## SV-5b Operational Activity to Systems Traceability Matrix

## Description

The SV-5b addresses the linkage between described in SV-1 Systems Functionality Description and Operational Activities specified in OV-5a Operational Activity Decomposition Tree or OV-5b Operational Activity Model. The SV-5b depicts the mapping of systems and, optionally, the capabilities and nodes that provide them to operational activities. The SV-5b identifies the transformation of an operational need into a purposeful action performed by a system or solution.

During requirements definition, the SV-5b plays a particularly important role in tracing the architectural elements associated with system requirements to those associated with user requirements.

The intended usage of the SV-5b includes:

- Tracing system requirements to user requirements.
- Tracing solution options to requirements.
- Identification of overlaps or gaps.

Implementation
SV-5b can be represented using a SV-5b diagram which is a non-editable Dependency Matrix. Resources are used as row elements and Operational Activities are used as column elements.

|  |  |  |  | Investigate Reports Of MissingPe... |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 回回 SV-2 |  |  |  |  |  |  |  |  |  | 1 |  |  |  |  | 2 |  |  |  |  |  |  |
| -... Distress Beacon |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ...- ESM System |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| .. Frequency Scanner |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Link 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $\swarrow$ |  |  |  |  |  |  |
| .... Link 16 Terminal |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - Naval Ship |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\bigcirc$ Receiver |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| .- Signal Processor |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - Track Interface |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| .... Transmitter |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| .... Voice Radio |  |  |  |  |  |  |  |  |  | $\swarrow$ |  |  |  |  | $\swarrow$ |  |  |  |  |  |  |

The SV-5b is generally presented as a matrix of the relationship between system resources and activities and can be a summary of the Operational Activity to System Function Traceability Matrix (SV-5a). The SV-5b can show requirements traceability with Operational Activities on one axis of a matrix, the System Functions on the other axis, and with an X, date, or phase in the intersecting cells, where appropriate.

## Related elements

- Resource Artifact
- Function
- Operational Activity
- Is Capable To Perform
- Implements


## Related procedures

- Creating SV-5b matrix
- Resources to Capabilities Mapping matrix
- Using Implied Relations

