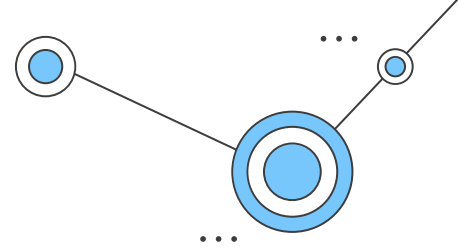# The Technology Value Stream

By,
Fatih Suljovic

The Technology Value Stream

What is the Technology Value Stream?

- A technology value stream is the process of which the business hypothesis is converted into a technological service that is delivered to the client.
- Here we take that initial input and create a concept of the end goal that is desired and share it with the client as it is created. After it is accepted it gets added to the backlog of what will need to be done.
- Once it gets started the development teams thereon create a Agile or other work environment to begin creating the product for the client.
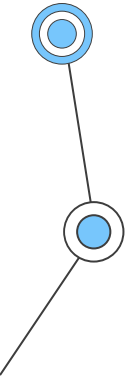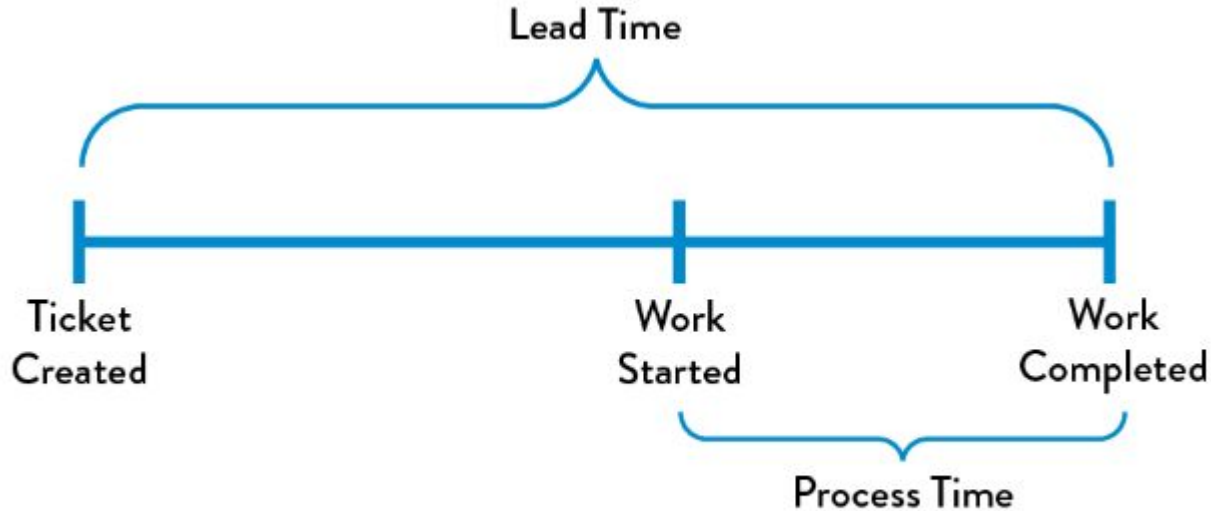
Lead Time vs. Processing Time

Figure 2. *Lead time vs. process time of a deployment operation*

The Difference

Lead Time
- Starts the clock when the request is made and finishes once the process completes.
- More important customer side because the time waited is affecting the customer experience.

Processing Time
- Starts the clock when work begins on said customer request.
- Omits the time spent waiting in the queue.
- Time measured here is important for the team to measure efficiency in workflow speeds.

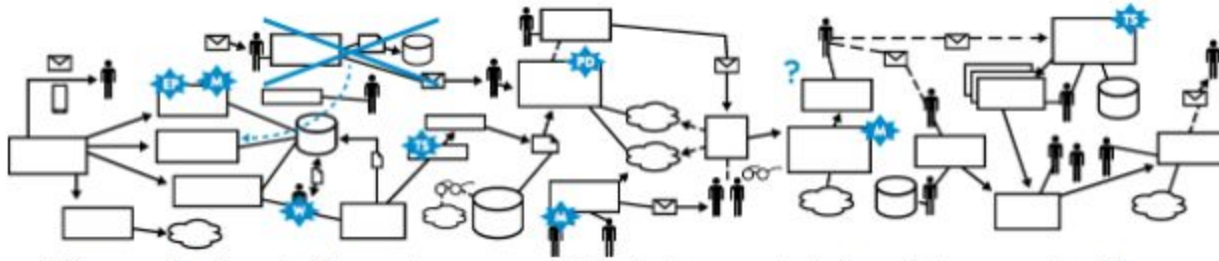# The Common Scenario: Deployment Lead Times Requiring Months

Figure 3: *A technology value stream with a deployment lead time of three months (Source: Damon Edwards, "DevOps Kaizen," 2015.)*

cont.

- Depending on the organization development times can require months, size helps attribute to the frequency of this. When working on larger scales such as the most well known applications like google or common banking software it can take a large period of time before an update can get pushed through. It has to undergo numerous stages where it is checked by separate teams for quality control, performance as well as simply being approved by the lead or consumer. If any issue arises the sheer size of the application or software can extend the period of which it takes to fix such a problem.

Our DevOps Ideal: Deployment Lead Times of Minutes.

- In the DevOps Ideal we have a constant stream of feedback given to the developers. Allowing them to work at faster speeds so they don't need to stay idle until the next stage is ready for them. This includes validation, integration and implementation so that it may be directly deployed if properly created already.

- This process is through checking version control and having the team commit to small code changes at a time automatically. That section of code then gets checked in the quality control by another team and if it is popping up with any issues then the primary developers are addressed on what has happened so they may fix it.

- These tests are made first automatically and if passed then passed to the separate team for manual observation just in case. The automated process does not always work so it is good to have the separate test as backup.
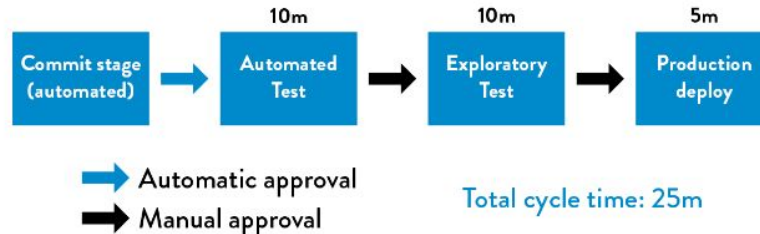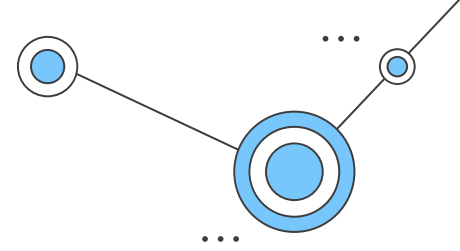

Figure 4: *A technology value stream with a lead time of minutes*

Works Cited

Kim, G., Debois, P., Willis, J., Humble, J., & Allspaw, J. (2016). *The devops handbook: How to create world-class agility, reliability, and security in technology organizations*. IT Revolution Press.