

Traceability, What It Is And How To Get It

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Agenda

- Traceability, defined
- Other terms
- The Pipeline
- Documentation
- How far back?
- Verification
- Summary

Traceability Defined

- Per Merriam-Webster “Trace” is “to discover by going backward over the evidence step by step”.
- Traceability is the ability to understand the origins of an item to the point desired using available documentation.

Traceability Defined

- For microcircuits this means being able to determine the manufacturer of a device, including:
 - Place of manufacturer
 - Quality system (Class)
 - Technical requirements and characteristics
 - Date of manufacture

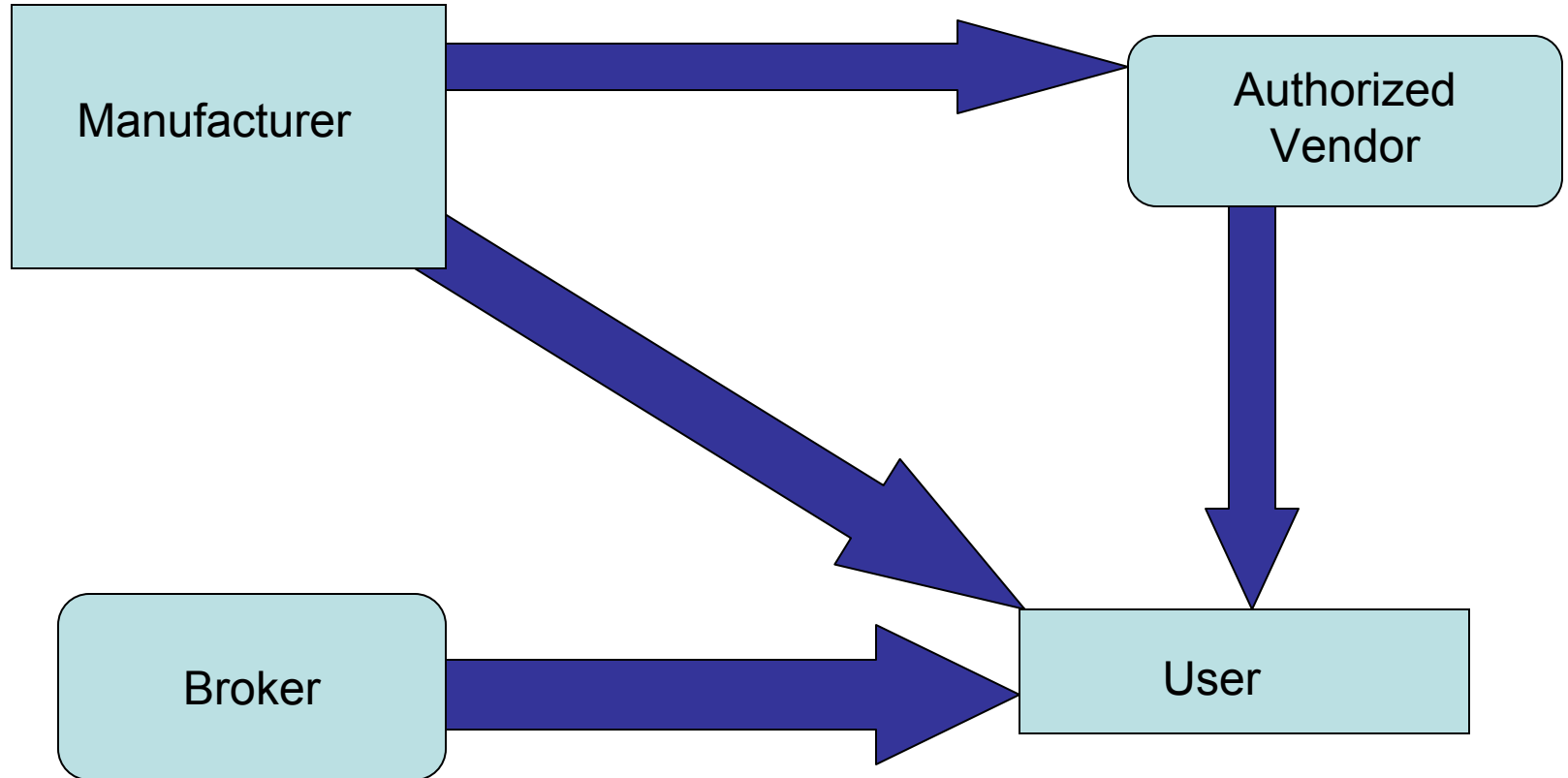
Other Terms

- Manufacturer – The organization that assembled the part (could be the die fabricator – but may not be)
- Authorized Vendor – An organization with a formal agreement with the manufacturer to distribute their products
 - After-market

Other Terms

- Independent Supplier or Broker – An organization with no formal agreements or relationship with the manufacturer but is able to supply product or mediate the sale of product directly from the manufacturer or some other source.
 - After-market

The Pipeline



Documentation

- Documentation should identify:
 - Manufacturer
 - Date of Manufacture
 - Part Number
 - Lot Number
 - Serial number if applicable
 - Place of manufacture
 - Drawing number if applicable

Documentation

- Documentation should be signed by a company representative from the manufacturer and other organizations involved.
- Documentation should trace the path the part followed from manufacturer to the organization supplying the part.

How Far Back?

- Traceability should be available back to the manufacturer, but what manufacturer?
- If the manufacturer on the package and the documentation did not fabricate the die further documentation may be needed.
- Traceability documentation should trace the origin of the die, not just the packaged part.

Verification

- Part should be marked with part number, date code, manufacturer ID as a minimum
- These should be checked with documentation received to verify accuracy
- Ensure signatures are valid
- Ensure part is traceable from the current supplier all the way back to the manufacturer

Verification

- Any discrepancies in the documentation should be questioned immediately
- Any concerns about the path the part took from the manufacturer to the current supplier should be investigated
- The manufacturer should be contacted if warranted
- A third party should be contacted as appropriate (QML-DLA)

Summary

- Traceability is a tool which, when used properly, allows you to verify that the part you have received is the part you need.
- Traceability must be monitored and evaluated with every part received.