

A decorative graphic on the left side of the slide, consisting of white lines and circles on a blue gradient background, resembling a circuit board or a stylized tree structure.

CI/CD PIPELINE AND ITS BENEFITS

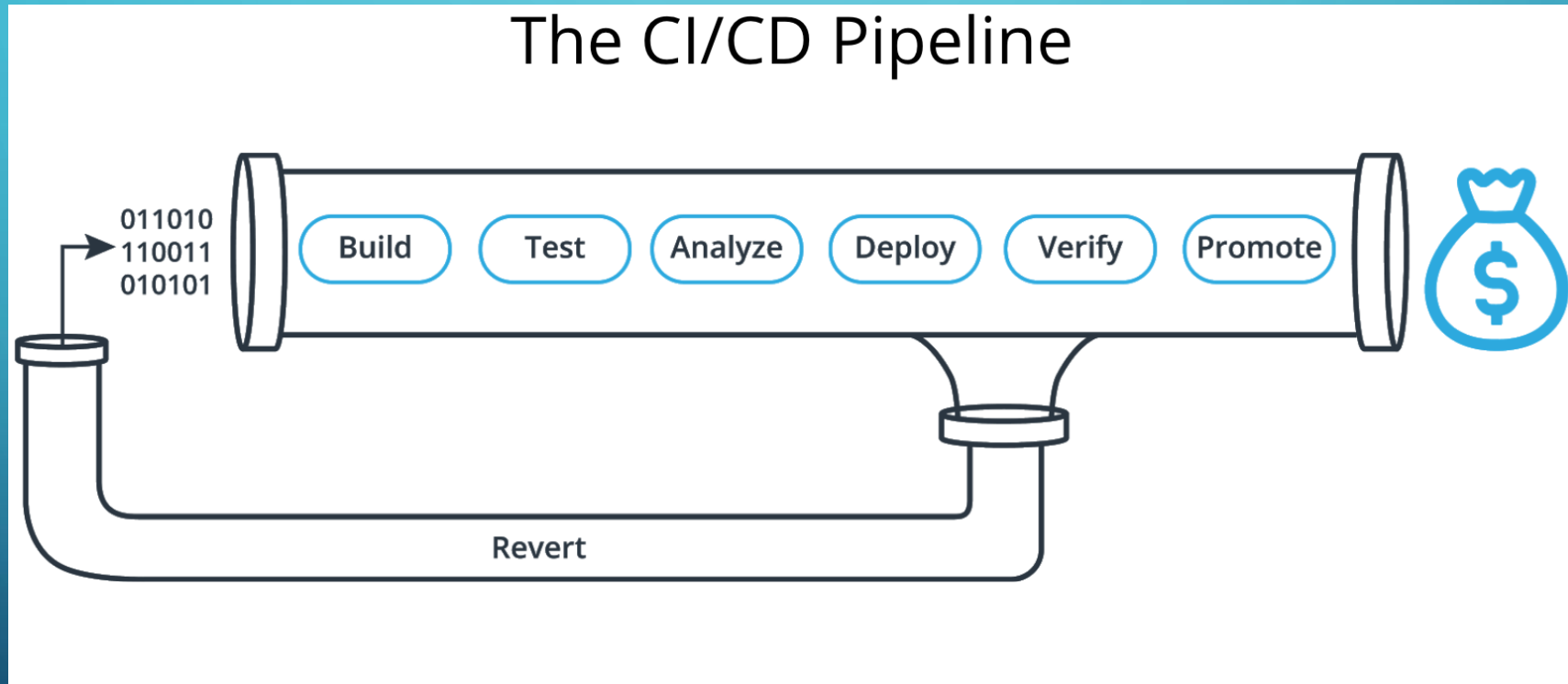
CONTINUOUS INTEGRATION

- *The practice of merging all developers' working copies to a shared mainline several times a day. It's the process of "Making". Everything related to the code fits here, and it all culminates in the ultimate goal of CI: a high quality, deployable artifact! Some common CI-related phases might include:*
 - Compile
 - Unit Test
 - Static Analysis
 - Dependency vulnerability testing
 - Store artifact

CONTINUOUS DEPLOYMENT

- *A software engineering approach in which the value is delivered frequently through automated deployments. Everything related to deploying the artifact fits here. It's the process of "Moving" the artifact from the shelf to the spotlight. Some common CD-related phases might include:*
 - Creating infrastructure
 - Provisioning servers
 - Copying files
 - Promoting to production
 - Smoke Testing (aka Verify)
 - Rollbacks

PHASES OF CI/CD PIPELINE



BENEFITS OF CI/CD

| Technical Language | Value | Translation |
|---|------------------|---|
| Catch Compile Errors After Merge | Reduce Cost | Less developer time on issues from new developer code |
| Catch Unit Test Failures | Avoid Cost | Less bugs in production and less time in testing |
| Detect Security Vulnerabilities | Avoid Cost | Prevent embarrassing or costly security holes |
| Automate Infrastructure Creation | Avoid Cost | Less human error, Faster deployments |
| Automate Infrastructure Cleanup | Reduce Cost | Less infrastructure costs from unused resources |
| Faster and More Frequent Production Deployments | Increase Revenue | New value-generating features released more quickly |
| Deploy to Production Without Manual Checks | Increase Revenue | Less time to market |
| Automated Smoke Tests | Protect Revenue | Reduced downtime from a deploy-related crash or major bug |
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