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| **Manoj Chugh** | | | **Group Chief Architect – Orwell Banking** | |
| mobile-icon-layout-preview07896979703email [manojchugh5@gmail.com](mailto:manojchugh5@gmail.com) maps British Citizen | | | | |
| **PROFILE** | | **Technologies** | | **Industries** |
| ● A hands-on technical individual with 22 years of experience in Architecture, Strategy, Consulting, Sales of highly scalable, resilient and secure solutions ● Led consulting & sales with targets of up to $20mm | | Big Data / Machine Learning / Analytics ● Cloud (GCP, AWS, Azure, Openstack) ● Data warehousing ● DevOps/SRE ● Microservices, Containers (Kubernetes/Docker) ● Serverless & NoSQL | | Payments ● Treasury ● Retail / Wholesale / Investment Banking ● Insurance ● Consumer ● Internet ● Energy Trading ● Utilities |
| **EXPERIENCE** | | | | |
| 10/2018 – Till date | **Orwell Group**  **Group Chief Architect**  ● Built a multi-cloud borderless Bank-as-a-Service platform (highly distributed, highly available, resilient and secure) with full Open Banking compliance (PSD2) in 10 months using real-time event streaming architecture  ● I was invited to speak at MariaDB Openworks conference in NYC in Feb,19 about my unique design  **Key Projects**  Designed a multi-cloud solution for AWS, Azure and GCP ● Designed AWS EKS for Kubernetes/Docker/Istio side-car service mesh based microservices using Springboot following Domain Driven Design principles ● Implemented Cloud-native Monitoring solution using Prometheus & Grafana ● Architected Drools Rule Engine, Activiti Workflow Engine, GraphQL and Workflow scheduler for the Real-time streaming event driven platform to build Fraud, AML, onboarding and sanctions capability ● Introduced AWS Cognito for OAuth/OIDC for AuthN & AuthZ for banking platform ● Designed Apigee layer for public facing API gateway ● Designed Serverless Architecture for channels using AWS Lambda, AWS DynamoDB ● Architected ELK as the Logs aggregation ● Architected back-office front-end using React/Redux/Webpack/SaaS/Nodejs & Mobile Apps using Kotlin/Swift ● Kafka as the backbone for Event Sourcing principles and Apache Storm, Spark, Kafka Streaming as the stream processing ● MariaDB & ScyllaDB as the SQL/NoSQL architecture including CDC solution ● Hadoop HIVE, HBase, HDFS, Spark as the Analytics platform ● AWS Lambda, DynamoDB, EventBridge as the serverless solution | | | |
| 09/2016 – 10/2018 | **HSBC (seconded from Wipro)**  **Client Partner - Chief Architect**  **Global Operations, Big Data and Cloud Transformation (Target $20mm)**  I was Lead Consulting Partner for HSBC to drive digital, data and cloud transformations.   * Worked as Chief Architect at HSBC on building Hadoop Platform-as-a-service & Data-as-a-Service with 2017 savings on hardware of over $85mm. Total number of nodes over 4k with forecasted storage of 1 Exabyte. The solution is based on virtualizing Hadoop, separating storage and compute, implementing Object Storage with Software defined Storage & Networking, building a data lake across whole of HSBC, Migrating existing Data applications to Google Cloud * Chief Analytics Architect for cash & cheque reduction across 68 countries, 13 product lines, 4 global businesses, current annual spend of $90mm. * Chief architect for lean six sigma Process excellence & Analytics for payments modernization * Built HSBC’s global analytics strategy with Technology, Data, Talent and Operating Model transformation * Cloud transformation for Data/Analytics to Google Cloud Platform * Extensively Used Mulesoft AnyPoint platform for API integration (Process, Experience and System APIs) * On-prem legacy cloud using VMWare vRealize * Setting the vision and defining policies for Big Data and Cloud working with partners such as VMWare, Dell EMC, Hortonworks, HPE, Cisco, RedHat, Google, Amazon, Microsoft and Intel * Managing TCO for the strategic Anything-as-as-Service portfolio for Hadoop and Storage * Leading consulting assignments in Global Enterprise Architecture, Big Data, Cloud, Microservices, Analytics and Financial Services with strong focus on thought and strategic leadership driving growth and delivery across the fast growing digital and analytics portfolio * Leading container orchestration and edge network utilization in IaaS using Mesosphere, DC/OS, Kubernetes, Docker and Yarn | | | |
| 11/2012 – 07/2016 | **J.P. Morgan Global Commercial Cards and Big Data transformation**  **VP - Head of Architecture**   * Head of Architecture for >$100m multi-year transformation program for Hadoop Big Data Ecosystem based on Hortonworks& Cloudera, HBase, Spark, Kafka, Greenplum technologies * Built Chase Data Ecosystem in response to Regulatory, Executive Management, Control, Economic-based stress testing and Operational Management Requirements * POC for the cloud deployment for non-PI sensitive JPMC applications to AWS * Managing 4 commercial card platforms with an annual budget > $50m * Architected low latency high volume SOA/B2B platform with transactions in 95 countries & 30 currencies with spends of $49 billion/year * Multi-million pounds compliance projects involving Basel III, SEPA, OFAC screening, cross-currency transaction reporting. Implemented AML/OFAC compliance using Actimize/Fortent, Case Management tooling and Bridger Insight XG * Led DevOps transformation reducing release cycles from 3-month waterfall to 2 weeks * Integrated JPMC & Airplus systems (Integrated 17 segmented systems into the platform); Designed large systems integration between JPMC & Lufthansa involving file integrations, WS & MQ integrations * Back Office transformation from 78 applications to Pega BPM. Tactical implementation of Vormetric base file and database encryption for highly sensitive data * Product evaluations between Pega, Oracle BPM, IBM BPM, CredAgility * Implemented MuleSoft Anypoint API for digital API integration * Designed SalesForce.com SSO using SAML and data integration using WS/ETL £1m sizing * Managing large enterprise vendors such as MasterCard, TSYS, HP * Owned Cyber/MFA initiatives with a budget of $5mm * Overhauled the current state architecture involving the complete OSI stack Physical, Data, Network and Application Layers with total realized savings of £2.5m | | | |
| 2/2012 – 11/2012 | **Visa Europe (seconded from Monitise/now Fiserv)**  **Lead Presales Architect & Design Authority**  **(Annual target - $5mm)**   * Designed Visa’s FX mobile platform to support payments of 460 million Visa cardholders across Europe * Developed 3 deals (range $10-20m) in Mobile Loyalty, Stale Data and FX * Created technical end-to-end solutions for Monitise products and services covering software (mobile banking, payments & ecommerce), infrastructure and security domains * Providing technical leadership to the team of approximately 30 employees consisting of numerous developers, testers, several mid-level architects and test managers * 2 significant revenue (£12m+) enterprise projects delivered as the technical authority * SDA/TDA on Loyalty proposition for Visa Europe involving Business Analytics on relevant offers for customers depending on their spend habits –£12m solution and transaction-based revenue for Monitise * Delivered Project Alliance - £5m revenue for Monitise as a solution design authority. High volume application integration of 2m customers from RBS with Visa Payment Gateway | | | |
| 12/2004 – 2/2012 | **Cincom**  **Solutions Architecture & Engineering Manager**   * Architected Greenfield product development with revenue generation of $50m * Owned multi-year technology roadmap with Legacy services transformation from single to multi-threading (performance gained 40x) * Delivered solutions using application integration patterns with ESB & Messaging brokers * Solutions for Geico, Citibank, Medica, Zenith, World Vision, Vodafone, HSBC Brazil, Sanlam, Mapfre, AXA, Allianz, Monbanq, Covefi, Barclays, Carnival * Responsible for program management, expense tracking and P&L * Worked with stakeholders at all levels including CTOs, Senior management, Sales, Business teams to define, scope, review, estimate, negotiate & manage deliveries, schedules * Won Director’s Club Award 2011 at Cincom * State of Utah project – Proof of concept & design winning against Accenture, IBM, Thunderhead leading to sale (revenue $2m licence + $1m maintenance) * Liberata Pensions - Proof of concept and Solution Architect in closing of sale (revenue $2.5m license + $1m maintenance) * Lead in Cincom AFP Consortium initiatives ([www.afpcinc.org](http://www.afpcinc.org)) and responsible for strategy & direction | | | |
| 07/1997 – 12/2004 | **Xansa**   1. **BG Energy Trading - Technical Team leader (4 direct reports)**   Providing technical assistance to business for trades transactions with all the leading energy market counterparts on the ETRM systems. The trading portfolio contained both OTC and structured bilateral trades covering Power, Coal, ETS, Renewable and a limited Gas capability ● Configuration of ZaiNet to provide risk management and system integration for new gas markets   1. **Centrica, Technical Team leader (12 direct reports)**   Delivering the Sales and Customer systems ● A £5m revenue generation for British Gas by allowing billing of stuck records ● Implementation of 3rd disk OMNI mirroring/backup solution for a 24x7 online system ● Delivered many key projects e.g. SPoF, Date changes, RDM ● Architected & Developed.NET web system for 400 users   1. **ING Investment, Solutions Engineer**   Calypso implementation and configuration of OTC derivatives (Buy-Side) as well as migration from Calypso 7 to Calypso 8   1. **Xansa - Misys/Kindle BankMaster RS – Banking, Software Engineer**   In Bogota, Colombia for the branch rollout of BMRS to at Fundacion Social and Banco Caja | | | |
| **EDUCATION, TRAININGS & PAPERS** | | | | |
| * Bachelor of Engineering (Hons.), Punjab Engineering College, India (1993-1997) * Earned CFA Level 1 * Papers   + Aug 2018 – Using DDD/Microservices and Containers to simplify Applications   + May 2018 - Architecture for the Digital Business   + March 2018 – Data Management & Governance   + Dec 2017 – Modern Analytics & Analytics-as-a-service for Enterprises   + Feb 2017 - DevOps - Impact on Architecture   + Sept 2016 - Industrializing Big Data | | | | |
| **SKILLS** | | | | |
| Architecture & Consulting | Enterprise Architecture, Roadmaps and Strategies, Digital, Robotics/RPA, Process transformation, UML, TOGAF, SOA, ESB, Archimate, Clustering, Load Balancing, Messaging, Stakeholder Management, Service Integration and transition, White-boarding and presenting solutions, Fit for purpose designs, Calypso, IBM & Oracle Stacks, Big Data, Mobility design | | | |
| Cloud, Digital | GCP, AWS, Azure, Openstack | | | |
| Data, AI/ML & BI | MDM, ODS, Data warehouse, Data Mart, Meta data repository, Data Management, Data quality, Lineage, Data Modelling, Teradata, Ab-initio, DataStage ETL, SSIS, Pentaho, SAP Business Objects, SAP Business Intelligence, Cognos, Tableau, SAS, Crystal Reports, SQL Server, Oracle, DB2, Informatica, Apache Hadoop, Greenplum Analytics, Spark ETL, HBASE, Pig, Hive, Sqoop, Kafka, Qlikview, Qliksense, MongoDB, H2O, Anaconda, Jupyter, DataScience, ML/DL, DynamoDB, MySQL, Cassandra, ScyllaDB, MongoDB | | | |
| Webservices, BPM & Integration | Microservices, Springboot, SpringMVC, Drools, Activiti, DDD, BPM, BAM, Pega (v5.6, v7), jBPM, CredAgility, DataPower, Webservices, SOAP, REST, Spring WS, WSDL, WADL, BPEL, BPMN, XML, XSL, XSD, Workflow tooling, IBM MQ Series, Active MQ, JMS, JCA, FuseESB, Apache Camel, ServiceMix, NDM, Managed & Secure File transfers, Mulesoft, Swagger, Websphere, Weblogic, Tomcat, jBoss, Spring MVC | | | |
| Infrastructure | Commodity/Blade/Rack servers, SAN/NAS, Clusters, Sustained resiliency, WAF/F5, Load Balancing, Proxies, Routers/Switches, Zero downtime, HA, Enterprise Extenders, IPSec, Low latency appliances such as DataPower XM70, Containers, Docker, Kubernetes, HPUX, Solaris, AIX, Windows, Linux, Citrix, VMWare, vRA/vRO, DevOps, Ansible, Puppet, RHEL Satellite | | | |
| Methodologies | ACORD, BIAN, Agile, RUP, Scrum, FDD, TDD, BDD, MDD, DSDM, CMM-5, Prince2, ITIL v3, Scaled Agile, Disciplined Agile, DevOps, SRE | | | |
| Java/C++ | JEE, Spring, Hibernate, EJB 3.x, Quartz, Spring Batch, EHCache, C++, Tuxedo, Multi-threading | | | |
| Other Products | Actimize, Fortent, Calypso, HP OpenView, SAP GL, SAP R/3, Documentum, FileNet, SharePoint, LiveLink, Lexis Nexis, Bridger Insight XG, TSYS TS1/2 | | | |
| Logging/ Monitoring | Prometheus, Thanos, Grafana, Wiley, ELK, AppDynamics, Splunk, BAM, Tripwire, CyberArk, ELK/Elastic stack, Fluentd | | | |
| Mobility Design | Android (Kotlin), iPhone (Swift) | | | |
| Payments | ISO20022, Swift, ISO8583, PCI-DSS, FIX, IFX, FX, CHAPS, BACS, SEPA, TS2, Financial Crime, Fortent /Actimize, Treasury Services, Transaction Banking, Open Banking, PSD2 | | | |
| Investment Banking | Market Data, Reference Data Management, Credit Risk, OTC Derivatives, FX, Capital markets | | | |
| Security | Cryptography, SAML, Single Sign On, Authentication, Authorizations and Entitlements | | | |
| Compliance | Sarbanes–Oxley, ADA, AML, KYC, OFAC, BCBS Basel III, TCPA, GDPR | | | |