

Migration of Legacy ESB to Modern Middleware Platform for a Leading Non-governmental Organization



ATTENTION. ALWAYS.



aspire 
SYSTEMS
attention. always.

THE CUSTOMER

Our customer provides both the digital platforms and in-person experiences that enable people to work together toward a more equitable world. Their mission is to build a dynamic bridge that enables design and implementation of technology solutions for a more equitable planet. They have reached more than 690,000 organizations with the tools they need to improve lives and have delivered more than US\$5 billion in technology tools and philanthropic services.



THE CHALLENGE



Business Challenges

- 1 With 70 plus consumers globally using the services currently, switching to new middleware had to be seamless.
- 2 Consolidating Services and implementing versioning of services shouldn't have consumers make any changes to their code base to accommodate the service consolidation.
- 3 With no documentation around the services and no inventory of who uses which version of service, migration and routing of services was difficult.
- 4 Need to retire unused versions of the services.
- 5 Their SSL certification was expiring soon.
- 6 Hassle of setting up and maintaining services and infrastructure for each consumer onboarding.



Technical Challenges

- 1 Current Middleware solution uses Custom .Net components.
- 2 No proper versioning of services established.
- 3 Each consumer used a version of service and the customer needed to setup servers with service for each of their consumers.
- 4 Consolidating multiple versions of services by being backward compatible. Some services had 6 versions in existence and actively used.
- 5 Consolidating services, Implementing Content Based Routing for services to support multiple technologies (PHP 5.3, PHP 5.6, .Net Framework 3.0, .Net Framework 4 and Java)
- 6 No Modularity Approach in current middleware architecture.
- 7 Handling exceptions, tracking of transactions and resubmitting requests was a challenge.

THE SOLUTION



Aspire proposed AURAS, an integration platform solution conceptualized and built by Aspire, comprising of industry proven design patterns, reusable components and best practices to speed up the development cycle rapidly.

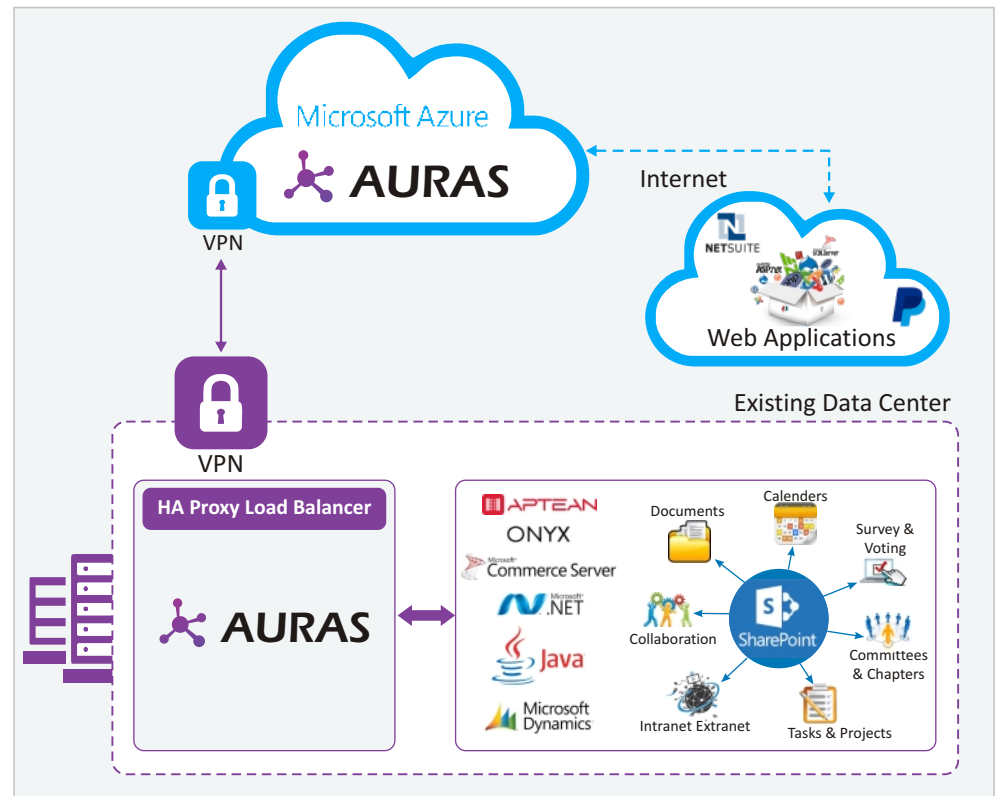


Aspire's priority was to implement a middleware systems that can quickly adapt to the business challenges and the strict timeline with their certificate expiration. The solution was to introduce content based routing and better versioning strategy to address the challenges. The proposed solution leveraged the benefit of hybrid cloud.

Aspire proposed AURAS, an integration platform solution conceptualized and built by Aspire. AURAS is a proven end to end development Platform comprising of industry proven design patterns, reusable components and best practices to speed up the development cycle rapidly.

AURAS Platform eliminated the initial basic project plumbing efforts which takes almost 20%~30 % of the entire project cycle. AURAS Platform comes with the out of the box capabilities for exception handling, notification, persistence, auditing, rules, connectivity and some of the utility functions often used across all projects. The main advantage of having multiple reusable components is to have a rapid development cycle by not investing additional time and money in building such standard components for connecting to standard applications.

Since most of the important components are available within the framework on a reusable mode, the primary concentration of development would be to have all business logics and transformation rules that need to be put in place matching the integration requirements.



Project Blurb

Our customer used an older version of Oracle OSB to manage its services, the existing Oracle OSB couldn't support:

- ➡ Handling REST calls
- ➡ Increased security standards and updates with SSL. Their SSL certificate used in production was expiring in 3 months from their RFP date.

Given the shortcomings of the current version of the Oracle OSB, our customer either had to upgrade their Oracle OSB or to migrate their web services to a new middleware platform. Customer partnered with Aspire to do the latter, migrating all their web services to a newer middleware platform.

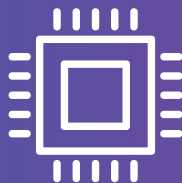
In the process of migration to a newer middleware solution, our customer wanted to consolidate multiple versions of existing services, streamline their services versioning strategy, better manage multiple versions of service to support backward compatibility, support https, take advantage of cloud and implement some of the best practices followed in industry for their web services.

KEY BENEFITS



- ➔ Services were consolidated with proper versioning implemented.
- ➔ Saved them lot of money by not having to set up servers for every new consumer.
- ➔ Maintenance of existing infrastructure became easier
- ➔ Improved business agility allowing the company to adapt swiftly and efficiently to emerging requirements.
- ➔ Processes are automated without manual intervention.
- ➔ With API Manager Part of the solution, flexibility to customize output formats to fit consumer's need was made possible.
- ➔ Extensive Error handling comes with the solution to include any after error process.
- ➔ Services were modularized based on the operation they perform.

TECHNOLOGY SNAPSHOT



AURAS - Layers of Service:

Enterprise Business Processes

Enterprise Business Services

Internal Data Services

Data Analytics Services

Business Rules

Utility Services

Messaging Services

Error Handling and Notification Services

Apache Active MQ 5.13.x

SQL Server

Microsoft Azure

Domain: NPO\NGO

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ABOUT ASPIRE

Aspire Systems is a global technology services firm serving as a trusted technology partner for our customers. We work with some of the world's most innovative enterprises and independent software vendors, helping them leverage technology and outsourcing in our specific areas of expertise. Our core philosophy of "Attention. Always." communicates our belief in lavishing care and attention on our customer and employees.

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