Continues Integration Continues Delivery

A Business Look

Continues Integration

- Often times developers are working in silos and everyone want to generate their own build thus it ends up having inconsistent code and failed builds.

- CI is an engineering practice where the code from all developers continues merge into main code repository every time the declares 'its done'.

- This helps identifying the code errors or bugs during building the code and thus clearly identifies the responsible to fix it in clean way.

- CI has three conceptual stage : Build, Test & Analyze

Continues Delivery (CD)

- CD has two meanings. Continues Delivery & Continues Deployment.
- Continues Delivery: means that in shorter cycles business can earn value in any form.
- Continues Deployment: means teams are frequently deploying their code in an automated way. In concept this is one step behind Continues Delivery where actually code is promoted to production.

Business benefits of CI CD pipelines

- **Create Revenue**

    By having more automated & well tested code in production reduces time to market thus enabling business to create more revenue.

- **Protect Revenue**

    since there is a automatic roll back mechanism in place incase of any failed deployment which could cause loss in revenue can be avoided.

- **Control Costs**

due to code analysis (devsecops) or test automation costly security loopholes or vulnerabilities can be avoided which could control the cost otherwise incurred.

- **Reduce cost**

Using IAC or general cleanup practices , unused resources can be cleaned up to reduce cost. This also reduces time to fix compile time errors produced by another developer.

CI CD Pipeline

Continues Integration

Continues Delivery

Build → Test → Analyze → Deploy → Verify → Promote
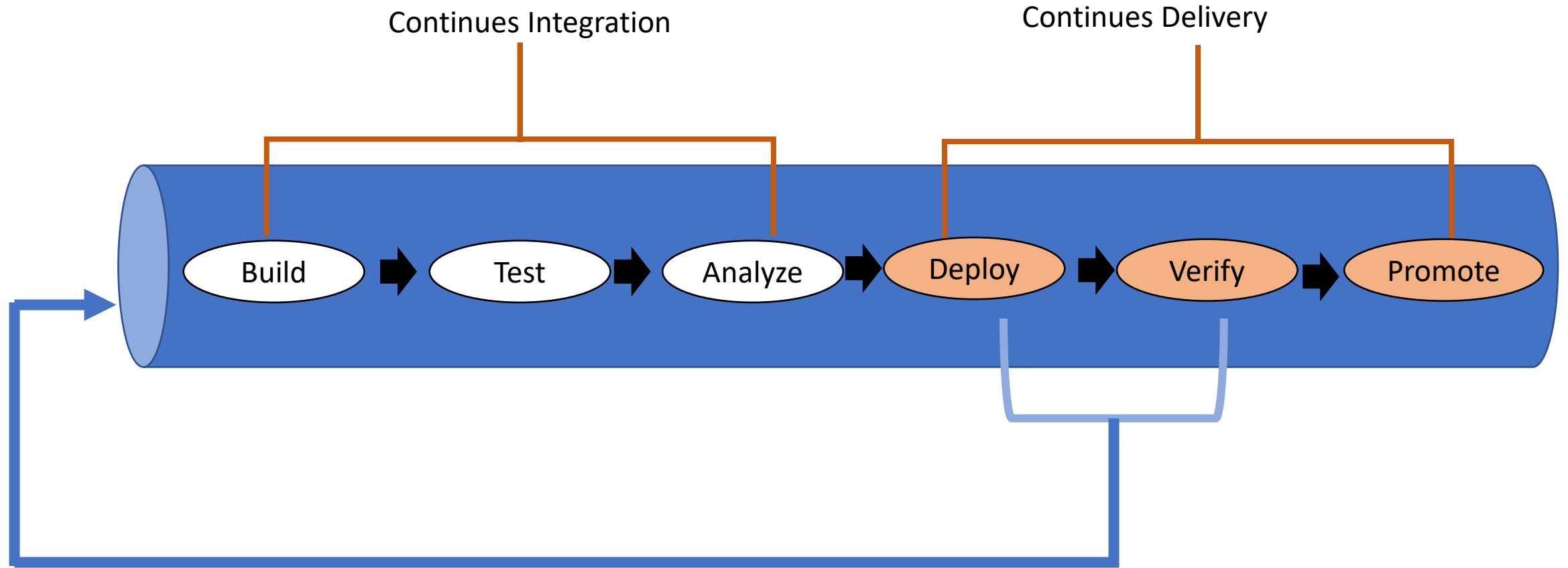
Revert or Roll back if deployment fails or verification fails