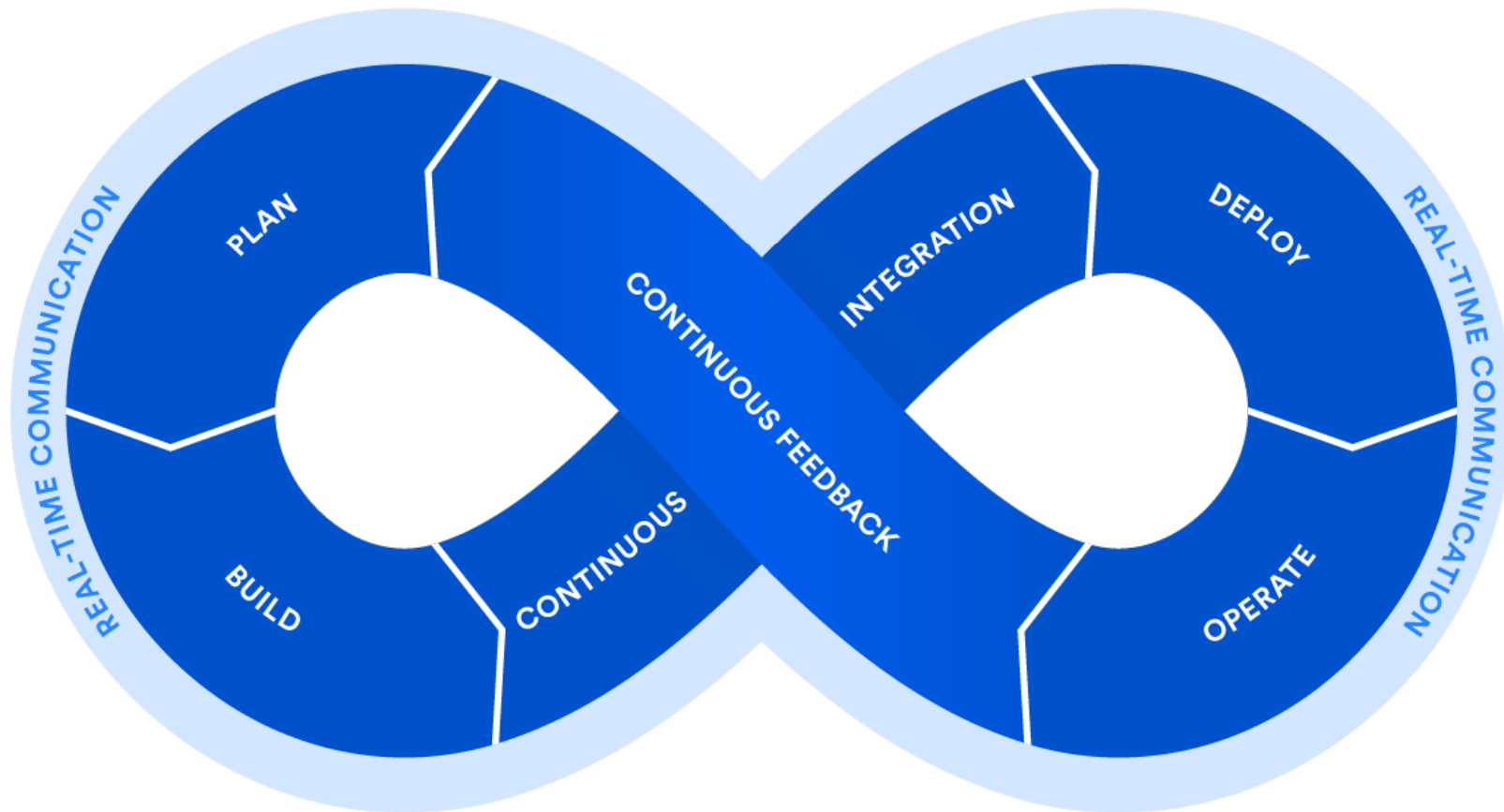


What is DevOps?

- **DevOps** is a software engineering culture and practice that aims at unifying software development (**Dev**) and software operation (**Ops**).



Why is DevOps Important?

- Achieve faster time to market
- Improve deployment frequency
- Lower failure rate for new releases
- Quality code
- Keep business / stakeholders happy

DevOps Delivery Chain

Continuous Integration



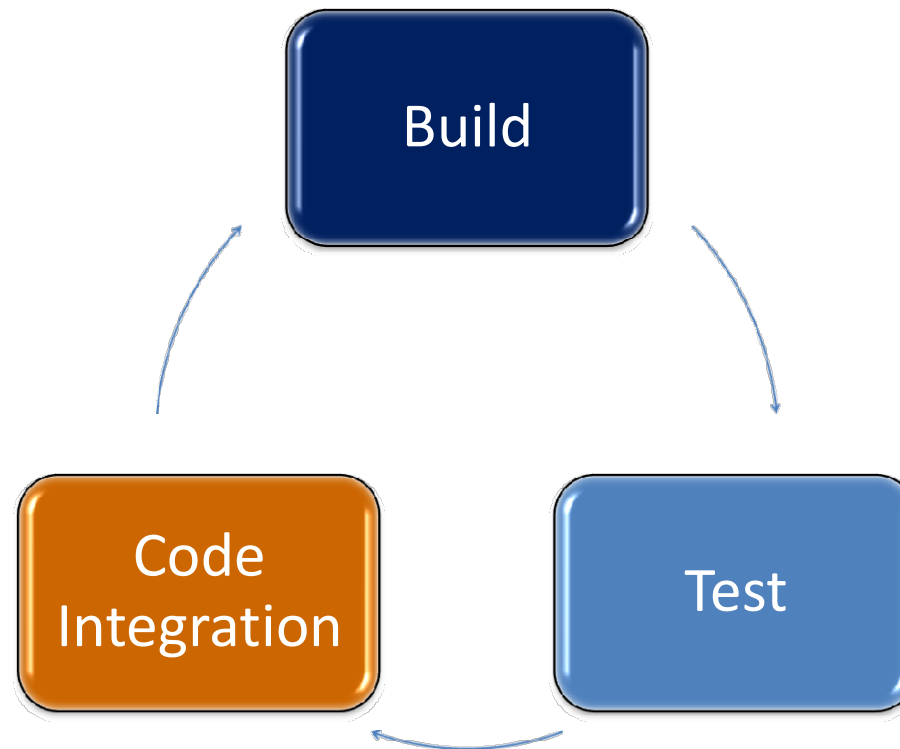
Continuous Delivery



Continuous Deployment

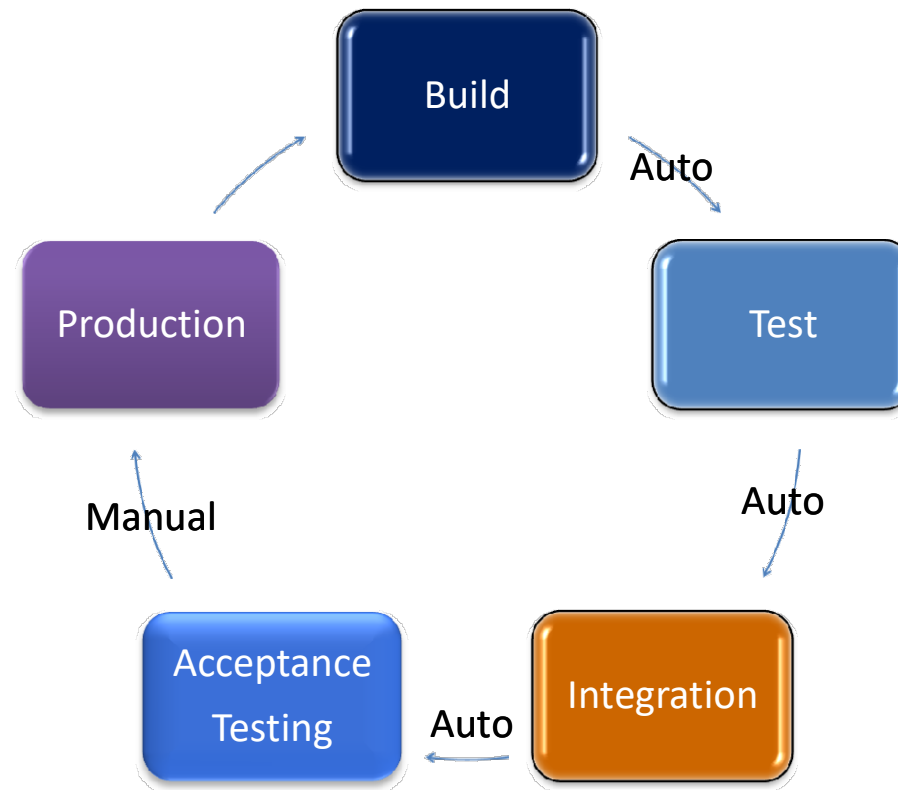
Continuous Integration

- Continuous integration (CI) is the practice of merging all developer working copies to a shared mainline several times a day.



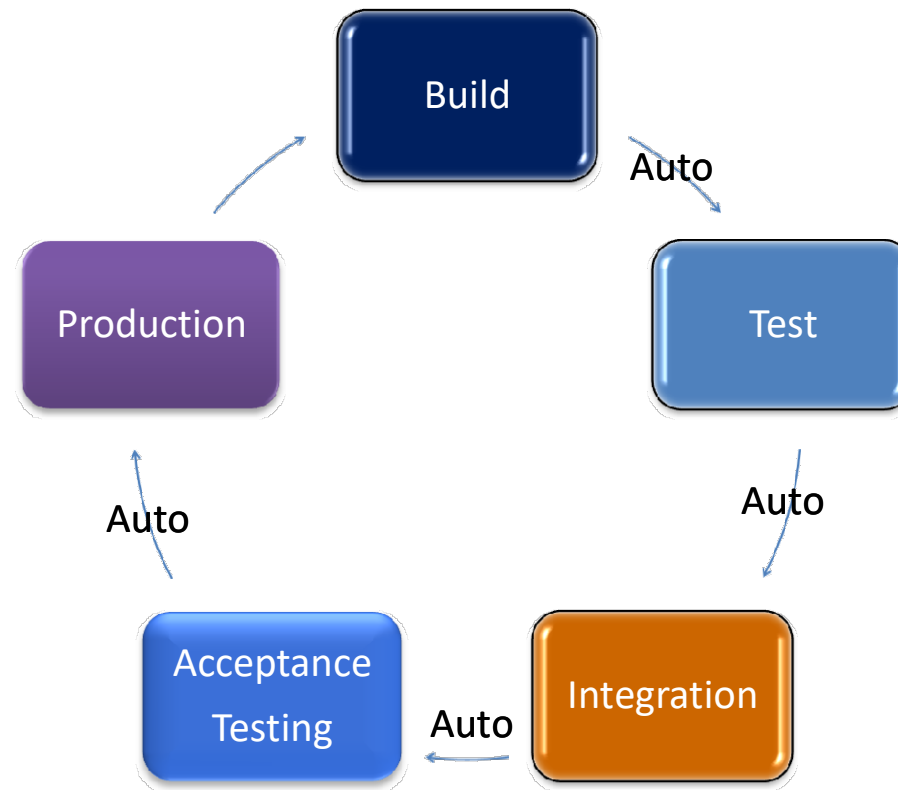
Continuous Delivery

- Continuous delivery (CD) is a software engineering approach in which teams produce software in short cycles, ensuring that the software can be reliably released at any time.

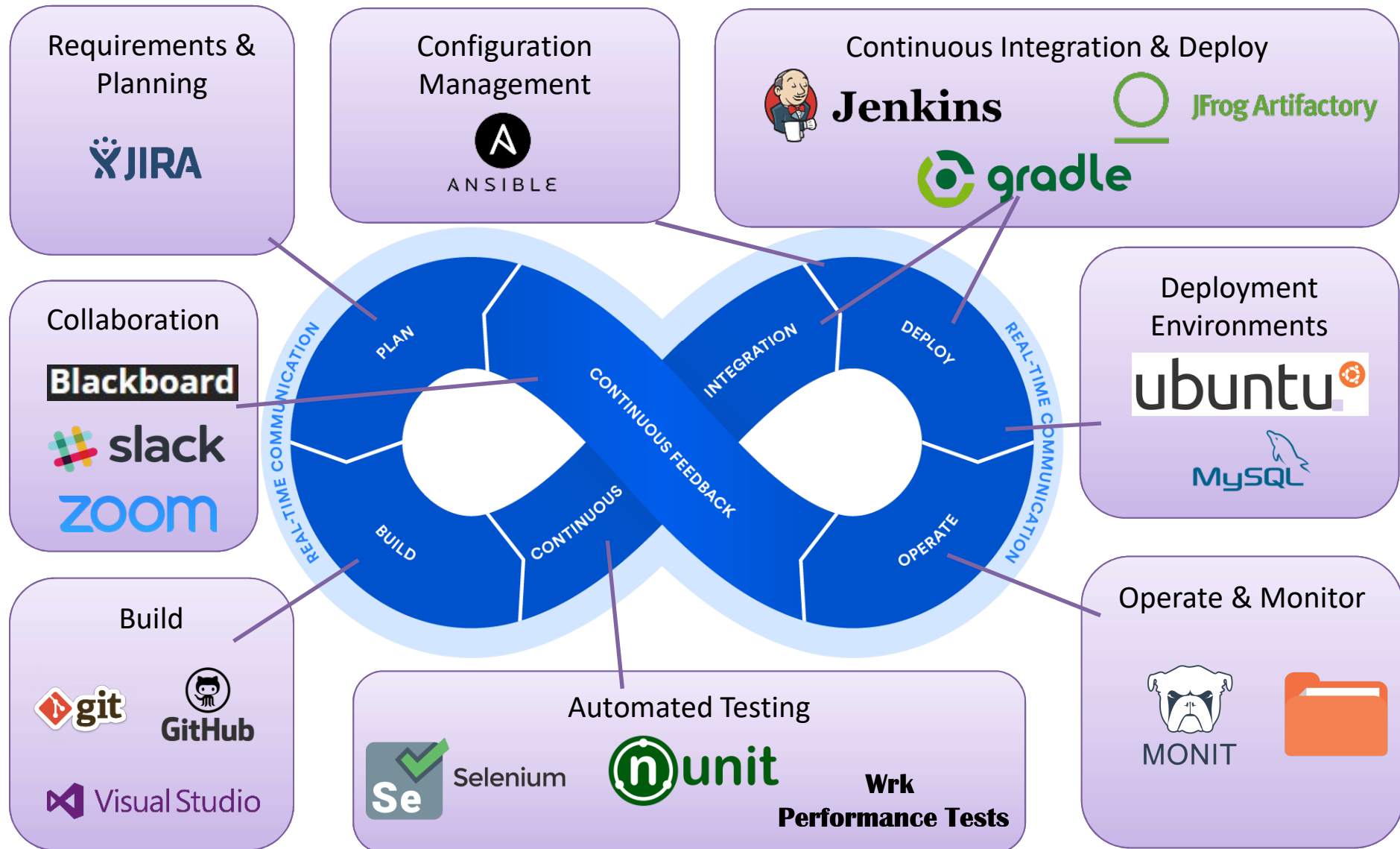


Continuous Deployment

- Continuous deployment aims to reduce the time elapsed between writing a line of code and making that code available to users in production.



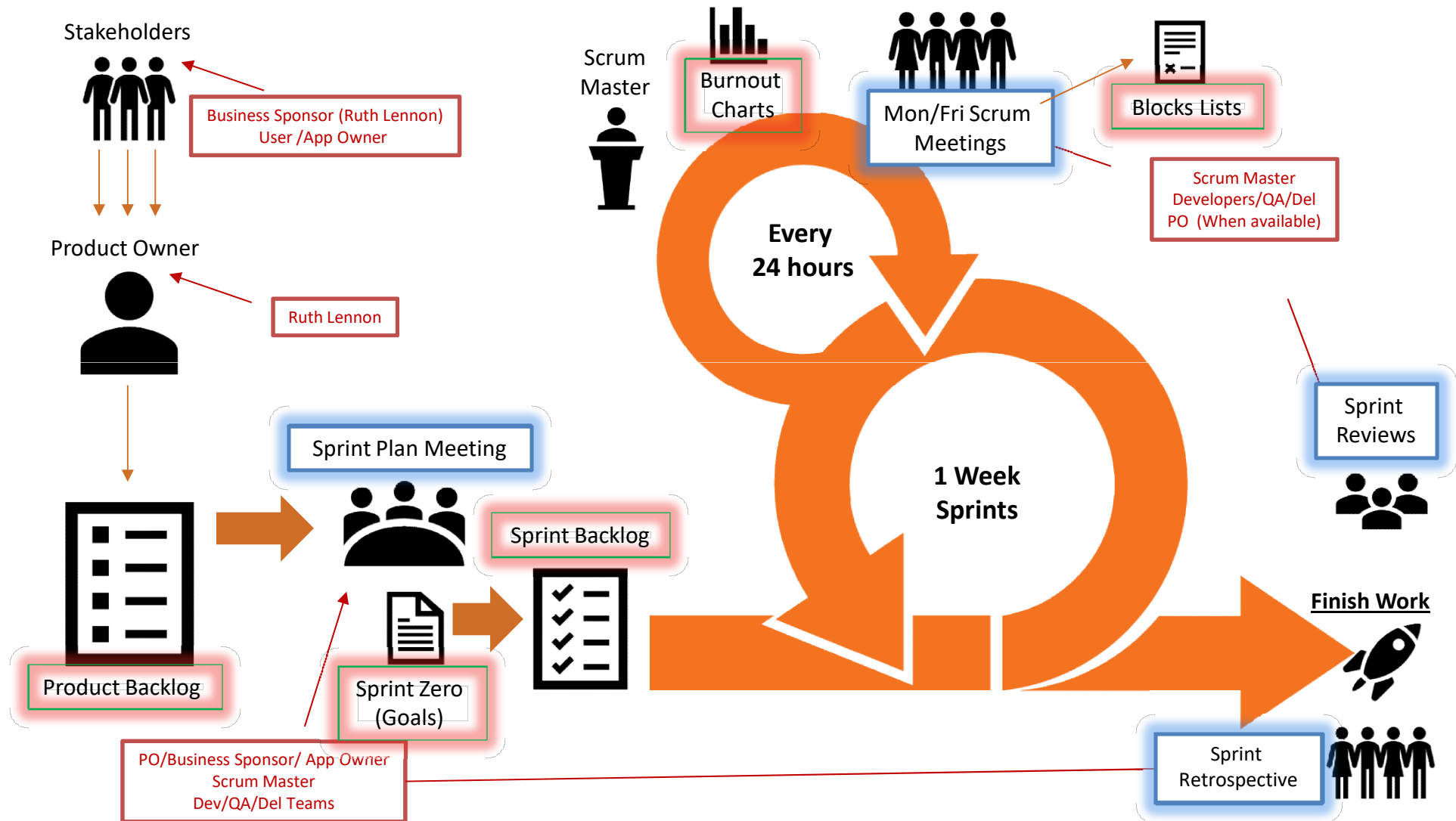
CrowSoft DevOps Tools



Typical Agile Model using Scrum



CrowSoft Agile Model using Scrum Process



Agile (Scrum) Key Artifacts

Product Backlog

- User Stories (Requirements)
- Desired Work
- Prioritized by Product Owner

Sprint Zero (Goal)

- HL context Diagram
- Summary of work in sprint
- Declared by Product Owner
- Accepted by Team

Sprint Backlog

- Team select work to do
- Owned / manage by team
- Estimated work remaining updated daily

Blocks List

- List of blocks /unmade decisions
- Owned by Scrum Master
- Updated daily

Burndown Chart

- Effort spend over time
- Stories / features completed

Agile (Scrum) Key Artifacts

Product Backlog

- User Stories (Requirements)
- Desired Work
- Prioritized by Product Owner

Sprint Zero (Goal)

- HL context Diagram
- Summary of work in sprint
- Declared by Product Owner
- Accepted by Team

Sprint Backlog

- Team select work to do
- Owned / manage by team
- Estimated work remaining updated daily

Blocks List

- List of blocks /unmade decisions
- Owned by Scrum Master
- Updated daily

Burndown Chart

- Effort spend over time
- Stories / features completed

Agile (Scrum) Key Meetings

Sprint Planning

- Hosted by Scrum Master
- Select highest priority items on Product Backlog and team turns item into Sprint Backlog
- Estimate Sprint Backlog in hours
- Work breakdown
- Declare sprint goal

Daily Scrum

- Hosted by Scrum Master
- 30 Mins Standup – Monday 9:30pm, Friday 9:30am
- Not for problem solving (Let's use Slack)
- 3 Question:
 - What did you do?
 - What will you do?
 - What's in your way?

Sprint Reviews

- Hosted by Scrum Master
- Every 2 week
- Accomplishments
- Whole Team present
- Demo shippable product/features

Sprint Retrospective

- Hosted by Scrum Master
- Discuss "Start Doing", "Continue Doing", "Stop Doing"

Agile (Scrum) Key Meetings

Sprint Planning

- Hosted by Scrum Master
- Select highest priority items on Product Backlog and team turns item into Sprint Backlog
- Estimate Sprint Backlog in hours
- Work breakdown
- Declare sprint goal

Daily Scrum

- Hosted by Scrum Master
- 30 Mins Standup – Monday 9:30pm, Friday 9:30am
- Not for problem solving (Let's use Slack)
- 3 Question:
 - What did you do?
 - What will you do?
 - What's in your way?

Sprint Reviews

- Hosted by Scrum Master
- Every 2 week
- Accomplishments
- Whole Team present
- Demo shippable product/features

Sprint Retrospective

- Hosted by Scrum Master
- Discuss "Start Doing", "Continue Doing", "Stop Doing"