

National Defense-ISAC

Securing Small Business Manufacturing Supply Chain Resource Handbook

April 2023

Tailored for the build-to-print defense contractor environment with use cases relevant to forging houses, manufacturers, and the finishing supply chain



ND-ISAC

National Defense Information Sharing and Analysis Center

Resource available on ND-ISAC's website

SECURING SMALL BUSINESS MANUFACTURING SUPPLY CHAIN RESOURCE HANDBOOK

TAILORED FOR THE BUILD-TO-PRINT DEFENSE CONTRACTOR ENVIRONMENT WITH USE CASES RELEVANT TO FORGING HOUSES, MANUFACTURERS, AND FINISHING SUPPLY CHAIN

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EXECUTIVE SUMMARY

The National Defense Information Sharing and Analysis Center™ (ND-ISAC™) Small & Medium Business (SMB) Working Group is focused on sharing best practices to overcome resource-constraint challenges that many SMBs face. There are a variety of resources available to support small business cybersecurity implementation. For example, there is U.S. Government-funded research that explores challenges and solutions among small Defense Industrial Base (DIB) software development firms and white papers that offer SMB methods to engineer network segmentation. However, there are limited resources developed by DIB small business manufacturers that document common challenges for small businesses. This product illustrates real-world scenarios **in the build-to-print defense contractor environment with use cases relevant to forging houses, manufacturers, and the finishing supply chain**. As part of this the document amplifies specific and common challenges, and describes the risks that impact both the small business and the larger supply chain.

This product was developed for two primary groups of stakeholders:

1. **U.S. Government Personnel and large Prime Contractors** -- to explain common scenarios these stakeholders may not be aware of that impact security guidelines and requirements.
2. **Small businesses operating in the manufacturing supply chain** -- to offer practical steps both in immediate actions and long-term strategic planning to secure data and minimize risk.

The ND-ISAC SMB Working Group believes that broadened understanding of these challenges will enable more effective solutions.

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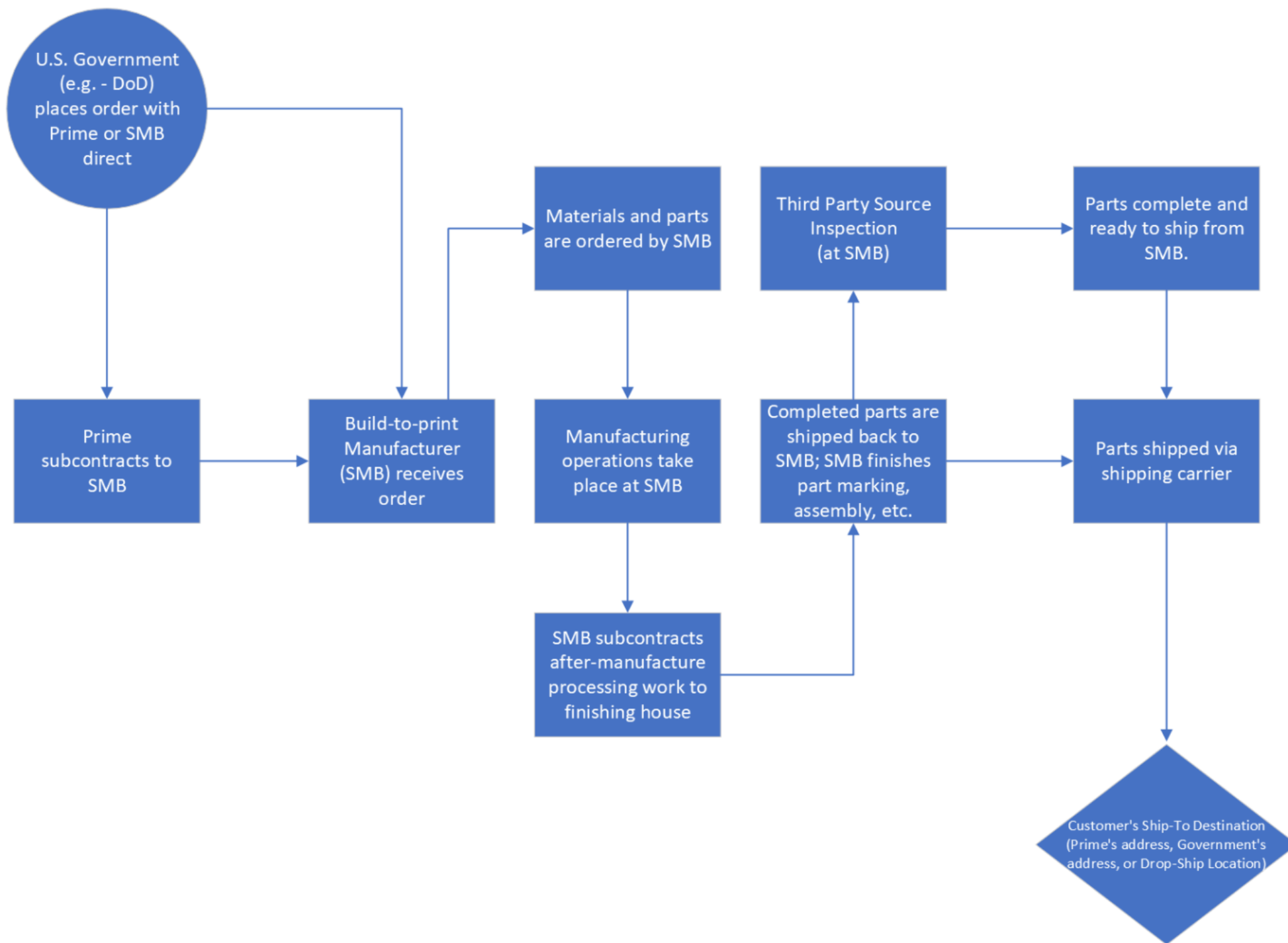
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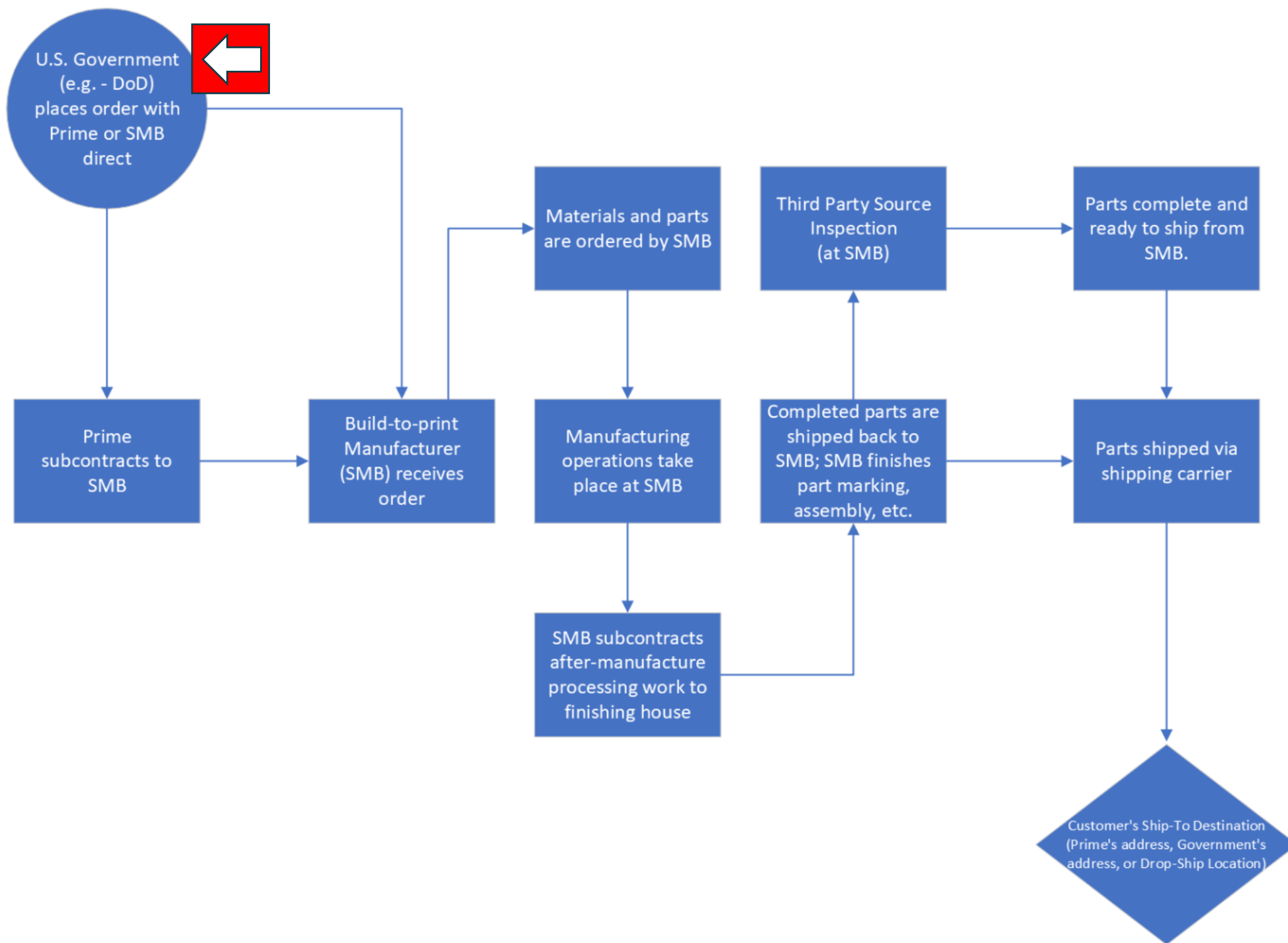
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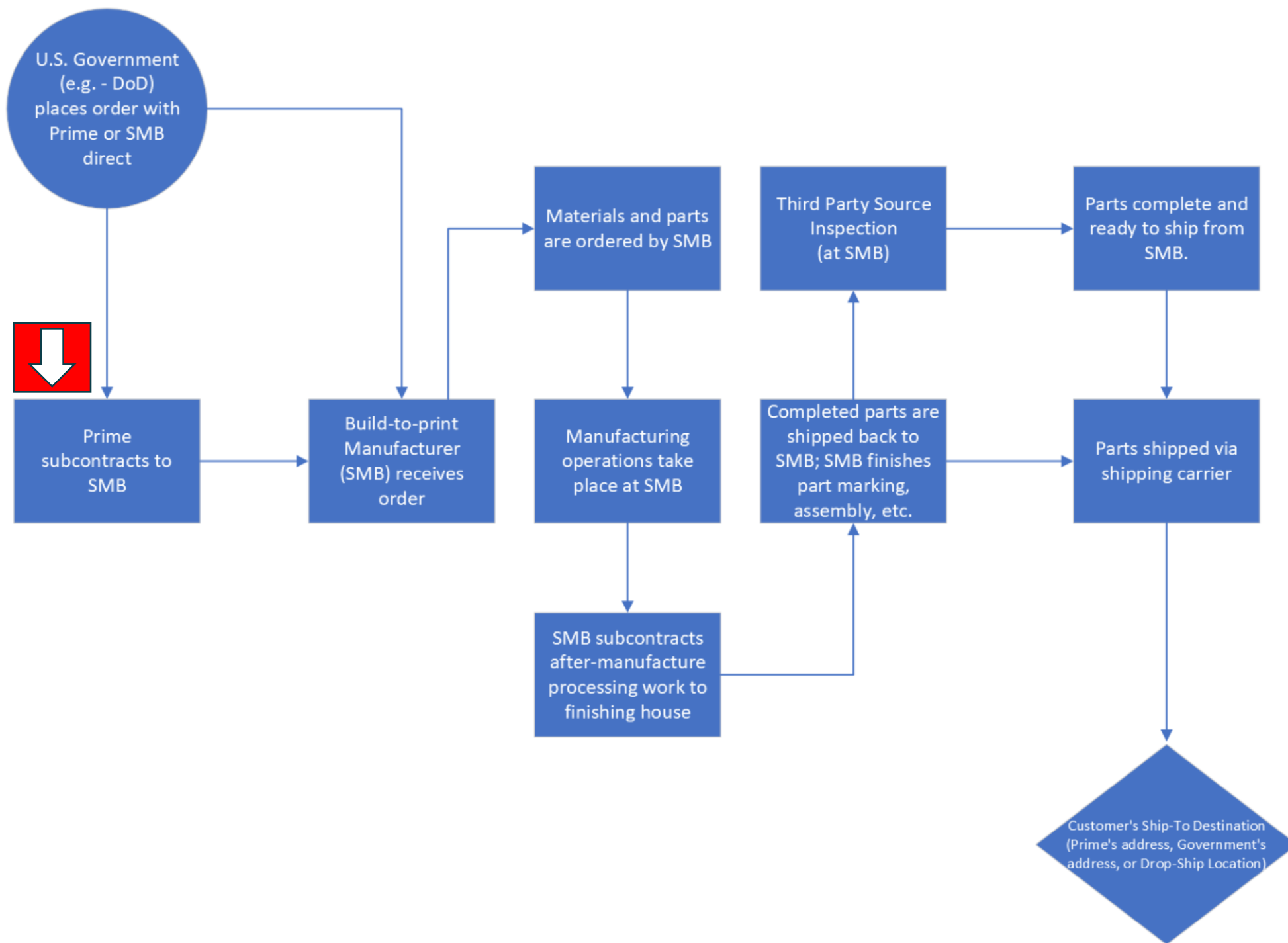
There's always a disclaimer, right?

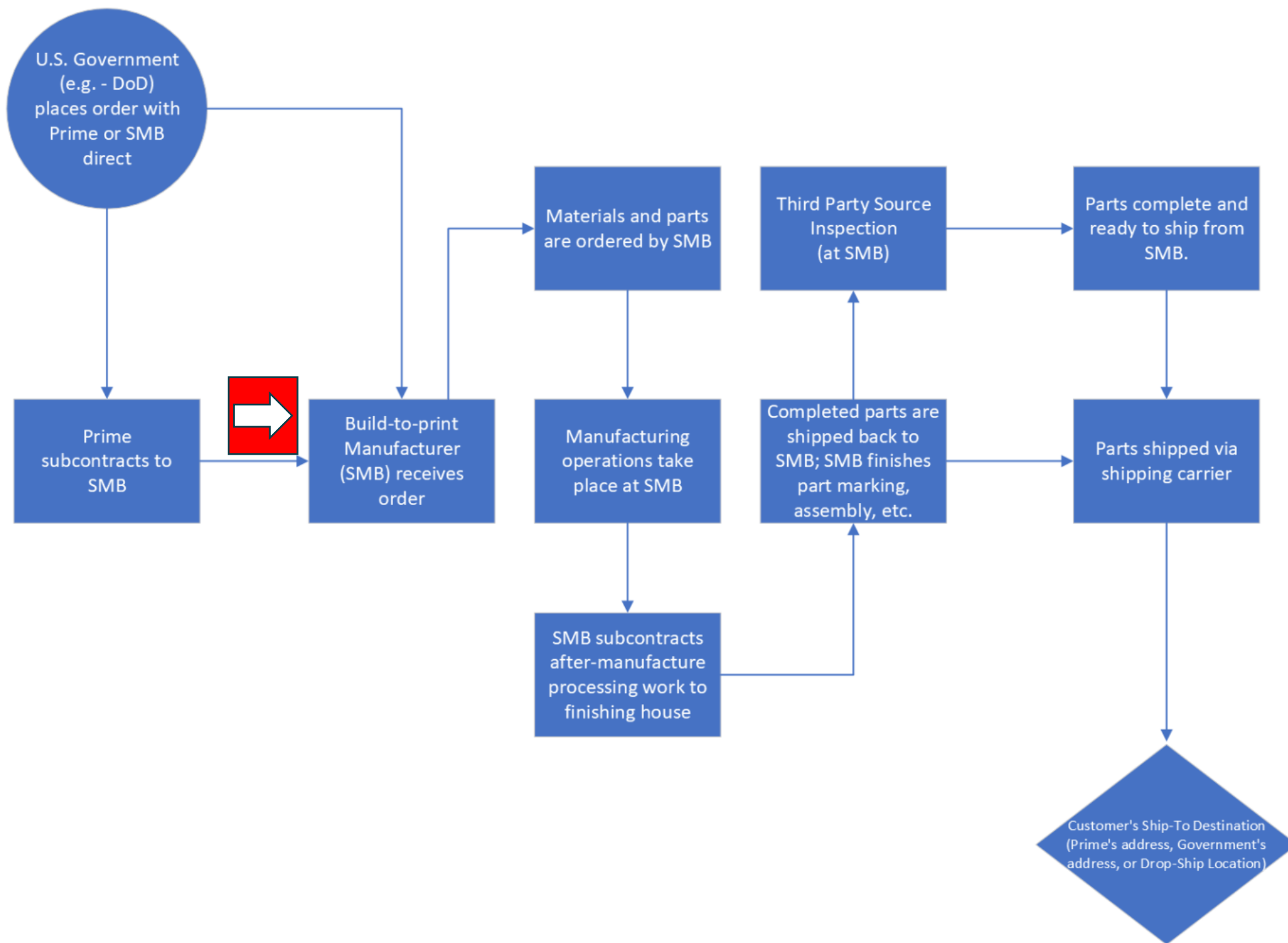
If we track the **workflow** in a manufacturing environment, it is easy to trace the **data flow**.

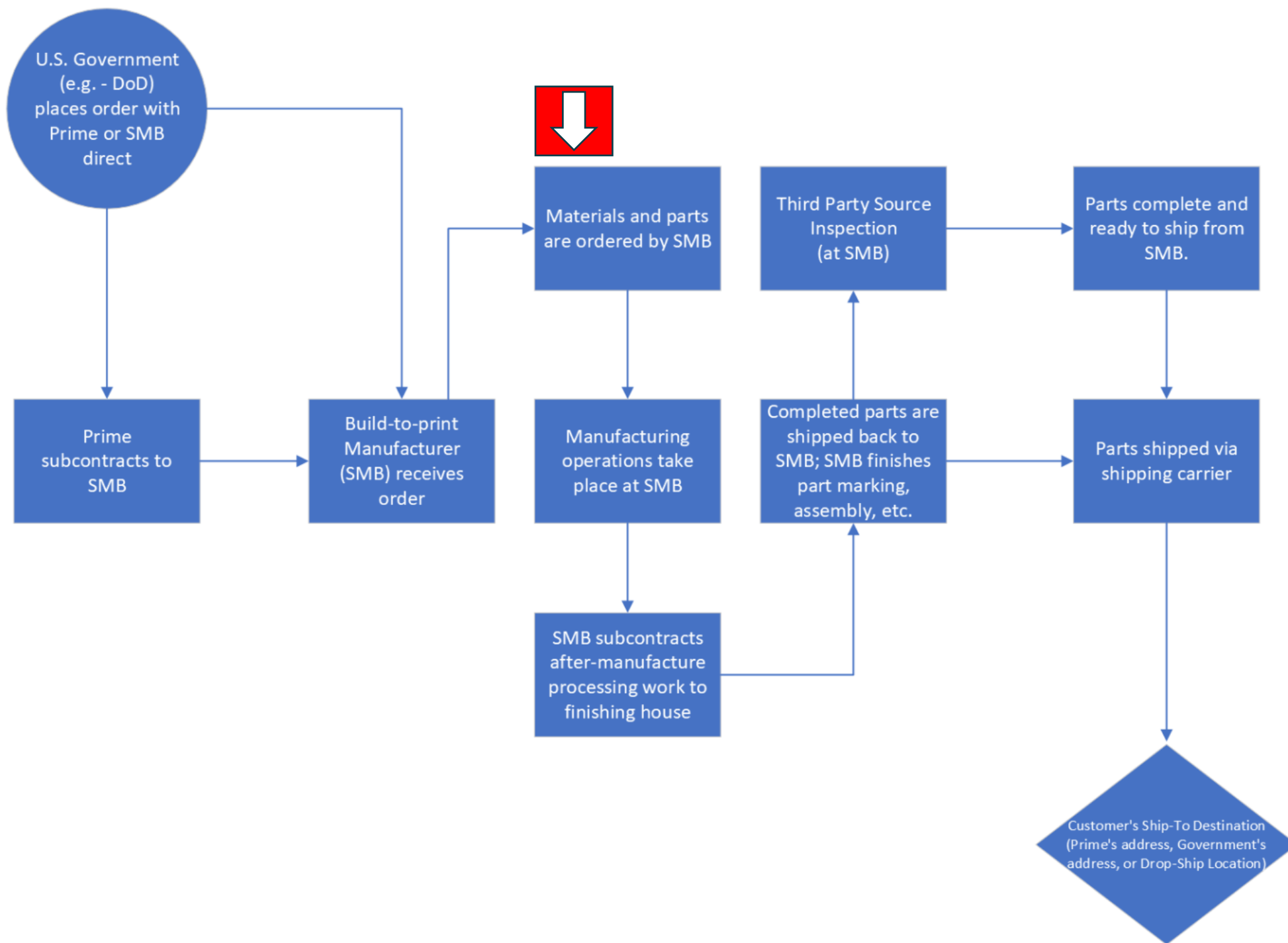


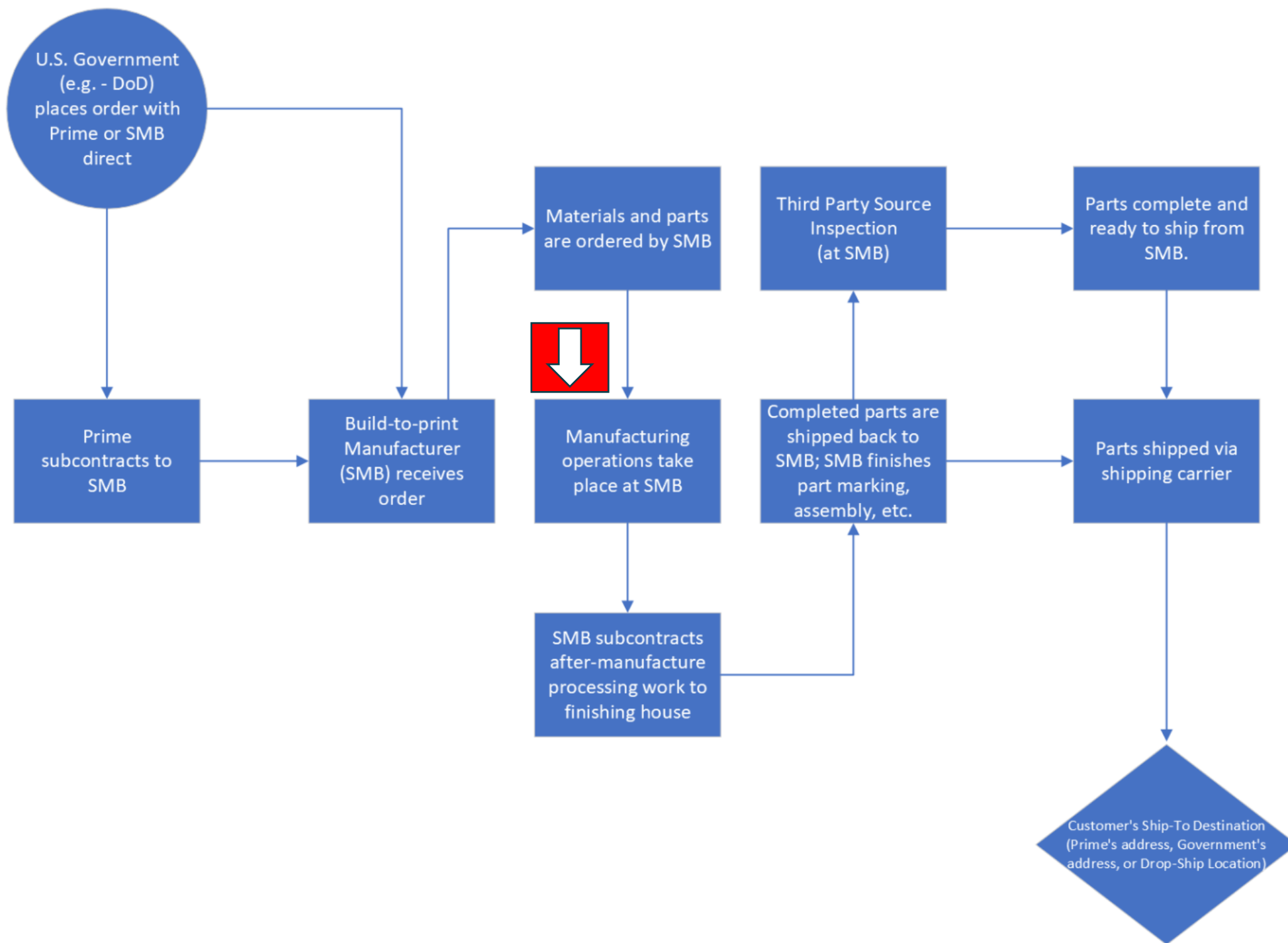


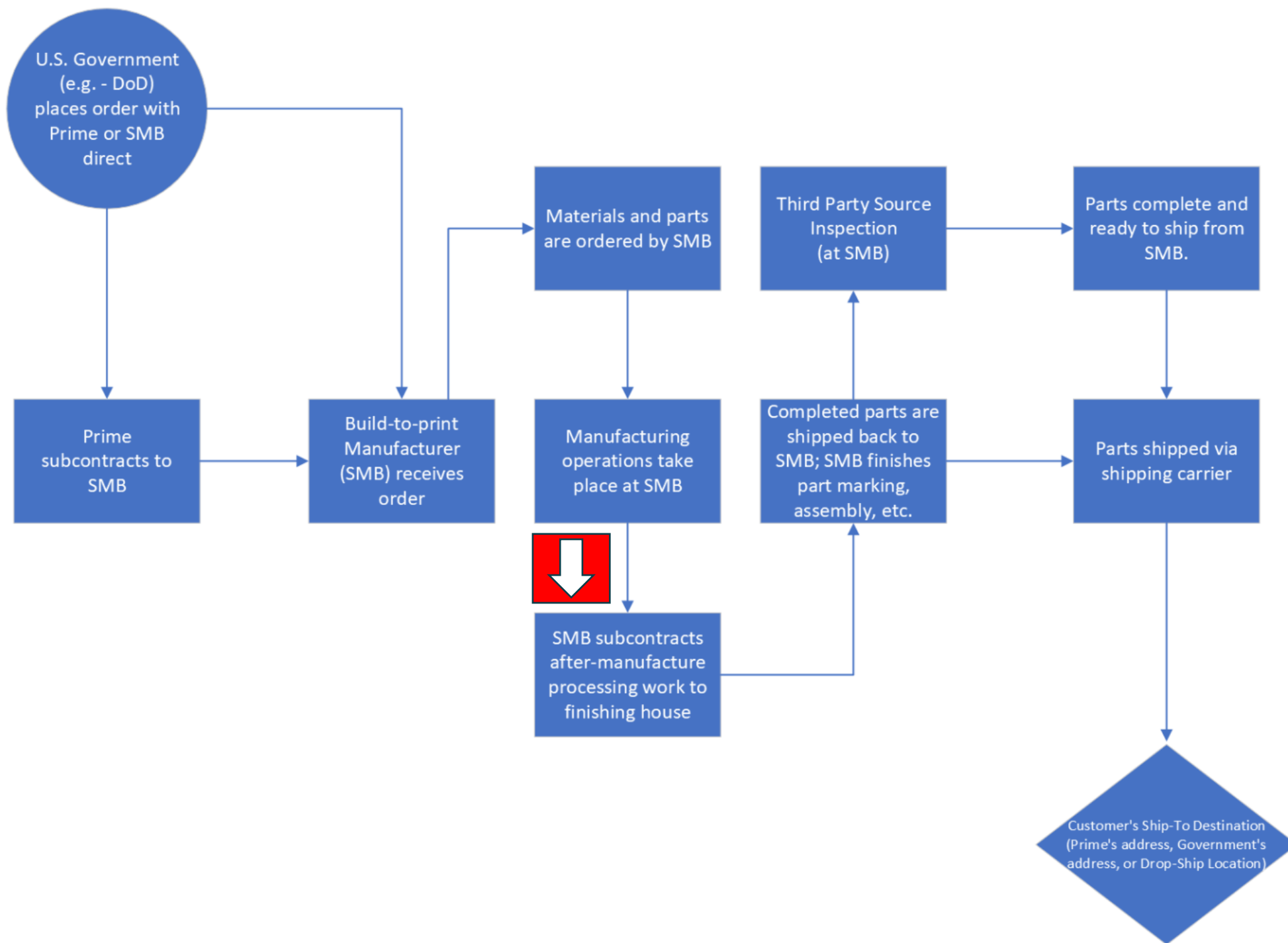


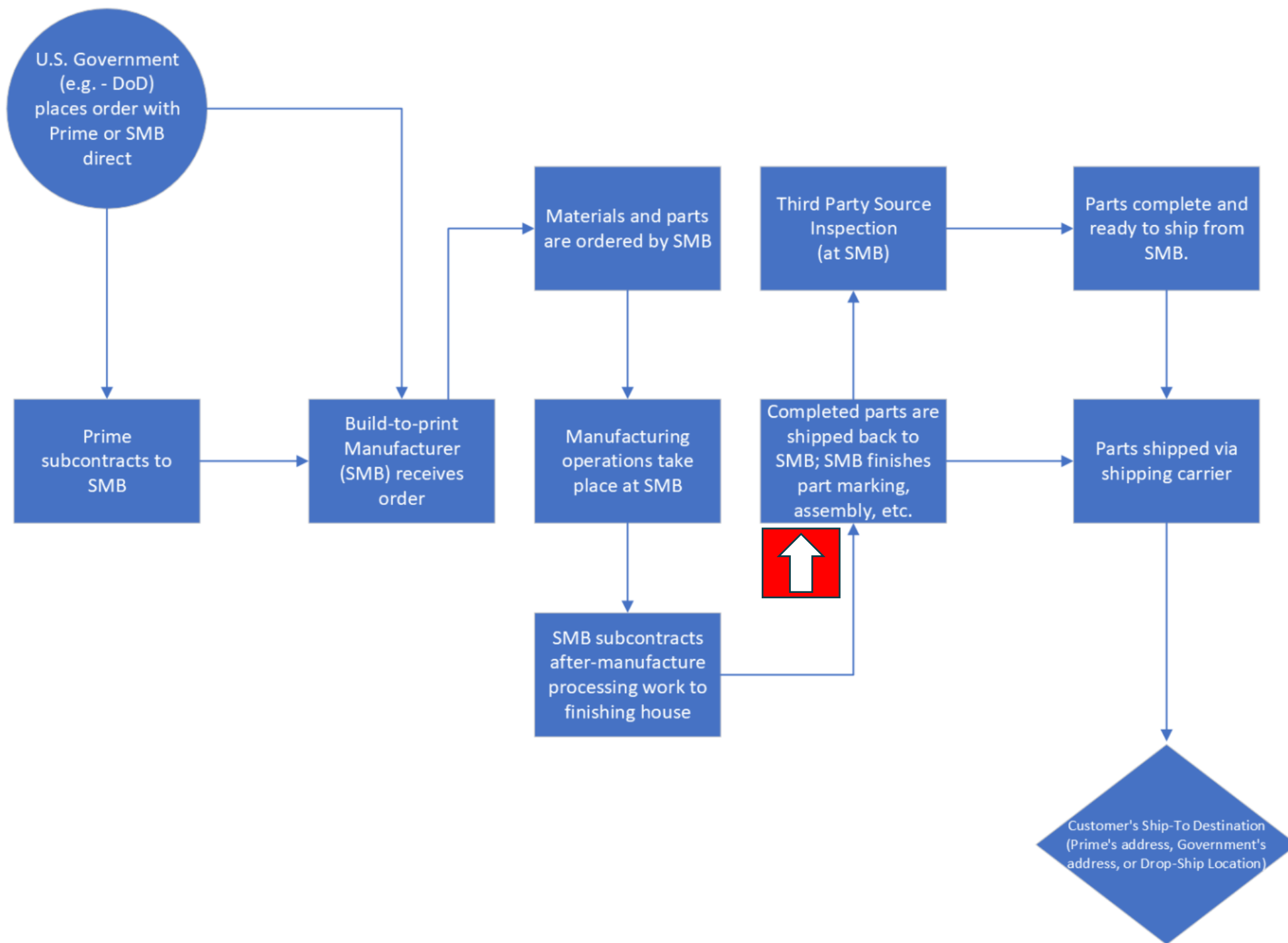


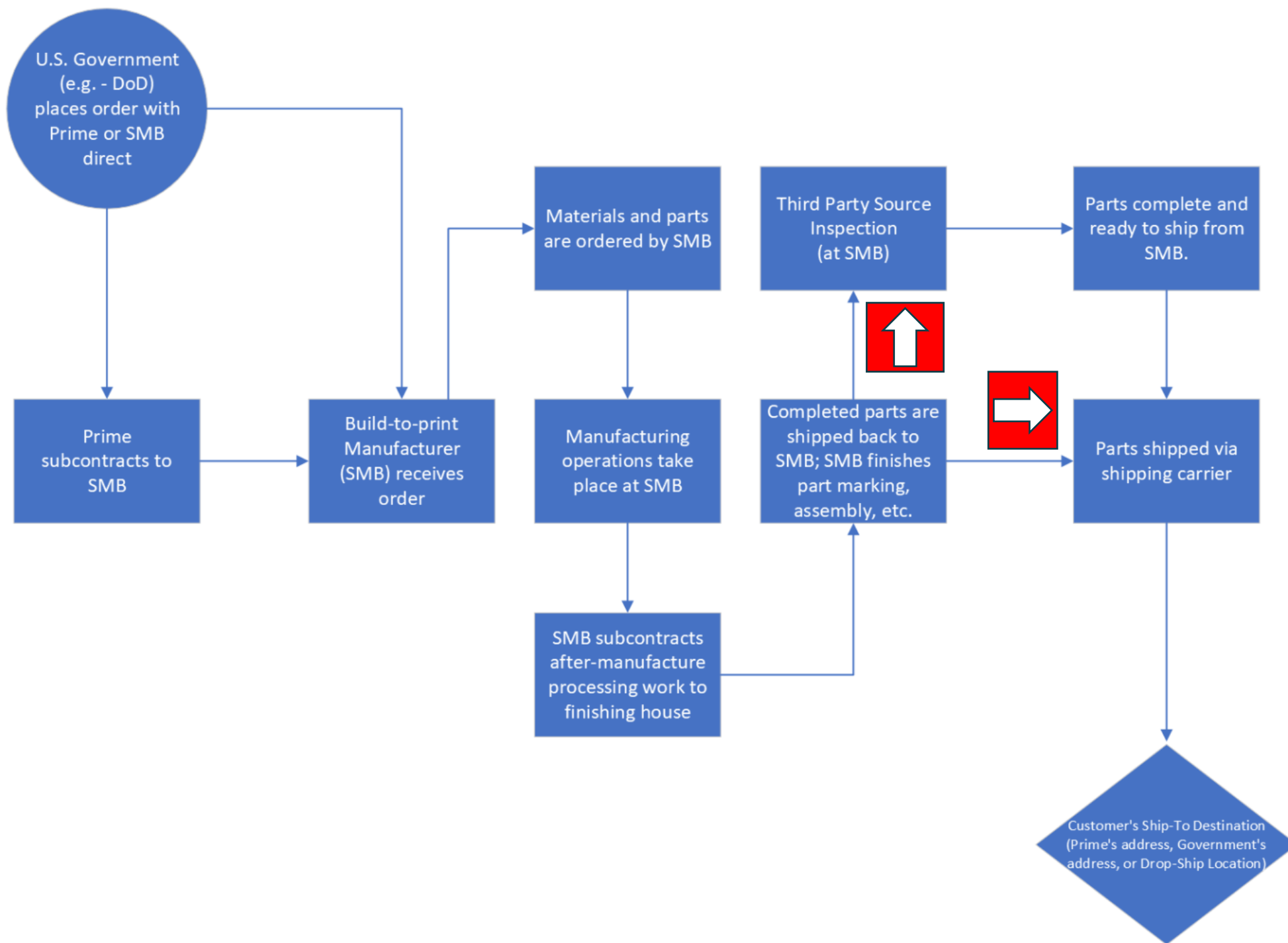


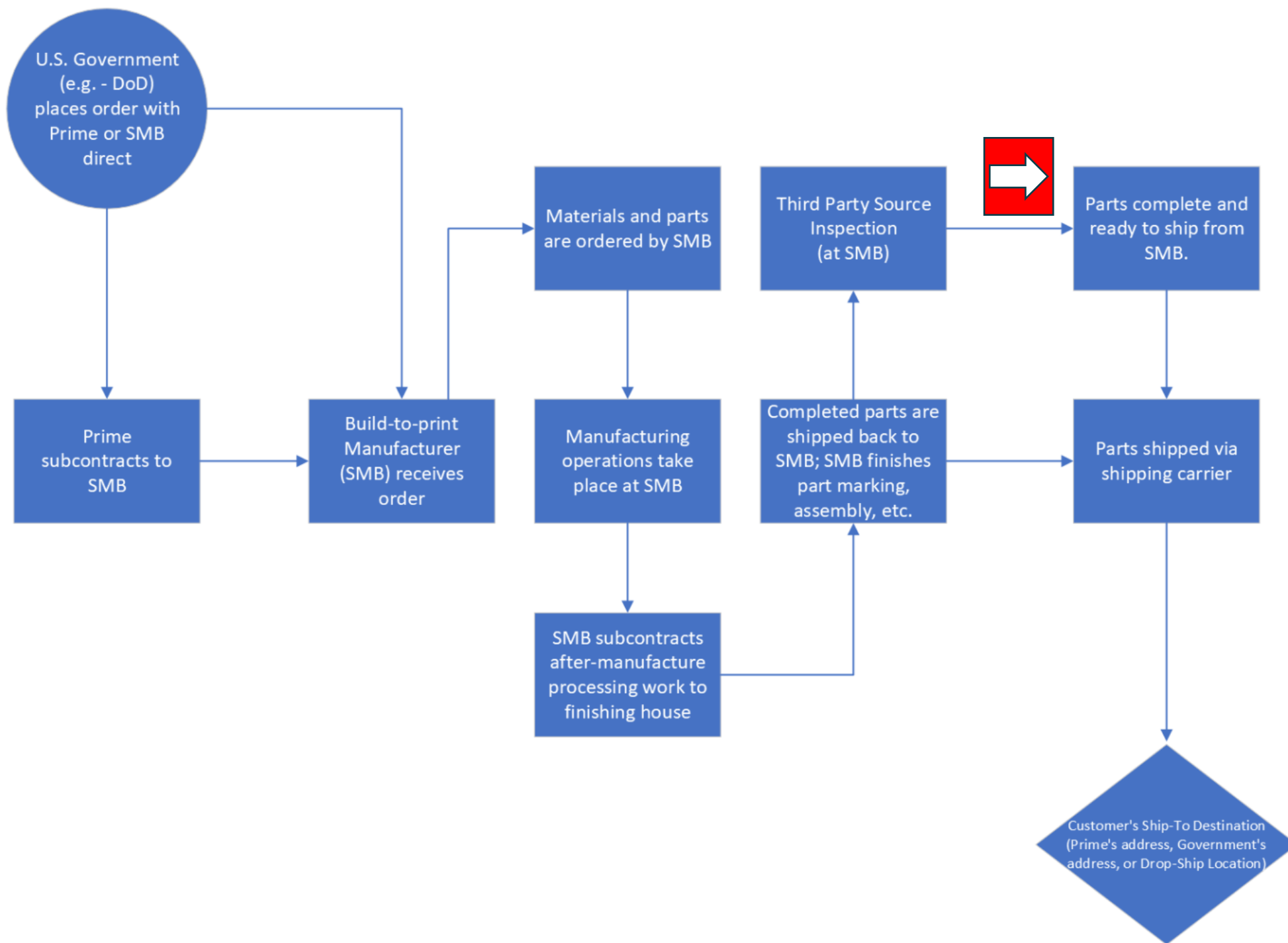


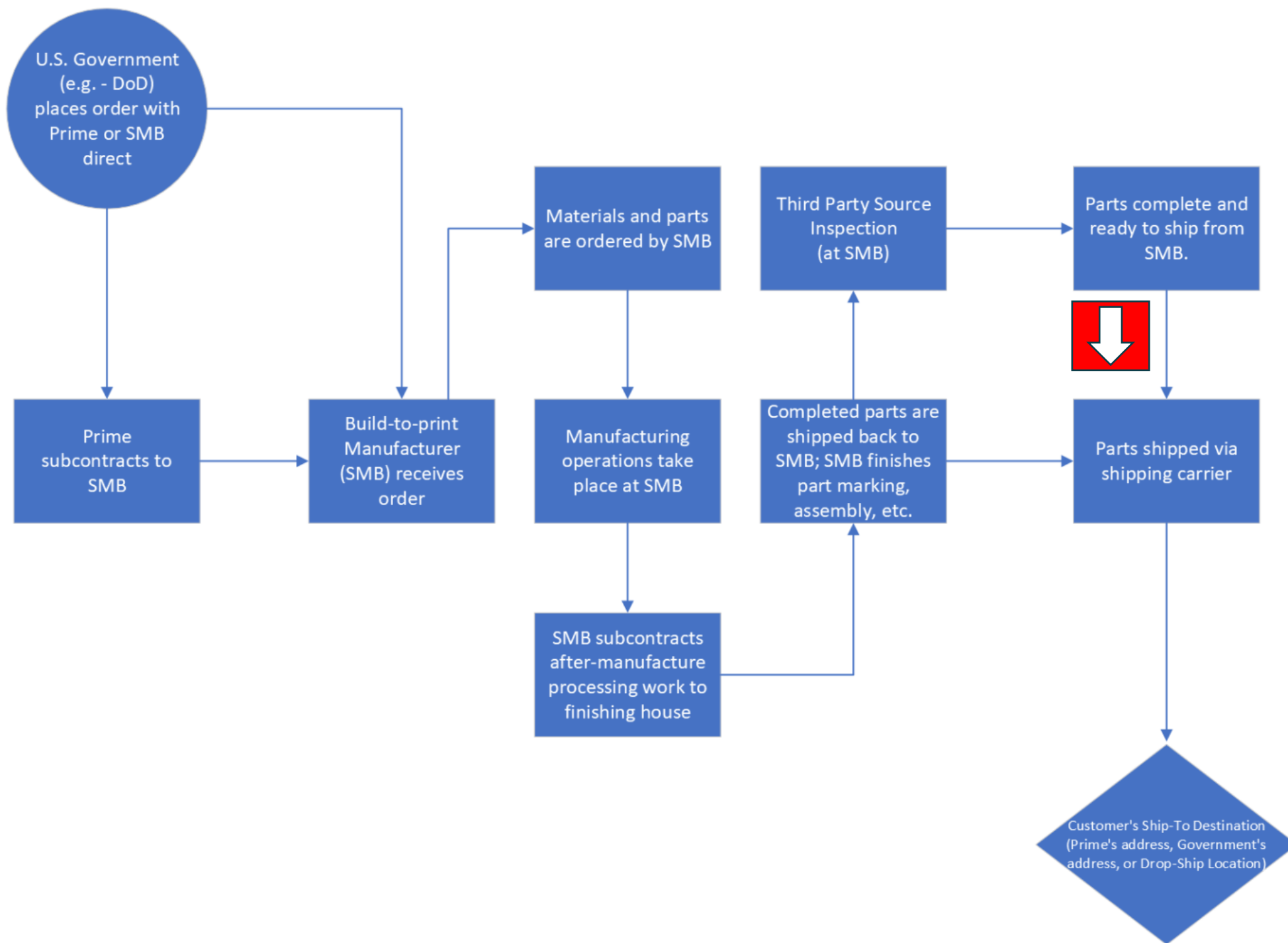


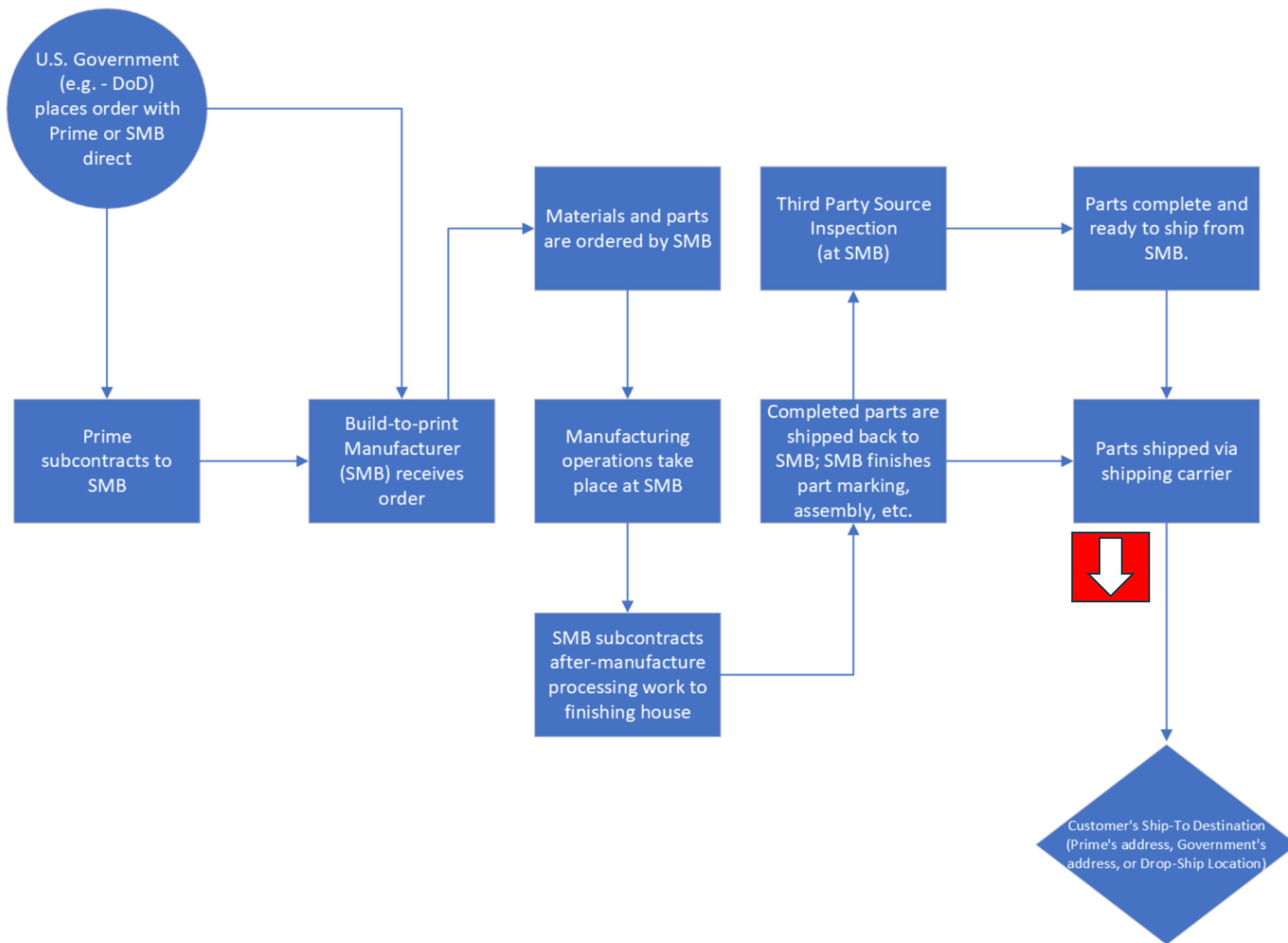












Layout of Handbook – Scenarios and Best Practice Suggestions

- Describe specific situation
- So, what's the problem (...and the risk)?
- What to do about it NOW and SOON
- Why mitigating the risk matters to the supply chain

2.1 Scenario – Unnecessary Administrative Access



Covered in Handbook Scenarios

More common situations in a SMB manufacturing environment that introduce risk:

1. Outdated operating systems due to machine (OT) compatibility
2. The use of USB flash drives on a shop floor
3. Sharing data with Tier 2, 3, 4...

SMB Manufacturers Have:

1. **Limited resources** (dollars, time, and people)
2. **Expertise in their industry:** Manufactured product (not IT and cybersecurity)
3. **Existing proven business processes** that have worked for YEARS
(if it's not broken – don't fix it!)

Handbook also includes...

APPENDIX A – Acronym & Agency Guide

APPENDIX B – Resource List of Topical Guides

Next Steps

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