to: acme business solutions, L.L.C.

from: Matt Howard

subject: migrate legacy service-oriented architecture (soa)

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cc: tech solutions, l.l.c.

# migrating legacy service-oriented architecture (soa)

This memorandum sets out the process and procedures Tech Solutions, L.L.C. will use to migrate the legacy service-oriented architecture (SOA) of ACME Business Solutions, L.L.C.

The technology you put into your business should add value by supporting your businesses objectives and facilitating its efficiencies. To do this, the technology should help you improve the bottom line by defining the objectives up front, including the goals for business success. (Linthicum, 2008)

Tech Solutions, L.L.C. has five goals when migrating your legacy SOA, to include:

* Respond to business needs in near real-time by improving your SOAs adaptability and agility.
* Eliminate the need for large scale replacements by functionally reusing pre-existing systems.
* Focus on configuration instead of programming by using independent change management.
* Create interoperability over point-to-point integration by using loosely-coupled framework services in network.
* Bring it all together with configuration instead of development to deliver business needs.

To this end, Tech Solutions, L.L.C will migrate your legacy SOA using horizontal scaling by adding additional servers to the one you've already got. We will scale over time to give you long-term results to best meet your businesses and customers’ demands. We will start by scaling one server, then follow with two more servers over time. (Wik, 2012)

We can also scale vertically by replacing your server that has lower storage with ones that offer more storage, and we can scale by depth, meaning we can add or remove services or service capabilities to best suit your needs. We will also tune your servers using data manipulation tuning to improve query performance and offer RAID-enabled RACs to provide fault-tolerant parallelization. When we migrate your legacy SOA we will take the following in to account to ensure you get the best return in your investment. (Wik, 2012)

* Identify business goals
* Identify key business process that support these goals
* Identify common steps/tasks in these processes
* Identify functionality from the legacy system to support these steps/tasks

We will use the following matrix to determine the needs:

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| --- | --- | --- |
| Discussion Topic | Related Questions | Potential Migration Issues |
| Goal and Expectations of Migration Effort | * What are the business and technical drivers for the migration effort? * What are the short-term and long-term goals? | * No SOA strategy * Goals for migration are not clear |
| Understanding of Legacy System | * What is the main functionality provided by the legacy system? * What is the architecture of the system? * What is the current user interface to the system? | * Legacy system knowledge is not available * Architectural mismatch * User interface complexity hard to replicate in service consumers |
| Understanding of SOA Environment | * What are the main components in the SOA environment? * Is this the organization’s first attempt to deploy services in this environment? | * Target SOA environment has not been identified * No in-house knowledge of target SOA environment |
| Potential Service Consumers | * Who are the potential service consumers? | * Consumers for services have not been identified |

(CarnegieMellon, 2007)

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| --- | --- | --- |
| Discussion Topic | Related Questions | Potential Migration Issues |
| Legacy System Characteristics | * What is the history of the system? * Is the system a proof of concept, prototype, under development, in testing, or a fielded system? * What system documentation is available? * Does the system have interfaces to other systems? * What are potential locking, persistence, or transaction problems if accessed by multiple users when migrated to services? | * Planned development concurrent with service migration * Limited system documentation * Interfaces to other systems will open doors to service consumers * Single-user system may have problems in a multi-user environment |
| Legacy System Architecture | * What architecture views are available? * What are the major modules of the system and dependencies between modules? * Is user interface code separate from the business logic code? * Are there any design paradigms or patterns implemented in the system? * What are the key quality attributes built into the current architecture of the system? | * Lack of architecture documentation may lead to underestimation of complexity * Tight coupling between user interface code and business logic code increases effort * Undocumented violations of design patterns may cause problems * Key quality attributes may not hold true in a services environment |
| Code Characteristics | * What code documentation is available? * What coding standards are followed? | * Poor coding practices will increase migration effort |

(CarnigieMellon, 2007)









As you can see Tech Solutions, L.L.C has a variety of strategies and capabilities to scale your legacy SOA making it more reliable and robust. I hope you consider us, you won’t be let down.

# Works Cited

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