

SHIP-HATS 2.0 Migration Briefing

GDS Central | 13 September 2022



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Lead Product Manager
SGTS



Welcome

Agenda

1. 2.0 Recap
 - o Snapshot, Tooling Strategy, Key Features, Migration Overview
2. Migration Deep Dive
 - o Pre-Migration Prep
 - o Source Code Repo Migration
 - o Pipeline Templates
 - o Compliance Framework
 - o Migration Slots & Resources
3. Action Required
 - o Effort Estimation
 - o Booking Migration Slots
4. Timelines
5. Q&A

SHIP-HATS 2.0 - Snapshot

Approach: Move to an integrated and modernized SaaS CI/CD Platform while retaining some familiar tools like Jira

GitLab is the integrated SaaS CI/CD Platform for SHIP-HATS 2.0!

Tools Change Summary			
Category	SHIP-HATS 1.0: Self-hosted	SHIP-HATS 2.0: SaaS	Key Announcement
Integrated CI/CD	Bitbucket, Bamboo, Digital.ai	GitLab	✓ Ready for pilots now
QA & Testing*	Fortify	Fortify-on-Demand	✓ GA for all from November
Planning & Documentation	Jira Confluence	Jira Cloud Confluence Cloud	<ul style="list-style-type: none">• Delayed due Roadmap delay from Atlassian• Jira and Confluence Cloud GA from Q4 FY22• Self-hosted Jira and Confluence will be available

*see Tools Summary for other tools

SHIP-HATS 2.0 Tool Summary



	SHIP-HATS 1.0.	SHIP-HATS 2.0*	
STAGE		GitLab Native	Alternative Tool
ACCESS	OpenVPN	TechPass & SEED Note!	
PLANNING	Jira/Confluence On-Prem	GitLab Issues/Wiki	Jira Cloud, Confluence Cloud ^{new!}
BUILD	Atlassian Bitbucket	GitLab CI/CD	NA
	Nexus Repo	GitLab Package Registry	Nexus Repo
	Nexus Intelligence (prev known as Nexus IQ)	GitLab Dependency Scanning	Nexus Intelligence
BUILD TESTING	Fortify SCA	GitLab SAST	Fortify-on-Demand ^{new!}
OTHER TESTS	SonarQube Developer Edition (OnPrem)	GitLab Code Quality Scanning Tool	SonarQube Developer Edition (On-Prem)
	Fortify Webinspect Enterprise	GitLab DAST	Fortify-on-demand ^{new!}
	Prisma Cloud	GitLab Container Scanning	NA
	pCloudy Test Farm	NA	pCloudy Test Farm
DEPLOY & RELEASE	Atlassian Bamboo/Digital.Ai	GitLab CI/CD	NA

Should you choose GitLab Native Or Alternative Tools

Long term vision - Use Native tools on the integrated platform for:

- ✓ Scaling DevOps best practices easily
- ✓ Collaborating seamlessly among developers across WOG
- ✓ Practicing data driven development

Current scenario

- Alternative tools offer wider features for some use cases compared to Native tools.

Should you choose GitLab Native Or Alternative Tools

GovTech will provide

- ✓ As assessment for each category
- ✓ A list of use case that can consider Alternative tools.

Note:

- We are able to offer a more competitive pricing for Native tools
- GovTech will update the assessment and recommendation annually.

1

Compliance Framework

- ✓ Applies industry pipeline security best practices & IM8 DevSecOps standards
- ✓ Easy application – a couple of clicks in GitLab interface
- ✓ Demo later in the session

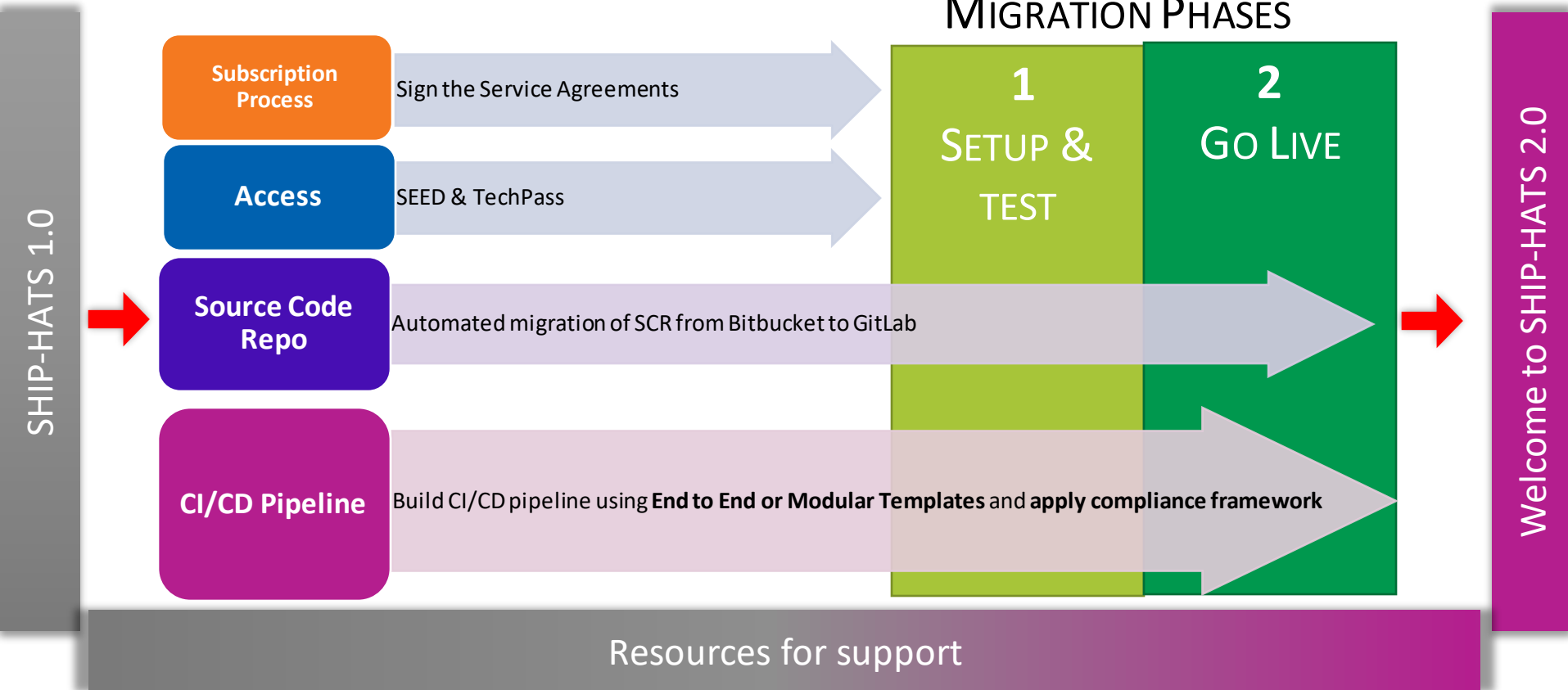
2

Dashboard

- ✓ 4 types of Dashboard availability: Security, DORA metrics, DevOps Adoption, Value Stream Analytics
- ✓ Greater transparency
- ✓ Reduces system reporting

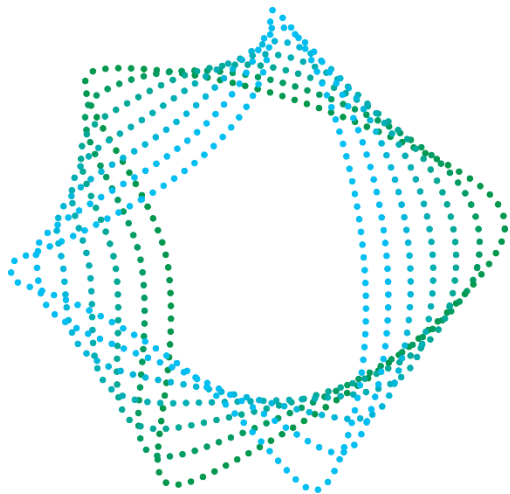
Two key features in
2.0 for **enhanced**
Developer Experience

Migration Overview



Sheikh Mohd Shaheed
Geok Rong Tay
Siu Min Ang

SHIP-HATS Team



Migration Deep Dive

- Pre-migration Prep
- Source code repo migration
- Pipeline templates
- Migration Phases
 - Set up
 - Sign off
 - Defining BAU during migration
- SHIP-HATS Consultation Team & Resources

Subscription Process

- Review the 2.0 Subscription
- Sign the Service Agreement working with SHIP-HATS Team
- Include **DGP Subsystem ID**

Tech Prep: Access

1. Onboard SEED & Tech Pass for Access

- OpenVPN will be decommissioned on **31 December 2022**.
- **All users should have an invitation to onboard TechPass-SEED.**
- TechPass SEED is mandatory for
 - o SHIP-HATS 2.0
 - o SHIP-HATS 1.0 from 1 January 2023

Tech Prep

2. Clean up accounts

- Review current projects & pipelines
- Remove inactive users
- Clean up unused code

3. Update details on Portal

- Create the GitLab groups in SHIP-HATS Portal
- Each named users need to login to GitLab and setup their own personal access token (SSH & GPG keys)
- Inform GovTech the Portal Project ID to schedule automated migration

Prepare your team

Identify Technical POC*

- Understands the application architecture
- Requires Intermediate DevOps experience
- Responsible for the technical success of the migration including tech prep, migration phases and sign off
- Be the primary POC for SHIP-HATS Consulting Team

Planning Timelines

- We have planned “Migration Slots” for every quarter
- Consider any project timelines, business needs
- If you are Fortify customer, you have to migrate by 31st July – if that’s not possible, Raise a SR

Preparing the teams & Leadership

- Leverage SHIP-HATS Learning Events and Self Learn modules
- Discuss migration timelines

Source Code Repo Migration

Auto SCR migration

SCR is migrated **using a tool at the beginning** of migration by SHIP-HATS team from Bitbucket to GitLab

Agency responsibility

- ❑ Verify the SCR migrated to GitLab
- ❑ Transfer any **code updates** during migration in SHIP-HATS 1.0 to 2.0 before migration sign off

Source Code Repo Migration

What is migrated?

- Repository description
- Git repository data
- Pull requests
- Pull request comments
- Repository Visibility Setting (Public/Private)

Bitbucket Role	GitLab Role
Admin	Owner
Write	Developer
Read	Reporter

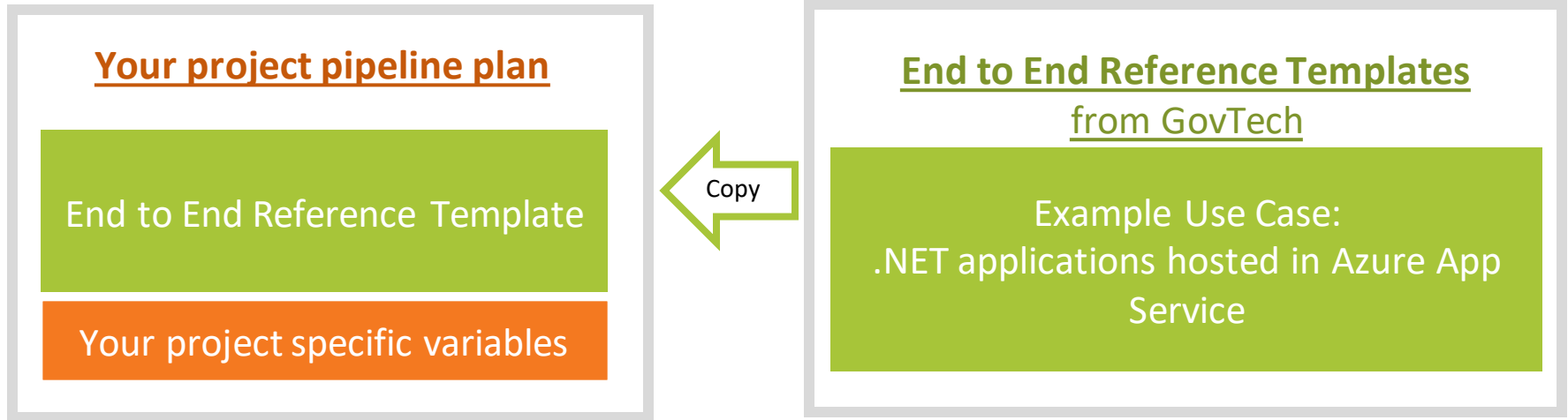
Pipeline templates

SHIP-HATS 2.0 offers a library of CI/CD pipeline templates that simplifies configuration efforts.

- End to end (E2E) pipeline template
- Modular template

Includes **sample pipelines** built using the template!

End-to-end Pipeline Template





Menu



Search GitLab



E E2E Templates

Subgroup information

Epics 0

Issues 7

Merge requests 4

Security & Compliance

Packages & Registries

Analytics

Wiki

WOG > E2E Templates

E

E2E Templates



Group ID: 144 [Request Access](#)

Templates on
GitLab

Subgroups and projects

Shared projects

Archived projects

Search

> E Examples



S

SHIP-HATS Docker Image CI Pipeline Templates

Docker Image CI Pipeline Template

★ 0



S

SHIP-HATS Docker Multi Services App E2E Templates

Docker E2E Template

★ 0



S

SHIP-HATS Docker Single Service App E2E Templates

Dockerapp E2E Template

★ 0



S

SHIP-HATS Webapp E2E Templates

★ 0

Yaml for E2E

```

1 include:
2   - local: BUILD.gitlab-ci.yml
3   - local: TEST.gitlab-ci.yml
4   - local: DEPLOY.gitlab-ci.yml
5   - project: "WOG/GVT/ship/ship-hats-templates"
6     ref: "main"
7   file:
8     - /templates/vars/.gitlab-ci-sonatype-vars.yml
9     - /templates/.gitlab-ci-publish-to-nexus.yml
10    - /templates/.gitlab-ci-check-app-readiness.yml
11    - /templates/.gitlab-ci-run-test.yml
12    - /templates/.gitlab-ci-create-report.yml
13
14 stages:
15   - build
16   - static-test
17   - deploy-to-testing-env
18   - runtime-test
19   - sign
20   - publish
21   - deploy-to-prod #to PROD
22
23 image: $NEXUSREPO_DOCKER_PROXY_HOSTNAME/alpine:latest
24
25 variables:
26   # app-specific variables
27   WORKING_DIR: "" # app for eg. relative path to application from project
28   OUTPUT_ARTEFACT: "" # "$WORKING_DIR/app.zip" for eg. compiled app to be scanned and uploaded
29   UNIT_TEST_REPORT: "" # "$WORKING_DIR" for eg. relative path to run unit testing
30   WEBAPP_URL: "" # URL to reach project web application
31   WEBAPP_NAME: "" # web application name that can be searched when service is up
32   VERSION: "" # version of web application to release to artefact repository.
33
34   # for e2e integration testing if robot framework is used
35   RF_TESTSCRIPT_FOLDER: "" # "$WORKING_DIR/test-automation/E2eTest/robotframework_testscripts"
36
37   # for dast (pen) testing in compliance framework
38   DAST_WEBSITE: $WEBAPP_URL # target URL to perform dast for web app in testing env
39   DAST_XML_REPORT: "dast-owasp-zap-report.xml" # DAST report that's viewable from your build's
40
41   # for sonarqube scan in compliance framework
42   # check out with SHIP-HATS team for account provisioning
43   # see README.md#provide-sensitive-variables for list of variables required to include ship-sa
44
45   # for nexus iq scan in compliance framework
46   # check out with SHIP-HATS team for account provisioning
47   # see README.md#provide-sensitive-variables for list of variables required to include ship-ne
48   SCAN_TARGETS: $OUTPUT_ARTEFACT # target to perform scan on
49
50   # for fod sast and fod dast in compliance framework
51   # check out with SHIP-HATS team for account provisioning
52   # see README.md#provide-sensitive-variables for list of variables required to include ship-fortify-sast-fod-with-report and ship-fortify-dast

```

```

71
72 # for deploy-to-prod stage to know the source of artefact
73 DEPLOY_ARTEFACT: prod/$ARTEFACT_ID.$ARTEFACT_PACKAGE
74
75 build-job: # build. define in BUILD.gitlab-ci.yml file
76   stage: build
77
78 lint-job: # perform a lint check. define in TEST.gitlab-ci.yml file
79   stage: static-test
80
81 unit-test-job: # perform a unit testing. define in TEST.gitlab-ci.yml file
82   stage: static-test
83
84 depcheck-job: # perform a dependency check to check for unused dependencies. define in TEST.gitlab-ci.yml file
85   stage: static-test
86
87 deploy-testing-job: # deploy to a testing env from DEPLOY.gitlab-ci.yml file
88   stage: deploy-to-testing-env
89
90 wait-for-webapp-ready-job: # wait for the app service to be ready, using a template from WO
91   extends: .wait-for-app-and-assert-text
92   needs: ["deploy-testing-job"]
93   stage: deploy-to-testing-env
94   environment:
95     name: testing
96     action: prepare
97   variables:
98     URL: "$WEBAPP_URL"
99     TEXT: "$WEBAPP_NAME"
100
101 e2e-test-job: # run e2e UI test using robot framework, you may edit to use any e2e testing
102   stage: runtime-test
103   variables:
104     SERVICE: selenium/standalone-chrome:4
105     ROBOT_IMAGE_VERSION: latest
106     OPTS: -v BROWSER:headlesschrome
107     OUTPUT_DIR: $RF_TESTSCRIPT_FOLDER/reports
108     OUTPUT_XML: report.xml
109     LOG_NAME: log
110     REPORT_NAME: report
111     TEST_TARGET: $RF_TESTSCRIPT_FOLDER
112   extends: .run-robot-test
113   allow_failure: true

```

BUILD.gitlab-ci.yml
459 bytes

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```

1 include:
2   - project: "WOG/GVT/ship/ship-hats-templates"
3     ref: "main"
4   file:
5     - /templates/vars/.gitlab-ci-sonatype-vars.yml
6
7 image: $NEXUSREPO_DOCKER_PROXY_HOSTNAME/alpine:latest
8
9 .build-webapp:
10   script:
11     - echo "implement building webapp here."
12
13 build-job: # do not change the name of this job, required by compliance
14   extends: .build-webapp
15   # artifacts:
16   #   when: always
17   #   paths:
18   #     - $OUTPUT_ARTEFACT # required by compliance
19

```

Modular Pipeline Templates

Your project pipeline plan

Your project specific scripts



Modular Testing Template

Modular Repo Template

Your project specific variables



Modular Templates from GovTech

Build & Release Templates

QA & Security Templates

Artifact Repository Templates



Modular Pipeline Templates

SHIP-HATS Templates

Name	Last commit
-	-
vars	Update links from
.gitlab-ci-aquasec-trivy-scan.yml	Fixes to readme
.gitlab-ci-aws.yml	add entrypoint to
.gitlab-ci-azure.yml	Update .gitlab-ci-azure.yml 4 months ago
.gitlab-ci-blob-signing.yml	update documentation 2 months ago
.gitlab-ci-check-app-readiness.yml	Include docker-services job in Readiness-Check-For-Doc... 2 months ago
.gitlab-ci-checksum-verify.yml	Fixes #100 on Container Checksum Template 2 weeks ago
.gitlab-ci-common.yml	Closes #72 Release management 1 month ago
.gitlab-ci-container-signing.yml	[Change Log] Touch up README 2 months ago
.gitlab-ci-create-fod-report.yml	add nexus proxy 2 months ago
.gitlab-ci-create-report.yml	Reorg readme and add contributing notes. 2 months ago
.gitlab-ci-docker-delete.yml	Add templates for #82 to delete images from GitLab Con... 1 month ago
.gitlab-ci-docker-push.yml	Fixes #101 Nexus Repo Content Selector in examples 2 weeks ago

Templates
on GitLab

BUILD.gitlab-ci.yml 459 bytes

```
1 include:
2   - project: "WOG/GVT/ship/ship-hats-templates"
3     ref: "main"
4     file:
5       - /templates/vars/.gitlab-ci-sonatype-vars.yml
6
7 image: $NEXUSREPO_DOCKER_PROXY_HOSTNAME/alpine:latest
8
9 .build-webapp:
10  script:
11    - echo "implement building webapp here."
```

.gitlab-ci-publish-to-nexus.yml 3.31 KIB

```
1 include:
2   - local: "/templates/vars/.gitlab-ci-sonatype-vars.yml"
3   - local: "/templates/.gitlab-ci-nexus-configure.yml"
4   - local: "/templates/.gitlab-ci-common.yml"
5
6 # Include these variables in your .gitlab-ci.yml
7 # i.e.
8 # variables:
9 #   MAVEN_SETTINGS_SERVER_ID: "test-demo-releases"
10 #   NEXUSREPO_REPO_ID: "test"
11 #   NEXUSREPO_REPO_GROUP_ID: "com.gt.shiphats.demo"
12 #   MVN_SETTINGS_FILE: "./settings.xml"
13 #   ARTEFACT: "/target/demo-0.0.1.jar"
14 #   ARTEFACT_ID: "demo"
15 #   ARTEFACT_VERSION: "0.0.1"
16 #   ARTEFACT_PACKAGE: "jar"
17
18 .publish-maven-artefact:
19   image: $NEXUSREPO_DOCKER_PROXY_HOSTNAME/maven:latest
20   tags:
21     - non_privileged
22     - no_root
23     - cstack
24   script:
25     - export VARIABLE_NAME=MVN_SETTINGS_FILE
26     - !reference [.check-variable-sh, script]
27     - export VARIABLE_NAME=NEXUSREPO_REPO_GROUP_ID
28     - !reference [.check-variable-sh, script]
29     - export VARIABLE_NAME=ARTEFACT_ID
30     - !reference [.check-variable-sh, script]
31     - export VARIABLE_NAME=ARTEFACT_VERSION
32     - !reference [.check-variable-sh, script]
33     - export VARIABLE_NAME=ARTEFACT_PACKAGE
```

Yaml for
modular

Compliance Framework

✓ Automate adopting DevSecOps best practices based on industry pipeline security & IM8

• Examples:

1. SCA including Dependency scanning
2. SAST / DAST / Container scanning
3. Gating before deployment to high stake environments
4. Reports generation as part of provenance
5. Signing and verification of signature on artefacts
6. Checksum verification of artefacts
7. Use of artifactory

✓ We will iteratively improve these to help you meet DevSecOps policy.

✓ Highly recommended

Compliance Framework Templates

```
webapp-compliance.yml 2.67 KiB
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1 include:
2   - local: /scans/static.gitlab-ci.yml
3   - local: /scans/dynamic.gitlab-ci.yml
4   # ship resources
5   - project: "WOG/GVT/ship/ship-hats-templates"
6     ref: "v1.0.0"
7     file:
8       - /templates/.gitlab-ci-run-test.yml
9       - /templates/vars/.gitlab-ci-general-vars.yml
10      - /templates/.gitlab-ci-nexus-configure.yml
11      - /templates/vars/.gitlab-ci-sonatype-vars.yml
12      - /templates/.gitlab-ci-blob-signing.yml
13      - /templates/.gitlab-ci-nexus-iq-scan.yml
14      - /templates/.gitlab-ci-checksum-verify.yml
15
16 stages:
17   - build # build
18   - static-test # code scanning / artifact scanning / unit testing
19   - deploy-to-testing-env # pre production deployment uat/staging
20   - runtime-test # black box testing / integration testing
21   - sign # artefact signing
22   - publish # push code to nexus repository
23   - deploy-to-prod # deployment to production
24
25 .dast-custom-config: # Run GitLab DAST Scan
26   needs: ["wait-for-webapp-ready-job"]
27
28 sign-artefact-job: # Artefact signing job
29   extends: .sign-artifact
30   variables:
31     ARTIFACT_NAME: $OUTPUT_ARTEFACT
32     SIGNATURE_FILE: sig.txt
33   stage: sign
34
35 verify-job: # verify artefact
36   image: $NEXUSREPO_DOCKER_PROXY_HOSTNAME/alpine:curl:3.14
37   extends: .verify-artefact-checksum
38   # variables:
39   #   DEPLOY_ARTEFACT is supplied by target pipeline
40   stage: deploy-to-prod
41   needs: [build-job, pull-deploy-artefact]
42
43 scan-verified-job: # Scanning of verified artefact
```

```
docker-single-service-app-compliance.yml 1.06 KiB
Open in Web IDE Lock Replace Delete

1 include:
2   - local: /scans/static.gitlab-ci.yml
3   - local: /scans/dynamic.gitlab-ci.yml
4   - local: /scans/docker.common.gitlab-ci.yml
5   # ship resources and gitlab security scans are in docker.common.gitlab-ci.yml
6
7 stages:
8   - build
9   - static-test
10  - runtime-test
11  - publish
12  - sign
13  - deploy-to-prod
14
15 variables:
16   # Required for ship-hatstwtstcli-scan-job
17   TARGET_IMAGE_URL: $TEST_REGISTRY/$PRODUCT_IMAGE_NAME:$VERSION
18   USER_CI_REGISTRY: $TEST_REGISTRY
19
20 .cs-custom-config: # GitLab Container Scanning
21   variables:
22     DOCKER_IMAGE: $TEST_REGISTRY/$PRODUCT_IMAGE_NAME:$VERSION
23
24 sign-container-job: # Container signing job
25   variables:
26     DOCKER_REGISTRY: $DEPLOY_FROM_REGISTRY
27     IMAGE_NAME: $PRODUCT_IMAGE_NAME
28     IMAGE_VERSION: $VERSION
29
30 verify-container-signature:
31   variables:
32     DOCKER_REGISTRY: $DEPLOY_FROM_REGISTRY
33     IMAGE_NAME: $PRODUCT_IMAGE_NAME
34     IMAGE_VERSION: $VERSION
35
36 scan-verified-job: # Nexus iq scanning of verified artefact
37   variables:
38     # NEXUS_IQ_APP_ID: $NEXUS_IQ_APP_ID
39     NEXUS_IQ_SCAN_OPTIONS: ""
40     SCAN_TARGETS: prod/$OUTPUT_IMAGE_ARTEFACT
41
```


Compliance Framework

Benefits

- ✓ Setup CI/CD pipeline faster
- ✓ Leverage GitLab's OTS security tools and reporting tools
- ✓ Flexibility to change to **non-GitLab**
Alternative Tools in 2.0
- ✓ Better quality by achieving compliance to industry standards.

Demo Pipeline & Compliance Framework

Geok Rong Tay
DevOps Engineer, SHIP-HATS Team

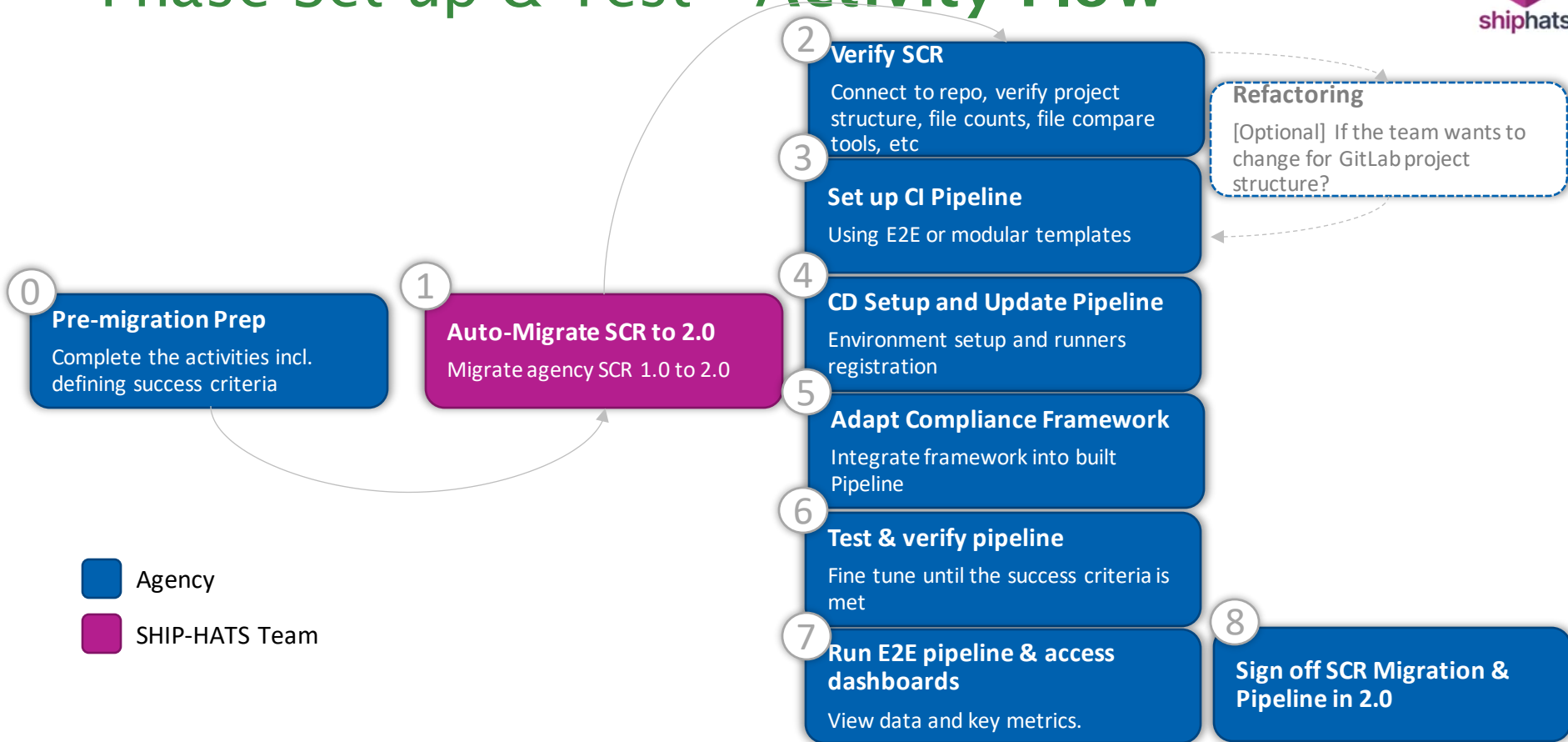


There are two phases: **Set up & Test** and **Go Live**.

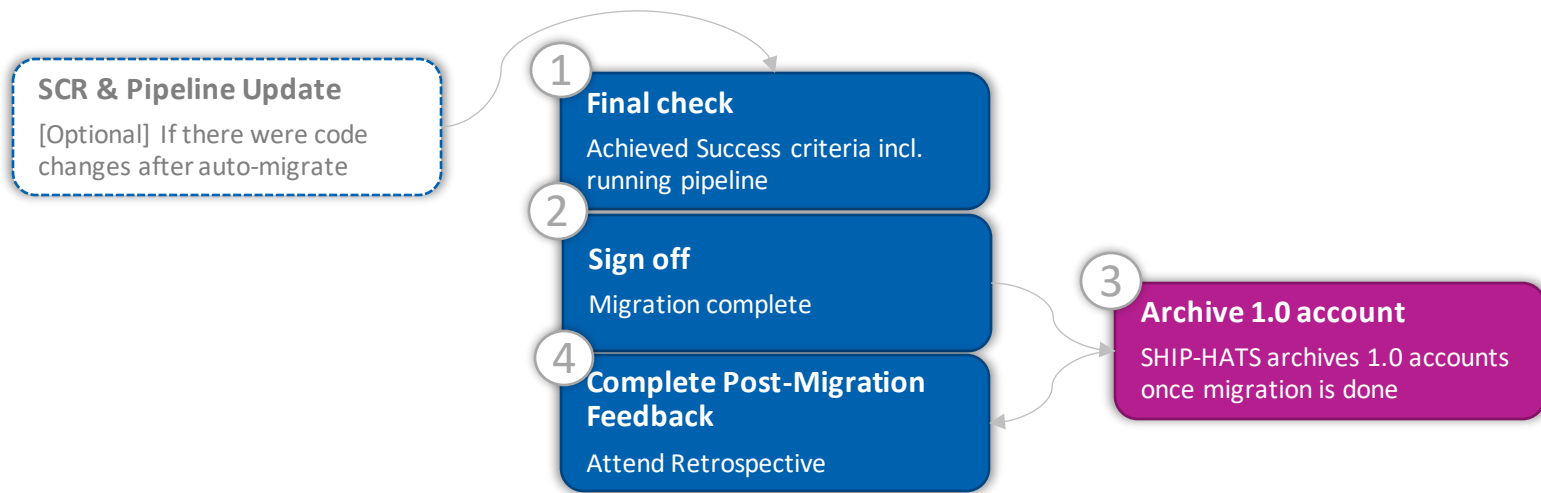
PHASE	SET UP & TEST	GO LIVE
CORE ACTIVITY	<ol style="list-style-type: none"> 1. Auto-migrate SCR to 2.0 2. Set up pipeline using E2E or modular templates 3. Test & Verify 	<ol style="list-style-type: none"> 1. Final updates & verification in 2.0
SIGN OFFS	SCR and pipeline in 2.0	Migration completion & switch off 1.0



*We renamed the phases from Sandbox testing and Migration to **Set up & Test** and **Go Live** based on feedback from our pilot users for better understanding.*

Phase Set up & Test - Activity Flow



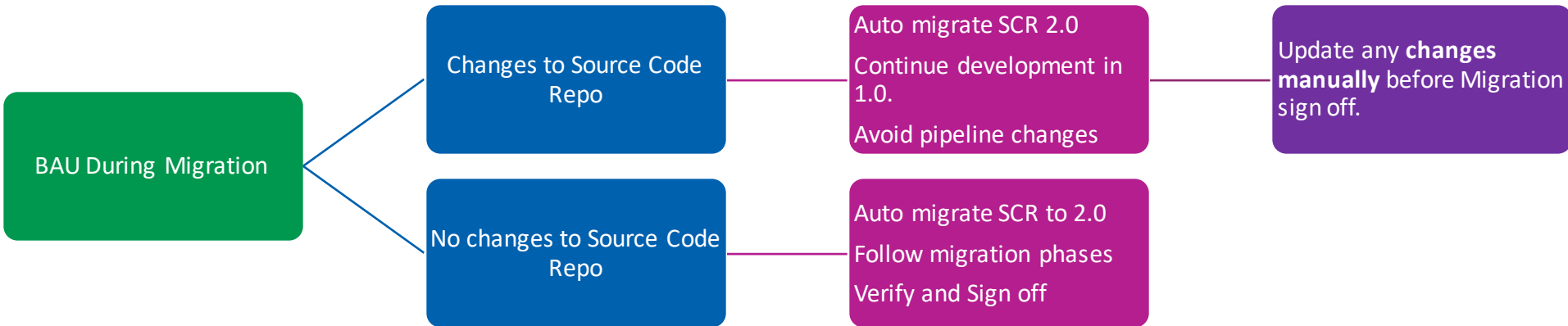
Phase Go Live- Activity Flow



-  Agency
-  SHIP-HATS Team

What happens to BAU during migration

Agencies have access to SHIP-HATS 1.0 until they complete migration.



SHIP-HATS

Consultation

Team

	Guided	Self-led
DevSecOps maturity	Low to medium In-house & Outsourced teams <ul style="list-style-type: none"> • <u>without</u> DevOps experience or • <u>without</u> any dedicated DevOps Engineers 	Medium to high In-house & Outsourced teams <ul style="list-style-type: none"> • <u>with</u> dedicated DevOps Engineers or • <u>with</u> extensive Gitlab experience
Progress Check in	Bi weekly update	
Guidance Scope	Scheduled Weekly Consultation sessions to collaboratively identify applicable templates & clear blockers	Ad-hoc Same scope as guided but support ticket required to schedule a guidance consultation

Resources Available

SHIP-HATS Learning Events

- Webinars – 7 upcoming webinars
- Workshop – hands on session by invitations based on onboarding or migration schedule

Tech Documentation

- Tech doc rolled out incl. guides such as Getting Started, Portal

Additional support

- Reference Pricing estimates from the industry

Action Required #1:

Effort Estimation

- Understand Migration activities
 - Tech prep
 - Source Code Repo Migration
 - Pipeline set up using templates
- Review current pipeline
- Identify any project requires refactoring
- Identify if your project requires CD setup in advance and agency environment setup

Action Required #2:

Book Migration Slot by 31 Dec 2022

Guided Migration Slots
<https://go.gov.sg/shiphats2-booking-guided>

Self-Led Migration Slots -
<https://go.gov.sg/shiphats2-booking-self>

What is a Migration Slot?

There are **6, 9 or 12-week** long windows – known as **Migration Slots** available for Agency to complete their migration

How it works

1. Each subscriber books one slot based on when they want to migrate by **31 December 2022**. We recommend moving all projects in the same slot.
2. They choose **Guided** or **Self-led** options
3. A SHIP-HATS consultant is assigned per subscriber for guidance during this period
4. Agency **completes migration** by the end of the slot

Action Required #2:

Book Migration Slot by 31 Dec 2022

Guided Migration Slots
<https://go.gov.sg/shiphats2-booking-guided>

Self-Led Migration Slots
<https://go.gov.sg/shiphats2-booking-self>

Quarter	#Slots	
Q4'22	24	<ul style="list-style-type: none"> Start from November '22 Priority for Fortify users 12 Guided – 4x slots for each 6,9 and 12-week window 12 Self-led
Q1'23	72	<ul style="list-style-type: none"> Priority for Fortify users 36 Guided – 12x slots for each 6,9 and 12-week window 36 Self-led
Q2'23	TBC	<ul style="list-style-type: none"> Opens in Q4'22
Q3'23	TBC	<ul style="list-style-type: none"> Opens in Q1'23
All migration completes 1 year from the date of GA of SHIP-HATS 2.0 in November		

Action Required #2:

Book Migration Slot by 31 Dec 2022

Guided Migration Slots
<https://go.gov.sg/shiphats2-booking-guided>

Self-Led Migration Slots -
<https://go.gov.sg/shiphats2-booking-self>

Guided



Self-Led



Timelines Recap



Timelines for Existing Users

Migration Window		
Type of users	Start Date	End Date
Users <u>without</u> Fortify SCA or Webinspect	November 2022	1 year from the date of GA
Users <u>with</u> Fortify SCA or Webinspect	November 2022	31 July 2023

Key Tool Decommission Dates

Tools	Decommission Date	Replacement
OpenVPN	31 December 2022	TechPass/Seed
Fortify Webinspect (OnPrem)	31 July 2023	GitLab SAST/DAST or Fortify On Demand
Fortify SCA (OnPrem)	31 July 2023	
Digital.ai	31 May 2023	GitLab

Summary and Next Steps



Upcoming Webinars

- Look out for subsequent sessions on Subscription matters, and on feature-related such as dashboarding etc.



Periodic Updates

- Refer to emails and DevPortal <https://go.gov.sg/ship-hats-docs>
- Read up on key doc - getting started, tooling strategy etc.



Migration Slots

- Book a migration slot for first two waves by end Dec
- Keep a lookout for subsequent booking slots



Keep in Touch!

- Reach out to us via <https://go.gov.sg/she>
- Drop questions in the Teams channel

Structure helps to plan.

SHIP-HATS team is committed to supporting
all our users

**KEEP CALM
AND
LET'S MIGRATE 😊**