



Three Best Practices That Will Improve Your Container Development Experience

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arm
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Agenda

Challenges

Best Practice

Benefits

ROI

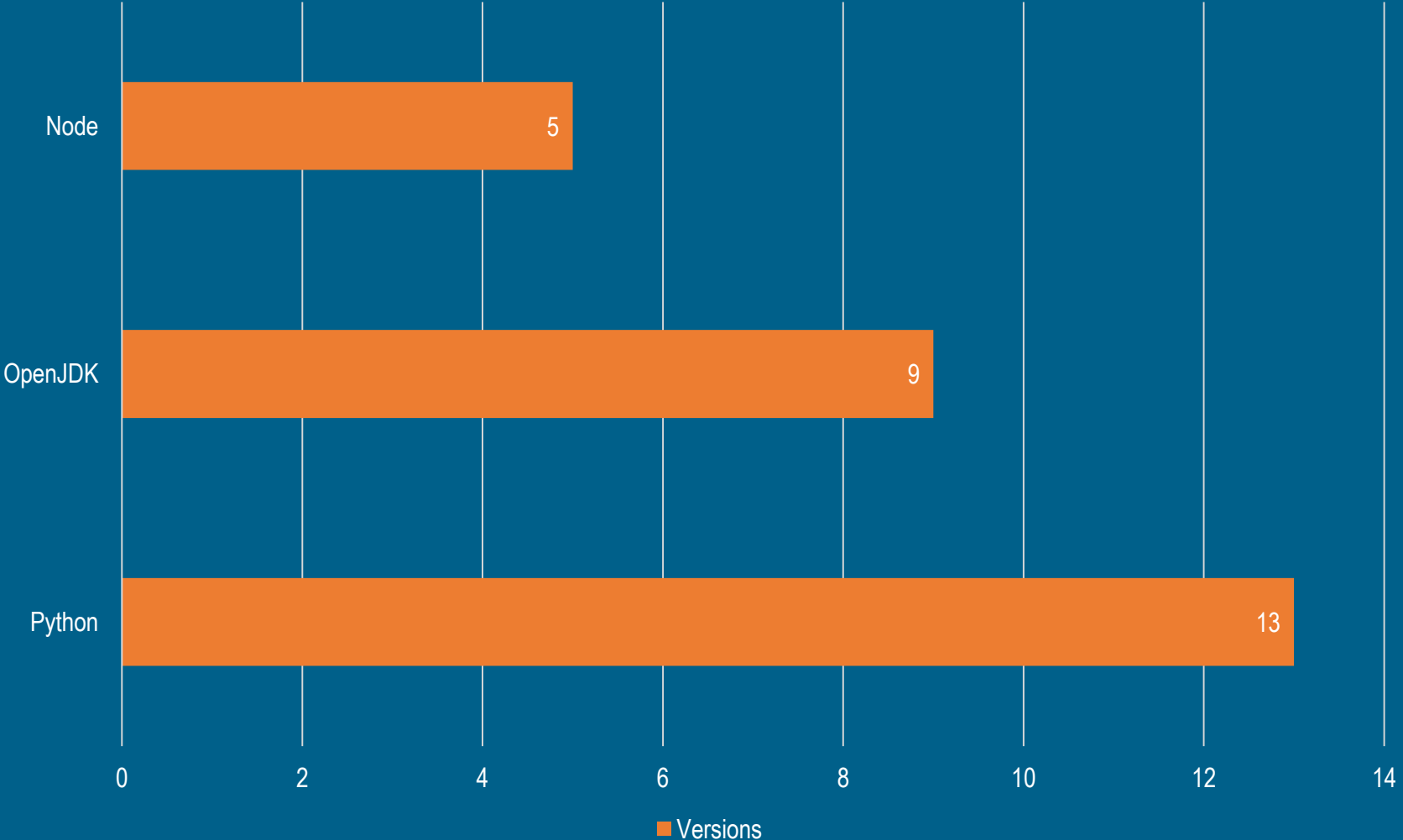
Challenges

We use different base images for similar purposes.

We don't exploit commonalities across projects.

There is little re-use.

Base Image Versions

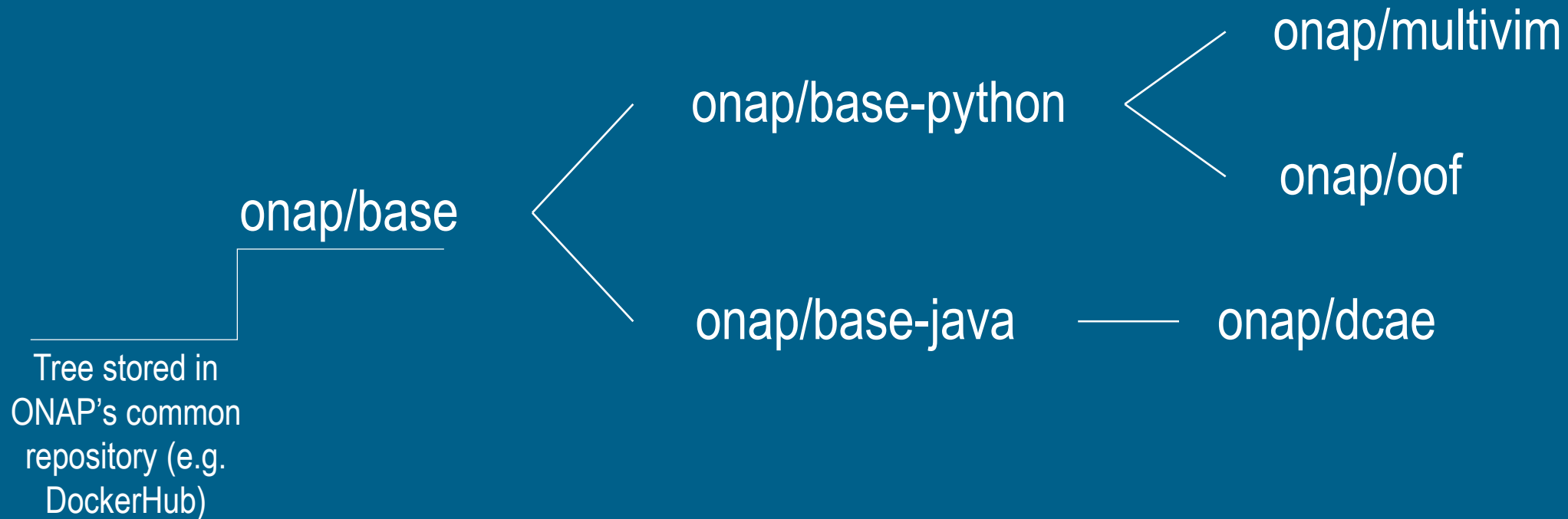


Best Practice 1



Exploit commonalities across projects; use common base images.

Common Base Images



Base Image Life Cycle

Proposed

PTLs submit proposals for addition of common base images.

Under Review

PTLs and SecCom review proposal.

Adopted

PTLs and SecCom decide, by simple majority, to accept the proposed change.

Image is added to "ONAP Normative Base Images."

Maintained

PTLs or SecCom submit proposals for emergency updates..

Retired

PTLs or SecCom submit a request to remove a base image, or image version.

PTLs and SecCom decide, by simple majority, to retire the image.

Benefits of Best Practice 1

Re-use stable base images across projects.

Have a common starting point for new services.

One less thing projects have to maintain and worry about.

Challenge

Base images are not vetted by SecCom.

We don't apply security best practices and guidelines in a scalable manner.

We typically react to security issues.

Best Practice 2



Rely on the SecCom to vet ONAP common base images.

Benefits of Best Practice 2

SecCom will be able to proactively assess the images.

Security best practices and guidelines can be consistently applied across all base images.

Scale the adoption of SecCom recommendations.

Challenge

Upstream project updates have caused us pain.

Unexpected changes could “break the build.”

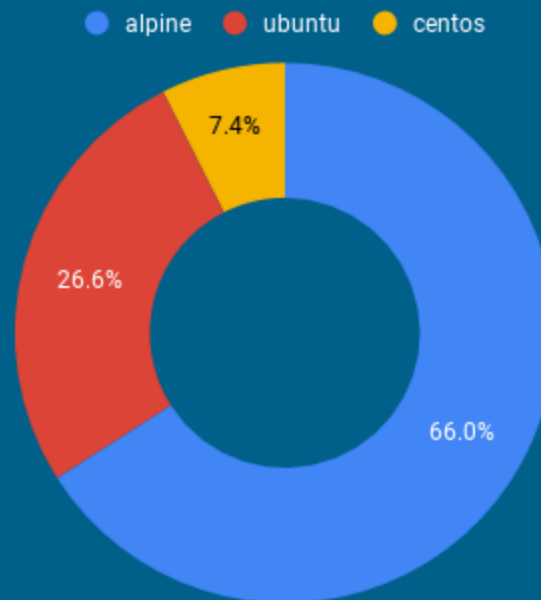
We can't prevent these events.

Best Practice 3

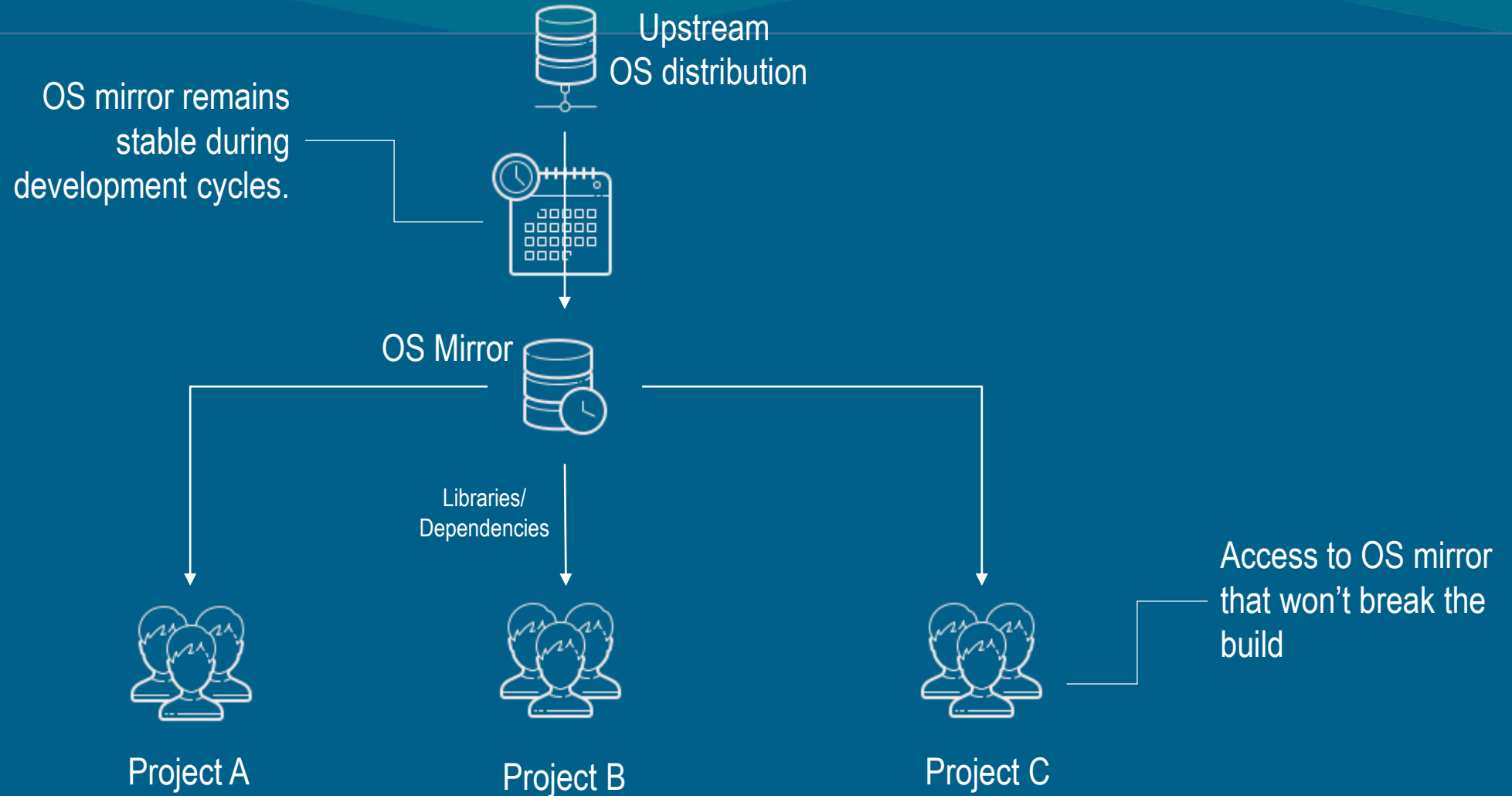


Mitigate the impact of changes on the OS distribution; setup a stable OS mirror.

Base Image Distribution



Stable ONAP-Managed OS Mirror



Benefits of Best Practice 3

Ensure OS stability during development cycles.

Don't break the build.

Increase re-usability.

Cost of adoption



Incrementally
Low



Incrementally
Low



Very Low

Summary of Benefits



Higher
Re-Usability



Increased
Security



Greater
Stability

Summary of Benefits



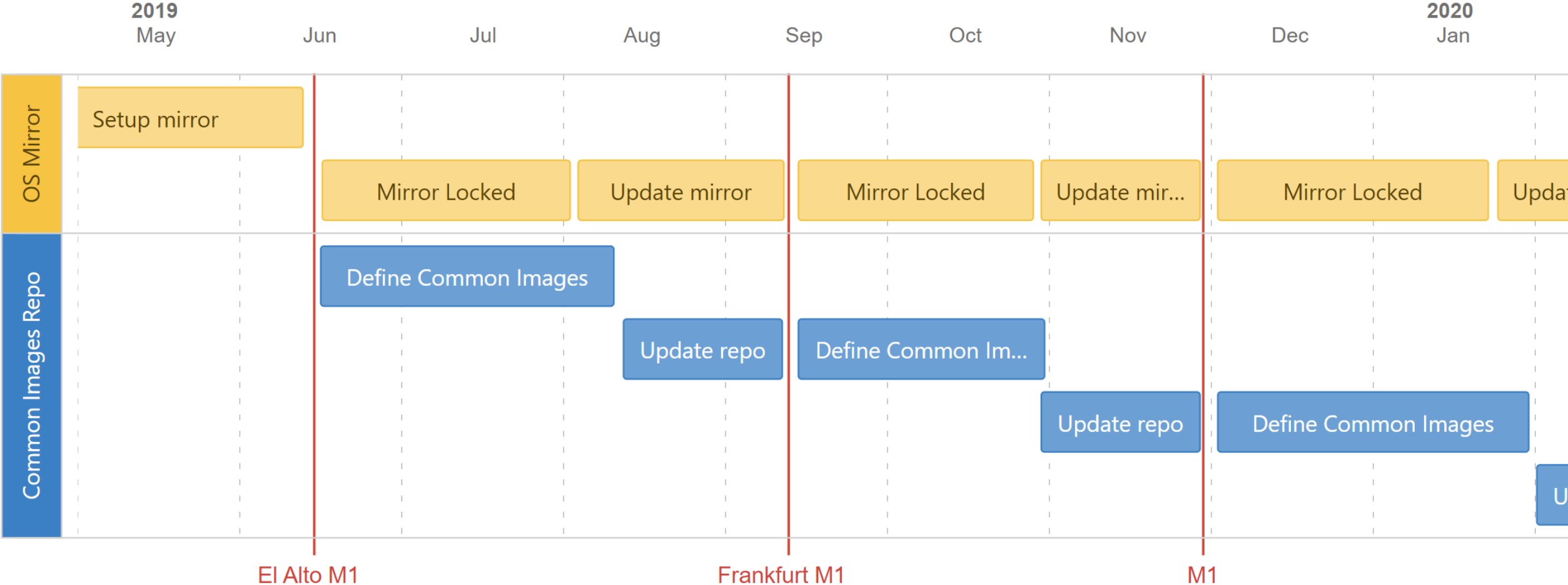
Time Savings

Thank you

Call to Action

		El Alto	Frankfurt....
1	PTLs and Teams	Avoid surprises, rely on the OS mirror Identify your needs/make your case	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	LFN	Deploy the OS mirror	

Roadmap



Process and Stakeholders

	PTLs	SecCom	TSC	CIA	LF
In between releases And before M1	<ul style="list-style-type: none"> -Submit Add, Update, Remove requests (via JIRA issues). -Review and vote on proposed changes, including new 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/goals. 	<ul style="list-style-type: none"> -Facilitates image update requests. 	
M1	<ul style="list-style-type: none"> -Finalize common image updates via consensus. 			<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"> -Adopt 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"> -Develops common base images -Proposes applicable best practices. 	<ul style="list-style-type: none"> -Applies emergency mirror/repo updates.