



Managing the Life Cycle of ONAP Common Base Images

ARM, Red Hat

Adolfo Perez-Duran

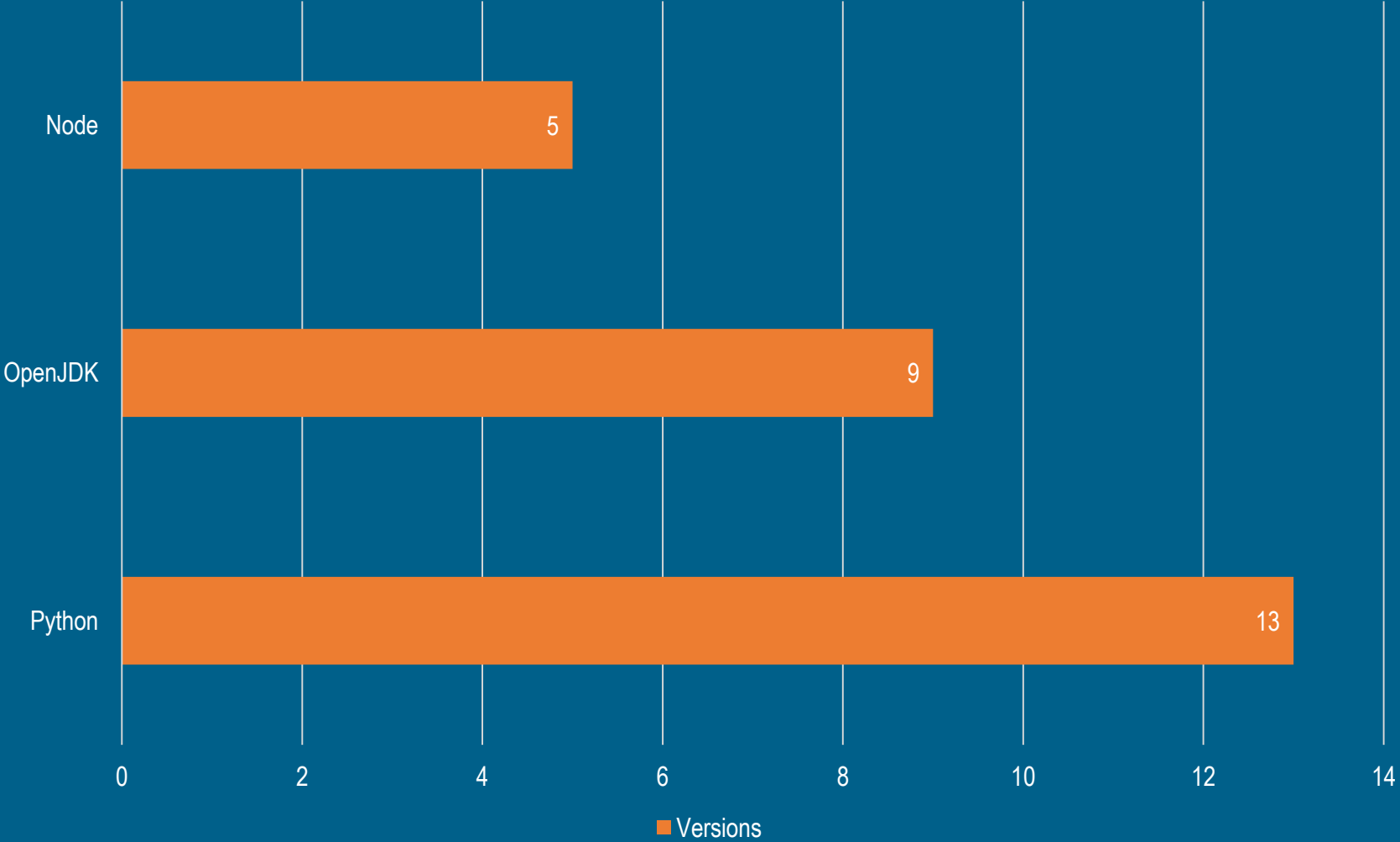
2019-06-03

ONAP uses different base images for similar purposes.

Little re-use.

Commonalities across projects are not being exploited.

Base Image Versions



What if we exploited this commonality by adopting a set of common base images shared across ONAP projects?

Increase re-use.

Share stable base images across projects.

Have a common starting point for their services.

One less thing to maintain and worry about.

Base image adoption is not vetted by ONAP's security subcommittee.

We are missing the opportunity to adopt, in a scalable manner, security best practices and guidelines across all base images.

What if the Security sub-committee had the opportunity to review and provide input on the common images we adopt?

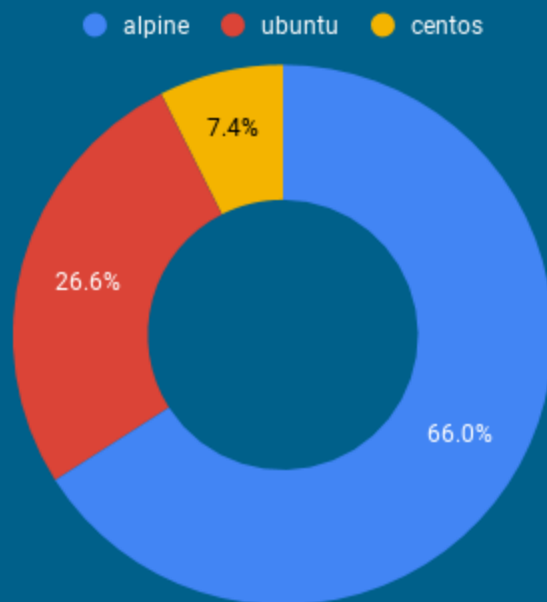
Adopt, in a scalable manner, their recommendations
Enable security best practices and guidelines across all base images.

Upstream project updates have disrupted our work and caused us pain.

We can't prevent these events.

We can certainly take actions to mitigate their impact.

Base Image Distribution



What if could store, share, update and stabilize a common alpine distribution?

Increase re-usability.

Ensure stability during development cycles.

ONAP projects favor alpine for their “development base images.”

The Solution

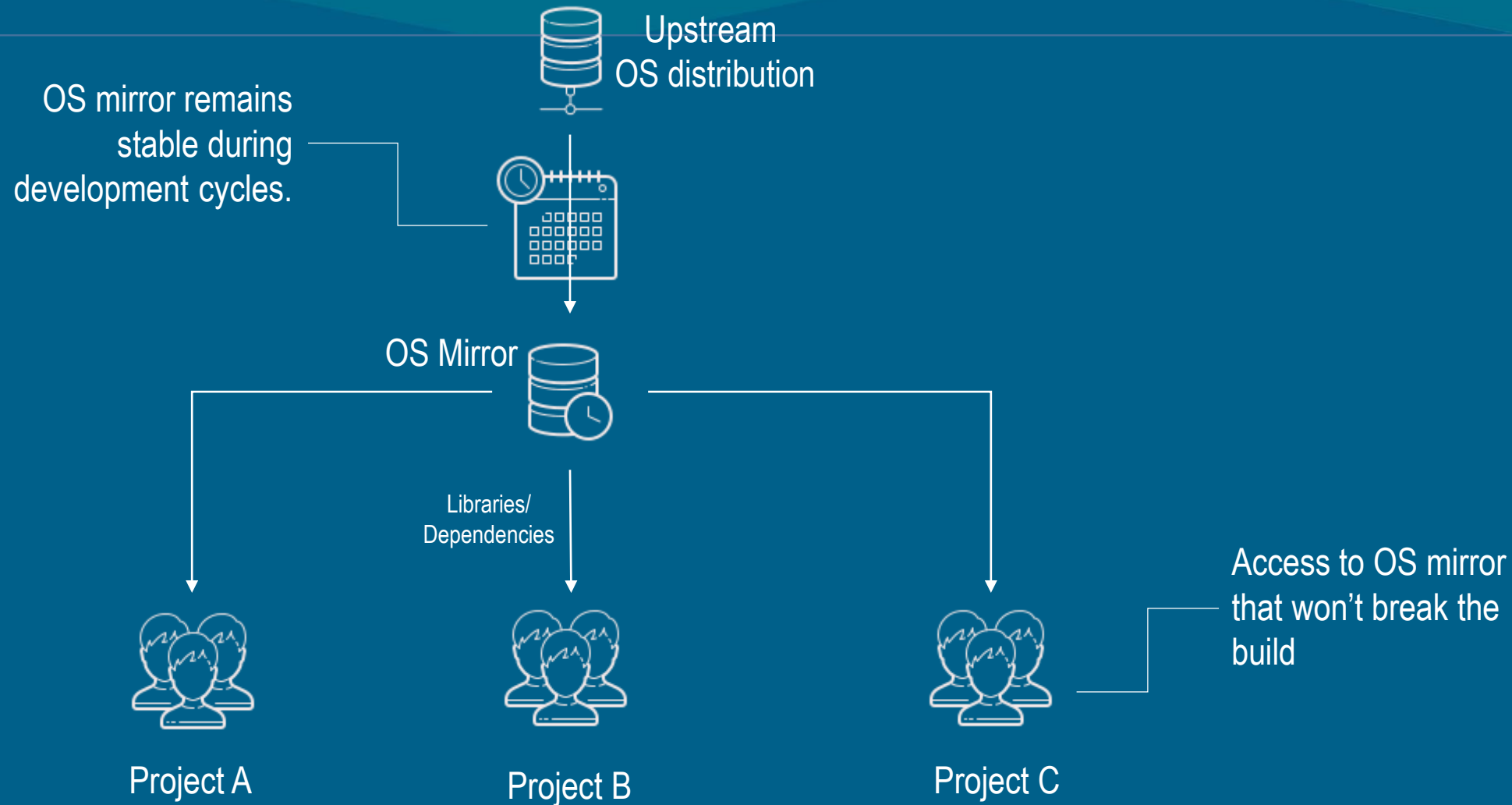


Stable
ONAP-Managed
Alpine Mirror

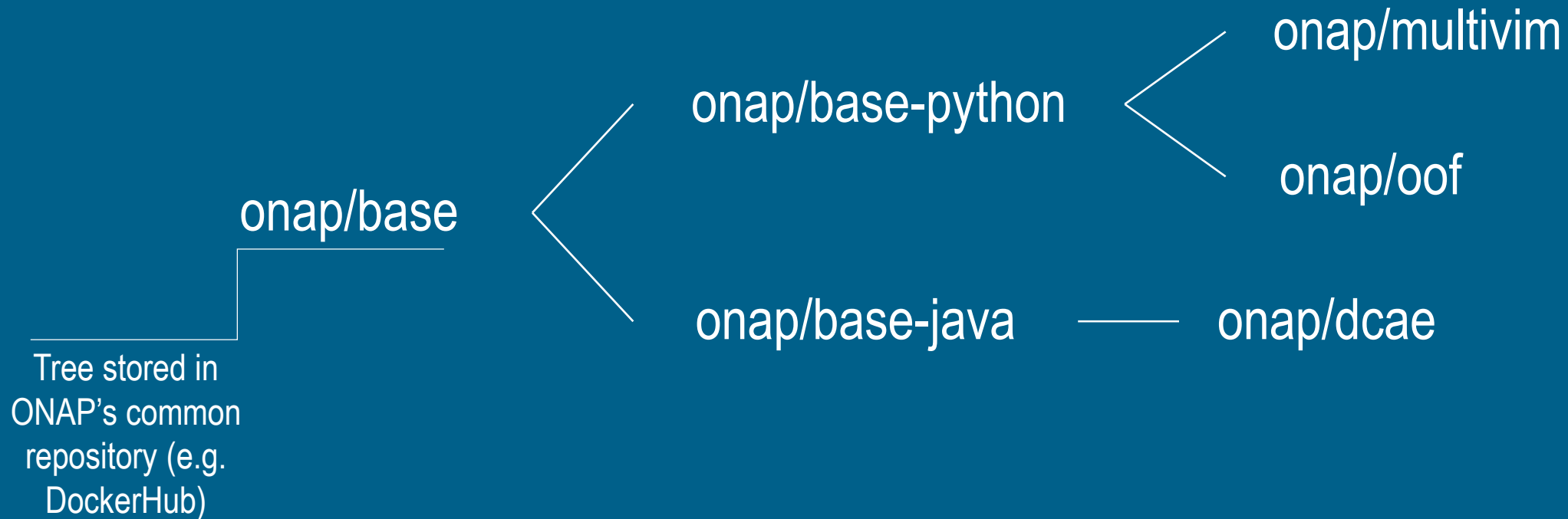


Repository of Common
Base Image
Abstractions

Stable ONAP-Managed OS Mirror



Common Base Image Abstractions



Base Image Life Cycle

Proposed

PTLs submit proposals for addition of common base images.

Under Review

Fellow PTLs, TSC members and the Security SubCommittee review the proposal.

Adopted

PTLs, TSC members and the Security SubCommittee decide, by simple majority, to accept the proposed change to the list of ONAP Normative Common Images.

Image is added to the common repository.

Maintained

PTLs and the Security SubCommittee submit proposals for updates of any common base images.

Retired

PTLs and the Security SubCommittee submits a request to remove an image or image version from the list of ONAP Normative Common Images.

Process and Stakeholders: Initial setup

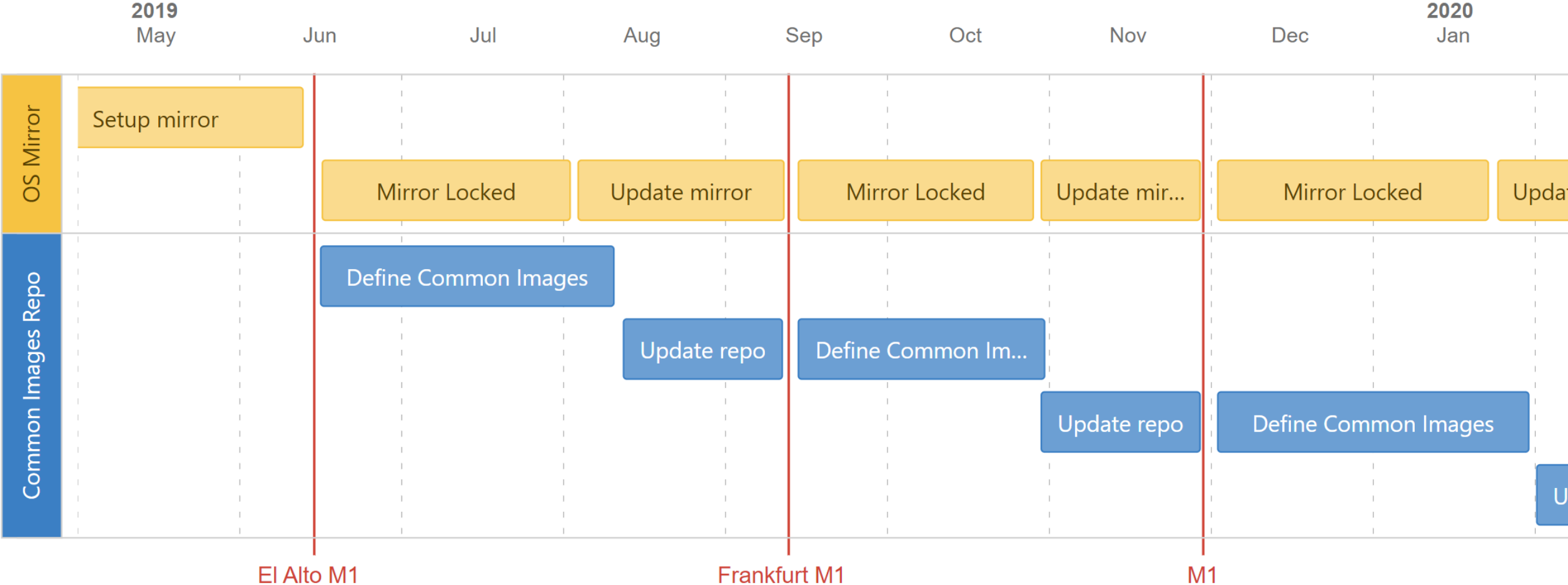


LF infrastructure team sets up a stable Alpine mirror.
One-time event.
By El Alto's M1.

Process and Stakeholders: Steady State

	PTL	SecCom	TSC	CIA	LF
In between releases And before M1	<ul style="list-style-type: none"> -Submits Add, Update, Remove request via JIRA issues. -Reviews and votes on proposed changes, including versions (major.minor.patch). 	<ul style="list-style-type: none"> -Reviews and votes on proposed changes. -Proposes changes and adoption of security best practices concerning container images and versions 	<ul style="list-style-type: none"> -Reviews and provides input on state of common images to seek alignment with ONAP-wide initiatives. 	<ul style="list-style-type: none"> -Facilitates image life cycle change requests. 	
M1	<ul style="list-style-type: none"> -Finalizes common image updates via consensus. -Votes allocated as follows: One PTL one vote. 		<ul style="list-style-type: none"> -Approves and socializes the process for changes to common images repo. 	<ul style="list-style-type: none"> -Helps coordinates with LFN infrastructure team via helpdesk tickets. 	<ul style="list-style-type: none"> -Updates and locks mirror/repo.
M2-Release	<ul style="list-style-type: none"> -Adopts common base images 	<ul style="list-style-type: none"> -Monitors ONAP common images. -Requests updates to deal with critical security issues. 		<ul style="list-style-type: none"> -Proposes applicable best practices. -Develops common base images 	<ul style="list-style-type: none"> -Applies emergency mirror/repo updates.

Roadmap



Call to Action

El Alto

Frankfurt....

1

PTLs

Help ONAP increase re-use, stability, security and save time by adopting this 'common base image' strategy

Start using 'common base images'

2

TSC

Approve the 'common base images' governance model and strategy now.

Leadership. Encourage teams to increase re-usability.

3

LF

Deploy the OS mirror