To: Professor Krasso

From: Sarah Kovar

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Subject: From Legacy to SOA

In an effort to stay current with industry best practices, the Solutions Architecture Department has made the recommendation, going forward to utilize a Service-Oriented Architecture (SOA) in all applications Company XYZ develops and customizes for internal employees and external customers. In conjunction with this recommendation, the Solutions Architecture Department has also evaluated our current software solutions and made the recommendation to begin immediately to migrate all existing systems to a SOA.

The migration of our legacy systems will not only impact the logic and manner in place in which our applications function, it also impacts how data is stored. We will begin work immediately to stand up a single, non-relational database, such as Mongo.

In evaluating legacy applications, in the attached diagram, you can see the Business Services that applications have been grouped by. By doing this, we can demonstrate which applications have repeatable/sharable business services/tasks to offer each other. The business services are Human Resource Services, Technology Services, Financial Services. As we begin the migration process of moving to SOA, we will recognize repeatable services that can be shared across business services; however, our strategy will be to migrate one working pieces at a time. Examples of a repeatable/sharable business task can be found with Financial Services – creating a new vendor, processing an ACH, creating an invoice, etc.

By utilizing repeatable services, we will be able to have one truth center we can reference across applications that utilize it. The first two items we wish to accomplish in phase one is to (1) eliminate the maintenance of user access within each individual application. We will do that by utilizing Active Directory for Single-Sign-On capabilities. Step (2) will be to reference Active Directory attributes for all employee references within each application, creating a truth center reference of information.

For phase two of the legacy migration, we will workshop out Business Service applicable tasks/processes. Diagramming this information out will allow us to see if we have opportunities to streamline business processes within each application as well as preserving our data integrity. This will also serve as our opportunity to determine if there are any common tasks/processes that span across multiple or all business service groupings.

Phase three will be actionable, to take on the Financial Services business grouping and begin implementing a SOA. It will be necessary to insure we have backups of all of our data and are able to reference it at all times. During this process we will be migrating from compartmentalized relational databases into a very large non-relationship database. It will be important we check data and do regression testing every step of the way. It will be an important strategy to complete only the necessary steps required at a time so that we are able to determine root cause of anything that comes up.

References

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