

OR-004a — Concurrent Environment Deployment

[Go to OR-004 — Concurrent Environment Deployment and Management](#)

Statement

[Crucible](#) SHALL concurrently deploy two or more [Infrastructure Environments](#).

Derived From

This requirement derives from:

- [OR-004 — Concurrent Environment Deployment and Management](#)
- Crucible System Requirements Specification, Version 1.1 Draft, Operational Requirements, OR-004

The Original Requirement states:

The system SHALL support deployment and management of multiple environments simultaneously.[\[C1\]](#)

OR-004a replaces the weak phrase **support deployment** with the observable behavior **deploy**, defines multiple as two or more, and expresses simultaneous deployment as concurrent deployment.

Rationale

Organizations often require more than one Infrastructure Environment to be deployed during overlapping periods.

Concurrent deployment enables [Crucible](#) to initiate or continue deployment activity for one Infrastructure Environment without requiring deployment activity for another Infrastructure Environment to finish first.

This requirement establishes concurrent deployment capability without defining a maximum concurrency limit or the internal scheduling mechanism used to coordinate deployments.

Applies To

This requirement applies to:

- [Crucible](#)
- [Infrastructure Environments](#)
- [Infrastructure Deployment](#)
- Concurrent deployment operations

Verification

Verification confirms that:

1. At least two Infrastructure Environments are selected for deployment
2. [Crucible](#) initiates deployment activity for the selected Infrastructure Environments during overlapping time periods
3. Deployment activity for one Infrastructure Environment does not require deployment activity for every other selected Infrastructure Environment to complete first
4. Each tested Infrastructure Environment produces its own deployment result
5. Completion or failure of one tested deployment does not prevent the other tested deployment from continuing unless a documented shared dependency requires that behavior

Referenced By

The following pages reference this requirement:

- [OR-004 — Concurrent Environment Deployment and Management](#)
- [Annex D: Requirements Traceability](#)

Delivery Phase

☐ Determine the Delivery Phase for OR-004a.

Implementation Status

☐ Assess whether the current Crucible implementation concurrently deploys two or more Infrastructure Environments.

Requirement Status

☐ Review and approve OR-004a as a leaf requirement derived from OR-004.

Issues

- ☐ Define the point at which an Infrastructure Deployment begins for concurrency verification.
 - ☐ Define the point at which an Infrastructure Deployment ends for concurrency verification.
 - ☐ Determine whether a minimum overlap duration is required to demonstrate concurrent deployment.
 - ☐ Determine whether requirements elsewhere define a supported concurrency limit greater than two Infrastructure Environments.
 - ☐ Determine whether requirements elsewhere define behavior when Crucible reaches the supported concurrency limit.
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Notes for Editors

This requirement page retains the stable requirement identifier OR-004a.

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

OR-004a governs concurrent deployment of two or more Infrastructure Environments.

OR-004a does not govern:

- Concurrent management of deployed Infrastructure Environments
- The maximum number of concurrent deployments
- Deployment scheduling or queuing mechanisms
- Environment identity, state, configuration, resource, operation, or record association
- Isolation between Infrastructure Environments

Changes to the Statement should preserve:

- [Crucible](#) as the responsible actor
- Concurrent deployment as the required behavior
- Two or more Infrastructure Environments as the minimum tested quantity

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

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{{section>dido:02-crusible:99-annexes:annex-c-requirements:02-operational-requirements:or-004:or-004a#Statement&noheader&nofooter&noeditbtn}}
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