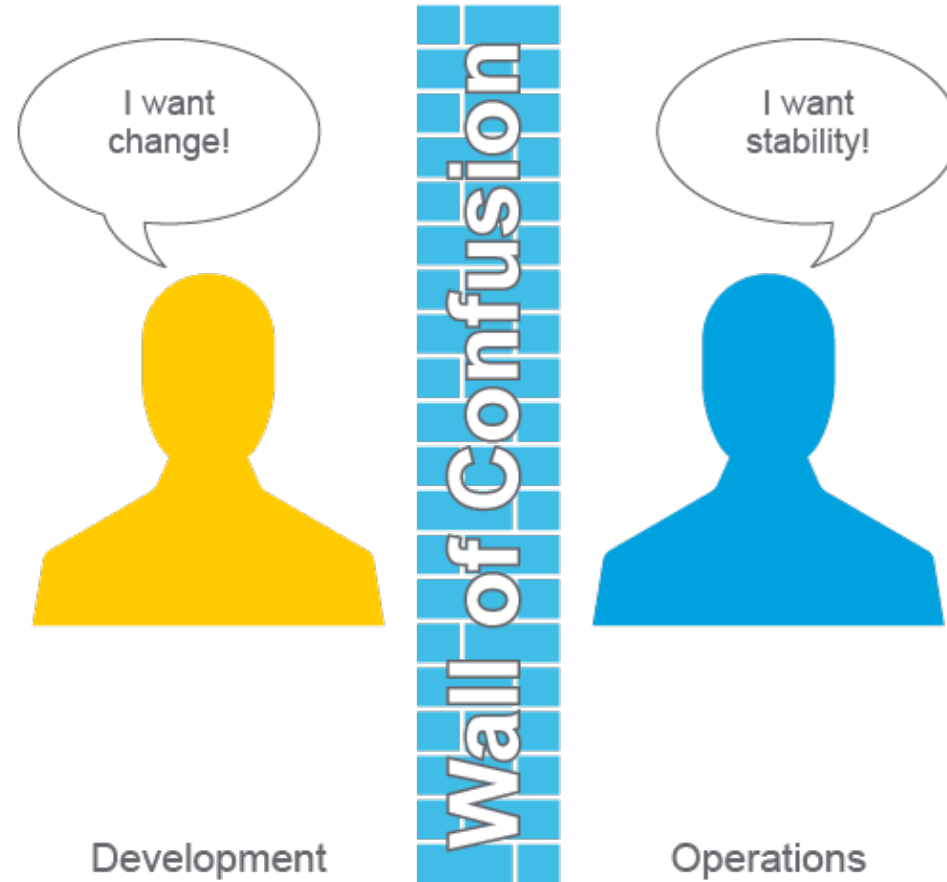


WHAT IS DEVOPS?

Gap Between Dev and Ops

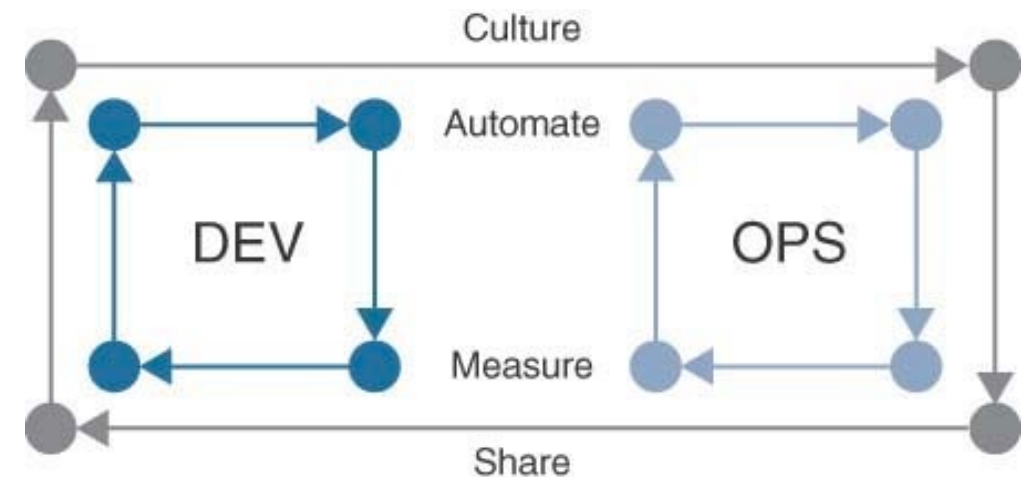


WHAT IS DEVOPS?

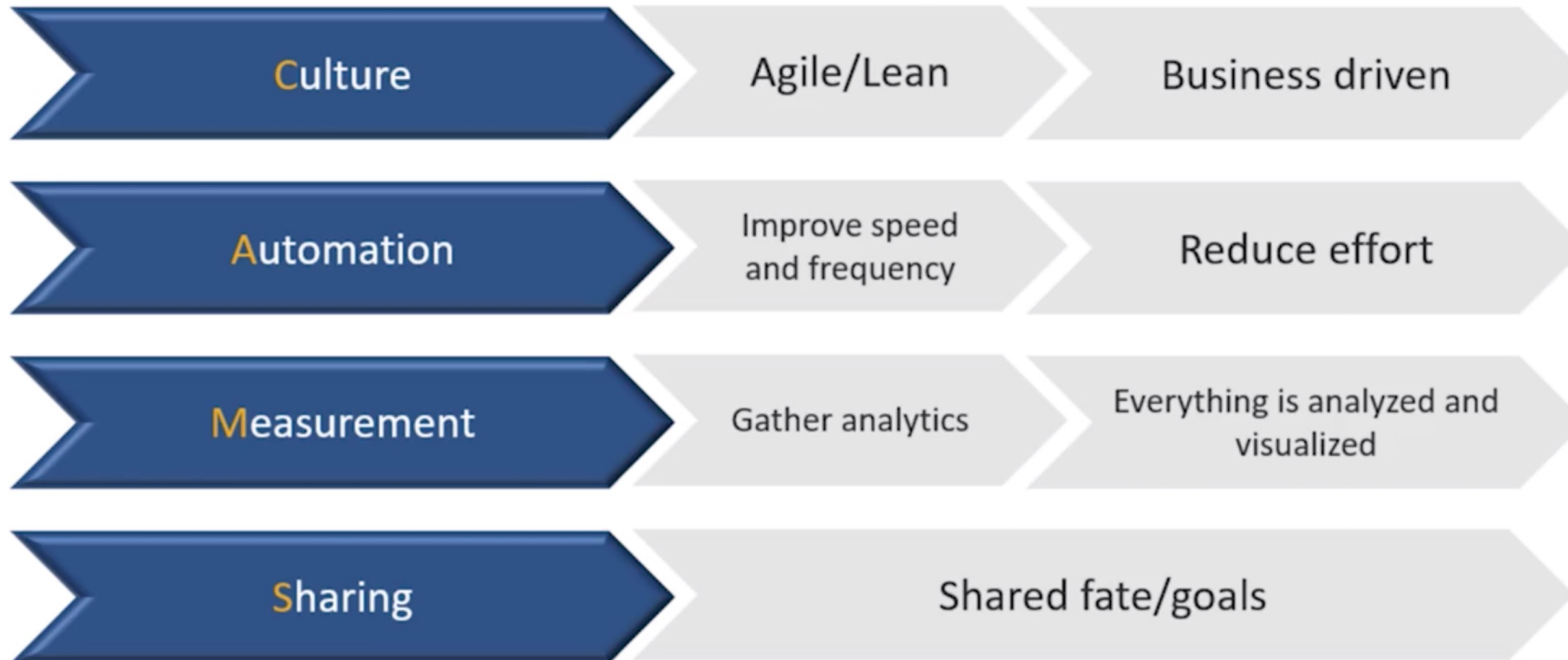


“[DevOps is] a set of cultural norms and technical practices that enable this fast flow of work from dev through test through operations while preserving world class reliability”

Gene Kim - author of “The Phoenix Project”, “DevOps Handbook”, and “The Unicorn Project”



What Does It Take To Embrace DevOps?



DevOps Case Studies

Netflix

- 1000s of releases a day
 - Fully-automated build tools to test and make packages, machine image bakery, and image deployment
 - Developers deploy when they want; manage their own capacity and auto scaling; and fix anything that breaks
-

Scotiabank

- Transformed a 186-year old bank into a technology company
 - 3000 deployments a month through PLATO platform
 - React to customer feedback in REALTIME
-

Target

- 90+ APIs facilitating in-store experience, supply chain, and back office
- Hundreds of deployments a day
- Monthly API volume over 1.5 billion hits
- Less than 10 incidents a month
- Target DOJO

PUTTING DEVOPS INTO PRACTICE

THE THREE WAYS

THE THREE WAYS

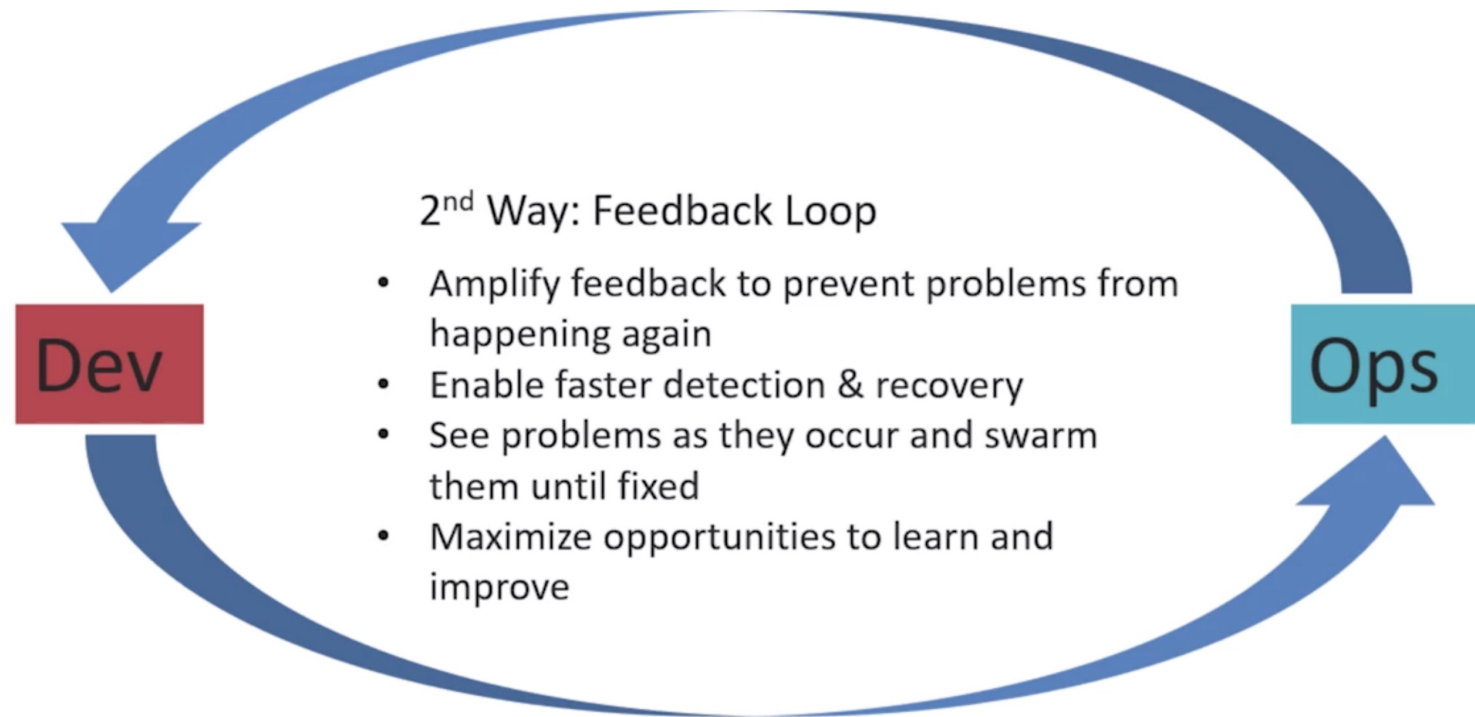
1st Way: Systems and Flow



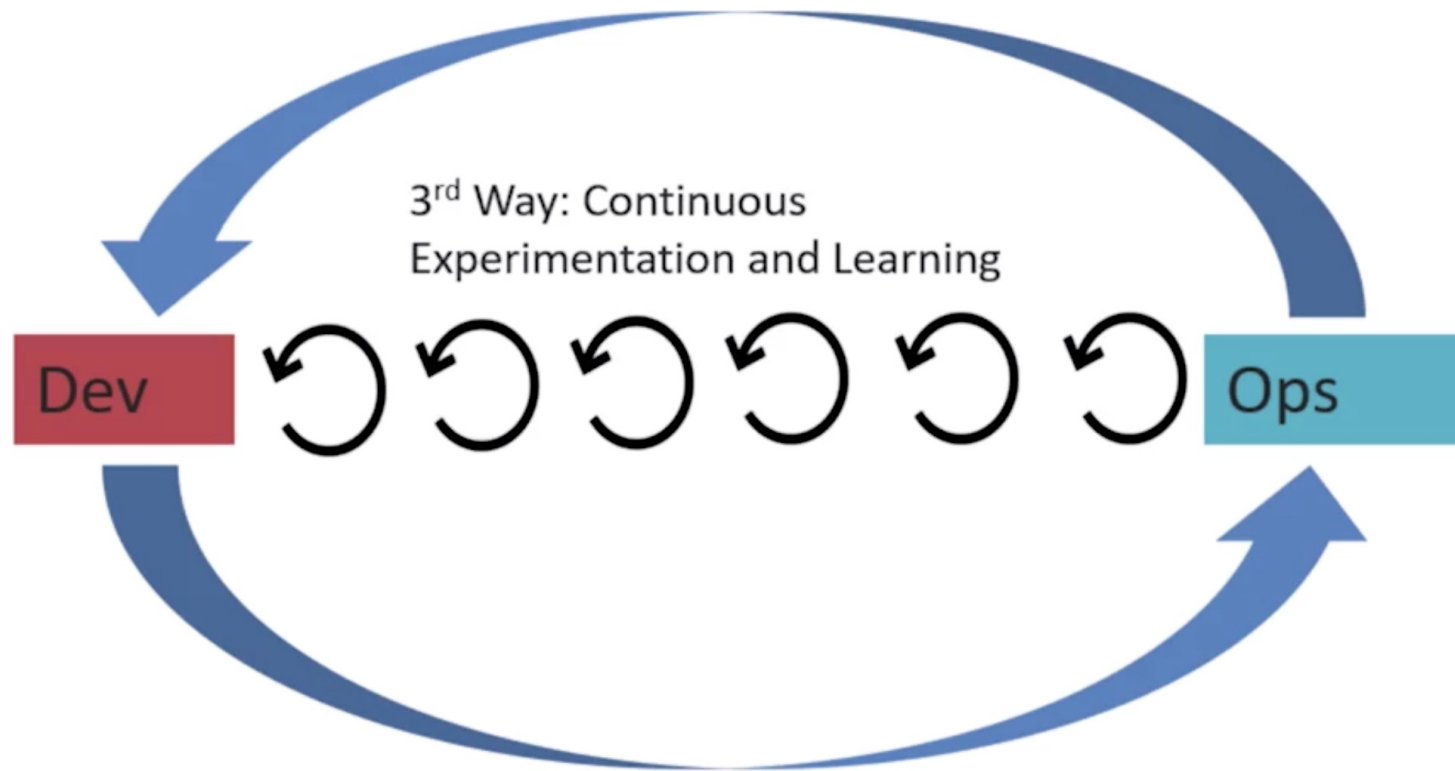
Make work visible

- Reduce batch sizes
- Reduce intervals of work
- Build in quality by preventing defects from being passed downstream
- Constantly optimize for business goals

THE THREE WAYS



THE THREE WAYS



DEVOPS IMPLEMENTATION

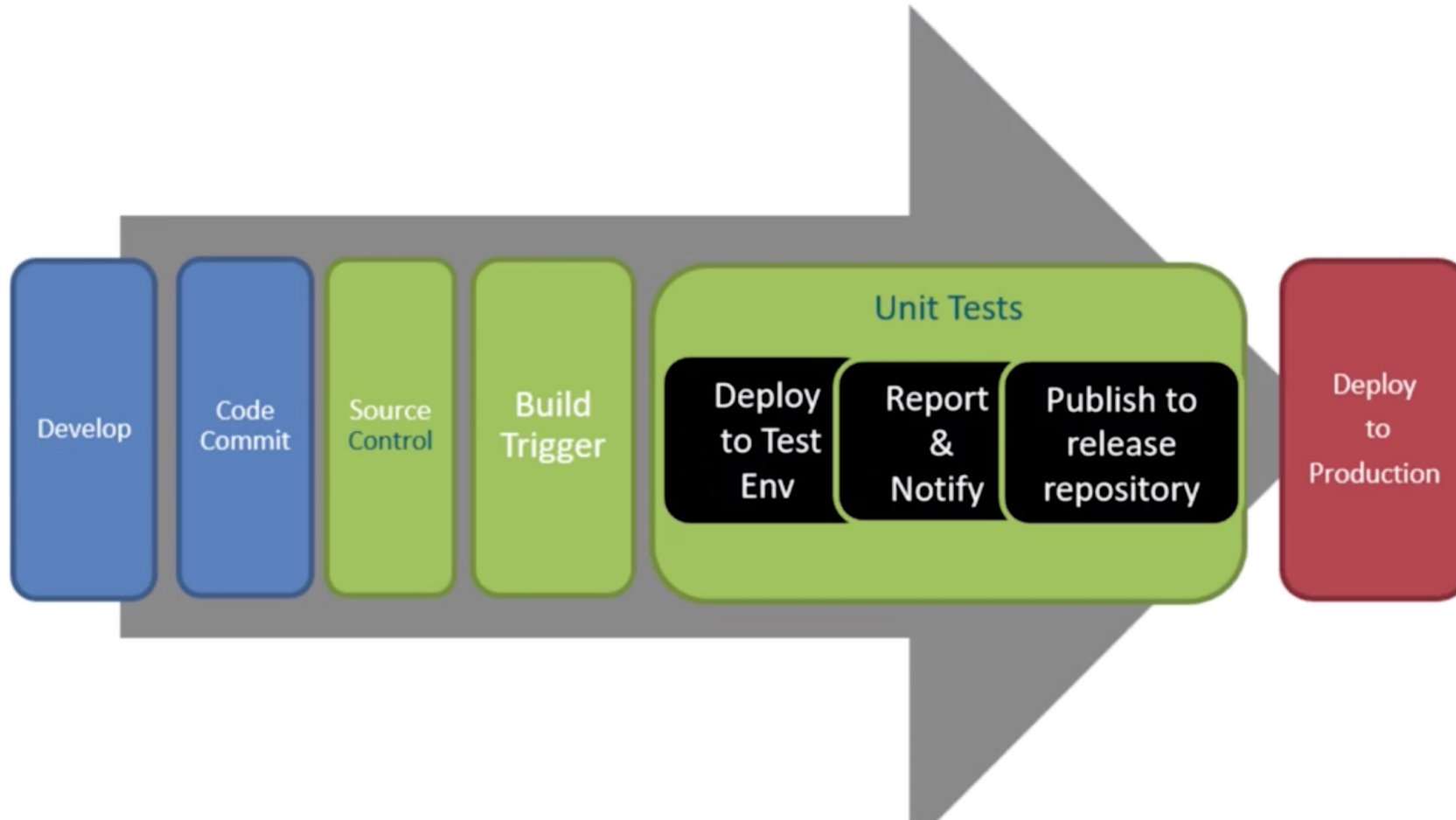
DevOps Tools

| | |
|--------------------------|--|
| Continuous Integration | Jenkins, Travis, Team City, Drone |
| Configuration Management | Puppet, Chef, Ansible |
| Collaboration | Webex Teams, Slack, MS Teams |
| Working Environment | Docker, Vagrant, VMware |
| Source/Image Control | Git, Github, Subversion, Docker Hub, Artifactory |
| PaaS | Cloud Foundry, OpenShift, Apenda, K8S |
| IaaS | Azure, AWS, GCP, Openstack |

Continuous Integration, Delivery, And Deployment

- **Continuous Integration:** Merging of development work with code base constantly so that automated testing can catch problems early.
- **Continuous Delivery:** Software package delivery mechanism for releasing code to staging for review and inspection.
- **Continuous Deployment:** Relies on CI and CD to automatically release code into production as soon as it is ready. Constant flow of new features into production

Continuous Deployment



DevOps Pipeline in Action

