1.0.2 or 12.1.1 to the 12.2.x line, you *must* upgrade to 12.2.1.2 to consume the data pull enhancement in that release before you upgrade further.

4. 12.1.2 is the last release to support mixed-mode (both OL7 and OL8 operating systems). The 12.2.x and 12.3.x release lines support OL8 only.

5. From 12.1.2, you cannot upgrade to the 12.2.x line. You can upgrade to the 12.3.x line from 12.1.2, but ScienceLogicstrongly recommends upgrading to 12.3.1 to avoid a known technical issue that impacts the 12.1.2 to 12.3.0 upgrade path.

6. From 12.2.0, you *must* upgrade to 12.2.1.2 to consume the data pull enhancement in that release before you upgrade further.

7. 12.2.1.1 is available only for new installations; you cannot upgrade to this version from earlier releases. This release supports STIG installations. From this release, you *must* upgrade to 12.2.1.2 to consume the data pull enhancement in that release before you upgrade further.

8. 12.2.1.2 is available only as an upgrade. STIG upgrades are available for users who consumed the 12.2.1.1 STIG ISO.

9. 12.2.3, 12.2.4.1, 12.2.5, and 12.2.6 are available only as upgrades. For these releases, you can upgrade directly only from 12.2.1.2 and later 12.2.x releases. STIG upgrades to 12.2.4.1, 12.2.5, and 12.2.6 are available for users who consumed the 12.2.1.1 STIG ISO; there is no 12.2.3 STIG upgrade.

10. Upgrades to 12.2.5 and 12.2.6 are limited to on-premises deployments only. These releases do not support AWS SaaS/PaaS customers using RDS Aurora database.

11. You cannot upgrade to 12.3.0 from 12.2.4.1, 12.2.5, or 12.2.6 due to release timing.

12. You cannot upgrade to 12.3.1 from 12.2.6 due to a known technical issue impacting that upgrade path.

13. 12.1.2 and 12.3.x AWS SaaS/PaaS cloud deployments support RDS Aurora 3. 12.1.2 Aurora 3 upgrades can upgrade only to 12.3.x or later, because 12.2.x supports only Aurora 2.

14. The 12.4.0 release line is reserved for FedRAMP. All Enterprise customers should upgrade to 12.5.0 when it is available.

AWS SaaS/PaaS Upgrade Differences Matrix

The following tables outline the unique SL1 upgrade differences from the 12.1 Golden Gate release line to later and future releases. Most restrictions are based on Oracle Linux 8 conversion or Aurora 3 dependencies.

Upgrading to SL1 12.1.x for AWS SaaS/PaaS

Current SL1 Version	Target Upgrade SL1 Version	
	12.1.1	12.1.2
12.1.0.2	YES	YES (See *Notes*)
12.1.1		YES (See *Notes*)
12.1.2		

Upgrading to SL1 12.2.x for AWS SaaS/PaaS

Current SL1 Version	Target Upgrade SL1 Version						
	12.2.0	12.2.1.1	12.2.1.2	12.2.3	12.2.4.1	12.2.5	12.2.6
12.1.0.2	NOT ADVISED	NO	NOT ADVISED	NOT ADVISED	NOT ADVISED	NO	NO
12.1.1	NOT ADVISED	NO	NOT ADVISED	NOT ADVISED	NOT ADVISED	NO	NO
12.1.2	NO	NO	NO	NO	NO	NO	NO
12.2.0		NO	YES	NO	NO	NO	NO
12.2.1.1			YES	YES (See *Notes*)	YES (See *Notes*)	NO	NO
12.2.1.2				YES	YES	NO	NO
12.2.3					YES	NO	NO
12.2.4.1						NO	NO
12.2.5							N/A

Upgrading to SL1 12.3.x for AWS SaaS/PaaS

Current SL1 Version	Target Upgrade SL1 Version	
	12.3.0	12.3.1
12.1.0.2	NOT ADVISED	YES

Current SL1 Version	Target Upgrade SL1 Version	
	12.3.0	12.3.1
		(See *Notes*)
12.1.1	NOT ADVISED	**YES** (See *Notes*)
12.1.2	**YES**	**YES** (See *Notes*)
12.2.0	NO	NO
12.2.1.1	**YES** (See *Notes*)	**YES** (See *Notes*)
12.2.1.2	**YES** (See *Notes*)	**YES** (See *Notes*)
12.2.3	**YES** (See *Notes*)	**YES** (See *Notes*)
12.2.4.1	NO	**YES** (See *Notes*)
12.2.5	N/A	N/A
12.2.6	N/A	N/A
12.3.0		**YES**
12.3.1		

Notes:

1. From 12.1.0.2 or 12.1.1, you can upgrade to the 12.3.x release line, but you *must* first upgrade to 12.1.2 to consume the data pull enhancement in that release, convert all of your SL1 appliances to Oracle Linux 8 (OL8) if you have not already done so, and convert to Aurora 3 before you upgrade further. In this scenario, ScienceLogic strongly recommends upgrading to 12.3.1 to avoid a known technical issue that impacts the 12.1.2 to 12.3.0 upgrade path.

2. From 12.1.0.2 or 12.1.1, ScienceLogic does not recommend upgrading to the 12.2.x line due to OL8 and the Aurora 2 End of Life (EOL) milestone. If you do so, all of your SL1 appliances must already be running on OL8 and you *must* upgrade to 12.2.1.2 to consume the data pull enhancement in that release before you upgrade further.

3. After upgrading to 12.1.2, you *must* convert to Aurora 3.

4. From 12.1.2, you cannot upgrade to the 12.2.x line due its lack of support for Aurora 3. 12.1.2 customers who have converted to OL8 and Aurora 3 can directly upgrade to the 12.3.x line. In this scenario, ScienceLogic strongly recommends upgrading to 12.3.1 to avoid a known technical issue that impacts the 12.1.2 to 12.3.0 upgrade path.

5. 12.2.x Aurora 2 customers can upgrade to several other 12.2.x releases.

6. From 12.2.0 or 12.2.1.1, you **must** upgrade to 12.2.1.2 to consume the data pull enhancement in that release before you upgrade further.

7. SaaS customers cannot upgrade to 12.2.5 or 12.2.6, as those two releases are for on-premises deployments only.

8. To upgrade to 12.3.0 or later, you must first convert to Aurora 3. 12.3.x is fully supported with Aurora 3.

MUD/STIG Upgrade Differences Matrix

With the adoption of Oracle Linux 8, the migration from MUD to STIG deployments of SL1 does not allow a standard upgrade process from 11.3 MUD to 12.2.1.1 STIG. To upgrade from 11.3 MUD to 12.2.1.1 STIG, follow the approved migration procedure covered in the ***ScienceLogic OL8 MUD Conversion Guide*** (ask your ScienceLogic contact for this manual).

All STIG upgrades after 12.2.1.1 utilize the standard SL1 upgrade procedure.

Current SL1 Version	Target Upgrade SL1 Version							
	12.2.1.1 STIG	12.2.1.2 STIG	12.2.3 STIG	12.2.4.1 STIG	12.2.5 STIG	12.2.6 STIG	12.3.0 STIG	12.3.1 STIG
11.3.x MUD	YES	NO	NO	NO	NO	NO	NO	NO
12.2.1.1 STIG		YES (See *Notes*)	NO	YES (See *Notes*)	YES (See *Notes*)	YES (See *Notes*)	YES (See *Notes*)	YES (See *Notes*)
12.2.1.2 STIG			NO	YES	YES (See *Notes*)	YES (See *Notes*)	YES	YES
12.2.3 STIG				N/A	N/A	N/A	N/A	N/A
12.2.4.1 STIG					YES (See *Notes*)	YES (See *Notes*)	NO	YES
12.2.5 STIG						YES (See *Notes*)	NO	YES
12.2.6 STIG							NO	NO
12.3.0 STIG								YES
12.3.1 STIG								

Notes:

1. SL1 11.3.x, 12.1.x, and 12.2.0 do not support STIG.

2. 11.3 MUD customers should follow the 11.3 MUD conversion to 12.2.1.1 STIG re-ISO migration path. Once you are on 12.2.1.1 STIG, you can upgrade to later STIG releases.

3. From 12.2.1.1 STIG, you *must* upgrade to 12.2.1.2 STIG to consume the data pull enhancement in that release before you upgrade further.

4. When upgrading from 12.2.1.1 STIG to 12.2.1.2 STIG, you should import the patch file using the **System Updates** page (System > Tools > Updates) in the user interface; you should not import the patch file via the command line due to a known issue.

5. SL1 12.2.3 does not support STIG deployments.

6. Only on-premises STIG customers can upgrade to 12.2.5 STIG and 12.2.6 STIG; SaaS deployments are not supported on those releases.

7. You cannot upgrade to 12.3.0 from 12.2.4.1, 12.2.5, or 12.2.6 due to release timing.

8. You cannot upgrade to 12.3.1 from 12.2.6 due to a known technical issue impacting that upgrade path.

9. 12.3.x STIG deployments can upgrade to future STIG releases.

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