Image Resolution

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Discussion

Image Resolution is the process of selecting a Machine Image that satisfies a defined set of Image Requirements.

The process compares required characteristics with the characteristics recorded in an Image Catalog or equivalent source of image information.

Image Resolution may consider operating-system family, version, processor architecture, capabilities, compliance posture, integrity information, provider availability, lifecycle status, and approval status.

Within Crucible, Image Resolution allows an Infrastructure Baseline to remain independent of a specific Machine Image while still receiving an image that satisfies its declared requirements.

Definition

process of selecting a machine image that satisfies a defined set of image requirements

Source

Generalized from dependency resolution, artifact selection, machine-image management, and infrastructure orchestration usage and specialized for the Crucible architecture and operational model.

Note

Image Resolution does not necessarily select the newest available image. The process applies the defined requirements, compatibility rules, precedence rules, and governance constraints.

When several images satisfy the requirements, the process may apply additional selection rules or require an explicit choice.

Example

A deployment requires a hardened Red Hat Enterprise Linux (RHEL) 9 Kubernetes image for AArch64 on Oracle Cloud Infrastructure. Image Resolution selects the approved Image Record that satisfies

those requirements and supplies its provider image identifier to the deployment process.