

BERNARD TAY

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Onsite Technical Program Manager | Data Center & GPU Cluster Deployment (APAC)

15 Years | 50+ MW Deployed | 100+ Data Halls | 1,000+ Racks | 99.99% Availability | Team of 21–40

PROFESSIONAL SUMMARY

Fifteen years in data centers, scaling from a single server room to 50+ MW at TikTok (ByteDance) Singapore. As its first data center operations hire, took 100+ data halls from first steel to live production across four APAC markets, deploying high-density GPU clusters for AI/ML training with zero unplanned downtime. Grew a 21–40 technician team and served as escalation point for critical incidents. Sustainability work cited by IMDA at the launch of [Singapore's Tropical Data Centre Standard \(SS 697:2023\)](#).

CORE COMPETENCIES

GPU Cluster Deployment & High-Density Compute (Cooling, Hot-Aisle Containment, Power) | Cluster Fit-Out Execution & Cabling Verification Against Design Documentation | Commissioning, IST & Site Acceptance | Concurrent Multi-Site Programme & Risk Management | Vendor & COLO Management, SLA Governance | Production Readiness Reviews | Executive Communication & Decision-Ready Reporting | Cost Optimisation & CapEx Planning | Team Building & Talent Development

PROFESSIONAL EXPERIENCE

Data Center Deployment & Operations — Independent Contractor

May 2025 – Present

Johor (Malaysia) and Eastern Jakarta (Indonesia). End-to-end pre-production deployment for SEA clients.

- Deliver infrastructure validation, commissioning readiness and operational transition planning; hands-on rack and stack, server and network installation, structured cabling, labelling and pre-production validation.
- Run production readiness assessments that catch scope gaps, missing acceptance criteria and thin handoff documentation before they cost schedule.
- Manage the full asset lifecycle: inventory control, secure data destruction, decommissioning and compliant disposal aligned with PDPC and industry standards.

TikTok Pte Ltd (ByteDance) — Data Center Operations, Infrastructure Engineering

Jul 2020 – Apr 2025

Singapore / APAC. First data center operations hire in Singapore; built the function from zero and scaled it across all sites, supporting ByteDance's AI/ML recommendation engine and GPU-accelerated model training.

- Managed deployment and operations of high-density GPU clusters and AI/ML compute infrastructure: thermal and power density, cooling architecture, hot-aisle containment and power distribution upgrades; led reliability drills validating zero unplanned downtime before every high-density go-live.
- Led greenfield and brownfield build-out across Singapore, Hong Kong, Johor and Eastern Jakarta: 50+ MW and 100+ data halls delivered to live production, supporting 1,000+ racks.
- Verified cabling, installation and fit-out on the floor against design documentation and acceptance criteria through commissioning, IST and site acceptance, clearing blockers before they touched the schedule.
- Maintained the SLO/SLI framework at 99.99% availability across all Singapore sites; tracked uptime, incident SLA and rack utilisation with decision-ready reporting to senior global leadership.
- Drove cost optimisation through vendor renegotiation, equipment lifecycle extension and energy efficiency improvements.
- Championed TikTok Singapore's joint trial with Digital Realty, raising operating temperatures to 27°C across 2 × 4.5 MW data halls and achieving a PUE of 1.34; trial outcomes publicly cited by IMDA at the June 2023 launch of [Singapore's Tropical Data Centre Standard \(SS 697:2023\)](#).
- Managed COLO providers, hardware vendors and specialist contractors through SLA governance, performance reviews and procurement oversight.
- Escalation point for critical incidents across operations, EHS and physical security; maintained audit-ready compliance documentation, access control and CCTV programmes across all APAC sites.
- Built and led a team of 21–40 data center technicians across multiple sites, establishing accountability structures, performance metrics and career development pathways.

★**ByteDance Spot Award — "Achievement Beyond Expectations" (Q1 2023), recognising sustained impact across APAC data center deployment and operations.**

Amazon Web Services (AWS) — Data Center Engineering Operations

Mar 2014 – Aug 2019

Singapore, Narita and Seoul. Mission-critical, SLA-driven 24/7 environments.

- Oversaw electrical and mechanical infrastructure — generators, UPS, PDUs, chillers, CRAH/AHU, BMS and fire-suppression systems; administered DCIM and environmental monitoring with automated alerting.
- Owned multi-country vendor governance across COLO, logistics and hardware partners; executed server and rack deployments and capacity expansions to meet regional demand, coordinating with build and logistics teams to hold installation timelines.
- Ran 24/7 on-call incident response for mission-critical facilities — triaging events, restoring service within SLA and driving root-cause follow-up to prevent recurrence.
- Coordinated RMAs and break-fix operations through Jira / ITSM ticketing, and led risk, change-management and preventative-maintenance programmes across all three sites.

- Standardised MOP/SOP, runbooks and change control across Singapore, Narita and Seoul, improving cross-site consistency and sustaining continuous uptime in SLA-driven 24/7 environments.
- Ensured compliance with safety, security and operational-excellence requirements — supporting audits and mentoring junior engineers and technicians.

★**AWS Spot Award (monetary) for Singapore DC operations and the AWSome Award for exemplifying Amazon's Leadership Principles.**

Earlier Roles (Condensed)

1999 – 2013

- **Assistant Facilities Manager, Newtech Technology (2013)** — PPM supervision for mission-critical DC facilities; 4 engineers and 12 technicians.
- **Network Engineer, Pacnet Internet / Telstra (2008–2012)** — telecom circuits, Ethernet fault resolution, subsea cable repair coordination, overseas POP provisioning.
- **System Administrator, Commerzbank AG (2008)** — trading floor infrastructure for 100+ users.
- **Implementation Engineer, Reuters Asia (2006–2007)** — DC footprint scaled from 100+ to 600+ racks in 3 months.
- Earlier enterprise deployment and support roles at HP, Compaq and Citi (1999–2006).

CERTIFICATIONS & PROFESSIONAL DEVELOPMENT

Data Center & Facilities: CDCMP® (CNet, an Uptime Education Company) | EPI CTDC | EPI CDFOM | EPI CDCS | IFMA Facility Management Professional (FMP®)

ASHRAE Data Center Thermal & Cooling (2026): Computer Cooling Equipment | Airflow, Equipment Placement & Heat Release | Liquid Cooling & Facility Cooling Systems | Building Facility & Chilled-Water Systems

Cloud, AI & Digital: Oracle OCI 2025: Certified Generative AI Professional, Certified AI Foundations Associate, Certified Foundations Associate | Oracle Data Platform 2025: Foundations Associate | GSDC: Certified Generative AI Professional, Certified Prompt Engineering | SUTD: Certified Generative AI Professional, Certified Prompt Engineering, GenAI Practitioner (2026) | GenAI for Leaders (Temasek Polytechnic) | Anthropic: AI Fluency Framework & Foundations, AI Capabilities & Limitations, Claude 101, Claude Code 101, Introduction to Claude Cowork, Claude Platform 101 | OpenAI Academy (2026): AI Foundations, Applied AI Foundations, Agents & Workflows | Microsoft Certified: Azure Fundamentals

Agile & Leadership: Certified Agile Leader® 1 (CAL-E, CAL-T, CAL-O) | Advanced CSM | CSPO | CSM | SAFe® 6: Agilist, Scrum Master, PO/PM, DevOps Practitioner | Certified AI-Empowered SAFe® Agilist | ICAgile: Leading with Agility, Agility in HR

Quality & Root Cause Analysis: TÜV SÜD: 5-Whys | Fishbone | 7 Basic Tools of Quality | Kaizen & 7 Lean Wastes

IT Service Management & Security: ITIL Foundation (5 trained) | DevOps Leader v2.2 (PeopleCert) | EXIN ISO/IEC 20000 | EXIN Information Security Foundation (ISO/IEC 27001) | CompTIA Network+

People Management & HR: SHRM Advanced Diploma in Human Resource Management (2026) | CEI (KAH) Trained

Safety, Environment & Compliance: Green Mark Accredited Professional (BCA) | Practitioner Certificate in Personal Data Protection (PDPC, exam co-developed with IAPP) | Top Executive WSH Programme | BizSafe Level 2 | Environmental Control Coordinator (NEA) | ZERO Waste Manager (NEA) | Water Efficiency Manager (PUB)

AVAILABILITY & MOBILITY

Available at short notice for APAC and global deployments, with sustained onsite presence from build, commissioning and implementation through to production.