ScaleArc for MySQL 3.12

Release Notes

Customer Support

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Installation Information

Getting started with ScaleArc for MySQL 3.12 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 v3.12 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 3.12.

Feature	Description
Value Meter	Value Meter tool measures and displays the value added by ScaleArc to a customer's environment.
Traffic Analyzer	ScaleArc Traffic Analyzer tool analyzes the traffic and load on the database servers and generates reports.
Authentication module	ScaleArc now allows for authentication and policy configuration for LDAP and third party software admin users.

Fixed Issues

This section lists the issues that have been fixed since ScaleArc for MySQL 3.11.0.4

Issue ID	Component	Description
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.

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.
13916	HA	While configuring HA at times the 'split brain' alert would be generated even though after HA the machines are in appropriate states.
14968	Failover	Auto failover is allowed to be turned on if there are any DB servers older than 5.1. Similarly, when auto failover is ON, a DB server older than 5.1 is allowed to be added to cluster.
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)".
16259	Core	An authentication issue is observed where a user is visible on the UI but the SQL connection request for the user fails.
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.
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.
16701	Upgrade	World writable files can be found on the system after an upgrade from a previous version of ScaleArc to version 3.12.
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.
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.
16829	Firewall	A discrepancy exists between the number of active firewall rules observed on the UI and the number observed in the SQLite table.
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.
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.
17102	Analytics	Incorrect order in the Analytics UI is observed when tables are sorted in ascending/descending order based on "Server Time" or "Cache Time".

Known Issues

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

Issue ID	Component	Description	Solution
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.
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.
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.
10005	Network Settings	While changing the VLAN IP's, the new IP does not get updated.	Restart network services using the following command line: sudo /etc/init.d/network restart
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.
11039	Connection Management	With QLLB ON, when we fire **n** read queries (where **n** = 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 from cluster. The error occurs even though another server in the cluster is available to process the Read Query.	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.

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.
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.
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.
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 3.12.	Use 3.12 AMI for a new installation of ScaleArc for AWS.
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.
17897	Authentication	If an admin user is assigned a policy associated with a list of specific clusters (not ALL clusters), then the user will be not able to view a new cluster created by him/her.	The super user needs to give access to the new cluster to the admin user from the policy configuration page.

Highlight Behaviors

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

ID	Component	Description
	Upgrade	ScaleArc will automatically restart when upgrading from a previous version of ScaleArc (v. 3.6.1 or earlier) to v3.12 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.
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.
16661	HA	In a situation where: ■ 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 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.
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.
17480	Traffic Analyzer	While capturing traffic for a specific cluster, the traffic capture file may also contain traffic traces of other clusters in that ScaleArc system. Such a situation occurs if the clusters have the same database servers or if the clusters are not configured with a specific inbound cluster IP.
17791	User Management	In a situation where a non-superuser upgrades from a previous ScaleArc version to 3.12, an error message is observed stating "Failed to fetch policies." This is an expected error since at the time of upgrade, this user is moved to the newer authentication module introduced in 3.12. As a result, the policy for the user is not associated with the user session. It is recommended that an upgrade to ScaleArc version 3.12GA is performed from a superuser account.

Limitations

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

Issue ID	Component	Description
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 save_cluster_cache () 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	If FQDN is used to add a DB in a cluster on ScaleArc, then only FQDN can be used to set replication within DBs. If a DB is added in a cluster using host name or IP, then either host name or IP can 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 platform.
17316	Traffic Analyzer	ScaleArc traffic analyzer does not process complete end-to-end SSL traffic.
17636	Traffic Analyzer	While performing a traffic capture on a cluster configured with DB servers with instance name instead of SQL port, if instance name resolution fails before traffic capture is initiated, then the captured data may not contain traffic of that database server(s). As a result, reports generated for such captures will not have statistics for these database server(s).

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 3.12 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.