

# Rajiv Bhatia

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**EXPERTISE:** AWS, APPLICATION MIGRATION TO CLOUD, SAAS TRANSFORMATIONS, CONTROL TOWER, LANDING ZONE, DR & BR SOLUTIONS, TOGAF, DEVSECOPS, CLOUD SECURITY, CONDUCT POCs', VPC DESIGN, DOCKER, KUBERNETES, SDN, CFT, LAMBDA/PYTHON, APPDYNAMICS

Summary: I am a hands-on architect and cloud strategist. A summary of some of my recent work experiences include:

- Led IoT Infrastructure modernization drive – Automation, Kafka, EKS, Tagging architecture, end-2-end Infra Security
- Custom DR and BR solution across AWS regions.
- Designed and built EKS, standalone Kubernetes cluster, Prometheus, Kiali, Istio, Grafana, ConfigMaps, Helm chart deployment.
- GRC - Led compliance with SCO1 T1, SOC2 Type 1 & 2, PCI DSS 3 certifications.
- I have recently migrated an entire application stack from Rackspace to AWS which included security, VPC and networking, IPsec and SSL VPN tunnels and firewall rule migration.
- DB migration, AWS DMS, RDS Postgres replication, DynamoDB, ElastiCache-Memcached.

## PROFESSIONAL ENGAGEMENTS - STRATEGY, ARCHITECTURE AND SOLUTIONS

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**AOG-LLC, CLOUD STRATEGIST & ARCHITECT**  
**HERNDON, VA**

**2014 - PRESENT**

**WABTEC CORPORATION, IOT AND KAFKA AUTOMATION SOLUTIONS ARCHITECT.**  
**WASHINGTON DC, DC.**

**2022 - 2023**

- Led IoT and Kafka automation solutions architect in transportation industry. Built End-2-end IOT infrastructure deployment for transportation sector, Application single vs multi-tenancy <> IAM policy design, Secure network design; AWS IoT Core, AWS PCA, PKI infrastructure, secure end device communication, MQTT, Kafka, Confluent, AWS MSK.
- POCs: Confluent vs AWS MSK; PKI Certificate life cycle management; AWS MSK deployment
- Solutioning: Automated near real-time video and image transfer from edge devices to s3 for image tagging; Device provisioning via JITP & JITR; Automation using Lambda, Terraform, TACoS and custom functions; AWS SFTP, MLOPS KubeFlow, EKS, AWS security services,
- Evaluated: AWS Greengrass, SageMaker, RedPanda.
- Trainings & conferences: Confluent Certified Developer for Apache Kafka, Oct 2022; AWS reinvent 2022.
- **Skills:** AWS IoT · Apache Kafka · PKI · MLOps · AWS MSK

**ORDWAYLABS, CLOUD SECURITY & COMPLIANCE ARCHITECT. WASHINGTON DC, DC.**

**2021- 2022**

- Ordway Fintech solution offers a flexible billing and revenue automation platform on SaaS platform. It offers a flexible bridge between the CRM, Business systems, and general ledger that automats from quote to revenue no matter how complex the business model.
- Direct responsibilities include
  - Led Infrastructure modernization drive – Automation, EKS, tagging architecture, end-to-end encryption, certificate, and key management.
  - Developed and implemented cost cutting strategy on AWS infrastructure.
  - Infrastructure and end-to-end security: AWS Security Hub, Config, VPC Flow logs, CloudTrail, Guard Duty, Athena, Inspector, AWS WAF, CloudFlare, EKS.
  - Led compliance with SCO1 T1, SOC2 Type 1 & 2, PCI DSS 3.

- DR and BR solution across AWS regions.
- AWS RDS Postgres, advanced replication mechanisms.
- Technologies: CloudFlare, NewRelic, Wazuh, Grafana, OpenVPN, Looker analytics.

**FOOD AND DRUG ADMINISTRATION, ENTERPRISE CLOUD STRATEGIST AND SOLUTIONS ARCHITECT. ROCKVILLE, MD. 2020-2021**

- Working on DIMES contract at the FDA. I am leading EA strategy team. My core responsibility includes designing EA Governance Framework among overseeing different teams on this project including API, DevSecOps, and Networking solutions, design, and implementation in GovCloud (MuleSoft Government Cloud, FDA AWS GovCloud).
- Responsibility includes designing EA Governance framework, ensure contract performance, compliance, FISMA, NIST SP 800, and adherence to SOW.
- Deploying MuleSoft iPaaS (Integration Platform as a Solution) in GovCloud Solution to include BR, DR, and security solution design. Target AWS environment shall comply with HIPPA and NIST SP 800-53 security controls. Internal application/service portfolios deployments follow SaaS model to support internal clients and secure interfaces with external vendors.
- Architecture and buildout are based on AWS Well-Architected Framework and industry best practices.
- DevSecOps CI/CD pipeline, GitLab, Jenkins, CloudBees, Maven, JIRA, Puppet, Selenium & Cucumber for test automation, Nexus, SonarQube, Fortify, AWS Transient Gateway, MS Active Directory, IPsec VPN tunnel, Client VPN, Network layout, RDS, AWS Shield (WAF), Inspector, Firewall manager, Config, CloudWatch, CloudTrail, GuardDuty, KMS, HSM, IAM, AWS Control Tower, Landing zone, Organizations, SAML, & SSO.
- Data engineering solutions including AWS Batch, DMS, SCT, AWS Data Pipeline, EMR cluster, AWS Glue, Datalake, and RedShift.

**SIGNIX, ECloud Managed Services LLC, Cloud Strategist and Solutions Architect. Reston, VA. 2020**

- Working with SIGNIX, an electronic document signing company, to migrate their application portfolio from Rackspace DC into AWS supporting SaaS delivery. I led strategy, solution, and implementation of SaaS delivery model of SIGNIX services to SIGNIX clients.
- Solution to include BR, DR, security, and compliance. Target AWS environment compliant with HIPPA. Pursue ISO27001 / SAE16 SOC2 compliance certification in AWS after deployment.
- Architecture and buildout are based on AWS Well-Architected Framework and industry best practices. Solution is designed to allow the application to run concurrently in Rackspace and on AWS. Both environments will take live traffic for a period of time before cutover to AWS.
- AWS Transient Gateway, MS Active Directory, IPsec VPN tunnel, Client VPN, Network layout, MSSQL Server Always on availability group for DR, Shield (WAF), Inspector, Firewall manager, Config, CloudWatch, CloudTrail, GuardDuty, KMS, HSM, IAM, AWS Control Tower, Landing zone, Organizations, SAML, & SSO.
- Implemented AWS Landing Zone guardrails, and GRC security automation controls using Lambda/Python development to support SaaS model.

**FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), AWS SOLUTIONS ARCHITECT WASHINGTON, DC. 2020**

- Developed Cloud Migration strategy for about 300+ VMWare applications into AWS cloud.
- Performed costing analysis for proposed solution.
- Developed solution design, architectural options, and documentation.
- Evaluating user management & application security solution layer using a combination of IAM, AWS Control Tower, Landing zone, Organizations, SAML, SSO, & KMS.

**MINIBAR SYSTEMS, SOLUTIONS ARCHITECT ROCKVILLE, MD. 2014 - 2015, 2019**

- Engaged with VP Operations as Cloud Strategist & Solutions architect.
- Designed and implemented a SaaS model to support new and existing clients. Streamlined user management & security - Setup AWS Control Tower, Landing zone, Organizations, SAML, SSO, KMS.
- Provided migration strategy for legacy application to AWS cloud-based solution.

- Integrated embedded firmware in minibars with AWS hosted application to ensure secure data connectivity, preserve data quality, and predictive data analytics to support backend operations at hotel properties.
- Migrated supply-chain vendor integration application to AWS in SaaS model.
- Technology stack: AWS services, VPC, CloudFront, WAF, setup SAML authentication, IAM, Oracle -> MySQL migration, Data security & migration policies, Ansible, CloudFormation template(s), and CloudFormer tool.

**NORTHWESTERN MUTUAL INSURANCE (NM), CLOUD STRATEGIST & ARCHITECT**

**MILWAUKEE, WI.**

**2017 - 2018**

- As a Technical Manager of Business Microservice Delivery at NM, I led a team of Microservice/CICD Solution architects, Java developers, Testing team, and Financial Engineers to support API Services delivery to the Business, vendor integration and Modernization drive.
- Responsible for engineering business APIs & related development, deployment on AWS platform, VPC design, IAM, KMS, Data Source consolidation design using Kinesis streams, CloudFormation, Terraform to CloudFormation conversion for infrastructure deployment, and Lambda functions.
- Transformed portfolio design and rebalancing functions to SaaS model requiring paid resources on AWS.
- Designed and delivered SDN architecture assessment, network orchestration layout to support OCP3 platform, OCP3 infrastructure automation using Ansible, Terraform, develop cost model and chargeback process, risk assessment, application performance monitoring solution, conduct POCs' and provide technology guidance.
- Implemented CI/CD to support legacy and greenfield application development on OCP.
- Responsible for designing hybrid cloud DevOps solution to support OCP implementation.
- Technology stack: Rackspace private hosted cloud, AWS, OpenStack, OpenShift Enterprise 3.x (OCP 3.x), Ansible, Jenkins, AppDynamics, and Terraform for infrastructure deployment code.

**BARCLAYCARD US (BCUS), CLOUD STRATEGIST & ARCHITECT**

**WILMINGTON, DE.**

**2015 - 2017**

- Responsible for designing & implementing a Container Orchestration solution to support legacy applications and Greenfield development.
- Conducted POCs & recommended OSE33 as the enterprise container orchestration solution along with Kubernetes native SDN which was adopted by BCUS and other Barclay entities.
- Implemented VPC, CloudFront, WAF, setup SAML authentication, SSO, IAM user management, roles & policies, Data security & migration policies, CloudFormation, CloudFormer tool and other AWS technologies.
- Conducted cloud on-boarding initiatives; POCs; evaluated application containerization & micro-services architecture for legacy application migration & greenfield development into hybrid cloud.
- Designed & deployed CI/CD pipeline built around TOGAF architecture with Agile delivery methodologies.
- Technology stack: hybrid (Rackspace/OpenStack & AWS) cloud, OSE3x, Zscaler, Terraform, Ansible, DTR, and Jenkins to support CI/CD Agile development. Worked with Capacity planning, DR, Hybrid Cloud architecture, network & security teams to develop an enterprise CI/CD solution.

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**SABBATICAL, GLOBAL EXECUTIVE MBA, GEORGETOWN UNIVERSITY**

**2012 - 2014**

In September 2014, I received the Georgetown ESADE Global Executive MBA degree studying global economics, markets, strategy, operations, and culture on location in the US, Europe, South America, and Asia. The Georgetown-ESADE Global Executive MBA (GEMBA) program combines the interdisciplinary teaching strengths of Georgetown's McDonough School of Business, Walsh School of Foreign Service, and ESADE's (Spain) strengths in entrepreneurship and social innovation.

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**AGILEX TECHNOLOGIES, INC. LEAD SOLUTIONS ARCHITECT**

**CHANTILLY, VA.**

**2009 - 2012**

***The Census Bureau.***

- Instituted strategic oversight capability allowing The Census Bureau to evaluate current in-progress census surveys in real time.
- Led a team to produce comprehensive, phased development plan to transition from current infrastructure into a consolidated data warehouse architecture.

***United States Postal Service (USPS).***

- Designed & built a CIO Scorecard with at-a-glance application & system performance scorecard capability allowing the USPS CIO to assess system performance metrics daily. Consolidated system performance data into a Data warehouse in order to create a reporting technology that afforded high-level assessments and drill down capability.

- Designed infrastructure migration plan to save the USPS \$100M by migrating from legacy mainframe to a Unix-based architecture over 5 years.

**Federal Aviation Administration (FAA).**

- Led project evaluation and technical audit on a \$100M project.
- Generated recommendations to plug in technical debt and saved the project.

Technologies: EMC, JAVA, J2EE, Oracle 10/11G, Oracle Warehouse Builder, SAS, Web Logic, MicroStrategy

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**OPENWAVE SYSTEMS. SOLUTIONS ARCHITECT**

**VIENNA, VA.**

**2004 – 2009**

- Focused on mobile technology to ensure “on demand” multimedia services for telecommunications carriers like Sprint/Nextel & Cox Communications. Launched Multimedia Services (MMS) to Sprint/Nextel handheld devices for 5 Million plus customers to exchange voice, video, and text content.
- Introduced geo-location functionality adopted by law enforcement initially and developed for location-driven commercial marketing applications using data warehouse implementations.

Technologies: P7000 Tape Library & Quantum DX200 disk array, EMC Control Center, EMC DMX-200 arrays using ECC, Oracle warehouse builder, TimeFinder, PowerPath, created VERITAS volume groups, volumes & FS.

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**PREVIOUS ENGAGEMENTS**

**DBITES LLC, HERNDON, VA. INDEPENDENT CONTRACTOR**

**2003 – 2003**

- Focused on generating IT consulting business. Responded to RFPs.

**DYNACORP I & ET, LANHAM, MD. ENTERPRISE SYSTEMS ARCHITECT**

**2001 – 2003**

- At the IRS, I led DBA team in delivering 99% uptime systems, HA, Capacity planning, DR, & Enterprise storage.

**BRIVO SYSTEMS, ROSSLYN, VA. DIRECTOR, DATABASE SERVICES**

**2000 – 2001**

- Mobile communication-enabled secure package delivery and notification system that allowed couriers to deliver packages to a “Brivo Box”.
- Led production support for large-scale Oracle environments to support UPS & FedEx; prepared business plan and secured budget approvals.

**TV ON THE WEB, HERNDON, VA. VICE PRESIDENT, TECHNOLOGY**

**1999 – 2000**

- Led team of 30 leading edge technologists in the early stages of the pay per view, online media model.

**FROM 1989–1998:** Perot Systems Corporation, Reston, VA; Export Software International, Reston, VA; The World Bank, Washington DC; Indiana State University, Terre Haute, IN; ICIM, New Delhi, India.

**EDUCATION & CERTIFICATIONS**

**AWS CERTIFIED SOLUTIONS ARCHITECT ASSOCIATE**

**2019**

**TOGAF 9.1 Certified Architect (Part I & II)**

**2015**

**MBA, Georgetown University, Washington DC**

**2014**

**B.E. (Bachelor of Engineering), Computer Science, Mysore University, India**

**1989**

**FORMAL TRAININGS**

**Networking & storage: F5 – BIG-IP LTM Essentials & Adv Topics v9.x, F5; Brocade Certified Fabric Professional - Brocade 2 Gbit/sec Accelerated BCFP, Brocade; ECC - EMC Control Center, EMC Symmetrix Business Continuity, EMC. 2004-2005.**

**Database: Oracle 9i Performance Tuning, RAC, AS (Application server), Advanced replication; Oracle, IBM DB2 DBA; Informix-online Dynamic Server, System Administration; Certified Oracle 7.x Database Administrator. 2001-2004.**

**Backup & business continuity: VERITAS Net Backup 5.0, VERITAS Storage Foundation 4.0, Volume Manager 4.0, Veritas. 2004.**

**Mobile messaging: Email & Edge GX, MMSC (Multimedia Messaging Svc Ctr), MAG (Messaging Access Gtw). 2003 – 2007.**

**Process control: Risk Management Workshop, CMMI level 3 workshops, DynCorp, 2001 – 2003.**