

Upgrade MySQL from 5.5 to 5.7

MySQL 5.5 will be out of support by December 2018 and we must transition away by then. Version 5.7 has some significant bug fixes and large table performance enhancements we wish to benefit from too.

Acceptance Criteria:

- All instances of MySQL are upgraded from 5.5 to 5.7 including billing and audit tables.
- Key business functionality for web, API and batch customers will continue to function.
- There is a demonstrable performance gain from the migration in terms of API response time.

Integrate with a new 3rd Party Service

As the world transitions from desktop computing to mobile, we need to enhance IDResolver to check if devices have been used for previous transactions and any fraudulent activity. A 3rd party service provides this and requires integration

Acceptance Criteria:

- Is the capacity of the 3rd party service providing device checks sufficient for our volumes?
- Sufficient protection for times when the new service is unreliable or unavailable means that other IDResolver functions can continue.
- Instances of potential fraud from devices (mismatch of IP and location of credit application) can be monitored and reported upon.

Implement a new batch processing solution

The batch processing functionality was due to be retired but certain key clients are still using it heavily. A more performant solution is required.

Acceptance Criteria:

- Key business functionality batch customers will continue to function.
- Service will continue during any transitional period.
- Clients should not need to change their methods of accessing the batch service, currently via SFTP.
- The current alerting should be upgraded from the current successful running of jobs system in place now.

Load balancing rules based on remote IP

A number of new high-profile clients are coming on board and will operate at very high load. We wish to divert them to their own instances of the web servers to protect current clients and provide extra capacity for the new.

Acceptance Criteria:

- The Load Balancer can determine which IP address the source of the request and redirect based on that information for the new clients.
- All other traffic should go to the current instances.
- Extra monitoring should be in place to advise if this fails at any point and notify on call engineers.