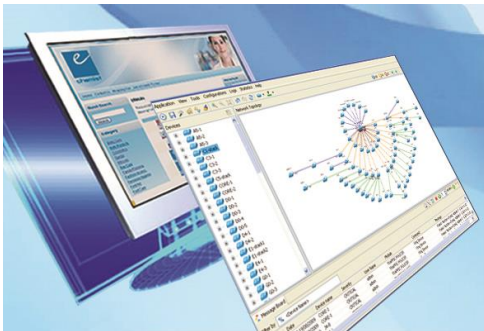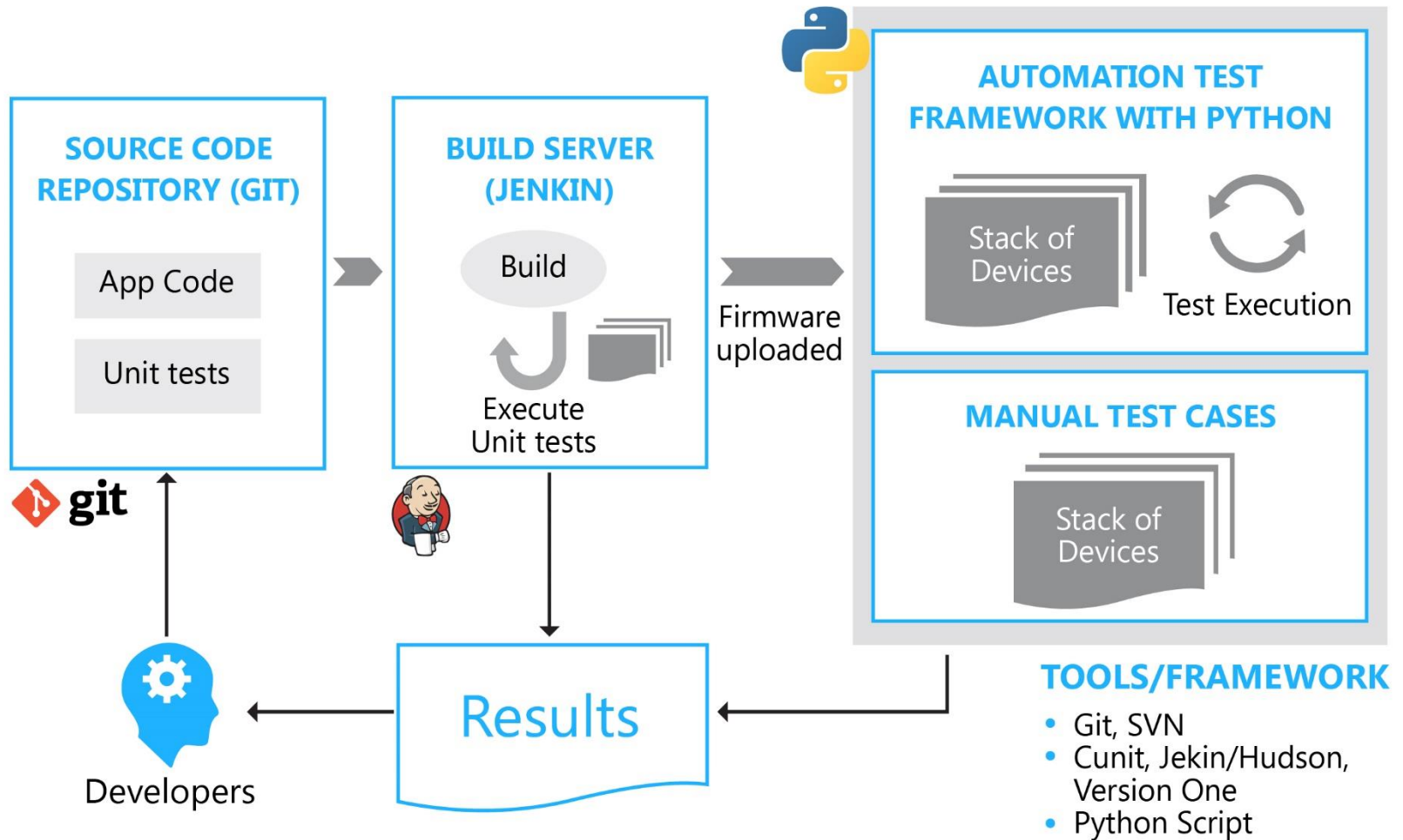# TMA SOLUTIONS

DevOps Practices & Experience

DevOps Overview

➢ More than 8 years of experience in Continuous integration (CI), Continuous Deployment (CD) and DevOps

➢ Applied CI/CD/DevOps in many large scale projects

➢ Familiar with many DevOps tools

DevOps Best Practices

- ➢ Manage and execute automation for deployment, upgrade, validation of applications using DevOps tools

- ➢ Implement Continuous integration (CI) & Continuous Deployment (CD) using DevOps tools

- ➢ Create a repeatable, reliable process for releasing software

- ➢ Automate acceptance testing, deployment tasks, configuration management, etc.

- ➢ Keep everything under version control

- ➢ Create Fast Feedback Loops

- ➢ All members and teams responsible for the release process

- ➢ Quickly identify and fix defects

Sample Continuous Integration Process

SOURCE CODE REPOSITORY (GIT)
- App Code
- Unit tests

BUILD SERVER (JENKIN)
- Build
- Execute Unit tests

Firmware uploaded

AUTOMATION TEST FRAMEWORK WITH PYTHON
- Stack of Devices
- Test Execution

MANUAL TEST CASES
- Stack of Devices

Results

Developers

TOOLS/FRAMEWORK
- Git, SVN
- Cunit, Jekin/Hudson, Version One
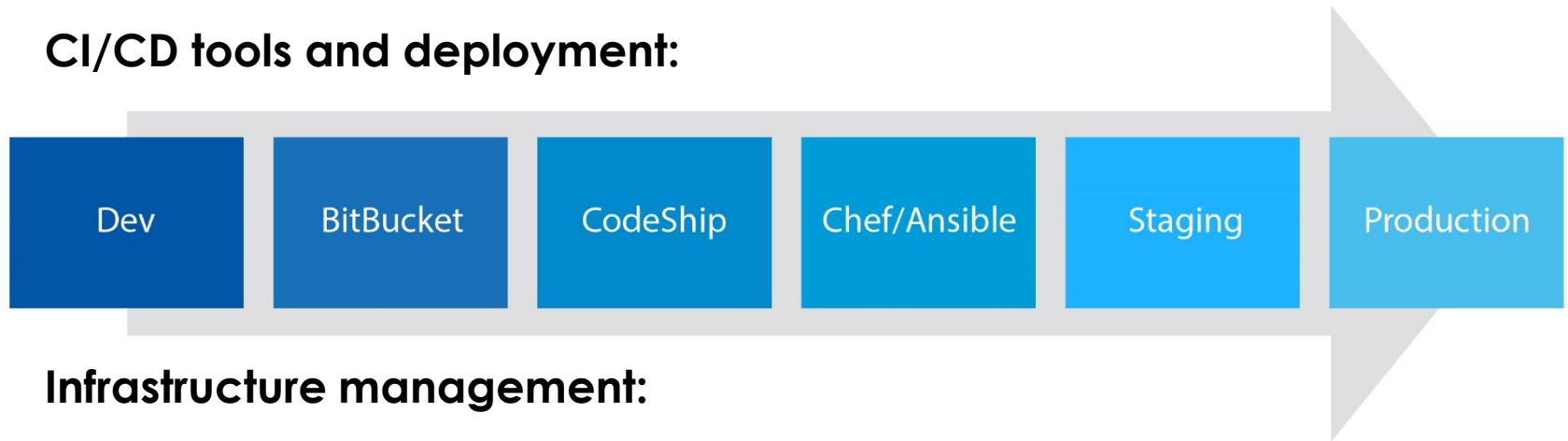- Python Script
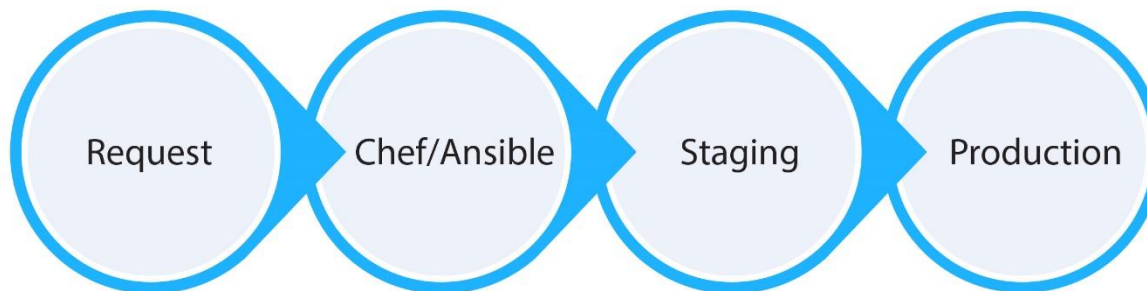
Sample DevOps Process

- **Automation:**
    - Auto staging deployment
    - Semi-auto production deployment for better control
    - Manual QA due to nature of billing portal
    - QA working on partial automation

- **CI/CD tools and deployment:**

Dev	BitBucket	CodeShip	Chef/Ansible	Staging	Production

- **Infrastructure management:**

Request → Chef/Ansible → Staging → Production

Sample DevOps Tools