

MO-004b — Disconnected Environment Operations

[Go to MO-004 — Connected and Disconnected Operations](#)

Statement

[Crucible](#) SHALL execute each selected [Operational Lifecycle](#) activity in a [Disconnected Environment](#).

Derived From

This requirement derives from:

- [MO-004 — Connected and Disconnected Operations](#)

The Original Requirement states:

The system SHALL support both connected and disconnected operational environments.[\[C1\]](#)

MO-004b preserves the portion of the Original Requirement that requires [Crucible](#) to operate within a [Disconnected Environment](#).

The separate requirements derived from MO-004 address:

- [MO-004a — Connected Environment Operations](#)
- [MO-004c — Authorized Resource Use](#)
- [MO-004d — Disconnected Resource Availability](#)

Rationale

A [Disconnected Environment](#) does not provide continuous access to resources outside the environment boundary.

Operational Lifecycle activities can include:

- Artifact acquisition from resources present within the environment
- Dependency resolution from local repositories
- Baseline composition
- Machine Image construction
- Infrastructure Deployment
- Provisioning
- Configuration
- Compliance Assessment

- Security assessment
- Deployment Validation
- Evidence generation
- Artifact promotion within the environment
- Operational maintenance

The selected activities define the required scope of execution. Selection prevents this requirement from implying that every Operational Lifecycle activity applies to every Disconnected Environment or operational context.

Execution in a Disconnected Environment depends on the prior availability of the Controlled Inputs, dependencies, repositories, tools, and other resources required by the selected activity.

Resources imported through an approved transfer process become available for use only after the required authorization, integrity, provenance, and admission checks succeed.

This requirement does not establish the requirements for execution in a Connected Environment. MO-004a addresses that outcome.

This requirement does not establish which resources Crucible is authorized to use. MO-004c addresses Authorized Resource use.

This requirement does not establish which resources must be available within the Disconnected Environment. MO-004d addresses that outcome.

Applies To

This requirement applies to:

- [Crucible](#)
- [Disconnected Environments](#)
- [Operational Lifecycle](#)
- Selected Operational Lifecycle activities
- [Controlled Inputs](#)
- [Authorized Resources](#)
- [Artifacts](#)
- Local Artifact repositories
- Local package repositories
- Local image registries
- Transfer Bundles
- Imported dependencies
- [CI/CD Pipelines](#)
- [Infrastructure Deployments](#)
- [Provisioning](#)
- [Compliance Assessments](#)
- [Deployment Validation](#)
- [Evidence](#)
- [Provenance](#)
- [Traceability](#)

Verification

Verification confirms that:

1. The [Disconnected Environment](#) is identified
2. Each selected [Operational Lifecycle](#) activity is identified
3. The inputs required by each selected activity are identified
4. The resources available within the Disconnected Environment are identified
5. The Authorized Resources used by each selected activity are identified
6. [Crucible](#) executes each selected activity within the Disconnected Environment
7. Each selected activity reaches its defined completion condition
8. Each selected activity produces its required outputs
9. Each selected activity executes without continuous access to resources outside the Disconnected Environment
10. Each failure or exception is identified
11. The verification record preserves [Traceability](#) among the Disconnected Environment, selected activity, Controlled Inputs, resources used, execution result, and outputs produced

Referenced By

The following pages reference this requirement:

- [3.1 Connectivity Conditions](#)
- [MO-004a — Connected Environment Operations](#)
- [MO-004c — Authorized Resource Use](#)
- [MO-004d — Disconnected Resource Availability](#)
- [Annex D: Requirements Traceability](#)

Delivery Phase

☐ Determine the Delivery Phase for MO-004b.

Implementation Status

☐ Assess whether the current Crucible implementation executes each selected Operational Lifecycle activity in a Disconnected Environment.

Requirement Status

☐ Review and accept MO-004b as a proposed derived requirement created from the evaluation and decomposition of MO-004 in the Crucible System Requirements Specification, Version 1.1 Draft.

Issues

The following unresolved issues affect this requirement:

- ☐ Identify the Operational Lifecycle activities that Crucible must execute within a Disconnected Environment.
 - ☐ Identify the controlling source that selects the Operational Lifecycle activities for a Disconnected Environment.
 - ☐ Define the starting condition, completion condition, required inputs, required outputs, and failure criteria for each selected Operational Lifecycle activity.
 - ☐ Identify the resources available within each Disconnected Environment and distinguish available resources from Authorized Resources.
 - ☐ Define the authorization, integrity, provenance, and admission checks required before imported resources become available within a Disconnected Environment.
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Notes for Editors

This requirement page should retain the stable requirement identifier MO-004b.

This page is a leaf requirement page and omits a trailing :start from its namespace.

The parent MO-004 page is a non-leaf page and retains a trailing :start in its namespace.

Changes to the Statement should preserve:

- [Crucible](#) as the responsible actor
- The selected [Operational Lifecycle](#) activity as the required behavior
- The [Disconnected Environment](#) as the operational context
- Execution of each selected activity as the required outcome

The unresolved activity-selection source should remain recorded in the Issues section until a controlling source identifies the activities required within a Disconnected Environment.

Material changes should receive review and should update the verification criteria, source records, and Issues section.

To reference this requirement Statement from another wiki page, insert:

```
{{section>dido:02-crusible:99-annexes:annex-c-requirements:01-mission-objectives:mo-004:mo-004b#Statement&noheader&nofooter&noeditbtn}}
```

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