



ScaleArc for MySQL 3.11.0.4

Release Notes

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Installation Information

Getting started with ScaleArc for MySQL 3.11.0.4 is fairly straight forward. Refer to the [Minimum/recommended system requirement to deploy ScaleArc server](#) article for more information on the pre-requisites for deployment.

Refer to the [Upgrading ScaleArc](#) article for information on upgrading to ScaleArc v3.11.0.4 from a previous version of ScaleArc.

Visit ScaleArc support portal at <https://support.scalearc.com> for additional help articles.

New Features

This section lists the new features in ScaleArc for MySQL Server 3.11.0.4

<i>Feature</i>	<i>Description</i>
Installation	ScaleArc now supports Google Cloud Platform deployments.

Fixed Issues

This section lists the issues that have been fixed since ScaleArc for MySQL 3.11.0.3.

<i>Issue ID</i>	<i>Component</i>	<i>Description</i>
10792	Autofailover	Failover does not detect topology for SSL DB servers, roles on ScaleArc change however DB server roles remain the same.
17285	Autofailover	Manual switch over/autofailover failed when SSL offload is ON.

Known Issues

This section provides a list of issues found in this release that are categorized as important.

<i>Issue ID</i>	<i>Component</i>	<i>Description</i>	<i>Solution</i>
5680	Services	Cache rules added for users on logical databases prior to enabling the 'Auto Fetch User' feature are not applied to those users that are automatically imported after enabling the 'Auto Fetch User' feature.	Delete the cache rules for the logical database and add it after the users have been imported. Caching now works for the newly imported users.
5830	Connection Pooling	Client connection to cluster fails with "Access denied" if the DB connection limit is low	Increase the limit of process or max_connection limit on the DB server.
6089	UI	When an event is generated on a system which is in HA, the same event is seen on the other machine in the HA cluster.	Currently there is no workaround for this issue
6125	Analytics	When a large number of unique queries are received, ScaleArc analytics consumes 100% CPU and generates pattern level txt files which store statistics about queries of this pattern.	From the CPU distribution page in ScaleArc, move the analytics thread for that cluster to an isolated CPU.
6147	DB Server Management	When "ignore replication lag" is enabled, ScaleArc does not monitor those DB's whose replication lag is less than "maximum replication lag" settings.	If ScaleArc continues to report lag even if the actual lag on server is 0, turn the ignore replication lag setting OFF and then ON again.
6222	HA	When ScaleArc appliances are deployed in a HA configuration and the UI user is logged out due to the configured session timeout expiration, attempts to login again to the primary appliance results in a warning message indicating that the /extjs/ext-all.js script is unresponsive.	This issue occurs intermittently. The workaround is to refresh the page. User can then resume working on the ScaleArc machine.
6302	Connection Management	The error messages returned by ScaleArc and DB server differs when logical database does not exist on DB server and a connection is opened for that logical database.	This behavior does not cause a functionality issue. Such events can be safely ignored.
6996	User Management	Any MySQL database user, with a single quote character (') in the username along with all the subsequent users will not get imported via the auto import feature.	Remove the single quote character (') from the username. The auto import feature will now import the user.
7137	Analytics	Not all combinations of filter options work properly on the [Analytics] -> [Query Patterns Graph] page in the UI.	Currently there is no workaround for this issue
8493	Logs	When an application sends a FETCH command, it is currently logged as a query (Log Type : 30).	Currently there is no workaround for this issue

8630	Caching	For dynamic caching the following issues exist: 1. For non SSL clusters- dynamic cache usage not seen however cache hit is observed when the same query is executed again. 2. For SSL clusters - dynamic cache usage and cache hit not observed.	At this time, ScaleArc doesn't support cache hit on SSL clusters. We will make this feature available in near future.
9328	Install/ Upgrade	A session timeout may occur while upgrading from ScaleArc 3.0 to a current version.	Before performing the upgrade, the session timeout should be increased to at least 120 minutes due to the large package format. Please note, even after increasing the session timeout, a pop up message may still appear. Ignore the pop up message.
10005	Network Settings	ScaleArc does not support changing the VLAN IP's in a NIC bond.	Currently there is no workaround for this issue.
10075	UI-User Management	If the password for a non-root user of cluster is changed on the DB server then the logical DB's configured for the user before password change are not seen for that user in the cluster even after a successful connection.	From the user management window in ScaleArc please delete the user and manually add it again with the new password.
10243	DB Server Management	Interchanging DB server roles from UI doesn't update Read-only flag on DB Server or does not give any alert message to user to change flag on DB server.	The user will need to manually change the read-only flag on the servers after changing the server role in the cluster.
10438	Services/ Installation	Upon installation of Scalearc a few services such as failover, user_creds_monitor etc. do not work. The watchdog fails to start these services due to timezone/time mismatch.	This issue occurs only when there is timezone and time mismatch on server where ScaleArc is deployed. Please restart watchdog service once the ScaleArc initial setup is complete and timezone has been changed. Watchdog service is accessed by going to Settings -> System Settings -> from the Services tab select Watchdog and click on Restart Selected Services.
10792	Auto failover	For SSL DB servers, the ScaleArc Auto failover feature does not detect the replication topology. ScaleArc changes roles on failover, while the DB server roles remain unchanged.	Currently there is no workaround for this issue.
11039	Connection Management	With QLLB ON, when we fire <u>n</u> read queries (where <u>n</u> = query level sticky query) the error "ERROR 1002 (HY000): Scalearc: No Read Server available" is returned. This is seen when the Read/Write server processing the reads is deleted	Do not delete DB server from cluster when there are active connections on the server. Instead mark server offline with timeout so that existing

		from cluster. The error occurs even though another server in the cluster is available to process the Read Query.	connections migrate if possible.
11073	Connection Management	When Authentication offload is OFF, if a client connection is established with a DB server, ScaleArc continues to send traffic to DB server even after the server is deleted from cluster.	Do not delete DB server from cluster when there are active connections on the server. Instead mark server offline with timeout so that existing connections migrate if possible.
11398	Caching	Cache is not populated when a stored procedure query is preceded with ttl directive	Currently there is no workaround for this issue.
11399	Caching	Stored procedure cache when executed with wipe directive is not processed and does not clean up the cache that is populated for that query. Currently gives syntax error on client.	Please be aware of this limitation while using stored procedures. We will be fixing this in our upcoming product releases.
11797	Upgrade	Session timeout may occur when upgrading from a ScaleArc version 3.6 or earlier to 3.11.0.4.	After the session timeout the following message appears on the UI "Your session has timed out". Click on 'OK', and login again. Upgrade process continues without any issue and completes successfully.
11940	Autofailover	Failover fails due to incorrect database user password parsing	Do not use a comma (,) in the password of the user.
12203	Core	Order of query routing rules are not followed in ScaleArc.	Please be aware that this is being worked on by ScaleArc engineering and this issue will be fixed in our upcoming releases.
12600	Firewall	When firewall rule is configured that matches prepare commands, client application may hang.	Configure more specific firewall rule that matches only valid queries.
12724	Network Settings	VIP's do not get re-configured correctly after bond interface is created	As a workaround configure bond on interfaces with no VIP's then configure VIP's on the bond later.
13205	Failover	With QLLB enabled, switchover with timeout may cause existing connections to continue even after timeout has reached.	Configure a switchover timeout of at least 5 seconds.
13472	Core, Connection Management	With QLLB enabled, during switchover, existing write connections may experience timeout when Read/Write server is demoted to Standby+NoTraffic role	Currently there is no workaround for this issue.
13826	UI-Core Commands	Server addition fails at times when cluster is processing heavy traffic.	Restart the cluster so that the core and SQLite are in sync and try adding the server again.

13865	Core	Unable to create SSL cluster due to SSL handshake failure.	As a workaround please do one of the following recommendations below: 1. Upgrade MySQL server to one that uses OpenSSL version greater than 1.0.1e-30.el6_6.9 2. Upgrade MySQL DB server version to 5.5.45 or 5.6.26 to include the fix for bug #77275 which increases the default DH key length to 2048 bits. 3. Change the ssl-cipher in MySQL configuration (my.cnf) to not include DH based algorithms. (Less secure)
15054	UI	Verbose debug logs do not get downloaded when using Safari browser.	Safari browser requires the user to set the following settings. Click on Safari in the title bar in the browser -> Preferences -> Select Security -> and deselect the 'block pop-up windows setting'.
15055	UI	TCP dump file does not get downloaded when using Safari browser.	Safari browser requires the user to set the following settings. Click on Safari in the title bar in the browser -> Preferences -> Select Security -> and deselect the 'block pop-up windows setting'.
15295	Connection Management	When two "Read+Write" database servers are configured for a cluster; if the server processing write queries is changed to "read only", the existing connections are not closed.	As a workaround, mark the server offline. As a result, the connections should close now.
15364	UI	ScaleArc UI rendering issues are observed in Chrome version 52.0.2743.11.0.46 release 8.7 and earlier.	Refresh the UI and try the operation once more. Alternatively use another chrome version or another browser if refreshing does not solve the UI rendering issues.
15380	Autofailover	With the new mysqlrpladmin utility, (shipped with mysql-utilities rpm) in Master-Slave topology, when we do a switchback (i.e. perform switchover twice), on the newly demoted slave the following error is seen "Master command COM_REGISTER_SLAVE failed: Access denied for user ... (Errno: 1045)".	As a workaround please do the following: 1. Create accounts '<replication_user>'@'<Server IP>/<Hostname>' for each of the servers in replication on the DB server. 2. Grant them super and replication slave permissions.

			<p>These user accounts need to be present on all the servers configured in replication.</p> <p>For e.g:- If 10.0.11.210 & 10.0.11.211 are in replication, then the following accounts need to be created on both the servers:-</p> <p>'root'@'10.0.11.210'</p> <p>'root'@'10.0.11.211'</p> <p>Note: - 1. <replication_user> should be the admin user on ScaleArc.</p> <p>2. Server IP/Hostname should match that configured on ScaleArc.</p>
16078	HA	It is observed that when a network restart or a DHCP lease renewal operation occurs, an alert is generated stating "ScaleArc recently encountered an issue that requires analysis". This alert is related to an abort operation performed by either Corosync or Pacemaker CRMd process.	This is expected and can be ignored. This issue does not have any side effects.
16197	HA	Cluster landing page may be seen on the secondary machine when HA service is stopped. Eventually the system_monitor service will start the HA service and on refreshing the page, the cluster landing page should disappear.	Check the HA service status on the peer system to confirm which is the primary/secondary machine. Contact ScaleArc customer support if the problem still persists.
16321	HA	Once HA is configured, if a user changes the fencing type from cluster to external db server, the following event is generated "fencing is not configured".	Ignore the alert. Delete it from the UI to prevent it from appearing again.
16364	Core	On a ScaleArc Aurora cluster, when multiple DB servers are deleted on Aurora, some of the deleted servers might appear as down (red) on the ScaleArc UI when they should instead have disappeared from the UI. These DB servers are actually deleted and out of operation.	A cluster restart is required to delete the DB servers from ScaleArc.
16462	HA	On HA setups which have multiple network interfaces, when the interface on which HA is configured is brought down, failover does not occur as expected.	If an 'ifdown' operation for network maintenance is intended on the primary machine, then it is recommended to switch it to a secondary machine first. An 'ifdown' operation for all the interfaces which owns VIP should be performed.

16524	HA	After performing a HA join, any one of the machines in the pair can behave as the primary machine.	Currently there is no workaround for this issue.
16537	Upgrade	The kernel version does not get upgraded when performing an upgrade from a previous ScaleArc for AWS version to version 3.11.0.4.	Use 3.11.0.4 AMI for a new installation of ScaleArc for AWS.
16694	Core	When max connection limit of DB server is reached, it is not considered for load-balancing and dequeue of DB specific connections may get stalled for sometime. This issue does not occur if there is continuous traffic.	This issue is observed when max connection limit (max_conn limit) in ScaleArc is reached. Configuring max_conn limit so that the maximum connections are higher than normal would avoid this issue.
16744	Caching	Pattern based cache deletion is not supported for transaction cache pattern. Also, transaction cache is not automatically deleted on deleting cache pattern for transaction.	Select the cleanup options from 'Cache Manager' (delete cache for all DB's or delete specific DB cache) to clean up outside transaction and transaction cache.
16761	R/W Split	When autocommit is set to OFF globally, ScaleArc is not able to detect it correctly as a result an existing known issue with MySQL protocol flag. Due to this, most of the connections starting on read server will be terminated.	In situations when global autocommit is set as OFF, toggling the value of autocommit on the DB server will resolve this issue.
16825	Aurora DB/ Services	ScaleArc cluster remains in amber (waiting) state when each server goes through either of the following operations on Aurora while ScaceArc cluster is stopped: 1. Rename 2. Delete	Recreate ScaleArc cluster with Aurora cluster details.
16886	Firewall	When a user adds a firewall pattern from the security tab, the order of the new firewall pattern does not get automatically updated if there are multiple pages of rules.	Go to the last page of firewall patterns and add the new rule.
17433	Services	A false alert for a cluster is generated when a SSL cluster with a CA cert is uploaded under 'Validate Server'. As a result, cluster_monitoring service fails to establish a connection.	Under the SSL tab for cluster settings, when only client certs are uploaded and 'Validate Server' option is selected, it is mandatory to also configure the validate client option.

Highlight Behaviors

This section highlights ScaleArc changes/ behaviors impacting end users for this release.

<i>ID</i>	<i>Component</i>	<i>Description</i>
	Upgrade	ScaleArc will automatically restart when upgrading from a previous version of ScaleArc (v. 3.6.1 or earlier) to v3.11.0.4 because the kernel is also upgraded.
6186	Query Processing	"Dynamic Query Caching" settings applies only to ttl() command and not to "nocache" and "wipe" commands.
10027	Services	ScaleArc sends alerts on the UI if the server connections are not configured according to the required parameters. Please make appropriate changes to the settings.
12312	Connection Management	When "connection pooling" is enabled and "Idle Server Connection Time Out" setting is more than 2 Minutes, ScaleArc internally creates/maintains a single connection as part of health monitoring. This connection times out when "Idle Server Connection Time Out" is reached.
13442	UI-User Management	If a user is disabled from ScaleArc UI, deleted and added again from MySQL database, the user will get added back into ScaleArc (with an enabled status) when auto-fetch feature is turned ON. As a result, the user will be able to successfully connect to ScaleArc.
14893	Autofailover	User is able to perform a manual switchover even if autofailover is turned OFF.
16105	Autofailover	Switchover is taking approximately 5 min in a situation where master MySQL version is 5.1 and slave MySQL version is 5.7.
16232	HA	ScaleArc will not allow a cluster to be deleted or stopped from the cluster landing page if it is configured for fencing. To stop a cluster, change the fence type, stop the cluster, perform the required operation, start the cluster, and revert the fencing type.
16500	HA	A warning message pops up while configuring HA if hostname of both primary and secondary machines is identical. It is safe to ignore the warning; HA configuration will be successful despite the warning message.
16524	HA	It is expected that after an HA join, the Primary could be any one of the machines in the pair.
16629	HA	Multiple failovers may occur when the network cable, used for communication with the witness server, is pulled. The network interface goes down and is later brought back up.
16641	HA	If an external MySQL DB server is configured for fencing and that server is made read-only at a later point in time, then the fence storage will fail to update the necessary flags for split brain resolution. In such a situation, the system will not send an alert about such a failure. The administrator needs to be aware of such a scenario and rectify the fence configuration either by pointing to a read/write DB server or changing the fence type to cluster based or SSH server based.
16756	CPU Distribution	In any cloud platform, all CPU distribution changes will be reset on a reboot. This is because post reboot it is not always guaranteed that the CPU maps and CPU id's in a cloud environment will be same before the reboot happened. In a cloud environment, CPU mappings will need to be redistributed again after a reboot.
16806	HA	Queries will not be processed for 60 seconds when the following scenario occurs. If a ScaleArc partition on Primary is detected as 'read only', the Pacemaker will go into standby. The process of the primary machine moving in a standby mode while the

		secondary machine takes over takes time while the scalearc_traffic resource is stopped and restarted.
16661	HA	<p>In a situation where:</p> <ul style="list-style-type: none"> ▪ Secondary network interface is used for HA ▪ This interface doesn't have a gateway assigned ▪ Witness server and application are on another network and can be reached via the primary interface <p>If the HA interface is brought down by pulling the network cable, then an HA failover does not occur. Instead, the primary fences the secondary node. Any VIP's assigned to the secondary interface go down and will not failed over. This situation will not cause any disruption to the application traffic since the traffic is communicating via the VIP's on the primary interface which remains on the original node.</p>
16915	License	While upgrading ScaleArc or installing a trial version, the trial license EULA must be accepted to complete the installation. Similarly, if a production license is installed, then the new EULA (specific to production license) must be accepted to complete the installation.

Limitations

This section provides a list of issues that are categorized as limitations.

<i>Issue ID</i>	<i>Component</i>	<i>Description</i>
5909	Caching	If the response of a multi-query is cached, and later if the same multi-query is sent as part of a normal connection (on which multi-query is not set); then the response of this query is returned from cache and client gives a "2014Commands out of sync; you can't run this command now" error for all subsequent queries on the connection.
7576	DB Server Management	ScaleArc does not support database connection for MySQL clients with version less than 4.1. Connection fails with an error "ERROR 2013: Lost connection to MySQL server during query". Versions less than 4.1 uses old unsecure authentication mechanism which is no longer recommended and not supported by ScaleArc.
8011	UI-Configuration	The user is not alerted on the UI if an attempt is made to make all servers as standbys (standby+read / standby+no traffic) and auto-failover is enabled.
8695	Core	If a write query is received by ScaleArc as part of a multi-query packet and if the first query in the packet is a read query then ScaleArc considers the entire query packet as a read query.
9459	Configuration	Configuration backup and restore is not supported on machines where the backup machine and restore machine have different IP addresses. This is because the /etc/hosts entry having a backup machine IP is copied into the restore machine with backup machine IP making the hostname IP mapping incorrect.
10761	API	User is unable to add more than 50 unsticky rules. If more than 50 rules are added an error message is generated on the UI. The message shows an error message which do not match the actual issue. However the error message still disallows user from adding more than 50 unsticky rules.

11198	Caching	Cache pattern and the corresponding cached response are not persistent and on restart of a cluster the response is obtained from server rather than cache.
11388	Caching Core	For a cluster having 100 users and 100 DB's assigned to each user, the CPU utilization for <code>save_cluster_cache ()</code> sometimes crosses 50% even in idle cluster(cluster without traffic).
11425	Installation	During installation, if the smallest disk has size less than 25GB, then installation fails with the following error: "Could not allocate requested partitions: not enough space for LVM requests." Please make sure the disk size is at a minimum 25GB.
11780	Core	On creating a cluster with 100 DB users and 100 DB's for each user with atleast one cache rule configured to each logical DB, the cluster stops on its own after being started. As a workaround, please limit the number of DB users, databases, and cache pattern combinations to less than 3,000.
15374	Failover	Switchover with GTID replication does not work as expected.
16281	Aurora UI	If user modifies Aurora cluster name on AWS, then the DB server modifications on AWS are not reflected in the ScaleArc cluster. Currently, ScaleArc does not support Aurora cluster name modification. User must delete the cluster and create a new one.
16629	HA	Multiple failovers may occur when the network cable, used for communication with the witness server, is pulled. The network interface goes down and is later brought back up.
16560	Transactional Load balancing	ScaleArc does not identify CHAIN and RELEASE as a valid transaction completion. Load balancing feature of ScaleArc will not work as expected when using these keywords.
16697	Failover	The same type of identifier (IP/FQDN/Hostname) used to set replication on a DB server should be used to configure a cluster. For example, if user adds DB server in a cluster using host name, then a host name should be used to set replication of DB server in the backend. Similarly, if a DB server is added in a cluster using IP address, then an IP only should be used to set replication of DB server in the backend.
16707	HA	Primary DNS and search domain values change in Azure cloud, whenever machines are configured in HA.
16790	HA	Pure SSL only DB server as an external DB server for fence configuration is not supported.
16879	Query Processing	ScaleArc does not support SSL connections for RDS-MariaDB on AWS cloud platform.
16883	R/W Split	For transactions running in autocommit OFF mode, if a recordable set query is seen in transaction, it will stop R/W split for that current transaction. Pattern based features will still be applicable after receiving a set query.
16965	Failover	Switchover/failover from ScaleArc is not supported for Cloud SQL.
17437	UI	Cluster creation with a DB server which accepts only SSL connections ('require ssl' privilege is set) fails with the following error 'Failed to connect to database'.

Additional Resources

You can find news, articles, videos, webinars, and other useful information on [ScaleArc's web site](#).

To get the most out of the features in ScaleArc for MySQL 3.11.0.4 check out our [ScaleArc training videos](#).

Access [ScaleArc's Knowledge Base](#) for how-to articles, feature description, and troubleshooting information. If you need further assistance with any ScaleArc product or service, please [contact us](#).