

zadara

zStorage Release Notes

Release 22.06-SP1

Zadara

Mar 15, 2023

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This page documents product updates to Zadara Storage Cloud.

These release notes contain important information available at the time of the release. New or updated features, important bug fixes, known limitations and deprecated functionality.

ENHANCEMENTS CHANGELOG REVISION HISTORY KNOWN ISSUES If you
have any question regarding the latest Zadara software version, please contact [Zadara Support](#) and one of our team members will reach out.

KEY ENHANCEMENTS

1.1 VPSA Flash Array

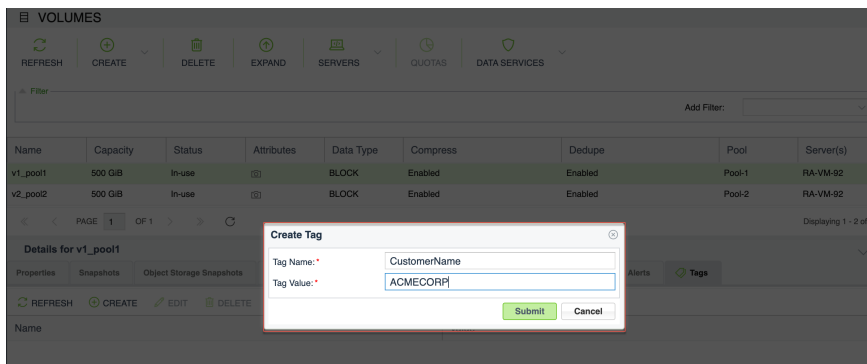
zStorage 22.06 release includes significant performance enhancements for Zadara's VPSA Flash Array in either single tier or multi-tier configurations. Customers can expect decreased write latency, improved defragger rate limits, reduced CPU footprint on writes and more.

1.2 VPSA Storage Array and Flash Array

1.2.1 VPSA Resources Tagging

(ZSTRG-2793)

Resource tagging is a simple yet powerful way to help storage professionals to manage their storage resources. VPSA users can now add custom tags to their VPSA entities (such as pools, volumes) using a simple key-value convention.



1.2.2 VPSA Password policy configuration

(ZSTRG-11603)

VPSA Administrator can now control the complexity of the VPSA users directly from the management interface.

1.3 Deprecation Notice

As of release version 22.06, the integrated McAfee Antivirus is no longer available.

CHANGELOG

Release 22.06-SP1 is a service pack release which includes scalability, security, usability improvements, new features and bug fixes.

The following section will breakdown the **main** additions and updates to the Zadara Storage Cloud platform on top of the previous 22.06 major version.

2.1 Version 22.06-SP1-218

2.1.1 VPSA Flash Array

- **ZSTRG-24416** - Fixed a rare issue where large IO sent by the initiator may lead to a VC crash
- **ZSTRG-24186** - Fixed an issue where a reference to a segment on a device which was removed, may lead to a VC crash

2.1.2 VPSA Storage Array

- **ZSTRG-24605,ZSTRG-24606** - Fixed an issue introduced in 22.06 in the SCST package that may impact VPSAs performance

2.1.3 VPSA Object Storage

- **ZSTRG-24605,ZSTRG-24606** - Fixed an issue introduced in 22.06 in the SCST package that may impact VPSA Object Storage performance
- **ZSTRG-24294** - Fixed an issue where container replication job is stuck in “creating” status
- **ZSTRG-24239** - Fixed an issue where container Life-Cycle policy was not working properly
- **ZSTRG-24022** - Updated the default TLS certificate (zadarazios.com domain)
- **ZSTRG-24321, ZSTRG-22671** - Adjusted re-balancing concurrency levels

2.1.4 Storage Node

- **ZSTRG-24605,ZSTRG-24606** - Fixed an issue introduced in 22.06 in the SCST package that may impact VPSAs performance.

2.2 Version 22.06-SP1-211

2.2.1 VPSA Storage-Array

- **ZSTRG-24123** - Fixed an issue where a block volume creation was rejected due to the RG count in the underlying pool

2.2.2 VPSA Object Storage

- **ZSTRG-24085** - Fixed a regression in 22.06-SP1-203 where new external authentication configuration is still using the internal authentication endpoint
- **ZSTRG-24150** - Fixed a regression in 22.06-SP1-203 where external SSL termination was not working as expected for Public IP endpoint

2.3 Version 22.06-SP1-203

2.3.1 VPSA Flash-Array

zStorage 22.06 release includes significant performance enhancements for Zadara's VPSA Flash Array in either single tier or multi-tier configurations. Customers can expect decreased write latency, improved defragger rate limits, reduced CPU footprint on writes and more.

zStorage 22.06-SP1 release includes additional enhancements improving IO path efficiency and performance.

(**ZSTRG-20431, ZSTRG-20432, ZSTRG-21251, ZSTRG-21054, ZSTRG-20653, ZSTRG-20577**)

2.3.2 VPSA Storage Array

- **ZSTRG-22870** - Fixed a performance presentation issue (regression in 22.06)
- **ZSTRG-22984** - ZCS (Zadara Container Service) Added support for Docker Hub v2 API
- **ZSTRG-22985** - Fixed an issue where container logs (ZCS) timed out
- **ZSTRG-22643** - Improved Active Directory connectivity issues handling
- **ZSTRG-21374** - Fixed an issue where a project quota cannot be assigned to a folder that contains a white space
- **ZSTRG-19520** - Allow the VPSA administrator to enable/disable iSCSI connectivity over Public IP (via VPSA security settings)
- **ZSTRG-15027** - Added protection for ESX servers to avoid discovery/connectivity issues where LUN ID 0 is not used
- **ZSTRG-23010** - Fixed an issue where the auto-connection script couldn't detect the correct network interface for a Linux server
- **ZSTRG-22283** - Fixed an issue with the VPSA RestAPI where VSS provider snapshot operation would fail

2.3.3 VPSA Object Storage

- **ZSTRG-21214** - Added enhancements to the policy's rebalancing mechanism
- **ZSTRG-22610** - Fixed an issue where creating an all-capital letters account name failed
- **ZSTRG-22184** - Fixed an issue where quota notification did not include the usage value
- **ZSTRG-20711** - Fixed an issue where the console did not present the latest retention date for containers with object-lock enabled
- **ZSTRG-22151** - Added IPv6 for container level replication
- **ZSTRG-20322** - Added the "secure" cookie attribute for TLS connection
- **ZSTRG-22305** - Fixed an issue where custom branding can be reset due to an upgrade

2.3.4 Command Center

- **ZSTRG-22562** - Adjust the IP address listing for a specific Virtual Network

2.3.5 Provisioning Portal

- **ZSTRG-22682** - Fixed an issue where branding customizations are lost due to a service restart

2.3.6 Security

- | | | | |
|------------------|------------------|------------------|------------------|
| • CVE-2018-16877 | • CVE-2021-43618 | • CVE-2022-42916 | • CVE-2022-41974 |
| • CVE-2018-16878 | • CVE-2022-3116 | • CVE-2022-35737 | • CVE-2022-41742 |
| • CVE-2019-3885 | • CVE-2022-39260 | • CVE-2022-34526 | |
| • CVE-2022-22817 | • CVE-2022-3515 | • CVE-2022-44638 | |
| • CVE-2020-25687 | • CVE-2020-16156 | • CVE-2022-43680 | |

2.4 Interoperability

- **ZSTRG-23180** - CSI Driver v2.2.0 - minor version release focused primarily on security patches. The full CSI Driver changelog can be found in Zadara's CSI driver [Github repository](#). The CSI driver is not part of the 22.06-SP1 release and can be used with VPSAs running version 20.12 or later.

CHAPTER

THREE

KNOWN ISSUES AND LIMITATIONS

3.1 VPSA Storage Array and Flash-Array

- **ZSTRG-20381, 22.06-86** - SMB: domain admin attempt to take ownership on a folder owned by another user fails in case inheritance is disabled

CHAPTER

FOUR

REVISION HISTORY

- 22.06-SP1-218, March 2023
- 22.06-SP1-211, January 2023
- 22.06-SP1-203, December 2022 (GA)

RELEASE 22.06

The following section will breakdown the **main** additions and updates to the Zadara Storage Cloud platform on top of the previous 21.07 major version.

5.1 Version 22.06-104

5.1.1 VPSA Flash Array

- **ZSTRG-22419** - Fixed an issue where VPSA may crash due to extremely high stat devices count.
- **ZSTRG-22306** - Fixed an issue where Virtual Capacity present negative value.
- **ZSTRG-22299** - Fixed a rare issue where VPSA failed over due to a false-positive allocation protection mechanism.

5.2 Version 22.06-99

5.2.1 VPSA Storage Array and VPSA Flash Array

- **ZSTRG-21778** - Fixed an issue that can cause invalid presentation of block volumes data copies capacity, following a process of storage level volume migration between storage pools

5.2.2 VPSA Object Storage

- **ZSTRG-21658** - Add the option to discover a remote Object Storage endpoint using the Cloud Outnet network
- **ZSTRG-20612** - Modified default TTL for an API token to 15 days (from 1 day)
- **ZSTRG-21958** - Optimized authentication flow to reduce latency for initial authentication

5.3 Version 22.06-90

5.3.1 VPSA Storage Array

- **ZSTRG-21717** - Fix an issue where paused volume migration job could move to failed state post resume

5.3.2 VPSA Object Storage

- **ZSTRG-20777** - Fixed an issue where pending DB sharding request can impact PUT performance
- **ZSTRG-21646** - Fix an issue where container replication discovery via cloud outnet network interface fails

5.4 Version 22.06-89

5.4.1 Command Center

- **ZSTRG-21553** - Fixed an issue where Command Center timezone configuration was ignoring the cloud configuration

5.5 Version 22.06-86

5.5.1 VPSA Storage Array

- **ZSTRG-20667** - Fix an issue where iSCSI initiator name containing non-ascii characters may cause a VC failover
- **ZSTRG-20005** - Fixed an issue where Project quota cannot be deleted
- **ZSTRG-19644** - Starting of VPSA version 22.06 the integrated McAfee Antivirus is no longer available
- **ZSTRG-19188** - Added NFS4 session metrics in the VPSA metering graphs
- **ZSTRG-17714** - Added IOwait metrics to the VPSA Controllers (performance view)
- **ZSTRG-19012** - Fixed an issue where errors reported for a non-existing volume
- **ZSTRG-17837** - Change the user facing message when detaching a block volume that uses LUN ID 0
- **ZSTRG-17182** - Flash Array performance optimization
- **ZSTRG-17654** - Upgrade Samba SMB service
- **ZSTRG-15328** - Add the option to choose between asynchronous & synchronous for newly created NAS volumes (global/per volume configuration)
- **ZSTRG-2793** - Added support for volumes/pool custom user tagging

5.5.2 VPSA Object Storage

- **ZSTRG-21089** - Fixed an issue where user couldn't login immediately after account creation
- **ZSTRG-21052** - S3API: fixed an issue for retention time format response upon an update
- **ZSTRG-21039** - S3API: fixed an issue with AWSv4 signatures when using special characters in the object name.
- **ZSTRG-20988** - S3API - Fixed an issue with prefix/delimiter/marker quoting
- **ZSTRG-21017** - Improved Container Replication bandwidth utilization
- **ZSTRG-20968** - Fixed an issue for member user role permissions after upgrading from 21.07 Object Storage.
- **ZSTRG-20850** - Added support for dynamic multi-chunk upload size to the Container Replication data mover.
- **ZSTRG-20828** - Fixed an issue where deleting a document using IBM Filenet returned 500 error.
- **ZSTRG-20612** - Improved API token generation
- **ZSTRG-20475** - Fixed a high latency issue observed due to an internal worker memory footprint
- **ZSTRG-20151** - Fix an issue where applying custom TLS certificate failed
- **ZSTRG-14923** - Fix an issue where the percentage of the policy balance was presenting wrong value

5.5.3 Security

- **ZSTRG-21346,ZSTRG-21322,ZSTRG-21340** - Hardening of the Provisioning Portal and Command Center web applications.
- **ZSTRG-21386,ZSTRG-18648** - Upgraded cross-cloud components to mitigate the following CVEs (among with lower severity CVEs that were excluded from the list)

- | | | | |
|------------------|------------------|------------------|------------------|
| • CVE-2018-25032 | • CVE-2021-3177 | • CVE-2022-0891 | • CVE-2022-28658 |
| • CVE-2019-13050 | • CVE-2021-31873 | • CVE-2022-1271 | • CVE-2022-29155 |
| • CVE-2019-9923 | • CVE-2021-3246 | • CVE-2022-1304 | • CVE-2022-29404 |
| • CVE-2020-25648 | • CVE-2021-33657 | • CVE-2022-1552 | • CVE-2022-29800 |
| • CVE-2020-28196 | • CVE-2021-3520 | • CVE-2022-1664 | • CVE-2022-29824 |
| • CVE-2020-36332 | • CVE-2021-3737 | • CVE-2022-25310 | • CVE-2022-29869 |
| • CVE-2021-20288 | • CVE-2021-38185 | • CVE-2022-26377 | • CVE-2022-30522 |
| • CVE-2021-20305 | • CVE-2021-40153 | • CVE-2022-27776 | • CVE-2022-30556 |
| • CVE-2021-22947 | • CVE-2021-4034 | • CVE-2022-28330 | • CVE-2022-30789 |
| • CVE-2021-25217 | • CVE-2021-40528 | • CVE-2022-28463 | • CVE-2022-31813 |
| • CVE-2021-26937 | • CVE-2021-41072 | • CVE-2022-28614 | • CVE-2022-2068 |
| • CVE-2021-31535 | • CVE-2022-0391 | • CVE-2022-28615 | |

Known issues and limitations

VPSA Storage Array and Flash-Array

- **ZSTRG-20381, 22.06-86** - SMB: domain admin attempt to take ownership on a folder owned by another user fails in case inheritance is disabled

Revision history

- 22.06-104, September 2022
- 22.06-99, August 2022
- 22.06-90, July 2022
- 22.06-89, July 2022
- 22.06-86, July 2022 (GA)

RELEASE 21.07-SP1

6.1 Key Enhancements

6.1.1 VPSA Object Storage

Object-Lock S3 API performance improvement

(ZSTRG-12992,ZSTRG-17467)

With version 21.07-SP1, Zadara improved significantly its VPSA Object Storage handling of the following S3 compatible Object-Lock APIs:

- Put-object-retention
- Multi-delete

With Object-Lock enabled use-cases(i.e Veeam's immutable backup), where the backup application requires periodical update of the objects in the backend container (bucket) with an updated "Retention Date". Updating the object's meta-data requires a single API request per object, which can result with millions of consecutive requests. The change in the way the VPSA Object Storage handle the object metadata allow the Object Storage to serve x3-x4 more requests in parallel.

New account administrator dashboard

(ZSTRG-18975)

Similar to the VPSA Object Storage administrator, a new account dashboard was introduced to provide a snapshot visibility to the account administrators. The dashboard will provide the following information:

- General VPSA Object Storage information
- Performance metering snapshot:
 - Total throughput
 - Total operations/s
 - Operation type breakdown
 - Capacity history
 - Account status (capacity, containers count, object count, users etc)

Release 21.07-SP1 is a service pack release which includes scalability, security, usability improvements, new features and bug fixes.

The following section will breakdown the **main** additions and updates to the Zadara Storage Cloud platform on top of the previous 21.07 major version.

6.2 Version 21.07-SP1-313

Build **21.07-SP1-313** primary addresses VPSA Object Storage issues related to performance at scale and IPv6 connectivity.

6.2.1 VPSA Object Storage

- **ZSTRG-23006** - Fixed an issue where remote Object Storage discovery via the cloud's Outnet network failed
- **ZSTRG-22702** - Fixed an issue where remote Object Storage connectivity using IPv6 failed
- **ZSTRG-22840, ZSTRG-22703, ZSTRG-21142** - Improvements for the VPSA management console performance for Object Storage with more than 1000 accounts
- **ZSTRG-22701, ZSTRG-21797, ZSTRG-22706** - Improved infrastructure handling for large metering database

6.3 Version 21.07-SP1-297

6.3.1 VPSA Storage Array

- **ZSTRG-20472** - Update for zadaravpsa.com TLS certificate

6.3.2 VPSA All-Flash Array

- **ZSTRG-20472** - Update for zadaravpsa.com TLS certificate
- **ZSTRG-20007** - Performance - Improving write buffer backend async IO

6.3.3 VPSA Object Storage

- **ZSTRG-20110** - Improve the performance of the authentication API response
- **ZSTRG-19964** - S3API compatibility - fix an issue where VersionID is not returned for multipart object PUT request
- **ZSTRG-20316** - Fixed an issue with replication job that fails sporadically
- **ZSTRG-20278** - Fixed an issue where disabling MFA authentication for a single user did not work as expected

6.4 Version 21.07-SP1-292

6.4.1 VPSA Storage Array

- **ZSTRG-19070** - Fixed an issue with FC NULL pointer exception may lead to a VC crash
- **ZSTRG-20061,20062** - Upgrade VC level packages to handle various security vulnerabilities
- **ZSTRG-20149** - Fixed an issue where non-rotated metering dc records may lead to a VPSA lockdown
- **ZSTRG-19185** - Adjust iSCSI configuration to avoid issue where SN times out

6.4.2 VPSA Object Storage

- **ZSTRG-20154** - Fix a display issue where rebalance percentage can exceed 100%
- **ZSTRG-20071** - Fix an issue where container(bucket) with non unicode characters cannot be deleted
- **ZSTRG-19980** - Fix an issue where where permissions are not handled correctly with multipart objects
- **ZSTRG-20061,20062** - upgrade VC level packages to handle various security vulnerabilities

6.4.3 CCVM

- **ZSTRG-20061,20062** - upgrade CCVM level packages to handle various security vulnerabilities

6.4.4 Storage Node

- **ZSTRG-17726** - Fixed an issue where support ticket creation and licensing validation might fail with IPv6 proxy configuration
- **ZSTRG-20246** - Fixed an issue with FreeIPA package

6.5 Version 21.07-SP1-280

6.5.1 VPSA Storage Array

- **ZSTRG-19295** - Fixed a display issue in the VPSA graphical interface where the dashboard was not loaded.
- **ZSTRG-19587** - Fixed an issue in which DOS attributes were not saved properly after copying files to SMB share with enabled SMB File history
- **ZSTRG-19845** - Fixed an issue in which the deletion of the SMB directory with "hide unreadable" files inside was allowed

6.5.2 VPSA Object Storage

- **19849** - Zadara's wildcard certificate for zadarazios.com domain was renewed (valid until April 2023)
- **ZSTRG-19176, ZSTRG-19807** - Fixed an issue where recursive deletion of a container (bucket) was terminated unexpectedly.
- **ZSTRG-19409** - Fixed an issue where the console did not display more than 50,000 containers (limit set to 100,000 containers)
- **ZSTRG-19876** - Fixed an issue with the dashboard presentation of the total throughput value
- **ZSTRG-19983** - Fixed an issue where delete of an object failed using Cloudberry Explorer for Openstack client
- **ZSTRG-19395** - Fixed an issue with reporting inconsistencies for source-target Object Storage with remote replication

6.5.3 Storage Node

- **ZSTRG-19514** - Fixed an issue in the underlying storage node iSER driver where NULL pointer is returned

6.5.4 Security

ZSTRG-19684 - Upgraded storage node components to mitigate the following CVEs (among with lower severity CVEs that were excluded from the list)

- CVE-2016-10228
- CVE-2019-17543
- CVE-2019-25013
- CVE-2020-27618
- CVE-2020-29562
- CVE-2020-6096
- CVE-2020-8625
- CVE-2021-22901
- CVE-2021-22926
- CVE-2021-2372
- CVE-2021-25214
- CVE-2021-25215
- CVE-2021-25216
- CVE-2021-25220
- CVE-2021-27645
- CVE-2021-3326
- CVE-2021-35604
- CVE-2021-35942
- CVE-2021-3711
- CVE-2021-3999
- CVE-2022-0396
- CVE-2022-23218
- CVE-2022-23219

6.6 Version 21.07-SP1-237

6.6.1 VPSA Storage Array

- **ZSTRG-18306** - Allow allocation of two VNIs (Virtual Network Interfaces) with a matching VLAN ID
- **ZSTRG-18138** - Fix an issue where Japanese characters couldn't be used for configuring quota for a project

6.6.2 VPSA Object Storage

- **ZSTRG-18306** - Allow allocation of two VNIs (Virtual Network Interfaces) with a matching VLAN ID
- **ZSTRG-13938** - Removed the option to add an additional data policy to an existing VPSA Object Storage
- **ZSTRG-16969** - Disable the automatic provisioning of ZELB for Premium+ Object Storage
- **ZSTRG-17385** - Disable management interface port (8080) when internal TLS termination is set
- **ZSTRG-15831** - Fix an issue where object last replication time is not updated correctly
- **ZSTRG-18262** - Fix an issue where MinIO client cloud not parse object retention date
- **ZSTRG-18122** - Fix an issue where new object replication job was blocked due to an old replication job for the same container
- **ZSTRG-17820** - Fix an issue where the color indicator for a policy in protected state was not updates
- **ZSTRG-17390** - Fix an issue where TLS1.1 was still offered as supported protocol in an existing Object Storage.
- **ZSTRG-17395** - Added support for Content-Disposition header
- **ZSTRG-15831** - Fix an issue where lifecycle policy was not executed according to the defined rule
- **ZSTRG-15224** - Fix an issue with the main dashboard operations where the breakdown display a summary of operations instead of concurrent operation

6.6.3 Command Center

- **ZSTRG-12973** - Cloud administrators can now restrict access to their Command Center and Provisioning Portal to a specific IP addresses

6.6.4 Security

ZSTRG-17818 - Upgraded cross cloud components to mitigate the following CVEs

- CVE-2018-10852
- CVE-2017-8872
- CVE-2021-3516
- CVE-2021-3537
- CVE-2021-23017
- CVE-2019-20388
- CVE-2021-3517
- CVE-2021-3518
- CVE-2021-3712
- CVE-2020-24977

6.7 Known issues and limitations

In 21.07-SP1-237 no known issues or limitations were introduced.

6.8 Revision History

- 21.07-SP1-297, May 2022
- 21.07-SP1-292, April 2022
- 21.07-SP1-280, March 2022
- 21.07-SP1-237, February 2022 (GA)

RELEASE 21.07

7.1 Key Enhancements

7.1.1 VPSA Storage Array

Volume QoS (Quality of Service)

zStorage 21.07 VPSA has been enhanced to support users specified capping for block volumes IO rate and consumed throughput. VPSA users can now specify upper limits for: read IOPS, write IOPS, read throughput and write through for every VPSA volume.

Volume QoS is supported in both VPSA Storage Arrays and VPSA Flash Arrays, QoS can be configured from volumes of all media types (SSD/HDD/Tiered) Both IOPS and Bandwidth capping definitions can be applied for the same volume. In such a case, the volume will be capped by the metric reaching the specific threshold at any point in time.

Flash Array Tiered Pools - optimized operations

Zadara is introducing an enhancement to the VPSA Flash array tiered pools feature that will optimize tiered pool operations in general purpose and OLTP use cases. The tiered pool chunk promotion behavior has been enhanced to reduce chunk promotion and demotion traffic in cases of random IO workloads by now taking into consideration the relative heat of specific chunks to be promoted in addition to overall pool capacity considerations.

7.1.2 VPSA Object Storage

Quota limit notifications

VPSA Object Storage administrators can now set quota utilization notifications for their accounts administrator based on a pre-defined custom threshold (system wide).

Rate limiting control

VPSA Object Storage administrators can now set rate limiting control on account basis using a global/account level threshold.

The following section will breakdown the **main** additions and updates to the Zadara Storage Cloud platform.

7.2 Version 21.07-222

7.2.1 VPSA Storage Array

- **ZSTRG-18674** - Fix an issue with tiering periodic promotion.
- **ZSTRG-18463** - Fix an issue where the VPSA IQN was presented truncated in the Virtual Controller properties view.

7.3 Version 21.07-195

7.3.1 VPSA Storage Array

- **ZSTRG-18139** - VPSA can now support up to 64 unique Virtual Network Interfaces (VNI). Additional VNI support is bounded to the VPSA engine size:
 - Engine 200 - up to 8 VNIs
 - Engine 400 - up to 16 VNIs
 - Engine 600 - up to 32 VNIs
 - Engine 800 and higher - 64 VNIs
 - Flash Array H100-H400 - 64 VNIs
- **ZSTRG-18170** - Flash Array, increase Optane size allocation for all pool types.
- **ZSTRG-15673** - Allow VNI based remote mirroring on different networks. Limitation: Mirror replication over VNIs with different CIDR is applicable only if single VNI is attached to VPSA
- **ZSTRG-18049** - Fix an issue where the management console will not start post a failover
- **ZSTRG-18055** - Fix an issue in which the extended cache expansion operation may not complete as expected.

7.3.2 Storage Node

- **ZSTRG-14067, ZSTRG-7855** - Add MegaRAID 3916 support

7.3.3 Command Center

- **ZSTRG-18369** - TLS certificate for the zadarastorage.com domain was updated.

7.4 Version 21.07-176

7.4.1 VPSA Storage Array

- **ZSTRG-17819, ZSTRG-17802** - Flash array - added **internal** debugging tools

7.4.2 CCVM

- **ZSTRG-17924** - Fix an issue where collecting hourly CCVM configuration dump did not complete as expected

7.5 Version 21.07-174

7.5.1 VPSA Storage Array

- **ZSTRG-14938** - Improve tiering algorithm for general purpose VPSAs
- **ZSTRG-14171** - VPSA Block Volume capping
- **ZSTRG-7807** - Flash Array - Add volume metering of IOs size distribution
- **ZSTRG-10630** - TCPDump was added as a networking diagnostic tool
- **ZSTRG-12900** - Force Recover option was removed from the VPSA management interface
- **ZSTRG-14392** - Improve Virtual Controller failover time
- **ZSTRG-13703** - File access log can be enabled from “Audit Log” menu context
- **ZSTRG-11577** - VPSA IQN and netbios name are now globally unique
- **ZSTRG-12237** - Added a comprehensive volume filtering (VPSA management interface)
- **ZSTRG-13944** - Adjust dashboard’s capacity history chart according to the VPSA creation date

7.5.2 VPSA Object Storage

- **ZSTRG-14438** - Added a support for asynchronous container deletion
- **ZSTRG-12910** - Added policy metering information for multi-delete operations
- **ZSTRG-11414** - Added connections count metering information
- **ZSTRG-10285** - Added the option to switch timezone in the VPSA Object Storage management interface
- **ZSTRG-14251** - Branding - custom logo can be set directly from the VPSA Object Storage management interface
- **ZSTRG-14466** - container replication wizard can now list remote buckets
- **ZSTRG-15668** - Usage report - fix an issue with the account drop down selection menu
- **ZSTRG-15165** - **SECURITY** Fixed an issue where management interface session termination failed
- **ZSTRG-15165** - **SECURITY** anti-automation mechanism was added

- **ZSTRG-13916 - SECURITY** upgrade Apache server to latest version

7.5.3 Storage Node

- **ZSTRG-13576** - Add periodic check for DNS server validity
- **ZSTRG-17749** - Added support to customize cloud's MTU field for internal cloud networks. Supported for new cloud installations only.

7.5.4 Command Center

- **ZSTRG-12523** - Allow SMTP TLS port customization
- **ZSTRG-14079** - VPSA usage report can be submitted to a custom endpoint
- **ZSTRG-14487 - SECURITY** - harden user uploads wizard to detect unsupported filetypes
- **ZSTRG-14486 - SECURITY** - protect against redirection phishing attack
- **ZSTRG-14485 - SECURITY** - protect against user enumeration

7.5.5 Provisioning Portal

- **ZSTRG-13014** - Pricing management APIs were added
- **ZSTRG-14485 - SECURITY** - protect against user enumeration

7.5.6 Interoperability

- **ZSTRG-14331** - Asigra Data Service is no longer supported
- Zadara VPSA CSI Driver 1.3.7 :
 - Additional stonith component to evacuate StatefulSet Pods from unreachable Nodes, for faster failover.
 - Fix an issue with iSCSI sessions teardown in IPv6 environment

7.5.7 Security

ZSTRG-15172 - Upgraded cross cloud components to mitigate the following CVEs

- | | | | |
|------------------|------------------|------------------|------------------|
| • CVE-2017-8779 | • CVE-2020-12723 | • CVE-2020-14790 | • CVE-2020-14830 |
| • CVE-2018-25009 | • CVE-2020-14672 | • CVE-2020-14791 | • CVE-2020-14836 |
| • CVE-2018-25010 | • CVE-2020-14760 | • CVE-2020-14793 | • CVE-2020-14837 |
| • CVE-2018-25011 | • CVE-2020-14765 | • CVE-2020-14794 | • CVE-2020-14838 |
| • CVE-2018-25012 | • CVE-2020-14769 | • CVE-2020-14800 | • CVE-2020-14839 |
| • CVE-2018-25013 | • CVE-2020-14771 | • CVE-2020-14804 | • CVE-2020-14844 |
| • CVE-2018-25014 | • CVE-2020-14773 | • CVE-2020-14809 | • CVE-2020-14845 |
| • CVE-2018-7738 | • CVE-2020-14775 | • CVE-2020-14812 | • CVE-2020-14846 |
| • CVE-2019-14775 | • CVE-2020-14776 | • CVE-2020-14814 | • CVE-2020-14848 |
| • CVE-2019-19948 | • CVE-2020-14777 | • CVE-2020-14821 | • CVE-2020-14852 |
| • CVE-2019-19949 | • CVE-2020-14785 | • CVE-2020-14827 | • CVE-2020-14853 |
| • CVE-2020-10543 | • CVE-2020-14786 | • CVE-2020-14828 | • CVE-2020-14860 |
| • CVE-2020-10878 | • CVE-2020-14789 | • CVE-2020-14829 | • CVE-2020-14861 |

- CVE-2020-14866
- CVE-2020-14867
- CVE-2020-14868
- CVE-2020-14869
- CVE-2020-14870
- CVE-2020-14873
- CVE-2020-14878
- CVE-2020-14888
- CVE-2020-14891
- CVE-2020-14893
- CVE-2020-25681
- CVE-2020-25682
- CVE-2020-25683
- CVE-2020-25684
- CVE-2020-25685
- CVE-2020-25686
- CVE-2020-25687
- CVE-2020-25694
- CVE-2020-25694
- CVE-2020-25695
- CVE-2020-25695
- CVE-2020-25696
- CVE-2020-25696
- CVE-2020-25696
- CVE-2020-27560
- CVE-2020-27619
- CVE-2020-36328
- CVE-2020-36329
- CVE-2020-36330
- CVE-2020-36331
- CVE-2020-36332
- CVE-2021-2002
- CVE-2021-2010
- CVE-2021-2011
- CVE-2021-2014
- CVE-2021-2021
- CVE-2021-2022
- CVE-2021-2024
- CVE-2021-2031
- CVE-2021-2032
- CVE-2021-2036
- CVE-2021-2038
- CVE-2021-2046
- CVE-2021-2048
- CVE-2021-2056
- CVE-2021-2058
- CVE-2021-2060
- CVE-2021-2061
- CVE-2021-2065
- CVE-2021-2070
- CVE-2021-2072
- CVE-2021-2076
- CVE-2021-2081
- CVE-2021-2087
- CVE-2021-2088
- CVE-2021-2122
- CVE-2021-23239
- CVE-2021-23358
- CVE-2021-26937
- CVE-2021-31535
- CVE-2021-3156
- CVE-2021-3177
- CVE-2021-3177

7.6 Known issues and limitations

7.6.1 VPSA Storage Array

- **ZSTRG-15330** - Volume performance capping for NAS volume is not supported

7.6.2 VPSA Object Storage

- **19979** - Object replication doesn't support replication for containers with object-lock enabled. Container Replication will not detect versioning nor Object-Lock status of the remote Object Storage. Life cycle policy will not be created on the remote object storage as well.
- **20295** - Object Storage main dashboard operations breakdown display a summary of operations instead of concurrent operation breakdown.

7.7 Revision History

- 21.07-222, January 2022
- 21.07-195, December 2021
- 21.07-176, November 2021
- 21.07-174, October 2021 (GA)

RELEASE 20.12-SP2

8.1 Key Enhancements

8.1.1 New management graphical interface

We're excited to announce the availability of our revised VPSA graphical user interface. The dashboard was redesigned to provide a snapshot to the VPSA Storage Array/Flash-Array/Object Storage state:

- Current workload
- Capacity utilization and trend
- Resources status

8.1.2 VPSA Storage Array

Support Azure BLOB as an Object Storage tier

Azure BLOB can be used in the VPSA Flash-Array as an Object Storage Tier.

Support replacement of KMIP KMS key UUID used in the VPSA

KMS keys that were rotated can now be replaced with a new key in the VPSA management interface.

8.1.3 VPSA Object Storage

Container level replication

Container level replication allows an asynchronously object replication between Zadara's VPSA Object Storage to a remote VPSA Object Storage or other S3 compatible Object Storage.

Zadara's container level replication unblocks a new set of replication scenarios:

- Move the data closer - Container replication can reduce latency for read operations by allowing the data to be consumed from the closest proximity.
- Distribution - post processing, the data can be shifted to additional locations.
- Optimizing cost - replicating the data to a remote location that uses a cheaper protection policy.
- Data redundancy - you can maintain an additional copy of your data in an additional location (VPSA Object Storage, AWS S3 or any other s3 compatible storage)

The container level replication feature will be ready to use on any Zadara VPSA Object Storage that is running version 20.12-SP2 or later.

Configuring replication job may incur additional charges for data transfer, please contact your cloud administrator for additional information.

8.1.4 Interoperability

CSI Driver

Zadara's VPSA Kubernetes CSI driver updated - Version 1.3.6 is now publicly available. The full list of changes is available in the [CSI 1.3.6](#) section of the release notes. The latest driver installation and usage information can be found at [Zadara's CSI Github repository](#)

Release 20.12-SP2 is a service pack release to the previous Zadara 20.12-SP1 release which includes scalability, security, usability improvements, new features and bug fixes.

The following section will breakdown the additions and updates to the Zadara Storage Cloud platform.

8.2 Version 20.12-SP2-247

8.2.1 VPSA Storage Array

- **ZSTRG-18306** - Allow allocation of two VNIs (Virtual Network Interfaces) with a matching VLAN ID

8.2.2 VPSA Object Storage

- **ZSTRG-18306** - Allow allocation of two VNIs (Virtual Network Interfaces) with a matching VLAN ID
- **ZSTRG-18971** - Fix an issue with ZELB IPv6 routing table in a Multi-Zone storage cloud

8.3 Version 20.12-SP2-239

8.3.1 VPSA Storage Array

- **ZSTRG-15673** - Allow VNI based remote mirroring on different networks. **Limitation:** Mirror replication over VNIs with different CIDR is applicable only if single VNI is attached to VPSA
- **ZSTRG-18049** - Fix an issue where the management console will not start post a failover

8.4 Version 20.12-SP2-233

8.4.1 VPSA Storage Array

- **ZSTRG-17452, ZSTRG-17453** - Optimize zCache flush control to allow more affective flushing
- **ZSTRG-17367** - Flash Array Optimize zCache rules
- **ZSTRG-15227** - Fixed an issue where a false alarm HB failure ticket was raised during VC creation/upgrade.

8.4.2 VPSA Object Storage

- **ZSTRG-15227** - Fixed an issue where a false alarm HB failure ticket was raised during VC creation/upgrade.
- **ZSTRG-17427** - Fixed an issue where proxy server return 404 for an existing Object version
- **ZSTRG-15840** - Fixed an issue in which multi-delete request could fail to delete object (Error 412)

8.4.3 Storage Node

- **ZSTRG-15793** - Cloud installer will not upgrade the existing SIOM firmware

8.5 Version 20.12-SP2-229

8.5.1 VPSA Storage Array

- **ZSTRG-16980** - Fixed an issue where name servers entries order prevents connecting to Active Directory.

8.6 Version 20.12-SP2-228

8.6.1 VPSA Flash Array

- **ZSTRG-15797** - Optimize CPU utilization and IO latency on a tiered pool volume.

8.7 Version 20.12-SP2-225

8.7.1 VPSA Storage Array

- **ZSTRG-15800** - Fixed an issue where VMware encrypted NFS shares failed to complete VM vMotion
- **ZSTRG-15701** - Fixed a backward compatibility issue with MIB OIDs

8.8 Version 20.12-SP2-223

8.8.1 VPSA Storage Array

- **20556** - Fixed an issue where released VNI information was not dumped immediately
- **20567** - Fixed a rare issue where MTU changes were not propagated properly to existing VNIs

8.8.2 Storage Node

- **20530** - Fixed a rare issue where scheduled logs collection caused a storage node reboot.

8.9 Version 20.12-SP2-220

8.9.1 VPSA Object Storage

- **20380** - Fixed an issue with container sharding mechanism for V2 versioning enabled containers
- **20406,20418** - Fixed an issue where metadata read request for an object erroneously returned a failure
- **20415** - Fixed an issue where s3 delete bucket request fails

8.9.2 CSI 1.3.6

- **16990** - Added support to CSI snapshot API v1GA
- **16990** - Added support for VPSA IPv6 connectivity
- **20373** - Added support for driver installation using helm repository
- **20254** - Helm chart - support custom docker registry
- **20182** - Added support for custom CA certificate
- **20397** - Fixed an issue when disabling autoExpandSupport
- **20165** - Added support for HTTPS insecure mode
- **17395** - Added support to customize target namespace
- **20166** - Github repository documentation updates

8.10 Version 20.12-SP2-217

8.10.1 VPSA Object Storage

- **20235, 202272** - Improve S3 list-object-versions API performance for versioned containers with a large number of objects
- **20317** - Fixed a rare issue in 20.12-SP2 where closing a GET session prematurely will impact the proxy service

8.11 Version 20.12-SP2-204

8.11.1 VPSA Storage Array and VPSA Flash Array

- **18640, 20019, 19239** - Samba upgraded, include misc fixed for service panic
- **19948** - Fixed an issue where a metering DB update issue triggered a failover
- **19499** - Fix an issue with records filtering in the management GUI

8.11.2 VPSA Object Storage

- **20276** - Fixed an issue where Object Storage Virtual Controller failed due to a kernel panic
- **19370** - Add the ability to select the networking interface information that will be used for users email notifications
- **19314** - Added Data Policy accurate breakdown of the data utilization
- **18721** - Added account utilization information in the main account grid
- **19682** - Fix an issue where console was inaccessible if using the VNI network interface
- **19483** - Region field was added to the zios_admin account information page
- **19770** - Fixed an issue with the Usage Report formatting display
- **19737** - Fixed an issue where clients couldn't establish TLS connection while using a custom TLS certificate (found in version 20.12)

8.11.3 Provisioning Portal

- **19537** - Added Provisioning API for Object Storage accounts

8.12 Known issues and limitations

8.12.1 VPSA Storage Array

- **ZSTRG-18222** - Mirror replication over VNIs with different CIDR is applicable only if single VNI is attached to VPSA

8.12.2 VPSA Object Storage

- **19979** - Object replication doesn't support replication for containers with object-lock enabled. Container Replication will not detect versioning nor Object-Lock status of the remote Object Storage. Life cycle policy will not be created on the remote object storage as well.
- **20295** - Object Storage main dashboard operations breakdown display a summary of operations instead of concurrent operation breakdown.

8.13 Revision History

- 20.12-SP2-247, February 2022 (replaced 20.12-SP2-240)
- 20.12-SP2-240, January 2022
- 20.12-SP2-239, November 2021
- 20.12-SP2-233, November 2021
- 20.12-SP2-229, September 2021
- 20.12-SP2-228, September 2021
- 20.12-SP2-225, August 2021
- 20.12-SP2-223, August 2021
- 20.12-SP2-220, July 2021

- 20.12-SP2-217, July 2021
- 20.12-SP2-204, April 2021 (GA)

RELEASE 20.12-SP1

9.1 Key Enhancements

9.1.1 VPSA Storage Array

KMIP Integration (Equinix SmartKeys)

Users can now use their Equinix SmartKeys keys for VPSA Storage Array Volume encryption. A VPSA with a user provided encryption key can switch to a KMIP based encryption.

Azure BLOB storage support

Users can utilize their Azure Blob storage with the VPSA Storage Array Backup to Object Storage. This option is added to the existing support of VPSA Object Storage, AWS S3 and Google Cloud Storage as the remote object storage.

9.1.2 VPSA Object Storage

New object versioning V2 method support

Versioning provides an additional layer of protection for objects. Users can easily recover from unintended user errors or application failures. Users can also use Versioning for data retention and archiving.

The new versioning method is the default versioning option for new containers created in version 20.12-SP1 onwards, This uses symlink and hidden container for implementing versioning rather than the archive container.

Openstack Keystone integration - custom DNS support

VPSA Object Storage administrators can set their private name servers to support private domain names.

9.1.3 Interoperability

VPSA Driver for OpenStack Manila

Zadara VPSA Storage Array & Flash Array share driver for OpenStack Manila is now available with the Wallaby release.

Release 20.12-SP1 is a service pack release to the previous Zadara 20.12 release which includes scalability, security, usability improvements, new features and bug fixes.

The following section will breakdown the additions and updates to the Zadara Storage Cloud platform.

9.2 Version 20.12-SP1-132

9.2.1 VPSA Storage Array and VPSA Flash Array

- **19821** - Fixed an issue where a large demote queue may cause a VC to failover in a tiered VPSA
- **19835** - Fixed an issue where docker container issues an async IO may cause the VC to failover

9.2.2 Provisioning Portal

- **19834** - Fixed an issue where administrator cannot invoke a VPSA operations on behalf of a user

9.3 Version 20.12-SP1-123

9.3.1 VPSA Storage Array and VPSA Flash Array

- **18303** - Added KMIP (Equinix SmartKeys) support for volumes encryption
- **7170** - Added support for Azure Blob storage as a remote destination for “Backup to Object Storage”.
- **19398** - Added KDC IP validation
- **19341** - Get Volume/Snapshot API enhancements, additional volumes/snapshots attributes returned

9.3.2 VPSA Object Storage

- **19533** - VPSA Object Storage SSL certificate (zadarazios.com) was updated
- **19263** - Added auto-disable mechanism for detailed performance monitoring
- **19162** - Optimize ring partition power for newly created VPSA Object Storage
- **19145** - Remote authentication provider (Openstack Keystone) now binds all external traffic to the Front End network
- **18867** - Optimize usage report mechanism to support 1000 remote accounts
- **19145** - Added an option to define a custom name server (remote authentication provider name resolution)
- **18901** - New versioning option (v2) was added

9.3.3 Provisioning Portal

- **18179** - Added support for Object Storage account provisioning directly from Zadara Provisioning Portal

9.3.4 Command Center

- **19631** - Fixed an issue where 403 response is return for a custom Command Center role
- **19157** - Fixed an issue where CCVM certificate update via API did not work

9.3.5 Misc

OpenStack Manila VPSA Driver

Wallaby release - a Zadara VPSA (Storage Array & Flash-Array) share driver was introduced.

Manila VPSA driver provides a seamless management capabilities for VPSA volumes, in this case, NFS & SMB volumes without losing the added value provided by the VPSA Storage Array/Flash-Array.

Supported operations:

- Create a share.
- Delete a share.
- Extend a share.
- Create a snapshot.
- Delete a snapshot.
- Create a share from snapshot.
- Allow share access.
- Manage a share.

For additional information/full configuration reference please refer to the [official Openstack Manila documentation](#).

Openstack Cinder VPSA Driver

Wallaby release - The Zadara VPSA block Driver for Openstack Cinder was updated with the following enhancements:

- Added support for manage/unmanage volumes
- Added support for manage/unmanage snapshots
- Added support for multiattach
- Added support for IPv6 VPSA networking

The updated driver requires a VPSA running version 20.12-SP1 or later.

9.4 Known issues and limitations

9.4.1 VPSA Storage Array & VPSA Flash-Array

- **19582** - Azure Blob based remote object storage cannot be used for Tiered pools.

9.4.2 Provisioning Portal

- **19549** - Object Storage account deletion does not generate a confirmation email
- **19539** - Object Storage account console status doesn't change post deletion request
- **19537** - Provisioning Object Storage account via Provisioning Portal API is not supported
- **19490** - Provisioning Portal user email modification will not be populated to the remote object storage

9.5 Revision History

- 20.12-SP1-123, April 2021

RELEASE 20.12

Release 20.12 is an enhancement to previous release 20.01 with some scalability, security, and usability improvements, new features and fixes to issues that were found in previous releases. This zStorage release has many key enhancements that continue to round out the Zadara zStorage enterprise grade feature set!

10.1 Zadara Kubernetes Operator

Containers are an emerging method for running applications. Adoption of Kubernetes (and containers usage in general) is growing in the enterprise. Container based applications require persistent storage that Zadara VPSA provides.

The Zadara Operator provides storage and data management for K8s stateful applications as a cloud-native service, while leveraging Zadara's enterprise grade Storage-as-a-Service VPSA for provisioning and managing persistent storage.

Zadara Operator provides:

- Zadara CSI driver automatic installation and management Automatic K8s application discovery.
- Application protection using an intelligent and efficient snapshots mechanism.
- Custom snapshots scheduling for application protection.
- Instant application clone.
- CLI for centralized management for Zadara's K8s assets.
- Migrate application from one cluster to another.

More information can be found at the [Zadara Operator Github repository](#).

10.2 IPv6

Zadara storage now fully supports IPv6 for both hosts connectivity and management purposes.

10.3 Security

TLSv1.1 protocol was disabled for all Zadara Web Applications, TLSv1.2 and TLSv1.3 are the supported TLS protocols.

10.3.1 What's new in VPSA Storage Array and Flash Array

10.4 Auto Tiering

With the VPSA Flash Array, customers can now have primary storage pools consisting of both flash (SSD) and hard disk drives (HDD) or flash (SSD) and object storage (Zadara or other S3 compatible object storage). With these new hybrid primary storage zStorage Flash Array deployments, data is automatically placed on the higher performing flash drives if frequent access is needed, and the less frequently accessed data is placed on the lower cost hard disks/object storage .

The business value of Auto Tiering lies in the fact that it enables efficient use of the underlying storage media/resources.

10.5 Max Volume Size increase

With the 20.12 release, the maximum capacity supported per a VPSA (and a single volume allocated on it) increases from 200TB / 250TB to 500TB in VPSA Storage Array, and VPSA Flash Array. This will be very appealing to customers using large file systems for backup repositories, media repositories and/or large file archives.

10.6 File Analytics

This release introduces the new built in file analytics capabilities for VPSA NAS shares. Zadara File Analytics helps customers navigate through data and gives them better visibility to manage their data more effectively. File Analytics helps solve data challenges around ownership, storage consumption, storage optimization, and data protection. It also reports on key growth trends and capacity utilization trends

10.7 File Access Audit

This release keeps full access log per file system. Users can now have access to a secure log of any file operation (read/write/rename/etc... for auditing purposes.

10.8 File History

This release adds File History capabilities to NFS shares, as it is supported for SMB shares. File History allows quick restore of any specific version of a given file.

10.8.1 Major Changes & bug fixes

10.9 20.12 Build 317

VPSA Storage Array and VPSA Flash Array

- **4069, 17314** - File access audit Logging was added to NFS and SMB shares
- **12992** - Server Monitoring Capability was added
- **13037** - The ability to Mirror via a Proxy server was added
- **13244** - External KMS was added as an alternative for manual encryption password
- **13877** - Fixed an issue where user mapping is invalid on Mirror destination in the sub-domain environment
- **15104** - It is now possible to change a volume export name irrespective of its state
- **15126** - Added the option to set individual shares (NFS/SMB) as Read Only or Read Write
- **16038** - Connecting to Remote VPSA over VNI (Secondary Network) is now supported
- **16331** - Ability for a single NFS file recovery from a snapshot was added (NFS File History)
- **16340** - Improved SMB signing performance
- **16484** - fixed an issue where Destination VPSA was deleted, and there was no option to break the remote clone from source VPSA
- **16642** - Fixed Low SMB performance issue as result of “case sensitive” that was set to “no” by default
- **16717** - Changing Password does not reset API Token
- **16823** - Provided the ability to toggle “mangled names” on SMB shares
- **16830** - Blocking Servers deletion if there are open iSCSI connections to it
- **17175** - New pool types, with 500TB limit, were added. **Depot** pool on Storage Array, **Throughput Optimized** pool on Flash Array
- **17951** - “Linux iSCSI Connect Script” now supports both curl and wget
- **18096** - New pool types for Flash Array. IOPS-Optimized, Balanced, Throughput Optimized
- **18276, 18506** - File Analytics is now supported for file shares
- **18877** - VPSA volume ‘protection’ column is now ‘Attributes’, icons display for FLC indexing, encryption and automatic expansion

- **18940** - Fixed an issue where User that belongs to ignored sub-domain can access files on the SMB volume
- **18980** - Fixed an issue where SMB Volume is still accessible after it was detached from the Server
- **17387** - TLSv1.1 protocol was disabled for all Zadara Web Applications, TLSv1.2 and TLSv1.3 are the supported TLS protocols

VPSA Object Storage

- **12433** - Domain registration process for public IP was automated
- **15132, 16185, 18779** - Performance Dashboard was added
- **15419** - Virtual host style URL is now supported. It enables using the bucket name as part of host name
- **15907** - Added support for CORS (Cross Origin Resource Sharing)
- **16093** - Object level ACL support was added for the default policy permissions
- **16358** - "s3" default region name set to us-east-1
- **16543** - GUI enhancement that displays locked user information, and provides an option to unlock
- **17466** - Immutability support was added for the multipart objects
- **17515** - added the ability to restore previous object versions using s3browser on versioning enabled containers
- **17689** - It is now possible to use an external identity provider (Openstack Keystone) as the authentication engine
- **17753, 18465** - Object Storage now supports multiple VNIs. All configured networks can be either IPv4 or IPv6
- **18157** - A fix for handling swift API HTTP response code properly
- **18194** - Storage Policies offering was modified (Added: EC 2+1 and 2-Way MZ, removed 3way and EC 6+3)
- **18799** - Added metering statistics for s3api calls
- **18958** - Modified gradual policy expansion default value from 10% to 25%
- **18977** - The Capacity alert mechanism was improved to give better prediction for potential capacity shortage
- **17387** - TLSv1.1 protocol was disabled for all Zadara Web Applications, TLSv1.2 and TLSv1.3 are the supported TLS protocols

Provisioning Portal

- **14368** - Encourage users to enable MFA for their Zadara accounts
- **18576** - An entire new "white labeling" to the Provisioning Portal has been implemented
- **17387** - TLSv1.1 protocol was disabled for all Zadara Web Applications, TLSv1.2 and TLSv1.3 are the supported TLS protocols

Command Center

- **14784, 18040** - It is now possible to set any support ticket attributes (priority, to_user, rate limit, etc...) per VPSA
- **16847** - Active FE IP presentations across Command Center Tabs are now aligned
- **17002** - Block VPSA upgrade from a version that is more than 2 major releases behind, and block version downgrade
- **17292** - Noticeable indication was added on node display when a service is not available
- **17323** - Data reduction metrics for VPSA Flash Array added to the VPSA dashboard
- **17416** - When VPSA GUI is not accessible and GUI cannot be launched an error is shown
- **18041** - Event-log messages of addremove cache were modified to include cache capacity
- **18591** - An option to change the command center logo was added for White labeling purposes
- **17387** - TLSv1.1 protocol was disabled for all Zadara Web Applications, TLSv1.2 and TLSv1.3 are the supported TLS protocols

10.9.1 Known issues and limitations introduced in 20.12

Zadara Cloud

- **19250** - Asigra VPSA creation might fail with DVM state EXECUTING_REBOOT

10.9.2 Known issues and limitations introduced in 19.08

Zadara Cloud

- **15397** - "Edge device" (Cloud-in-a-Box) with 10GBase-T RJ45 hosts connectivity can be expanded to a full cloud by connecting BE Mellanox switches.

VPSA

- **13626** - Volume or clone deletion may result in misleading effective capacity.
- **15104** - Can't rename volumes in "failed" state.
- **15700** - VPSA with IPv6 GUI cannot be opened using domain name with Chrome browser if IPv6 address is not global. This is a chrome issue.
- **15888** - Encrypted volume cannot be remote cloned as non-encrypted volume, and vice versa.
- **15943** - IO may fail during model upgrade of VPSA model 200 if the CPU is highly utilized.
- **15969** - Non admin users are unable to activate/deactivate their own dual factor authentication.

10.9.3 Known issues and limitations introduced in 18.11

VPSA All Flash

- **12388** - Capacity saving by zero pattern matching is not counted in the savings calculation.
- **13509** - Removing of Master Encryption Password is possible only after deleting the pools.