



StorSimple Software Patch Release Notes

Version 2.1.1 (build 2.1.1.386-B28)

August 28, 2013

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Welcome

Thank you for purchasing StorSimple's cloud storage solution. This document provides release notes identifying open issues with the software version 2.1.1 (build 2.1.1.386-B28) installed on your 5000-7000 series appliance.

New Features and Enhancements in Version 2.1.1

This version 2.1.1 (build 2.1.1.386-B28) includes -

- Support for Windows Server 2012 Thin Provisioning (UNMAP) and Offloaded Data Transfers (ODX).
- An alert is raised when the system identifies that active workloads are generating higher volume data or churn than recommended which may result in reduced performance.
- An alert is raised when a backup job fails to complete.
- Added option to enable or disable SSL usage in Cloud Credentials configuration.
- Increased write throughput to cloud.
- Enhanced storage account validation with detailed results to ensure correct configuration.

⚠️ Note: *The upgrade from v2.0.1 to this version of software is only supported if you are running 2.0.2.88. To upgrade to this version of software, the users will need to upgrade to 2.0.2.88 first and then upgrade to 2.1.1.386-B28.*

Issues Resolved in Version 2.1.1

The following table contains issues that have been addressed in this software version (2.1.1.386-B28).

ID	Description
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CSC-4316, CSC-4276	Controller restart due to panic.
CSC-4314	Upgrade: Failure when from 2.0.1 → 2.1.1.
CSC-4283	Setup Wizard summary screen shows netmask and gateway columns as swapped.
CSC-4279	<p>In some instances, imported DPC runs can cause an Oops error in the Web UI. The error occurs when accessing the Backup page.</p> <p>Fix note: The fix is preventing future occurrences of this issue. If you have already encountered this issue prior to the fix, contact technical support for resolution.</p>
CSC-4268	Firmware upgrade loop due to battery maintenance in progress.
CSC-4267	Web UI: LDAP configuration does not persist across failover.
CSC-4264	USB-to-serial dongle support for Windows 8.
CSC-4260	StorSimple appliance went offline due to a GEM crash.
CSC-4259	Handling of EBOD mismatch on 7520.
CSC-4258	Web server security configuration.
CSC-4251	Web UI: Azure Storage account name needs to be entered in lower case only format.
CSC-4247	Web UI: Update Technical Assistance page.
CSC-4243	Upgrade: Last Cloud snapshot requirement of 24 hours is too restrictive.
CSC-4240	Web UI: Editing of host name for private clouds is disabled.
CSC-4238	Web UI: Creating a monthly policy to run on a specific date results in an error.
CSC-4237	Web UI: Invalid name error following a credentials import.
CSC-4211	Web UI: Unclear error message when cloud configuration save fails due to bad proxy configuration.

CSC-3953	Following a restore/configuration import operation and a 2.0.1 → 2.1.1 software upgrade, the 'Enable Monitoring' checkbox for Cloud Configuration and Volumes may be unchecked.
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Known Limitations for Version 2.1.1

The known limitations for StorSimple software version 2.1.1 (2.1.1.386-B28) are tabulated below. The limitations reported in this version of software are marked with an *. All the other limitations have carried over from previous releases.

ID	Summary	Comments and/or Workarounds
CSC-4236*	Software or firmware upgrades will fail for the 5020/7020 models if all the 100 GB SSD drives have been replaced with 200 GB drives.	Please contact customer support if an upgrade needs to be performed in such a configuration. The support personnel will take specific steps to overcome the known limitation and enable the upgrade.
CSC-4304*	Using quick format to re-format a large volume on Windows Server 2012 may take a long time.	On Windows Server 2012, the thin-provisioning feature is enabled when using a StorSimple iSCSI volume. It is recommended that you delete a thin-provisioned volume and create a new volume instead of reformatting. If you still prefer to reformat a volume, apply the following command prior to the reformat to avoid space reclamation delays: <pre>fsutil behavior set disabledeletenotify 1</pre> Once the formatting is complete, apply the following command to re-enable space reclamation: <pre>fsutil behavior set disabledeletenotify 0</pre>
CSC-4301*	If the internal platform firmware engine is rebooted, the system software may sporadically lose access to vital information about the health of each hardware component.	In such a scenario, the hardware page would not be able to display correctly the status of all the hardware elements. To avoid this issue, please force a reboot of the active controller which would automatically trigger a failover in the system.

CSC-4255*, CSC-4231*	UI errors with Internet Explorer versions older than 8.	Internet Explorer version 8, 9 or 10 are supported with the StorSimple web UI. Please make sure to install the latest update available for the version of choice.
CSC-4233*	CHAP initiator secret length must not exceed 255 characters, even though Web UI allows 256 characters.	
CSC-3973	A Google cloud account restore during configuration import may lead to "Forbidden Access" to the cloud.	This is a known Google limitation on the number of different devices that can use the same Google credentials and authentication tokens. If possible, avoid performing multiple imports of the same Google account. You can also contact StorSimple support for alternative solution to address this known limitation.
CSC-3899	SCSI ABORT may occur with Round Robin multipath policy set on Centos host. iSCSI sessions might get disconnected/connected resulting in high host I/O latencies.	There is no known workaround for this issue at this time.
CSC-3672	When the fingerprint type is altered for a custom type volume, the write and read performance can be impacted.	The performance can be reduced because the data may need to be de-duplicated again based on the different type; such operation requires additional CPU cycles as well as extra reads and writes from storage. Once the entire volume content is fully rewritten, the write and read throughput will stabilize to the optimal value again.
CSC-3563	Printing reports in portrait orientation may overflow and not print correctly.	Printing of reports is supported in only Landscape orientation.
CSC-3390	When the appliance is powered off and quickly powered on, some drives show up as missing.	This issue has been observed very sporadically when forcing a quick power off/on through a managed APC that would cut the power to the appliance for less than 1 second. As a work-around, please ensure that the power is applied again a few seconds after the power-off

		(what is usually called a "delayed power-on" in a managed APC).
CSC-3253	In rare instances, on resetting the active controller, the Host I/Os may get aborted.	In some high load scenarios, host I/Os are aborted because the appliance takes more than 20 seconds before completing the operation. The issue subsides after the load reduces. As a workaround, a reduction in host load, and/or a failover of the controller is recommended.
CSC- 3217, CSC-2335	Printer-friendly version of reports does not work in IE9 and Firefox.	Use the browser print option for printing out reports.
CSC-3196	A canceled Cloud Clone or Cloud Snapshot restore/clone job may resume after a controller failover.	If the user cancels the restore/clone job, and then triggers a controller fail-over or the system fails over automatically for some other reason, then a canceled job will resume unless the cancel action has been completely processed by the system. To work-around this issue, the user needs to cancel the job again and ensure no more fail-overs are triggered until the cancel action has been fully processed by the system.
CSC-3169	A different state may be displayed on the serial console when the system is in recovery mode.	Only one controller may display the management console screen, with the state shown as "OFFLINE".
CSC-3154	If one of the Web UI charts is kept open in Auto-refresh mode, the refresh may stop after some time.	Normally this issue can be overcome by opening a new browser session and select the same chart display page again with Auto-refresh mode. If the Web application fails to open, i.e. the login page does not come up; the issue can be worked around by forcing an active controller reboot.
CSC-2896	Rate limiting enforces the lowest limit value configured across cloud configurations.	When multiple cloud configurations are setup and rate limiting is enabled in more than one, the overall throughput towards the cloud will converge over time to the smallest rate limiting value configured (as opposed to the sum of the configured rates).
CS-2593	An existing iSCSI session remains active even after disabling the iSCSI checkbox in the UI.	The "iSCSI Enabled" setting is effective only after a controller reboot/failover. The existing sessions are

		<p>not altered, therefore:</p> <ul style="list-style-type: none"> Existing iSCSI sessions from hosts remain active after disabling the checkbox New iSCSI sessions to a target are successful using the IP address of the interface which is unmarked as "iSCSI Enabled" <p>In order to overcome this issue, please reboot the active controller. The automatic failover will ensure that the desired configuration is applied correctly from that point onwards.</p>
CSC-2573	Active Directory domain user is able to login with old password after the password is changed in the domain.	<p>This is due to the old password being cached by the Domain Controller server that has been configured. This password remains available when authentication occurs. Since the StorSimple application cannot force a flush of the old passwords, please connect to the Domain Controller server and perform the necessary flush operation.</p>
CSC-1538	In the Hardware Page the standby controller appears in a different state when it has been shut down or pulled out.	There are no negative side effects on the system behavior.

Known Issues for Version 2.1.1

The known issues for StorSimple software version 2.1.1 (2.1.1.386-B28) are tabulated below. The issues reported in this version of software are marked with an *. All the other issues have carried over from previous releases.

ID	Summary	Comments and/or Workarounds
CSC-4344*	"Use SSL" checkbox in cloud credentials dialog is unchecked by default for all cloud service providers, resulting in cloud communications over HTTP if the user doesn't check it before saving the configuration. This	It is recommended that SSL is enabled to ensure validation of cloud service authenticity. A valid SSL server certificate is required to be installed on the cloud service side to establish SSL communication.

	is a change in behavior compared to prior versions.	
CSC-4336*	A valid backup policy schedule cannot be saved in 'Create Scheduled Policy' dialog, following a failed save attempt of an invalid schedule.	Close the 'Create Scheduled Policy' dialog and reopen to create a valid schedule.
CSC-4335*	The web UI displays an Oops! error when a 31 or 32-character long encryption key is entered in the corresponding field in Cloud Configuration.	When a 31 or 32-character key is to be configured, either type or copy/paste the key string without pressing the Enter key at the end.
CSC-4302*	When configuring a monthly backup policy with an invalid day for the selected month, an Oops error is presented.	Select a valid day for the month.
CSC-4248*	When performing a backup registry restore on other appliance, while original appliance is still active, any backup deleted on the original appliance will continue to appear on the second appliance until it is either manually deleted or expired per configured schedule. An attempt to restore from a backup run that appears in the catalog but has been deleted on the original appliance will result in an error notice and the operation will not proceed.	Manually delete the invalid backup on the second appliance or let it expire if expiration date is configured.
CSC-4159, CSC-4154	The Web UI may briefly display an Object Reference Error or a Server Error.	In rare circumstances, the Web UI becomes inaccessible and displays the error mentioned. The Web UI only remains in this state for a brief period of time and it will become accessible again after a refresh of the page.
CSC-4114	Migration Upgrade: Stage 3 of 8: 'Converting data to new format' shows percentage complete above 100%.	This can happen if new volumes are created during stage 3 of upgrade. This is not a severe issue and no user action is required. The upgrade will progress once the new volumes have been properly handled.
CSC-4107	Login to the UI home page may get stuck indefinitely following a fail-over.	This can happen if a fail-over occurs in an appliance with no gateway configured for cloud access. A possible work-around, if acceptable in the

		customer network topology, is to configure the gateway for the MGMT interface using the console connection. Once the UI is accessible again, please re-configure the network interface settings with the appropriate gateway details.
CSC-4033	Web UI is not reachable after 2.0.1 to 2.1.1 upgrade.	Please contact Customer Support. The workaround is to restart the management service from serial console access.
CSC-4013	The Web UI should not allow preferred LUN settings greater than 255 for a volume.	Avoid setting preferred LUN of a volume to a value greater than 255. Preferred LUN of a volume should be within 0-255 range.
CSC-4007	The web UI may not be accessible for few minutes during the upgrade from 2.0.3 to 2.1.1.	During the upgrade from version 2.0.3 to version 2.1.1, the Web UI may display the error message "Operation completed with status = CSA_STATUS_SERVER_API_DISABLED" for a few minutes during a specific phase of the upgrade. Please try to access the UI after a couple of minutes and the monitoring of the upgrade progress should be available again.
CSC-4001	When a volume is deleted without removing it from a volume group, further backups on the VG for remaining volumes will fail with "One or more of the source volumes unavailable (Backupexception)".	Edit the volume group and save it again without making any changes. Any further backups will now succeed.
CSC-3996	Deletion of a volume during upgrade can cause the upgrade to fail.	This failure does not impact the Host/Application I/Os. The upgrade operation can be retried but the volume deletion operation should be avoided until the upgrade process is complete.
CSC-3994	After a successful pre-validation on the Software Upgrade screen, the Start Upgrade button may not be accessible.	As a work-around, please retry the operation after waiting for an hour. If the issue still persists, restart the active controller and then start the upgrade process again.
CSC-3726	The 5000-7000 series appliance controller may reboot under heavy load.	Under very rare circumstances, the controller may become very slow or unresponsive. When the system detects such a situation, a reboot of the active

		controller is automatically triggered and a failover to the standby controller occurs. The system then continues to operate normally without any host disruption. If this doesn't occur, please contact StorSimple support to restore the system to a fully functional state.
CSC-3525	Upload of the upgrade package for version 2.0.3 may stop abruptly.	This is generally seen when the upload reaches 35-40%, in particular when the system is operating under heavy load. This issue is addressed in build 2.0.2.88, therefore it is recommended to perform a patch upgrade to build 2.0.2.88 first and then again upgrade to version 2.0.3.
CSC-3514	The cloud properties popup may not close properly when clicking on the X button on the top right hand corner.	As a work-around, please refresh the whole page and reopen the pop up again.
CSC-3494	Invalid cloud configuration/credential settings may lead to the entire system becoming very slow connecting to the cloud for valid accounts.	Please contact StorSimple support to help resolve the problem and bring the system back to its full functionality.
CSC-3238	Using invalid credentials for Web Proxy settings may result in a controller failover.	If invalid credentials have been input in the Web Proxy Settings in Web UI, the active node will reboot and there will be a cluster failover. Ensure that valid credentials are applied for the Web Proxy settings.
CSC- 3224	In Firefox 3, while configuring QoS templates, the Save/View Timeline buttons may get disabled.	This issue can be observed only in some specific sequences of operations involving deleting and creating multiple QoS templates. The issue can be overcome by refreshing the browser page and then attempting the configuration of the QoS template again.
CSC- 3222	In RDP sessions Web UI popups cannot be closed by clicking on the x in the top right corner for the first time.	Click on the red icon again to close the popup.
CSC- 3211	The Web UI displays the error "Server Error: '~/Telerik.Web.UI.WebResource.axd' is missing in web.config. RadScriptManager	There is a rare known issue in which the Web UI becomes inaccessible and displays the error mentioned. The Web UI only remains in this state for

	requires a <code>HttpHandler</code> registration in <code>web.config</code> ."	a brief period of time and will become accessible again within one minute. No user intervention is required.
CSC-3198	Web UI may render incorrectly on a restarted appliance.	Accessing the Web UI on a new browser window will resolve the issue.
CSC-3180	Under rare circumstances a disk failure may cause the system to go offline.	There are some corner case scenarios that may occur with a high stress read workload. When the StorSimple software detects a failure in a drive from which it cannot quickly and easily recover from, it intentionally brings down the system in order to protect the data integrity. Should such an event occur, please contact StorSimple support to address the issue and restore its full functionality.
CSC-3042, CSC-3067	The appliance controller reboots when an I/O to the internal disks takes an abnormally long time to complete.	Under extremely rare circumstances, an I/O to a drive (SSD or HDD) may take an abnormally long time. The StorSimple software detects such an incomplete operation and forces a controller fail over to ensure that the system can continue serving I/Os without causing application timeouts.
CSC-2719	Rebooting the controller from the shell results in a "500 Internal Server Error" in the Web UI.	This issue is caused by a rare race condition when web requests coincide with the web service starting up. The problem can be worked around by forcing an additional controller reboot.
CSC-2300	When a configuration restore/import fails, the same cloud account may be configured multiple times.	Upon configuration restore or import failures, in few rare circumstances some portions of the configuration are restored/imported. In case the restore or import operation is repeated again, the same cloud account might be configured multiple times. In order to work around this issue, please check the configuration after the failure and delete any partially imported information, especially the cloud account portion.
CSC-1549	Multiple failovers performed under heavy load may result in loss of iSCSI connection between the host and the appliance.	Under heavy I/O, if there are failovers performed there is possibility of active controller reboot. This may result in loss of iSCSI connection between

		initiator and target. In order to restore the proper connectivity, reboot the appliance.
CSC-1334	Under stress testing of the system failover, the host may lose access to the appliance volumes.	When performing stress testing of the system failover, inducing continuous failures (artificially), a Windows host may lose access to the volumes. In order to restore the volume access, please force an iSCSI rediscovery of the target or power cycle the host.
CSC-867	Microsoft iSCSI initiator doesn't support LUN ID 255.	Use a LUN ID of 0 to 254.

Contacting Technical Support

Should you encounter any issues with your StorSimple Storage Appliance, please do not hesitate to contact Technical Support at:

- Telephone: 1-800-642-7676
- Web: <http://support.microsoft.com/gp/storsimple>

In the page presented, click on the plus icon to expand the 'Get Technical Support' node. In the expanded pane, click on 'Get Microsoft Technical Support'.