

The background of the slide is a close-up photograph of a copper-colored printed circuit board (PCB). The board features intricate patterns of copper traces and numerous small, round, reddish-brown components, likely solder joints or small electronic components. A large, white, brushstroke-like shape is superimposed over the center of the image, serving as a container for the text.

The Technology Value Stream

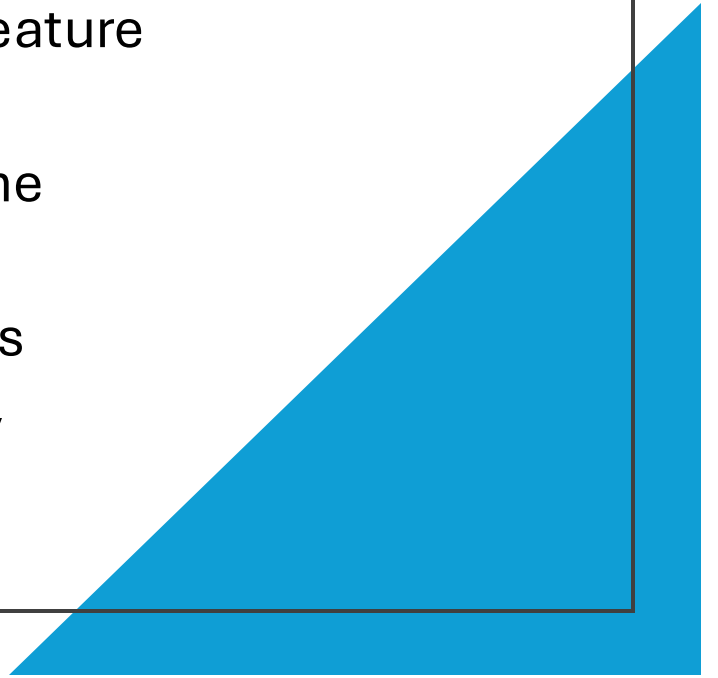
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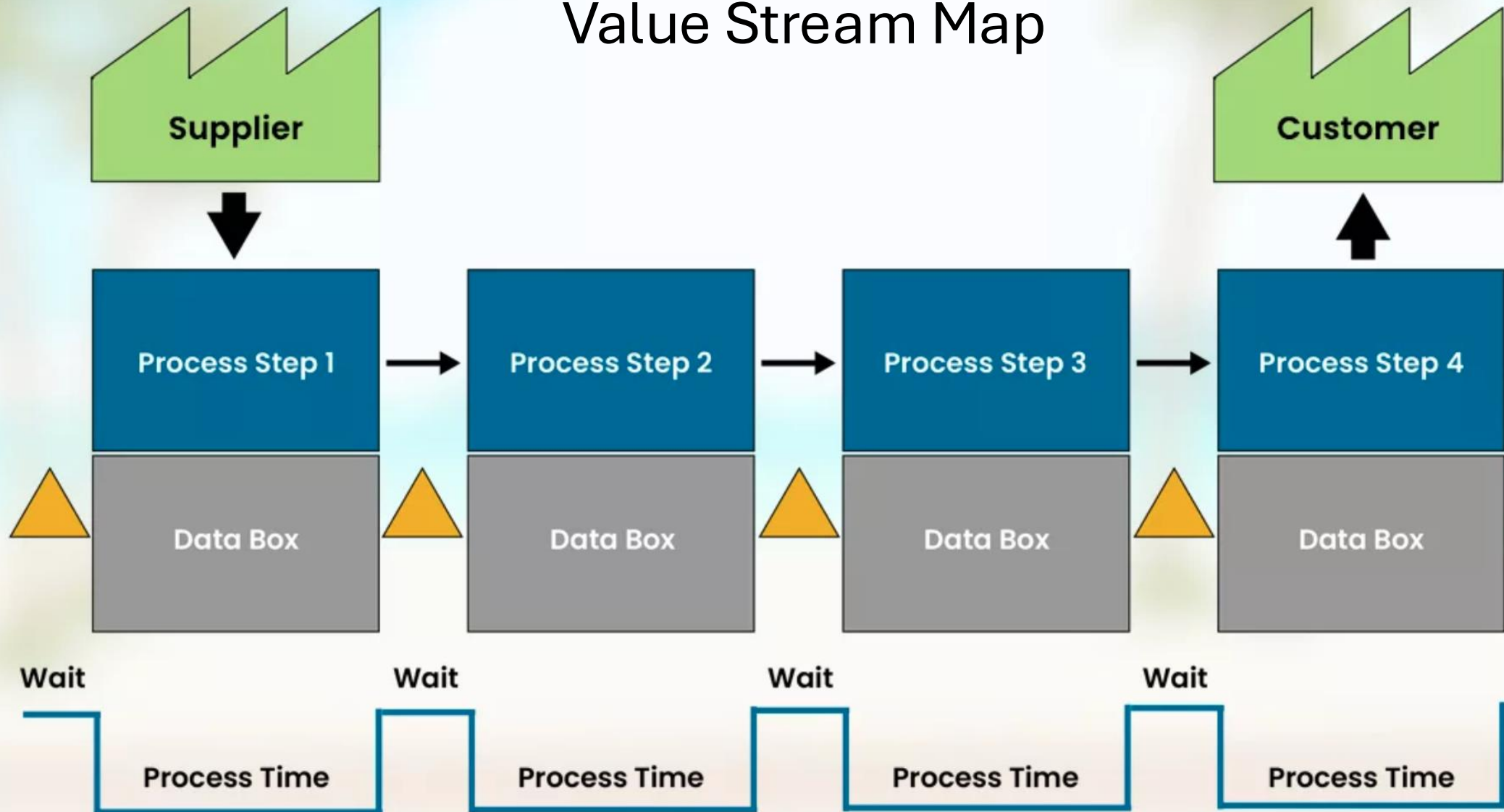
January 8th, 2025

What Is Technology Value Stream?

- Technology Value Stream - The process required to convert business hypothesis into technology-enabled service or feature that delivers something of value to the customer
- Emphasizes delivering value to customers by optimizing the flow of work across teams and systems
- Helps to identify inefficiencies in software delivery process
- Allows for faster, more reliable, and higher-quality delivery



Value Stream Map

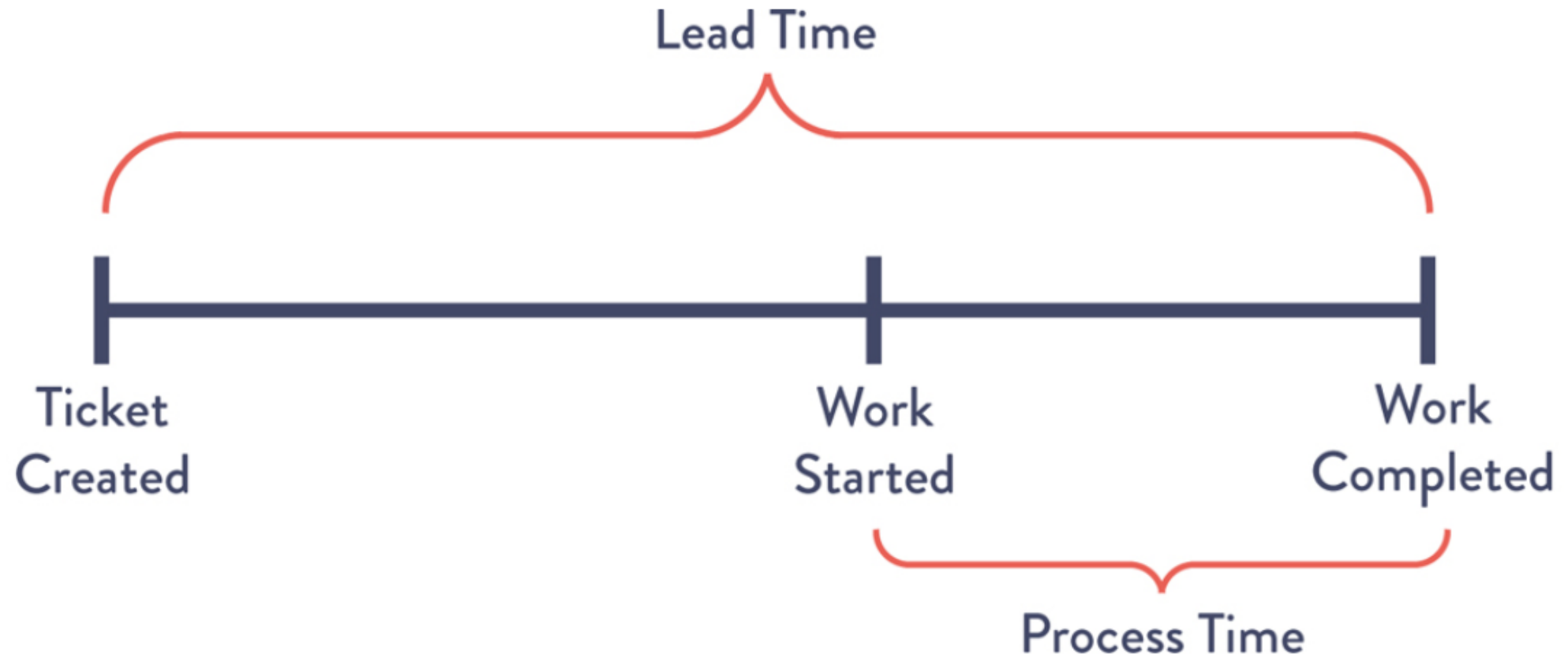




Defining Lead Time vs Processing Time

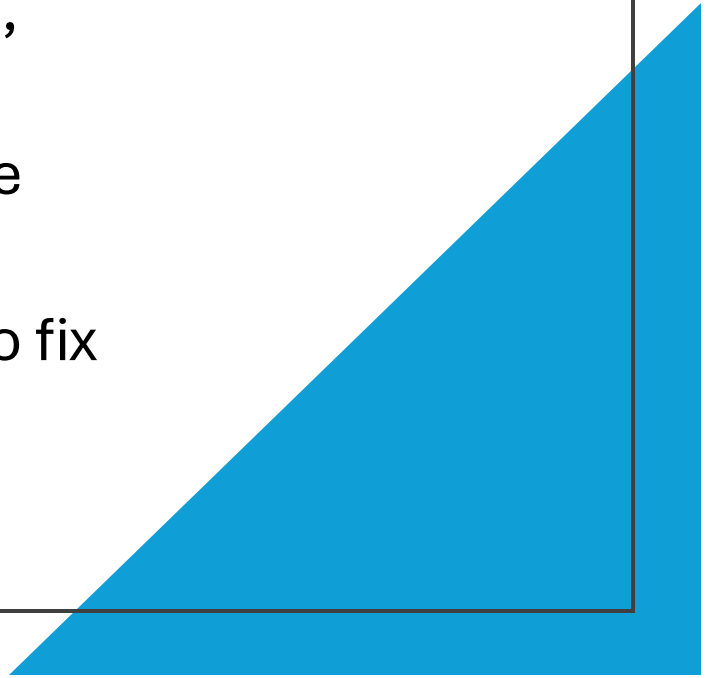
- Lead Time – The time from when a request is made to when it is fulfilled
 - What the customer experiences so focus is usually on this, over just the process time
 - Processing Time – Time actively spent working on the request, excluding wait and delay times
 - Distinguishing lead/processing time provides clarity on where delays may occur throughout the project lifecycle and where changes need to occur for efficiency
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Lead Time and Process Time



Long Deployment Lead Times

- Organizations and teams find issues when deployment lead times require many months
 - This is common in larger, complex organizations, overcomplicating the production line
- Project may conclude and it doesn't work when all the pieces are merged
- Fixing issues in handoffs may require days or weeks to fix
- Delays result in decreased customer satisfaction





Deployment Lead Times of Minutes

- Developers should receive fast and constant feedback on their work, allowing no issues with implementation
 - Code is validated before deployment
 - Small changes in code need to be validated at each step, ensuring all changes perform according to standards and with no unexpected errors
 - In an ideal scenario, deployment lead time occurs in minutes or, at most, hours
 - Faster feedback, improved quality, and the rapid delivery of value to end users
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Traditional vs DevOps Lead Times

Traditional Deployment

- Lead times often in months
- Manual approvals and handoffs
- Lengthy and error-prone testing processes
- Slower time-to-market
- Increased risks due to large batch deployment
- Frustration for teams and stakeholders

DevOps Deployment





- Lead times achieved in minutes or hours
- Automated testing and deployment
- Streamlined processes
- Real-time monitoring
- Rapid delivery to customers
- Improved quality and reduced deployment risks
- Teams empowered with faster feedback loops

Practices for Achieving Deployment Lead Time of Minutes

- Reduce manual interventions by automating testing and release processes
- Ensure faster feedback loops and consistency across work environments
- Merge code frequently and deploy in small incremental changes
- Reduce risks
- Prioritize work that delivers value and eliminates waste
- Use customer and operational feedback for improvements



Conclusion

- Differentiate lead time and processing time to identify inefficiencies in value stream
 - Lengthy deployment lead times retract from the organization's ability to respond to issues, taking away from end user's satisfaction
 - Achieving deployment lead times of minutes can help transform software delivery, allowing for faster innovation and improved customer service
 - DevOps principles are necessary to unlock the fullest potential of the technology value stream
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References

- Kim, Gene, et al. The DevOps Handbook, Second Edition. IT Revolution, 30 Nov. 2021.
- *Value Stream Map*. (2024). GoLeanSigma. Retrieved January 8, 2025, from <https://goleansixsigma.com/value-stream-mapping/>