Infrastructure as Code (IaC) is the process of provisioning and managing IT resources including data centers, storage, compute, and networking equipment, through machine readable definition files, rather than traditional physical hardware configurations or interactive configuration tools. IaC uses repeatable process management and automation to improve IT services by treating hardware like software.

**Benefits of IaC**

- **INCREASED PERFORMANCE**: through faster configuration & provisioning of infrastructure
- **REDUCED COST**: via fewer dependencies of manual tasks & more efficient use of resources
- **IMPROVED SECURITY**: by eliminating human error in provisioning & configuration management

**Use Case: 1901 Group’s infrastructure-delivery process before and after deploying IaC**

**BEFORE DEPLOYING IaC**
- Server request submitted to Change Control Board (CCB)
- After review, ticket submitted to build team for server deployment
- Server team applies latest OS patches
- Security team scans server for vulnerabilities
- CLEAN? NO

**AFTER DEPLOYING IaC**
- After Approval server build request form completed, sent to build team to review
- Build team deploys server from most recent image
- Security team scans server for vulnerabilities
- Scan results provided to server team for remediation, server team remediates
- Server delivered for application install
- CLEAN? YES

**Automated process takes 2 HOURS or less to deliver infrastructure**

- **Manual Process**: Lengthy manual process takes 2 WEEKS or more to deliver infrastructure
- **IaC Process**: Automated process takes 2 HOURS or less to deliver infrastructure

**78 HOURS SAVED**

**That’s 40x FASTER**

**$78,000 IN SAVINGS per year based on a forecast of 10 IaC automations**