MuleSoft - Integration Architect

Technologist with 14+ years of Enterprise Integration experience seeking challenging position in the industry to use most of my expertise and industry experience in SOA, Microservices, Enterprise Integration, EAI, BPM and AWS Cloud skills.

# Highlights:

* Expert in the design and implementation of cost-effective, high-performance technology solutions in support of corporate strategy; strong technical background and understanding of application analysis and design concepts with experience in an agile software development environment.
* Experience using technologies Java, J2EE, WebServices (REST, SOAP), Amazon Cloud, Spring, Hibernate.
* Expert at developing and architecting an SOA and Microservices based solutions with a wide cross section of experience in building J2EE-based Web development and application integration using **Enterprise Integration Patterns** and **SOA Patterns** and **Microservices.**
* Expert on IBM stack of EAI Tools IBM **ESB, BPM, ODM** as well of Open Source tools – JbossFuse, Mulesoft, JBPM, Rules.
* Developed applications which are **High Available** (Fault & Disaster tolerant) and **High Scalable** (Vertical & Horizontal) Enterprise Architecture and **Security** (**Transport & Message level Security**) Architecture
* Knowledge on best practices in designing, building, running, and maintaining WebSphere MQ solutions in order to achieve the full benefits of WebSphere MQ. Worked on various Messaging Styles like **Fire & Forgot**, **Sync & Async**, and **Publish Subscribe** etc.
* Strong experience in SOA Appliances like IBM DataPower XI52 & XC10 for ESB, securing various services in Enterprise and providing the caching capability.
* Experienced in **Agile Business Rule Development** (ABRD) Methodology and strong in designing Rule Orchestration & Event management.
* Experience in leading and managing teams. Handled multiple roles – **Middleware Design Specialist, SOA Integration Solution Technical Lead, Designer, Developer and Technical Production Support**.
* Providing quick proof-of-concepts (POCs) to materialize innovative technical ideas. Ability to break up complex architecture designs into phased approaches.
* Performance tuning and Memory management of the application modules
* Understand the AS-IS architecture and Business processes of legacy systems.
* **Researching** new technologies that can drive Business innovation; special interest on **Micro Services**, **API** and Digital Transformation.
* Worked with major **clients** like IBM SWG(Software Group), American Airlinesand Unilever, State of NJ and State of CT and delivered Technical Solution design, development and Delivery roles
* Document business requirements working together with Business Unit and stakeholders

# Areas of Expertise:

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| * Architectural Design | * Strategic Planning | * Cloud Migration |
| * SOA Reference Architecture | * SCA | * Design Pattern |
| * SOA /Microservices Patterns | * EAI / BPM Patterns | * Design Review |
| * Development – Java / J2EE | * Communication | * Collaboration |

# Technical Skills:

Core Technologies **-**

* **Middleware and Standards - Enterprise Integration**
  + Mulesoft – Anypoint Platform, API Lifecycle Management, Mule Batch, RAML
  + Jboss Fuse, Apache CXF, Apache Karaf, Apache Camel
  + IBM Integration Designer 7.5, IBM Websphere Integration Developer(WID) 6.x/7
  + IBM Websphere Process Server (WPS) 6.x,7.x
  + IBM Websphere Enterprise Service Bus (WESB) 6.0/7.5
  + IBM MQ Series 5/6/7
  + WebServices with SOAP, REST, JAX RPC, JAX-WS, WSDL, BPEL, SCA, BPM, JMS, XML
  + Java, J2EE, JNDI, EJB, JTA, JMS, JDBC, JSP, Servlet, XML, Log4j, Jakarta Ant, Java & J2EE Design Patterns
* **Security & Identity Management -** 
  + Used **WS Security, SAML, SSL, XML Signature, XML Encryption** to authenticate, encrypt and sign XML messages.
  + LDAP and SSO.
* **Cloud -** 
  + **Amazon Web Services**, AWS **EC2**, AWS VPC, AMI, Security Group, Load Balancers,
  + Google Cloud Platform
* **Governance -** 
  + Hands-on experience in configuring **Websphere Service Registry & Repository** (WSRR).

Other Tools and Technologies used:

* Proficient using **Amazon Web Services (AWS)** creating EC2 Instances, AMIs, VPC, Security Groups, Rules, Subnet, Elastic Load Balancer, ElasticIP, Auto Scaling Group.
* Knowledge of **JSON**, **XML technologies** such as XSLT, XPATH
* Developed Web Applications using **Spring MVC, Hibernate, Struts MVC and JSF**, Javascript, JQuery, DOJO
* Strong experience in working with database like **Oracle, DB2, MS SqlServer.**

# Other Skills and Achievement:

* IBM Top Talent and IBM Leadership team - multiple IBM Bravo awards and IBM resource retention awards.
* 10+ years to client facing in USA.
* Ability to handle large projects and present day to day reports in front of client and stakeholders.

# Project Details:

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| **Mulesoft Integration Architect & Lead** | |
| Client – QBE Insurance, Location - NY | **Oct 16 –present** |

The current project involved leading and architecting solution for QBE Insurance North America - based out of NYC. The solution includes migration of a 80+ interfaces & integrating with 150+ applications - from webMethods solution to MuleSoft.

The deliverables of my role as an enabler of latest technology included but not limited to the list below.

* Defining road map of the migrations.
* Building Architecture BluePrint document.
* Software Architecture (SARC) approval with the Global Architecture team in QBE.
* Educating and working with the QBE Infrastructure with new technology - MuleSoft (CloudHub/OnPrem/Hybrid) - and come up with Infrastructure Document.
* Educating and working with the QBE Infrastructure with new technology - MuleSoft (CloudHub/OnPrem/Hybrid) - and come up with Security Document.
* Work with the QBE Middleware support team to setup MuleSoft - Anypoint Platform - defining users/roles, organization, firewall, connecting to onPrem servers, setup Analytics.
* Working with MuleSoft and QBE in setting up VPC/VPN tunnel in connecting CloudHub to OnPrem MuleSoft implementation
* Architecting & Designing common frameworks used in development - Logging, Audit-Logging, error handling, retry mechanism, developing reusable components, connectors and uploading in Anypoint Exchange.
* Integration with Splunk
* Designing 3 layer architecture - System API, Process API, Experience API while migrating the complete solution.
* And eventually working with the offshore dev team in delivering the interfaces - planning, estimate and delivery.

Of all the greatest challenge that we faced till now was to integrate with 150+ applications, which were consumers of the interfaces. We came up with innovative approach of using NetScaler Load Balancer’s content switch to route traffic from going to webMethods to MuleSoft. This has saved considerable time and money of the customer and was a smooth migration from webMethods to MuleSoft without any changes to the Consumers.

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| **Integration Solution Architect (Mulesoft)** | |
| Client – Maryland Health Benefit Exchange, MD, Location- BWI, MD | **Nov 15 – Sept 16** |

Project -

The goal of the Maryland Health Benefit Exchange (MHBE) is to make health coverage affordable and more accessible for Marylanders. MHBE is responsible for Maryland Health Connection, the state’s health insurance marketplace under the Patient Protection and Affordable Care Act of 2010 (ACA). The MHBE works with the Department of Health and Mental Hygiene, Maryland Insurance Administration, Department of Human Resources and stakeholders statewide.

Responsibilities:

* As a Subject Matter Expert (SME) for Health Exchanges Integration solution - I was responsible for migrating Integration solution of the client from IBM stack to Opensource technology.
* Discuss requirement and technical challenges with the stakeholders.
* Develop technology roadmap for migration from IBM stack to opensource.
* Migration effort analysis for migrating code base developed in IBM SOA ESB environment to Open Source environment like Mule Soft or Red Hat Fuse ESB
* Evaluated and selected Mule Soft ESB to replace IBM ESB environment.
* Successfully migrated/re-implemented couple of Mediation flows and Services designed in IBM WESB to Mule ESB Integration flow using Anypoint Studio
* Experience with **RESTful API Design (RAML)** and **Service Interface Design (WSDL – WebServices)** using top-down/bottom-up/meet in middle approach.
* Experience with complete **API Lifecycle Management** like designing, building, managing, and publishing of an API.
* Demonstrated Mule ESB’s capability of handling large data set - Mule Batch
* Used various Enterprise Integration Pattern available in Mule like Streaming, Splitting, Aggregation, Multi Cast, Dynamic Recipient, Idempotent Message Filter, Wire Tap etc
* Prepared initial design for Exception Handling and Compensation strategy
* Developed proxy with oauth verification for all the back end services (Data as a Service)
* Designed RESTful APIs (RAML) and implementation flows.
* Developed reusable Data Weave files for multiple flows for message transformation.
* Developed services which comprises of components such as JDBC, JMS and JAXB

Tools and Technologies -

Mulesoft, RAML, REST, Microservices, JAXB, JMS, IBM ESB 7.5,

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| **Lead Integration Architect (Mulesoft ESB/SOA Solution)** | |
| Client – Access Health, CT, Location- Jersey City, NJ | **Dec 13 – Nov 15** |

Project -

Access Health CT (also known as the Exchange) was created by the Connecticut Legislature in 2011 and is a quasi-public agency established to satisfy requirements of the federal Affordable Care Act. Its mission is to increase the number of insured residents in Connecticut, promote health, lower costs and eliminate health disparities. Its vision is to provide a simple online shopping and enrollment experience for state residents and small businesses. Access Health CT will ensure that participating health plans meet certain standards, and will facilitate competition and choice by rating the quality of each plan. Individuals and families buying coverage through the Exchange may qualify for tax credits on premiums. More information is available at www.AccessHealthCT.com.

Responsibilities:

* I was responsible for migrating MHBE Integration solution from IBM stack to Opensource technology.
* Discuss requirement and technical challenges with the stakeholders.
* Develop technology roadmap for migration from IBM stack to opensource.
* Research and evaluate opensource technologies in the market.
* Develop PoCs with several opensoruce technologies including Jboss Fuse, Mulesoft, Ws02 etc
* Led the complex migration effort of the whole MHBE systems – migrating from IBM ESB to Mulesoft.
* Worked with the infrastructure team to create external IP and DNS entry and create external facing loadbalancers in F5.
* Implemented SSL and mutual authentication process between different systems which are involved in the integration.
* Used LDAP Authentication to authenticate users with the existing infrastructure.
* **AWS and IBM ESB** - Setup AWS environment and migrate existing on-premise IBM ESB architecture to a new AWS cloud based architecture which utilizes lower cost, have high scalability. Keeping the existing application functionalities intact. The solution contained the migration of all the Access Health Middleware environments to Amazon Web Services (AWS).Created Security groups, Elastic IP, Key Pairs, Load Balancers, VPC etc while setting up the AWS environment.
* **AWS and IBM Datapower** - Configured Datapower Virtual Appliance in AWS. Configured Web Service proxies and developed XPath, XSLT mapping and Integration flows in IBM **Datapower**. Implemented SSL offloading using the front side handler (HTTPS).

Tools and Technologies -

MuleSoft Anypoint Platform, Mulesoft Cloud Hub, IBM ESB 7.5, Amazon Web Services, AWS EC2, AWS Auto Scalling Group, AWS Elastic IP, AWS Elastic Load Balancer, Forum Sentry

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| **Integration Architect – IBM Solution Stack (ESB/WPS)** | |
| Client – State of NJ, Location **-** Princeton, NJ | **June 13 – Nov 13** |

Project details-

State of NJ CASS (Consolidated Assistance Support System) Project is a very large scale Service Oriented Architecture (SOA) based Enterprise application to support the communication of system of information between NJ CASS and its associated several heterogeneous independent legacy systems like Medicaid Management Information System (MMIS), Financial Assistance Management Information System (FAMIS), and Automated Child Support Enforcement System (ACSES).

NJCASS - provides an integrated system of eligibility, benefit and service delivery. It involves integration with internal (DFD, DHMAS and more) as well as external systems such as NJSPRIT, NJKIDS and others.

Responsibilities -

* Re-architecting NJ Cass Interface project to improve performance issues and remove bottlenecks in the system
* Responsible for re-designing the system where we had to remove the tight coupling of the existing WPS system with IBM Curam.
* Created high level architecture to implement Enterprise service Bus solution to integrate various information systems at Enterprise level.
* Developed message flow interfaces to transform messages using built-in nodes Compute Node, filter node, mapping node.
* Developed message flow interfaces using HTTP and SOAP Gateway nodes to invoke web services from external systems.
* Developed message flow using Pub Sub Integration pattern.
* Developed the interfaces to support both synchronous and asynchronous message flows.
* Delivered Service Design Document (SDD) and Mapping sheets to be used in various XSLT mapping and BO Mapping.
* Unit and Integration testing in lower and higher environments working closely with the QA team, the Business unit and with third party vendors if required.
* Research opensource solution to replace IBM stack of products. Evaluate Mulesoft, JbossFuse, WsO2 for replacing IBM ESB and evaluate JBPM to replace IBM BPM.
* Developed PoC in Mulesoft Flows and Jboss Fuse Routes.
* Did comparative study of performance of consuming messages using Mulesoft and JbossFuse.

Tools & Technologies -

Java, J2EE, IBM Integration Bus (IIB 9.0.0.2), WebSphere Application Server 7.0/8.5.0, WebSphere MQ 7.0, IBM Integration Toolkit, WebSphere MQ Explorer and Team Foundation Server (TFS), WSRR (WebSphere Registry and Repository, ILOG, Web Services, SVN, XML, SOAP, Toad, Log4J, UNIX, Windows XP, Mulesoft, Jboss Fuse.

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| **IBM BPM Lead/Architect** |  |
| Client - American Airlines Cargo - LT, Location- Dallas TX | **April 09 – May 13 (4 years)** |

Project -

The main objectives of this project are to implement shipment and container location tracking at various warehouse locations. With the Location Tracking project, Cargo division of the company will address their #1 business priority for shipment piece tracking. They followed Agile Methodologies to deliver products much faster.

Responsibilities -

* Involved in Design and requirement gathering discussions. Leading offshore and onsite teams.
* Design process models using IBM BPM v 8 / Lombardi to capture processes – using Discovery Maps – which contain milestone and activities and complete process diagram – with swimlanes.
* Defining teams and assigning activities to teams and lanes.
* Created BPD’s using the BPMN.
* Designed and developed Advanced Integration Services and BPEL flows using Business process editor in WID
* Design and develop BOs, Services interfaces, BO maps, Interface maps.
* Implemented common Error handling in the BPEL flows
* Implemented different types of communication modes using WPS bindings.
* Expose Business processes as Web Services.
* Data power pipelines/XSLTs to offload XML transformations and security functions.
* Defined and consumed ILOG Business Rule as WebService from the BPEL.
* Creating/managing artifacts of IBM Data power SOA appliance which includes Multiprotocol gateways, Web service proxy etc.
* Design XML schemas, WSDL and canonical models for integration, development of XSL and non XML transformations, routing, service enablement and governance using Data power and WSRR
* Using Websphere Integration Developer and Process Server for creating services consumed by Portal, Scanner and also components deployed in Websphere Process Server.

Tools & Technologies -

IBM Blueworks Live, IBM BPM 8, IBM Websphere Process Server, Websphere Datapower SOA Appliance, Websphere MQ, Java, J2EE, Oracle 9, Linux, SABRE, Rally

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| **Senior Integration Developer** |  |
| Client - IBM S/W group - E2E Translation, Location **-**  India & CA, USA | **Jun 06 – Apr 09 (3 years)** |

Project -

As part of the IBM On Demand E2E Translation Project – pilot implementation of the proposed transformation from the existing part manual/automated translation process to a fully automated end to end translation process using existing memory/terminology technologies.

Responsibilities -

Architect and implement end to end solution using the IBM stack of Integration products including IBM WPS, IBM Business Modeler.

Tools and Technologies-

IBM Integration Suite which included Business Modeler, Integration Developer, Process Server, Business Monitor, Java Server Pages, DOJO.

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| **Sr. Systems Engineer** |  |
| Client - Unilever - Cash Management, Location **-**  Bangalore India | **Sept 04 - May 06 (1.5 years)** |

Project -

A full-fledged Approval System wherein we have different levels and hierarchies of the Approvers and also different roles for the users who login to the System. Requests were route through WBIMB passed through ICS and came to MQ Workflow for decision. The front-end was designed for either approving, rejecting, or terminating the requesting.

Responsibilities-

J2EE and Struts developer

Tools and Technologies -

IBM ICS, Java, J2EE, Struts, JavaScript

# Education & Personal Interest:

* Master of Computer Application from West Bengal University of Technology, 2004
* Enjoy Music & Travelling