

BENJAMIN VILLANUEVA

CLOUD & AI PLATFORM ENGINEERING EXECUTIVE | AGENTIC SYSTEMS & IDENTITY AT SCALE

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EXECUTIVE PROFILE

Cloud and AI platform engineering executive with more than 20 years leading enterprise Azure architecture, global engineering teams, and large-scale delivery. Architected and led the core platform behind a \$150M global managed-services business spanning 36,000+ Azure tenants and 13 global sites, and grew the engineering function from a single hire to a team of eight. Combines hard business outcomes, an 84% platform cost reduction and five consecutive years of Azure Expert MSP certification, with hands-on technical depth across identity, Zero Trust security, FinOps, and agentic AI systems. Leads by building: a people-first leader who develops talent, champions AI adoption, and sets technical direction by proving it first.

SELECTED IMPACT

- **\$150M platform owned:** architected and led the Azure platform underpinning a \$150M managed-services business across 36,000+ tenants, 5,000 subscriptions, and 13 global sites.
- **\$564K annual savings:** refactored the platform for an 84% run-cost reduction (\$56K to \$9K per month) while increasing capacity and capability.
- **Team built 1 to 8:** grew the engineering function from a single hire to eight, serving as the team's AI champion and trainer.
- **5 years Azure Expert MSP:** delivered a perfect record through five consecutive annual Azure Expert MSP audits with zero findings.
- **Reliability and velocity:** cut incident response from 5 hours to 15 minutes with AIOps and deployment time from 48 minutes to 6.

CORE COMPETENCIES

Engineering Leadership: Global Platform Engineering, Multi-Site Delivery, FinOps and Cost Optimization, Technical Team Leadership

Cloud Architecture: Azure IaaS, PaaS, and Hybrid Cloud, Kubernetes, PostgreSQL and Cosmos DB, Cross-Tenant and Multi-Tenant Architecture, Azure Lighthouse, Azure Arc

Microsoft 365 and Modern Work: Microsoft 365 Administration, Exchange Online, SharePoint Online, Teams, Intune and Endpoint Management, Microsoft Purview, Microsoft Graph API, Copilot and Copilot Studio

Automation and Integration: Azure Functions, Durable Functions, Service Bus, Event Hubs, Logic Apps, REST API Design, Power Automate, Power BI, Event-Driven Architecture

AI and Agentic Systems: Model Context Protocol (MCP) Services, Agent Frameworks, Custom Agent Coding Skills, Azure OpenAI, RAG Patterns, Prompt Engineering, Vector Databases, AI-Assisted Development (Claude Code, Codex, GitHub Copilot, Kiro), AIOps

DevOps and Engineering: CI/CD Pipelines, Bicep and Infrastructure as Code, GitHub Actions and Self-Hosted Runners, Pre-Commit Hooks, Linting (Ruff), SAST and Code Security, Container Security, Technical Documentation

Languages: Python, Node.js, React, PowerShell, Bicep

Identity and Access Management: Microsoft Entra ID, Managed Identities, Single Sign-On, Privileged Identity Management, Conditional Access, Federation Services (ADFS), Hybrid Identity at Scale

Security and Compliance: Zero Trust Frameworks, Microsoft Defender XDR, Azure Sentinel and SIEM, Microsoft Purview, PCI, NIST, and SOC 2 Auditing, Risk Mitigation

Governance and Observability: Azure Policy, Azure Monitor, Azure Alerting, AIOps and Observability, Cloud Cost and Compliance Governance

Stakeholder and Partner: Pre-Sales and Solution Architecture, Customer Success, Microsoft Partner Ecosystem, Fortune 500 Engagements

PROFESSIONAL EXPERIENCE

Rackspace Technology

June 2015 to 2026 | Progressed from Senior Azure Architect to Director of Azure Engineering

Architected and led a versioned governance control plane managing 5,000 Azure subscriptions, 29 million resources, 315,000 policy baselines, and 600,000 alert baselines across 36,000+ tenants and 13 global sites, the engineering backbone behind a \$150M global managed-services business. Built on PostgreSQL, Cosmos DB audit logging, Durable Functions, Service Bus, and Event Hubs, with Azure Lighthouse delegated administration across customer tenants and continuous drift detection and auto-remediation across the full fleet.

Director of Azure Engineering (2022 to 2026)

- **Leadership and Talent:** Hired and developed senior technical talent, building a culture of continuous innovation, structured training, and sustained mentorship across the engineering function.
- **Cross-Functional Alignment:** Partnered closely with support leadership, pre-sales, account managers, and customer success managers to convert engineering milestones into long-term commercial value and strong client retention.
- **AIOps Integration:** Led integration of an AIOps framework into the core multi-tenant platform, using machine learning event correlation to drive the step change in incident response.
- **Agentic Platform Services:** Built out the platform's programmatic surface, including REST API endpoints, Model Context Protocol (MCP) services, agent frameworks, and custom agent coding skills, with extensive technical documentation to support internal and customer integration.
- **AI Champion and Enablement:** Served as the team's AI champion and trainer, running demos and proofs of concept, upskilling engineers, and integrating AI-assisted workflows into production engineering practice.
- **MCP Security and OWASP LLM Top 10:** Built an MCP security toolkit mapped to the OWASP LLM Top 10, driving remediation of critical token-passthrough and OAuth session risks into CI, and hardened the multi-tenant MCP layer with tenant scoping, OAuth/SAML authentication, and audit trace correlation across 5,250+ account records.
- **Fleet Governance and Drift Remediation:** Directed a governance suite spanning 400+ organizations and 5,000+ subscriptions, enforcing 94 governance rules across 7,000+ policy assignments and modeling a 55% reduction in policy overhead — cutting tenant onboarding from weeks to hours.
- **Azure Lighthouse and Multi-Tenant Delegation:** Implemented Azure Lighthouse delegated administration across customer tenants, enabling centralized governance, monitoring, and policy enforcement across hundreds of customer environments without requiring customer-side tooling.
- **Multi-Workspace Sentinel Architecture:** Designed a multi-workspace Microsoft Sentinel architecture for a 5,000-subscription fleet, covering governed telemetry onboarding, custom tables, content deployment pipelines, incident flow, and AIOps integration — with Azure Policy enforcing diagnostic settings across the estate.
- **Platform Modernization:** Led a multi-phase refactoring of the primary global delivery platform, retiring legacy technical debt and increasing capacity and capability while substantially reducing run cost.
- **DevOps and Secure Delivery:** Established the engineering delivery standard across the platform with Bicep infrastructure as code, GitHub Actions and self-hosted runners, pre-commit hooks, Ruff linting, and integrated SAST, code, and container security scanning.
- **Revenue-Critical Billing Platform:** Designed and managed the cloud architecture behind the end-to-end Azure billing platform that processes \$150M in annual managed-services revenue, overseeing automated pipelines with full Cosmos DB audit traceability.
- **Partner Ecosystem:** Governed the Microsoft Partner Center portal, aligning co-sell pipeline workflows and capturing strategic partner incentives to grow joint sales velocity.

- **Azure Expert MSP Certification:** Delivered the platform through the rigorous annual Azure Expert MSP audit every year with a perfect record and zero findings, protecting the partner status and co-sell revenue the business depends on.

Senior Azure Architect (2015 to 2022)

- **Cloud Solution Architecture:** Owned architecture, design, and implementation of cloud solutions across IaaS, networking, Kubernetes, databases, and hybrid environments on Microsoft Azure.
- **Azure Arc and Hybrid Governance:** Designed and implemented Azure Arc lifecycle management to extend cloud governance, inventory, monitoring, and security controls to hybrid Windows and SQL Server estates outside the cloud boundary.
- **Identity and Access Management Practice:** Built out the Identity and Access Management group at Rackspace, founded on Azure Active Directory, Active Directory Federation Services, and Microsoft Identity Manager 2016, delivering single sign-on, synchronized, and federated identity at scale.
- **Hybrid Identity Infrastructure:** Designed and implemented Azure IaaS infrastructure delivering complete synchronized and federated identity solutions across Azure Active Directory and on-premises Active Directory.
- **Pre-Sales and Solution Design:** Served as primary point of contact for pre-sales across all Identity and Access Management engagements, delivering workshops and architecting tailored customer solutions.
- **Fortune 500 Architecture:** Acted as lead Azure architect for major Fortune 500 customers, delivering proofs of concept, custom solutions, and integrations with Azure Active Directory.
- **Technical Evangelism:** Delivered webinars on Identity and Access Management, Azure Active Directory, and Federation Services, each reaching more than 500 customers per session.
- **Managed Services Enablement:** Mentored and trained support staff on deployed identity solutions as part of the company's managed identity services offering.

Senior Lead Consultant

Catapult Systems | September 2013 to 2015

- **Austin Practice Lead:** Served as local practice lead for the Austin business unit, owning consulting delivery across Azure infrastructure, Microsoft Office 365, Federation Services, and Azure Active Directory.
- **Full Project Lifecycle:** Managed the complete IT project lifecycle including sales, delivery, quality, and closure, consistently delivering on time and on budget.
- **Top Performer:** Ranked among the top 5 percent of billable consultants firmwide, driving new business opportunities while maintaining delivery excellence.
- **Azure Cloud Adoption:** Migrated workloads to the Microsoft Azure public cloud, building proofs of concept across IaaS, PaaS, and DBaaS, plus Site-to-Site VPN and VNet connectivity to on-premises resources.
- **Large-Scale Directory Consolidation:** Consolidated multiple directory services (LDAP, Active Directory, eDirectory) onto Azure with directory synchronization ranging from 100 to 500,000 user accounts, remediating attributes for Azure AD integration.
- **M&A Identity Integration:** Led Active Directory redesign, upgrade, and consolidation arising from merger and acquisition activity, improving operational efficiency and reducing administrative burden.
- **Federation Services Delivery:** Designed and integrated Active Directory Federation Services (v2.0 and v3.0) solutions including self-service password reset, multi-factor authentication, claims-based identity, custom claim rules, relying party trusts, and access control across on-premises and Azure.
- **Custom Tooling:** Developed a PowerShell-based Active Directory risk and health reporting tool to rapidly identify and remediate issues during project engagements.

Senior Systems Engineer and Architect

Dell Technologies | 5 years

Lead technical architect for enterprise virtualization and identity, building Active Directory and high-availability infrastructure at 99.99% uptime and setting the security and identity governance standards that underpin modern Zero Trust frameworks.

OPEN SOURCE

Borg | *Sole Creator and Maintainer* | borgmemory.com

Designed and built an open-source (Apache 2.0), PostgreSQL-native memory system that gives AI coding agents persistent, organization-level memory across an engineering team. Exposed through three Model Context Protocol tools and working unchanged across Claude Code, Codex, Copilot, and Kiro, it uses namespace isolation and a shared Postgres knowledge graph so projects stay cleanly separated while context carries across sessions and clients. A five-stage compilation pipeline (classify, retrieve, rank, compile, audit) returns ranked, token-budgeted context rather than raw search results, with bitemporal fact supersession to keep stale decisions out of working memory. Benchmarked at 10 of 10 engineering-task success and 91.3% retrieval precision, a 12.7-point gain over top-10 vector RAG, with 78% fewer stale facts.

PUBLICATIONS AND TECHNICAL WRITING

Building a Fleet-Scale Azure Platform | benjaminvillanueva.com/writing/fleet-scale-azure

A nine-part field guide to the platform decisions behind fleet-scale Azure governance, covering the governance control plane, serverless vs. Kubernetes orchestration, Bicep/ARM infrastructure as code, secure GitHub delivery, billing automation, Azure Arc hybrid management, alert-driven remediation, and multi-workspace Sentinel architecture.

Thinking at MSP Scale | benjaminvillanueva.com/writing/msp-scale

A seven-part series on the engineering mindset required to build and operate cloud platforms across hundreds of customers with different architectures, compliance requirements, maturity levels, and business priorities.

Additional articles and technical writing at benjaminvillanueva.com/writing

EDUCATION AND CERTIFICATIONS

Master of Business Administration (MBA), Information Technology Management | University of Wisconsin-Whitewater

Master of Science (M.S.), Supply Chain Management | University of Wisconsin-Whitewater

Microsoft Certified Master (MCM): Directory Services

Microsoft Certified: Azure Solutions Architect Expert

Microsoft Certified Systems Engineer (MCSE): Core Infrastructure

Full Microsoft certification transcript: learn.microsoft.com/en-us/users/benjaminvillanueva-1418/transcript/dg8gpir8x922xyy