## CI/CD

A faster, smarter and more cost effective way to deliver to our clients

#### CI - Continuous Integration

This is the process of integrating all the developer's working code into shared base. Often several times a day or as fits with the project.

To do this and minimise the risk of introducing problems any newly committed code goes through a variety of checks. Such as,

- Ensure the code compiles
- Run unit tests
- Scan the code and dependencies for security vulnerabilities.

### CD - Continuous Deployment

This is an approach where updates are delivered frequently through automated deployments. It would allow us to get working updates to our clients as soon as they are ready rather then piling up for a major release etc. It helps the client feel as though we are always providing to their companies.

As to example of some steps in CD,

- Set up infrastructure
- Provision and setup new servers
- Smoke test
- Then rolling out to production or roll back as needed, all automatically.

#### Why it matters? Aka effect on the bottomline

All this likely sounds like a lot of time and money to set up, and in some ways that may be true. So the question is why go through the trouble? Simply put in the long run it will reduce costs and increase revenue.

Here are some examples how,

- Catch compile errors Automation will find these errors and kick back the code. Which in turn saves developer time for more important work.
- Find Security vulnerabilities One only needs to look at the news to see how costly it is if a security vulnerability is not caught and makes it to production.

# Why it matters? Aka effect on the bottomline (cont.)

- Automation rollout and cleanup This reduces developer hours needed and reduces infrastructure costs from unused resources.
- More deployments The faster and more frequently we can deliver value to our clients the more revenue and customer retention.
- Fully automated deployment No manually work needed saves on developer time and gets updates to market faster

In the end the above is just a taste, bottomline is reduced man hours wasted, happier customers, faster time to market, reduced costs.