DAVID CARBAJOSA TESORO

Principal Cloud & Platform Architect | Technical Leadership & Internal Developer Platforms

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PROFESSIONAL SUMMARY

- **25+ years** leading Cloud Journeys, Platform Engineering and DevOps transformations at HSBC, Barclays, Citibank and Lloyds—modernising enterprise SDLC processes to unlock delivery velocity without compromising regulatory compliance
- **Platform architect:** Designed and delivered Internal Developer Platforms at enterprise scale, embedding golden paths, progressive delivery patterns, automated quality gates, self-service infrastructure and platform-as-a-product thinking—reducing cognitive load for value stream teams
- **AI systems design:** Designing a cost-effective, quasi-autonomous AI system on evolutionary architecture—real-time evaluation, continuous learning from observed behaviour and automated rollback on degradation; applying the control patterns that govern regulated software delivery to how an AI system *operates*. Works daily with supervised AI agent teams (Claude Code, MCP)
- **DevOps strategist:** Practitioner of The Three Ways and CALMS (Culture, Automation, Lean, Measurement, Sharing), translating theoretical frameworks into measurable delivery outcomes across enterprise platforms
- **Multi-cloud architect (AWS + GCP):** GCP Professional Cloud Architect certified (2026); architects mission-critical cloud systems from first principles—re-architecture for latency and reliability, event-driven IDPs on native cloud services, zero-exposure security architectures
- **Transformation leader at scale:** Drove digital transformation across a **400+ person engineering department** at HSBC to land platform adoption—8 products from waterfall to agile, reporting to Digital CIOs, directing end-to-end DevOps transformations implementing the Three Ways across platform engineering functions
- **Full SDLC mastery:** Architecture, CI/CD, quality (contract, e2e, performance and soak testing), security (SAST/DAST/SCA), observability, stakeholder management and vendor collaboration
- **Team builder:** Led and mentored high-performing teams of 3-30 engineers across platform, infrastructure and DevOps streams—defining platform standards, patterns and best practices for the organisation
- **Engineering depth:** Hands-on experience across Kubernetes and OpenShift 4.x / 3.x in regulated financial services environments—containerization migrations, private cloud operations, progressive delivery, DevEx, platform standards and architecture governance
- **MSc Theoretical Physics** | **TOGAF 9 Certified** | **Dual British/Spanish nationality**

Key Achievements: 98.6% faster infrastructure provisioning | 99.4% observability access reduction | 0% release failure rate | 94% release time reduction | 99.4% cycle time reduction (PR to production) | 16M+ active metric series | 8 products transformed

CORE COMPETENCIES

Platform & Infrastructure	DevOps Practices	Leadership & Strategy
OpenShift (4.x, 3.x), Kubernetes, Istio	IDP Design, Golden Paths, DevEx	Team Leadership (3-30 engineers)
AWS, GCP, EKS, GKE, Hybrid Cloud	CI/CD, GitOps, Progressive Delivery	Platform Strategy & Roadmaps
Terraform, Helm, Crossplane, ArgoCD	Infrastructure as Code, Policy-as-Code	DevOps Leadership
Backstage, Argo Workflows/Events/Rollouts	Automated Quality Gates, Feedback Flows	Team Topologies, TOGAF EA
Observability (Prometheus, Grafana, Mimir, Datadog)	The Three Ways, CALMS, DORA Metrics	Stakeholder Management, Compliance

Programming: Rust, Python, Go, Java, TypeScript | **AI & ML:** RAG, agentic systems, production AI evaluation and safety guardrails

PROFESSIONAL EXPERIENCE

Founder & Principal Consultant @ Dalimaray SL | Madrid, Spain | Jun 2022 - Present

Providing professional IT services to enterprise clients including Citibank. Researching cost-effective AI augmentation of platform engineering and DevOps.

- **Built a production-grade GCP landing zone as a reference implementation** — organisation hierarchy and folder structure, org policies as guardrails, Shared VPC with Private Service Connect, centralised logging with locked retention, and **keyless CI via Workload Identity Federation** with separate read and write identities. Delivery pipeline with six quality gates — format, lint, module contract tests, policy-as-code (OPA/Conftest), security baseline (Checkov) and scheduled drift detection — all running **before any credential is issued**
- **Architected an IDP reference platform with clean separation of concerns:** Backstage as developer portal (UI only, not a control plane), Kubernetes as universal API, Crossplane v2 as control plane (9 namespaced XRDs), ArgoCD as GitOps reconciliation loop, Argo Rollouts for progressive delivery—a deliberate four-layer model that decouples UX, API, desired-state orchestration and actuation
- **Engineered platform extensions where the ecosystem fell short:** leveraged Argo Rollouts' step plugin feature to extend progressive delivery beyond ReplicaSets to StatefulSets and KubeVirt VirtualMachines (VMIRS); designed a multi-layer header-based canary flow over APISIX without a service mesh (downward API + nginx header injection + setHeaderRoute); implemented automated rollback via revert-PR to preserve GitOps desired-state semantics and reduce MTTR
- **Compressed the SDLC into one Backstage catalog action:** a single template provisions namespace, Git repo, Tekton pipelines, quality gates (SAST/DAST/image signing/smoke tests), progressive delivery, Grafana dashboards and DORA metrics—golden paths that remove cognitive load from value stream teams
- **Designing a cost-effective, quasi-autonomous AI system on evolutionary architecture** — data-driven, self-optimizing from current observed state, with a real-time evaluation engine and end-user feedback closing the loop; designed in collaboration with a PhD Professor from the NLP&IR research group @ UNED University. Grounded in three pillars: **capability** (RAG systems, agentic DevOps workflows, caching strategies, LLM vs SLM trade-offs), **quality** (AI model and RAG evaluation for performance optimization, human-centric feedback loops, AI observability) and **safety** (guardrails against PII leakage, toxic content and misuse)
- **Embedding the Second and Third Ways into the AI runtime, not just the delivery pipeline** — continuous learning from the system's own observed behaviour, with automated rollback on degradation
- **Embedded EU data sovereignty compliance** into AI system designs—European LLM providers and data residency controls
- **Published thought leadership** on flow optimization, Lean SDLC, DORA metrics and CALMS at dalimaray.io/insights
- **B2B consulting via Dalimaray SL** to enterprise clients — platform architecture, IDP design, cloud journey advisory and DevOps transformation

Technologies: GCP, Terraform, GKE, Kubernetes, OpenShift, Backstage, Crossplane, Tekton, ArgoCD, Argo Rollouts, Argo Events, KubeVirt, OPA/Conftest, Checkov, Grafana Cloud, Rust, Python

AI: Claude Code (supervised agent teams), MCP, RAG, agentic workflows, LLM evaluation & guardrails

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Platform Stream Lead — Data Fabric & Observability, Equities and Risk @ Citibank | Remote - London/Madrid | Jul 2022 - Oct 2025 | (Contractor via Juxt/Dalimaray)

Led the platform stream (3 engineers) for Area51 Datafabric on OpenShift private cloud, reducing infrastructure management burden from the development team. Blueprinted and delivered the observability platform serving the entire Equities and Risk department. Area51 is the datastore for all Equities and Risk applications, serving critical loads with ultra-low latency requirements.

- **Contributed to the Area51 Datafabric re-architecture** during migration from physical hardware to OpenShift private cloud—shaped architectural decisions on reliability (idempotency on container restart) and cybersecurity (mTLS); owned the persistent caching capability (memcache-to-disk pattern) for latency-critical Equities & Risk workloads
- **Blueprinted and implemented global observability platform** for Equities and Risk department, processing 16M+ active metric series with 1M+ ingestions/second globally
- **Coordinated Area51 Datafabric cross-datacenter migration** during the bank's datacenter exit programme—achieved zero BAU disruption under tight deadlines
- **Implemented DevOps practices** including IaC, cybersecurity and vulnerabilities management, semi-automated release process, CI/CD adoption and foundational SRE practices (runbooks, incident response procedures, DR testing, DR runbook reviews, monitoring)
- **Designed the capacity model for the observability platform**—provisioning, footprint optimisation and cardinality governance at 16M+ active metric series
- **Built cost-to-serve business cases and infrastructure cost models for the Area51 Datafabric**—cost modelling across datacentres, working with infrastructure and finance stakeholders

Technologies used: OpenShift, Oracle (OraaS), Jenkins, Helm, Confluence, Java, Bitbucket, Artifactory, Maven, Gradle, Docker, Splunk, Grafana, Mimir, Go, ELK, memcached among others

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Technical Director / Managing Principal @ HSBC | London, UK | Jan 2020 - Jun 2022 | (Contractor via Capco)

Technical Director of GPB DevOps Digital Transformation, reporting to Digital CIO and Head of Digital and Security Platform. Directed Olin as a product—a platform automating delivery for engineering teams—whose adoption required driving digital transformation across an engineering department of 400+ people. Led "The Platform" team (15-30 engineers) building an Internal Developer Platform embodying platform-as-a-product thinking—golden paths, self-service infrastructure, automated compliance. Applied Team Topologies (stream-aligned, enabling and platform teams), the Three Ways of DevOps and CALMS throughout. Primary technical authority for platform architecture decisions, collaborating with Enterprise Architects, Solution Architects, security and vendor teams.

- **Olin remains in production six years after first release**, still the delivery platform for the division's engineering teams
- **Designed Olin (the GPB IDP) as an end-to-end DevOps platform around the Three Ways**—flow, feedback and continuous learning as built-in platform capabilities covering the full lifecycle (automation, security, quality, reliability, observability), far beyond a service catalog
- **Defined platform strategy, roadmap and technology selection for Olin**, sponsored by GPB Digital CIO, ensuring top-down adoption across all product teams
- **Built and managed elite performing Platform team (15-30 engineers)** as Technical Director and Final Technical Authority for the platform ecosystem—mentoring engineers, establishing platform standards and driving operational excellence
- **Architected and built Olin from scratch on AWS**—a Go-based event-driven control plane over DynamoDB, targeting Istio EKS multi-cluster; applied Software Evolutionary Architecture principles across technical, data, security and operational dimensions—creating golden paths that removed cognitive load from value stream teams
- **Integrated enterprise AWS services** across the IDP fabric: RDS (relational workloads), DynamoDB (NoSQL), AWS Secrets Manager, WAF + AWS Shield, AppDynamics monitoring—selected each service with deliberate cloud-native trade-off analysis
- **Drove operational excellence through the Second Way (amplified feedback loops)**—automated quality gates, proactive monitoring, observability, automated rollbacks and continuous improvement practices that naturally delivered SRE-equivalent outcomes as part of the broader DevOps transformation
- **Delivered Third Way continuous learning**—DORA trending dashboards, DevOps culture-adoption workshops, blameless post-mortems, cross-team knowledge-sharing sessions, and a waste-detection tool (co-built with Infrastructure) to proactively attribute SDLC bottlenecks to app or platform root cause; learnings fed back into platform roadmap and team practices
- **Transformed 8 products from waterfall to agile**—dissolved Dev-Ops silos and embedded agile collaboration patterns that improved delivery speed while sustaining operational excellence; measurable outcomes:
- **Service resilience:** Active-active cross-zone infrastructure, zero-downtime deployments, automated rollbacks, achieving 0% failure rate during releases
- **Speed of delivery:** Agile practices adoption with fully automated E2E lifecycle; 98.6% reduction in infrastructure provisioning (5 months → <2 days), products going live 1 month ahead of schedule
- **Observability:** 99.4% reduction in log/monitoring access time enabling proactive monitoring
- **Safer product evolution:** Reduced change risk through improved quality and security via SAST, DAST, SCA, vulnerability scanning, container image signing (Notary), code analysis and Continuous Testing (contract testing, performance testing, E2E testing in integrated environments ensuring environment stability, ad-hoc soak testing and IAST) as part of continuous delivery process, ensuring Bank compliance. 94% release time reduction (4 hours → 16 mins)
- **Continuous improvement:** Identified and eliminated "waste" bottlenecks across the E2E process through granular cycle time monitoring. Cycle time (PR to production) reduced 99.4% (1 week → 1 hour)
- **Team satisfaction:** Releases with confidence during office hours, improving work-life balance
- **Integrated governance, compliance and audit into the platform fabric**—automated change management workflows, enforced log retention policies, embedded SAST / DAST / SCA / vulnerability scanning, container image signing (Notary), contract / e2e / performance / IAST testing and three-pillar observability (metrics, logs, traces) directly into the delivery pipeline; every release auditable end-to-end without manual intervention
- **Presented platform strategy and progress to senior leadership** including Digital CIO and department heads
- **Grew the team through the transformation — three team members promoted**; set the technical bar and managed performance to it

Technologies used: Istio, Jenkins, Terraform, Helm, AWS, EKS, DynamoDB, S3, AWS-KMS, AWS Secret Manager, AWS RDS, Cloudfront, Confluence, Java, Git, Nexus, Maven, Cucumber, Kubernetes, Docker, Splunk, Datadog, AppDynamics, Checkmarx, NexusIQ, Netsparker, Notary among others

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GCP Architect - Digital Cyber Security @ Lloyds Banking Group | London, UK | Oct 2019 - Dec 2019 | (Contractor)

Contributing to DevSecOps practices implementation within Digital Cyber Security team

- **Co-architected GCP-based cybersecurity data platform** gathering logs and metrics for AI-driven threat analysis by the Digital Cyber Security team—least-privilege design, zero-inbound-exposure architecture with outbound-only connectivity from the core cluster, eliminating external attack surface
- **Reviewed and refactored DevSecOps processes** for microservices, infrastructure and data applying Continuous Delivery best practices
- **Defined Kubernetes container attestation processes** implementing Anthos Binary Authorization and image security policies to reduce risk of deploying untrusted/non-compliant images
- **Architected Continuous Testing strategy** with shift-left approach enabling concurrent development/testing and mitigating production deployment risk
- **Defined change controls** for quality, security and approval as part of release pipeline ensuring regulatory compliance
- **Refactored compliance management plane architecture** using GCP-native services: Binary Authorization, Container Registry Analysis, Security Health Analytics, Cloud Anomaly Detection, Event Threat Detection and Organization Policies

Technologies used: Anthos Service Mesh (Istio), CloudBuild, Terraform, Sonarqube, Helm, GCP, GKE, Jira, Confluence, Python, GCP Pub/Sub, GCP BigQuery, Stackdriver, Karate, Kubernetes, Anthos Binary Authorization, Container Registry analysis, Security health analytics, Cloud anomaly detection, Event Threat detection and Organization Policies, Docker among others

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Senior DevOps Lead @ Capco | London, UK | Sep 2018 - Jul 2019 | (Contractor)

Defining, designing and standardizing DevOps strategies, methods and patterns for projects delivered by Capco's Digital department

- **Architected DevOps model and strategy** to streamline agile SDLC for microservices-based products following DevOps best practices
- **Established DevOps foundations across projects** implementing accelerators such as standardized toolchains and patterns to ease cross-functional team collaboration
- **Optimized CI/CD processes** improving cycle time while preserving quality, security controls and compliance requirements
- **Audited Continuous Delivery practices** for Tier-1 bank department, delivering roadmap, action plan and strategy for digital transformation programme

Technologies used: Istio, Teamcity, CircleCI, Jenkins, Vault, Consul, Terraform, Helm, GCP, GKE, Jira, Confluence, Java, Git, Nexus, Artifactory, Maven, Cucumber, Karate, Zap, Kubernetes, Docker, Cloudflare among others

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DevOps Specialist @ Lloyds Banking Group | London, UK | Jan 2018 - Jul 2018 | (Contractor via Cognizant)

Enabled AOV Servicing team to adopt DevOps practices: Infrastructure Automation, Continuous Delivery, Continuous Testing and Site Reliability Engineering

- **Implemented SDLC orchestration patterns** automating Continuous Delivery, test orchestration, security orchestration and deployments to temporary environments—achieving rapid delivery, reliability, security and improved collaboration
- **Established DevOps best practices** including code unification as single source of truth, automated versioning, infrastructure automation and shift-left quality
- **Championed team DevOps philosophy adoption**—mentored team on shift-left testing, process orchestration and infrastructure automation patterns

Technologies used: Jenkins 2.0, Jira, Confluence, Java, Groovy, Git, Nexus, Maven, Cucumber, SauceLabs, Zap, Rancher, Kubernetes, Docker among others

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DevOps Technical Programme Lead @ Barclays | London, UK | Jul 2017 - Jan 2018 | (Contractor via Virtusa)

Technical Programme Lead of BCI DevOps transformation programme, directing the implementation of DevOps Enablement Framework as a consumable platform service on OpenShift

- **Design Authority of Core Engineering team** (15-25 members: Infrastructure, Software, Test Architects, Security Consultants) delivering platform patterns, models and reusable services to facilitate agile transformation
- **Technical Programme Lead for "Primera" platform on OpenShift**—a Jenkins-federated Internal Developer Platform enabling SDLC governance, automated pipeline definitions, programmatic secrets consumption (Vault integration), AppDynamics monitoring and approval workflows to mitigate deployment risk
- **Pioneered Primera (2017) as a bank-scale full-SDLC platform**—cohesive CI/CD, quality, security and observability services, years before 'IDP' entered common vocabulary
- **Drove Barclays Corporate-wide DevOps adoption programme** through Primera platform onboarding—dissolved Dev-Ops silos, enhanced DevEx and reduced cognitive load

- **Primera delivered a platform-as-a-product DevOps SDLC**—teams onboarding the platform received automated quality gates, cybersecurity scoring, release management and DevOps integration points out of the box
- **Blueprinted Primera architecture** including integrations with Vault, AppDynamics, RDS, EC2, CDF (Continuous Delivery Framework), Jenkins 2.0 and OpenShift V3 container orchestration
- **Contributed to Continuous Operations Framework** PoC using AppDynamics for enterprise observability

Technologies used: Jenkins 2.0, Jira, Confluence, Java, Groovy, Angular 4, Spring, Git, Nexus, Protractor, Selenium, Gradle, Maven, MariaDB, OpenshiftV3, AWS, Chef, Docker among others

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Principal Architect - DevOps Transformation @ Barclays | London, UK | Mar 2016 - Jul 2017 | (via Virtusa)

Principal Architect of BCI DevOps transformation programme driving DevOps and agile adoption across Barclays Corporate, with OpenShift as the target container platform

- **Designed lean DevOps adoption methodology** for large siloed corporations, combining DevOps Enablement Platform on OpenShift, SDLC rationalization and community collaboration
- **Created Continuous Delivery Framework (CDF)** adopted across Barclays Corporate in 2016—implementing pipeline-as-code (YAML/JSON definitions parsed into a federated Jenkins 2.0 running on Docker inside OpenShift)
- **Implemented end-to-end SDLC automation on OpenShift** — CI, testing, security scanning, database migrations and Blue-Green deployments
- **Led cloud migration strategy** helping teams migrate to AWS and OpenShift V3/Kubernetes using Terraform, Docker and open-source infrastructure stacks
- **DevOps Evangelist** driving cultural transformation and platform adoption across in-house and vendor application teams

Technologies: OpenShift V3, Jenkins 2.0, AWS, Docker, Chef, Terraform, Sonarqube, Checkmarx, Zap, Cucumber, Selenium, MongoDB among others

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Earlier Career

Solution Architect, Software Architect & Technical Consultant | 1998 - 2016

Infosys Limited (2012-2016, London, UK) | **Aubay** (2006-2012) | **Unisys, Kahl Consultants, Streamline Solutions** (1998-2006)

Clients: Sainsbury's, TNT, BUPA, MTN South Africa, Alcatel Lucent, CEPSA

- Designed Continuous Delivery frameworks and hybrid cloud solutions for enterprise clients as part of the Sainsbury's data center transformation programme
- Led Green IT assessments across 4 countries (UK, Spain, Denmark, South Africa), establishing sustainability roadmaps
- Architected enterprise systems with SAP integrations, BI pipelines and end-to-end project delivery at CEPSA (now Moeve)
- Managed offshore teams and built foundation in J2EE architecture, web development and enterprise systems

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EDUCATION

MSc Theoretical Physics | Universidad Autónoma de Madrid, Madrid, Spain | 1998

CERTIFICATIONS

Certification	Issuer	Date
Google Cloud Professional Cloud Architect	Google Cloud	Mar 2026
IBM RAG and Agentic AI: Build Next-Gen AI Systems	IBM	Nov 2025
Deep Learning Specialization	deeplearning.ai	Sep 2025
Generative AI Strategic Leader	Vanderbilt University	Aug 2025
TOGAF 9 (License 83341)	The Open Group	Mar 2014

PUBLICATIONS

Title	Role	Year
Delivering DevOps at Scale in Financial Services	Contributor	2022

ADDITIONAL INFORMATION

Nationalities: British and Spanish (dual citizenship)

Languages: English (Fluent), Spanish (Native), Portuguese (Reading)
International Experience: UK, Spain, Denmark, South Africa, USA