DevOps Engineering Foundation™

BLUEPRINT

DevOps Engineering Introduction
Sound DevOps engineering depends on a foundational understanding of DevOps principles, practices, related frameworks, performance and benefits.

Ephemeral Elastic Infrastructures
DevOps works best when engineered for virtual and cloud resources using configuration management, infra-as-code, containers orchestration, and GitOps.

DevOps Technology
The technology heart of DevOps is source and artifacts control, CI/CD pipelines, tools and toolchains, application release automation, and value stream management.

Architectures & Continuous Integration
Modular applications architected as microservices, packaged in containers, work best with continuous integration processes.

Continuous Delivery & Deployment
DevOps for Continuous Delivery and Deployment requires engineering release automation and leveraging deployment strategies.

Metrics, Monitoring, Observability, Governance
Visibility and controls for DevOps requires metrics, monitoring, observability, and governance.

Continuous Testing
Fast DevOps lead times require that testing solutions be engineered around key tenets of continuous testing, strategies for test creation, TDD, test acceleration, test results, test management, and test environment management.

DevOps Engineering Humans
DevOps can not succeed by engineering technology and processes alone. The right culture, specific team topologies, commitment to continuous learning, and awareness of future DevOps trends are essential.