

Automation

The following guidance should be applied in automating DevOps processes:

- Infrastructure as Code [Mandatory]
- Containerization and service orchestration [Mandatory]
- Continuous integration & Continuous Delivery (CI/CD) [Recommended]

Infrastructure as Code [Mandatory]

Infrastructure as code is the process of managing and provisioning computer data centers through machine-readable definition files, rather than physical hardware configuration or interactive configuration tools. All deployment, delivery, packaging configurations, and infrastructure setup must be done using configuration files. Ansible is the recommended software to use for this automation.

Containerization and service orchestration [Mandatory]

Containers provide an isolated environment for running software. Docker or Kubernetes is the recommended containerization technology, and each developed application/software must have a containerized version.

Continuous integration & Continuous Delivery (CI/CD) [Recommended]

The technical goal of CI/CD is to establish a consistent and automated way to build, package, test and deliver applications. All repositories hosting source codes must be configured for CI/CD and each push or merge to any protected branch of the VCS must trigger a CI/CD pipeline.