

Towfeeque Aalam

Principal Cloud Security Architect | Ex-AWS | Multi-Cloud | AI & Security

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Professional Summary

Dynamic Cloud & Security Architect with 23 years of experience delivering enterprise-scale transformation, data-centre consolidation, and AI-enabled modernisation across aviation, finance, government, and healthcare. Currently leading the cloud and application security uplift and Frontier AI initiatives at Virgin Australia. Recognised for designing secure, compliant multi-cloud environments (AWS, Azure, VMware) that balance resilience, cost, and innovation. Proven leader in Zero-Trust and DevSecOps adoption, cloud-security governance, and cross-functional program execution. Combines deep hands-on expertise with strategic direction to accelerate digital transformation and regulatory compliance.

Key Achievements Snapshot

- Leading enterprise-wide cloud & application security uplift and Frontier AI adoption at Virgin Australia.
- Directed \$1.1 B Prudential Singapore program — multi-year, multi-cloud transformation spanning AWS & Azure.
- Delivered 40 % infrastructure-cost optimisation through automation and FinOps.
- Built hybrid-cloud foundations achieving 99.9 % uptime and Zero-Trust compliance alignment.

Core Competencies

- **Cloud Platforms:** AWS, Azure, Multi-cloud Architecture, Governance, HA/DR, Landing Zone Design
- **Cloud & Application Security:** Zero-Trust Architecture, DevSecOps, SAST/DAST/SCA, IAM, KMS, Key Vault, Secrets Management, CIS/NIST/ISO 27001, Essential Eight, APRA CPS 234
- **Frontier & Generative AI:** AWS Bedrock, SageMaker, Google Gemini, OpenAI, Anthropic Claude, AI security & governance frameworks, RAG-based systems, AI workflow automation
- **Containerization & Orchestration:** Docker, Kubernetes (EKS, AKS, GKE), RedHat OpenShift, Rancher, Helm
- **Observability & Monitoring:** CloudWatch, Azure Monitor, Prometheus, Grafana, ELK, Splunk
- **Solution Consulting:** Pre-sales architecture, RFP/RFI response, stakeholder workshops, cloud adoption roadmap

Professional Experience

Virgin Australia — Principal Cloud Security Architect

Sydney | Feb 2026 – Present

- Leading the enterprise cloud security and application security uplift across Virgin Australia's multi-cloud estate, hardening landing zones, identity, and workload guardrails in line with Zero-Trust, Essential Eight, and ISO 27001.
- Driving the Frontier AI program — defining the secure-adoption architecture, model governance, and data-protection controls that let the airline harness generative and frontier AI safely at scale.
- Embedding DevSecOps across engineering teams: integrating SAST/DAST/SCA and secrets scanning into CI/CD pipelines, and shifting security left across the application lifecycle.
- Advising executive and security leadership on risk posture, threat modelling, and cloud-security governance, translating regulatory obligations into actionable architecture standards.

Unstract — Principal Cloud Architect

Sydney | Apr 2023 – Feb 2026

- Led solution architecture and pre-sales strategy for large-scale multi-cloud modernization, AI-native automation, and digital transformation programs, driving revenue growth and client adoption.
- Designed and governed enterprise architectures leveraging Unstract's intelligent document processing and knowledge orchestration platform, enabling structured insights from unstructured data.
- Architected and integrated AWS Generative AI services (Bedrock, SageMaker, Kendra, Comprehend, Lex, Polly) with Unstract's platform to deliver data-driven workflows, conversational AI, and decision intelligence.
- Orchestrated multi-stakeholder programs with ISVs, service providers, and CxO-level client teams to define end-to-end architecture blueprints, governance models, and compliance-aligned roadmaps.
- Directed pre-sales engagements including RFP responses, client workshops, solution demos, and executive presentations, bridging business needs with technical execution to influence multi-million-dollar deals.

Key Projects

Gallagher — Intelligent Document Processing on AWS | Architected AI-driven document-automation platform using Unstract + AWS Bedrock & SageMaker; achieved 70% reduction in manual handling.

SmartVault — Knowledge Orchestration & Migration | Led workshops with CxOs positioning Unstract's multi-LLM platform; influenced multi-million-dollar opportunity.

Amazon Web Services — Cloud Architect

Sydney | Mar 2020 – May 2023

- Designed and delivered AWS Landing Zones with integrated IAM, GuardDuty, Security Hub, and Config, ensuring secure multi-account governance.
- Applied the AWS Migration Acceleration Program (MAP) and Well-Architected Framework to define migration waves, portfolio assessment, and modernization roadmaps.
- Partnered with CxOs, business stakeholders, and engineering teams to prioritize migration backlogs, define MVPs, and align architecture with enterprise compliance and cost-optimization goals.
- Architected hybrid and cloud-native solutions, including identity frameworks, integration layers, and API ecosystems, enabling secure interconnectivity between on-premises and cloud workloads.
- Developed migration playbooks, reference architectures, and reusable design patterns to accelerate repeatable migration and modernization efforts.

Key Projects

AMP — Mass Migration Program | Delivered secure AWS Landing Zone and hybrid integration; accelerated adoption and reduced operational risk.

Commonwealth Bank — Cloud Transformation | Migrated mission-critical apps meeting APRA CPS 234; implemented CI/CD pipelines reducing time-to-market.

CoreLogic — Analytics Modernisation | Moved petabyte-scale analytics to AWS EMR, Glue & Redshift; cut infrastructure cost 40%.

Tech Mahindra — Lead Architect (APAC)

Sydney | May 2013 – Mar 2020

- Secured \$1.1B Prudential Singapore transformation program, serving as lead architect and trusted advisor to CxO stakeholders; drove end-to-end cloud strategy, migration blueprint, and execution governance.
- Responded to 140+ RFPs across APAC, partnering with sales teams as the go-to architect for cloud and AWS solutions, directly influencing deal wins and driving revenue growth.
- Acted as the AWS Champion for the organization, conducting internal enablement sessions, defining reference architectures, and embedding AWS best practices across global solution teams.
- Led Data Center Consolidation for Vodafone Hutchison Australia (VHA) over a 3-year program, consolidating regional data centers into a unified, resilient, cost-efficient cloud-integrated platform.
- Advised CTOs & CIOs across APAC on technology and business strategy, guiding cloud adoption using AWS Cloud Adoption Framework (CAF) and Microsoft CAF.
- Developed strategic transformation roadmaps and executed mass migration strategies using SAAFe Agile, delivering phased migrations with integrated DevOps automation (Jenkins, Kubernetes, Helm) and reducing solution time-to-market by 40%.

Key Projects

Prudential Singapore — Multi-Cloud Migration & Transformation | Led architecture for a \$1.1B multi-year cloud transformation, migrating core insurance platforms to AWS and Azure while ensuring regulatory compliance and operational resilience.

K7 Computing — Manager, Infrastructure & Cloud Services

Chennai | Nov 2009 – May 2013

- Planned, organised, and managed infrastructure staff and consultants to ensure the stable and secure operation of K7's IT infrastructure across network, server, and data-communications systems.
- Conducted feasibility and cost-benefit analyses using AWS TCO Calculator and RightScale, identifying cost-effective cloud solutions that reduced infrastructure expenses by 25%.
- Advised software development teams on architecting web interfaces and infrastructures that safely and efficiently power cloud environments.

Oracle — Application Systems Analyst

Chennai | Jun 2006 – Nov 2009

- Designed, configured, and customized Siebel CRM solutions to meet client requirements, ensuring seamless integration with existing systems.
- Provided ongoing support, training, and maintenance to optimize the efficiency of implemented CRM systems.

Education

Bachelor of Science: Physics

Certifications

- MIT Professional Education — Applied Agentic AI for Organizational Transformation
- AWS Certified Solutions Architect – Professional
- AWS Certified Solutions Architect – Associate
- CCSK — Certificate of Cloud Security Knowledge
- Google Cybersecurity Professional Certificate
- Oracle Cloud Infrastructure 2023 Multicloud Architect Associate
- Oracle Cloud Infrastructure 2023 Foundations Associate
- Architecting with Google Compute Engine