**MaxDS SQL Server Migration Options**

The MaxDS User Profile module is designed and implemented on MS SQL Server. In the progress of MaxDS cloud migration, there are four options for the future User Profile data store.

1. Keep the existing database as it is. The cloud based MaxDS needs to communicate with current on-premises MS SQL Server, which is d2-wd-oitmssql1.ad.sec.gov:1433.

Pro:

* No further development and data migration work, other than sending a firewall port open request.
* Well established and secure.

Con:

* Managing and maintaining cost

1. Migrate to AWS RDS

Pro:

* Free from entire process of management, maintenance, and security. Focus on essential tasks.
* Benefit of cloud: High availability, auto backup, scalability.

Con:

* AWS service cost
* Database migration

1. Migrate to AWS EC2 instance with SQL Server installed

Pro:

* In control of DB version, configuration, and other components.
* Full access to the OS and DB server to do updates, patches, configuration changes.

Con:

* Lose RDS automated process of DB management, maintenance and security.

1. Migrate to AWS S3

Pro:

* Cheaper compared to RDS option

Con:

* Object storage instead of relational DB. Need java code changes.
* Transaction consistency is limited to single storage operation.
* Only a storage layer without data execution engine