

SHIP-HATS 2.0. Migration Briefing

Wave 3 - 17th April 2023

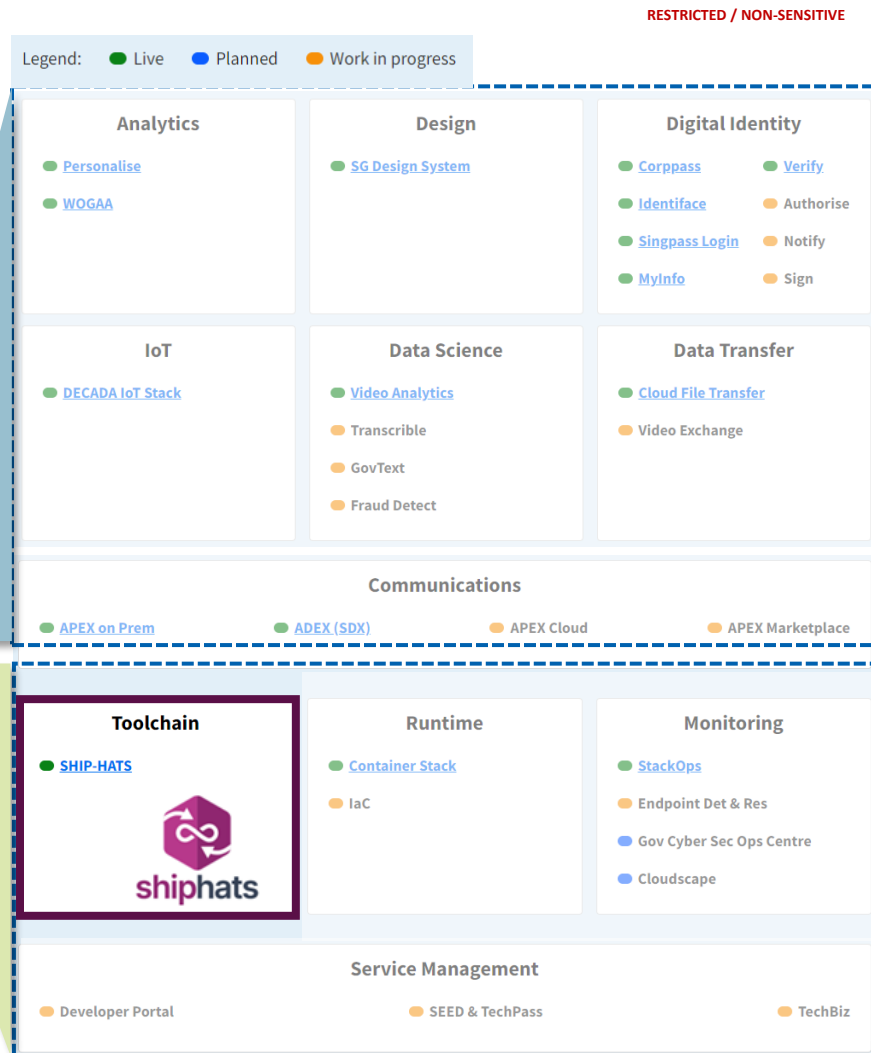
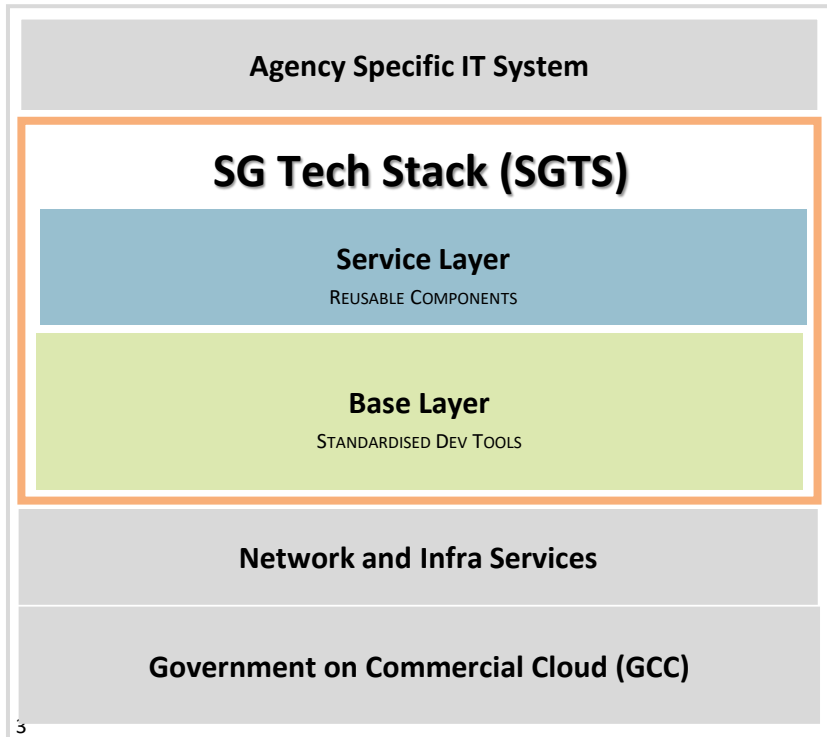


Agenda

- SHIP-HATS 2.0. Recap
- Migration Steps
- Key dates & Next Steps
- Demo
- Q&A

Stack – Government-in-a-Box

www.developer.tech.gov.sg



StackOps and CStack



An infra and app **monitoring and logging** service based on Elastic Cloud. Upcoming features include compliance with ABLR.



A **Container Platform** for WOG to embrace GitOps with “Everything-as-Code” based on Kubernetes and fully integrated to SGTS services to simplify compliance

SHIP-HATS

2.0. Recap



Recap: SHIP-HATS 2.0. Key Activity Timelines



Recap: SHIP-HATS 2.0 Goals



1. Faster time to market

- One DevOps Platform
- End-to-End Source Code Management & CI/CD



2. Greater Transparency

- Pre-Defined Industry DevOps Metrics and Dashboards, incl DORA
- Value Stream Measurement Capabilities



3. Built-In Security

- Compliance Pipelines
- Integrated Security Testing

SHIP-HATS 2.0. Product Offering

Tools under-the-hood

2.0 tools use same instances as 1.0 tools

Access
(by default)

Subscription Mgmt



Tools Provisioning

SHIP-HATS Portal

Sign in



Planning

Build

Build Testing

SAST

Other Tests

Code quality scanning,
DAST, Container Scanning

Deploy & Release

GitLab-Native



- **GitLab Ultimate Tier Licenses** which comes with features including value stream measures and dashboards
- Offers integrated native tools from planning till deployment
- Dedicated SaaS managed instance hosted in Singapore

Alternative Tools

Confluence



nexus
repository
pro



nexus
lifecycle



Fortify on
Demand

sonarqube



TOOL SELECTION

Agencies must assess whether Gitlab native is sufficient (e.g. whether the gitlab-native tool supports the language/framework used etc).

1

GitLab Native only

- ✓ Lean teams
- ✓ Simple use cases
- ✓ New Projects
- ✓ Value for \$\$

2

GitLab & Alternative tools

- ✓ Already on alternative tools
- ✓ Complex use cases
- ✓ Migrating agencies

Migrating agencies are advised to migrate as-is

❖ **Both** options **meet Security** Policy needs

❖ Alternative tools are available as add-on anytime

SHIP-HATS 2.0. Value-Added Features

As a subscriber, agencies will also have access to the following:

- Platform Enablement Features
- CI/CD Tools and Features
- Security Baseline & Testing Tools
- Metrics and Value Stream Measurements (VSM)

[Access Recording here](#)

SGTS Learning Series

--- Online Webinar ---

Refer to this recording to learn more about the new capabilities in SHIP-HATS 2.0.

SHIP-HATS 2.0 Product Briefing

Monday, 20 Mar 2023 3 to 4 PM

Get to know the **CI/CD tool** in Singapore Government Tech Stack including roadmap, features, and resources.
Level 100 Tech & Non-Tech

[Access Recording here](#)

SHIP-HATS & Sonatype

Wednesday 26 Apr 2023 4 to 5 PM

Learn the best practices of using Sonatype in SHIP-HATS.
Level 100 Tech & Non-Tech

[Sign up here](#)

Join us and remember to bring your questions for live Q&A.

[SGST Learning Events available on Developer Portal](#)

The screenshot shows the Singapore Government Developer Portal. The left sidebar contains a 'Training' section with a red box around 'Learning events', which is further divided into 'Upcoming events', 'Past events', and 'Self-paced trainings'. The main content area is titled 'Learning Events' and 'Upcoming events'. It displays a table of upcoming events.

Date	Topic	Audience	Level	Sign up
Hands on Workshop	SHIP-HATS 2.0 and Introduction to Pipeline Templates	Tech	200	By invitation based on onboarding and migration
Scheduled every month	Classroom session for developers	SHIP-HATS Users & Prospects		
9:00 AM- 5:00 PM				
Webinar	SGTS Learning Events - SHIP-HATS Product Briefing	Non Tech	100	Only by invitation
20 March 2023	SGTS Overview	SHIP-HATS Users & prospects		
3 PM to 4 PM	SHIP-HATS 2.0 Product Offering & Roadmap			
	Subscription packages			
	Learning Resources & Training			
Webinar	SHIP-HATS & Sonatype	Tech & Non Tech	100	Sign up
26 April 2023	Covers Benefits of Sonatype Nexus IQ for OSS consumption, Nexus Platform			

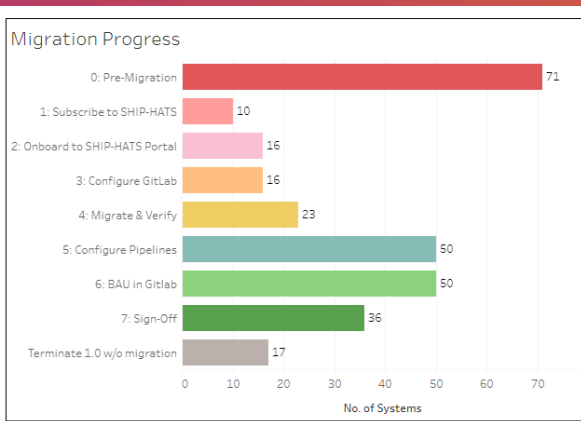
SHIP-HATS 2.0 Subscription

- Materials for Subscription
- Indicative Pricing, Pricing Calculator
- Pricing Simulations
- [Subscription how-to videos](#)

<https://go.gov.sg/sh2indicative>

Accessible via GSIB

Migration Progress & Key Dates



- 31% of all systems have migrated to-date
- Migration must be completed by the end of your wave period
- All systems must migrate before end 2023 as Atlassian is sunsetting its support for Bamboo and BitBucket

Migration Waves	1	2	3	4
Slots	Fully booked	Only few slots left	Now open!	Now open!
Start Date	9 January 2023	27 February 2023	22 May 2023	14 Aug 2023
Completion Dates	-	-	-	-
6-week slot	13 February 2023	3 April 2023	26 Jun 2023	18 Sep 2023
9-week slot	6 March 2023	24 April 2023	17 Jul 2023	9 Oct 2023
12-week slot	27 March 2023	15 May 2023	7 Aug 2023	NA

Learnings



Learnings from Wave 1 & 2

1. Review the migration checklist holistically

To **plan subsequent action items** (especially activities involving external parties), review the migration checklist holistically

2. Onboard early

Onboard via TechBiz early to **focus pipeline creation** during the wave

3. Plan any Subscription restructure with Migration Consultant

If you need to re-structure your subscription (merge or split), plan it together with your migration consultants **before TechBiz registration** as incorrect setup will lead to several downstream issues.

Learnings from Wave 1 & 2

4. Estimate correct effort

Review [effort estimation webinar](#) to size right

5. Be active in your Migration Jira Ticket and communicate with your consultant

We will be communicating timeline slippages with your agency CIO

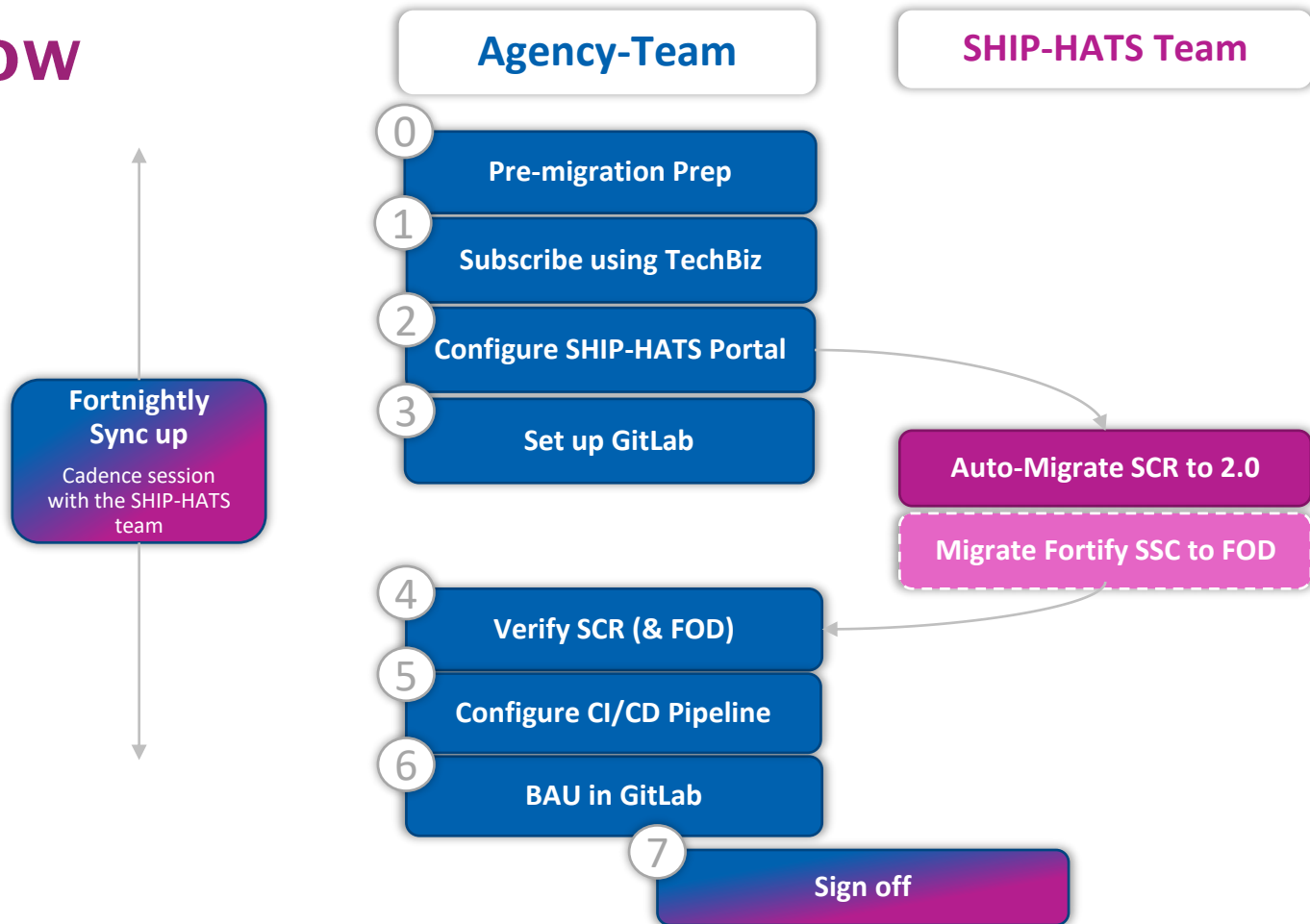
6. Create GitLab groups after project remapping

Do **not** create your groups in GitLab before we complete the portal project remapping

Migration Steps



Migration Activity Flow



Step-by-Step on Dev Portal

- [Migration Checklists](#)

The screenshot shows the 'Singapore Government Developer Portal' with a navigation menu on the left and a main content area on the right. The left menu includes links for 'SHIP-HATS Migration', 'Migration to 2.0', 'Home', 'Overview', 'What to Expect', 'Getting Started', 'Migration Approach', 'Migration Effort Estimation', 'Migration Support', 'Book Migration Slot', 'Migration Checklists', and a list of steps from 'Step 0: Pre-migration' to 'Step 7: Sign off'. The 'Migration Checklists' link is highlighted with an orange box. The main content area is titled 'Migration Checklists' and features an information box with a link to download all checklists and a PDF for the FOD Tenant Verification Process. Below this, it lists seven migration steps, each with a corresponding link.

A Singapore Government Agency Website

Singapore Government Developer Portal

About Documentation

Login

SHIP-HATS Migration

Migration to 2.0

Home

Overview

What to Expect

Getting Started

Migration Approach

Migration Effort Estimation

Migration Support

Book Migration Slot

Migration Checklists

Migration Checklists

Step 0: Pre-migration

Step 1: Subscribe to SHIP-HATS

Step 2: Onboard to SHIP-HATS Po...

Step 3: Configure GitLab

Step 4: Migrate & Verify

Step 5: Configure Pipelines

Step 6: BAU in GitLab

Step 7: Sign off

Migration Checklists

Click here to download all Migration checklists. If you are migrating Fortify, download the FOD Tenant Verification Process PDF.

Following migration checklists are available:

- [Step 0: Pre-migration](#)
- [Step 1: Subscribe to SHIP-HATS](#)
- [Step 2: Onboard to SHIP-HATS Portal](#)
- [Step 3: Configure GitLab](#)
- [Step 4: Migrate & Verify](#)
- [Step 5: Configure Pipelines](#)
- [Step 6: BAU in GitLab](#)
- [Step 7: Sign off](#)

0 Premigration



Pre-migration Prep

1. Review Jira Migration ticket

2. Understand Technical Considerations

3. Review Current Tools and Services in SHIP-HATS 1.0 & Subscription Package

4. Raise Internal AOR for 2.0 Tools & Services

5. Raise Vendor SR (as applicable)

6. TechPass & SEED (if applicable)

7. Use Success Criteria template and define your success criteria



Help Center / SHIP HATS 2.0 MIGRATION / SHMIG-82

[GOVTECH] SHIP-HATS Migration for 1905888888-Hive Agile Testing Solution (HATS)



Comment on this request...



CONTRACT & TECH PREREQUISITES

Don't notify me

Share

Shared with



Siu Min Ang

Creator

Details 1 week ago 3:52 PM

Description

Hi POC,

This Jira ticket will be used to track your migration activities from SHIP-HATS 1.0 to 2.0 as well as to address any questions/issues that you may have.

As you may know, SHIP-HATS 2.0 has GA on 4 Jan 2023. We will be conducting a Kickoff Briefing two weeks prior to the start date of your booked Migration Wave. Do look out for the invite soon. The briefing will cover the processes involved in onboarding to SHIP-HATS 2.0 via TechBiz, along with a brief on the overall Migration process.

Before attending these briefings, we recommend that you can get started to prepare for the migration with the following activities:

1. Add any of your team members involved in the migration to this Jira ticket as participants.
2. If your project includes outsourced vendors, a reminder to ensure that your AOR/CR/SR has been approved prior to the migration period, to ensure that there are no delays to the migration schedule.
3. Do ensure that your team members are onboarded to SEED (<https://docs.developer.tech.gov.sg/docs/security-suite-for-engineering-endpoint-devices/>) and TechPass (<https://docs.developer.tech.gov.sg/docs/techpass-user-guide/onboard-public-officers-using-non-se-machines>) as these are pre-requisites to onboarding to SHIP-HATS 2.0.
4. Define your project onboarding success criteria. If you need help in structuring your success criteria, we have provided a sample version here: <https://docs.developer.tech.gov.sg/docs/ship-hats-migration/files/migration-checklists.xlsx>
 - Please feel free to add/modify the non-critical criteria based on your project requirements.
5. Skill-up on SHIP-HATS 2.0's GitLab platform via the following:
 - SHIP-HATS 2.0 Webinars (<https://docs.developer.tech.gov.sg/docs/ship->

Pre-migration Prep

1. Review Jira Migration ticket
2. Understand Technical Considerations
3. Review Current Tools and Services in SHIP-HATS 1.0 & Subscription Package
4. Raise Internal AOR for 2.0 Tools & Services
5. Raise Vendor SR (as applicable)
6. TechPass & SEED (if applicable)
7. Use Success Criteria template and define your success criteria

Source code repo size

< 2 GB Repo

Repos Auto Migrated by SHIP-HATS

> 2 GB Repo

Agency Project team manages a manual transfer OR
Reduce repo size before migration

Shared Runner

Docker in Docker not supported
in SHIP-HATS 2.0 due to security risk

Use to **Kaniko** as alternative to Docker to build your containers for your pipeline

Pre-migration Prep

1. Review Jira Migration ticket

2. Understand Technical Considerations

3. Review Current Tools and Services in SHIP-HATS 1.0 & Subscription Package

4. Raise Internal AOR for 2.0 Tools & Services

5. Raise Vendor SR (as applicable)

6. TechPass & SEED (if applicable)

7. Use Success Criteria template and define your success criteria

Base plan

- 3 x GitLab Ultimate User License
 - Got more users? You can buy up to 47 additional GitLab Ultimate license as [Add-on](#). If you have more than 50 users (3 Base + 47 Add-ons), you will need to purchase additional Base plan.
 - One subscriber can have more than one Base plan
 - Fair Usage Policy – 1 GitLab license is entitled to up to 10 GB
- Standard support (9:00 AM to 5:30 PM except public holidays)
- pCloudy shared

Add-ons

Component	What's Included	Notes
GitLab Ultimate	1 x GitLab Ultimate User License	Based on the number of users
Jira/Confluence	1 x Jira/Confluence License	Based on the number of users
Sonatype Nexus IQ & Nexus Repo	1 x Nexus IQ	Based on the number of users
	1 x Nexus Repo User License	
pCloudy Testing Farm	1 x pCloudy ios Device (dedicated)	1 device can be used concurrently across multiple GitLab Projects, and tests can be run in parallel
	1 x pCloudy Android Device (dedicated)	
SonarQube	1 x SonarQube Community Edition App	1 app can be used for 1 subscription (i.e. shared across GitLab projects)
	1 x SonarQube Dev Edition App	1 app can be used for 1 subscription (i.e. shared across GitLab projects)
Fortify-on-Demand	1 x FOD App	1 app can be shared across multiple GitLab Projects, but tests cannot be run in parallel.
Additional support	Per hour (after 5:30 PM)	Outside office hours

Pre-migration Prep

1. Review Jira Migration ticket
2. Understand Technical Considerations
3. Review Current Tools and Services in SHIP-HATS 1.0 & Subscription Package
4. Raise Internal AOR for 2.0 Tools & Services
5. Raise Vendor SR (as applicable)
6. TechPass & SEED (if applicable)
7. Use Success Criteria template and define your success criteria

Success Criteria

1. Operational Source Code Repository in GitLab
2. Operational FOD Application (if applicable)
3. Operational CI & CD pipeline in GitLab
4. GitLab Dashboards
5. Archival of Project on 1.0 Tools

Sample Success Criteria

Objective	Acceptance Criteria
1 Accept User roles	Agency team accepts that roles defined for developers and Security Team.
2 Accept SHIP-HATS 2.0 templates used in setting up the CI/CD pipeline	Agency team is aware of SHIP-HATS 2.0 that the pipeline has been set up as per
3 Accept Compliance Framework applied	Agency team understands that applying DevSecOps best practices.
4 Accept	Agency team confirms that SAST tests h
5 Accept	Agency team confirms that SCA tests h
6 Accept Container Scanning capability	Agency team confirms that Container te
7 Accept DAST security test capability	Agency team confirms that DAST tests s
8 Accept pipeline execution across multiple repositories	Agency team has tested and verified the
9 Accept access control for executing pipelines	Agency team has tested and verified the
10 Accept IT Management Dashboard	Agency team has verified that SHIP-HAT
11 Sign off the CI/CD Pipeline	Agency team accepts that the pipeline H

**Sample Success Criteria available on
Developer Portal for download!**

1 Subscription using TechBiz



Basics



TechBiz is a **subscription & billing** management tool that allows users to **subscribe**, **manage** and **report** their Singapore Government Technology Stack (SGTS) resources

What can you do:

- Submit Subscription Request
- Agency Approvers can approve the request
- Subscription Admin adds users and system details

Who can access:

- Public officers from Agency using Non SE – GSIB

TechBiz Portal Access link:

portal.techbiz.suite.gov.sg

Use the how-to videos

1

Subscribe using TechBiz

1. Agency Subscription Admin create Subscription Package on TechBiz Portal

2. Agency Approver approves the subscription account

3. Create systems and users

4. Verify system on TechBiz

5. Update details on Jira Migration ticket re: mapping

go.gov.sg/sh2indicative

Accessible via GSIB to review pricing information .

Documents > SHIP-HATS 2.0 > Onboarding how-to videos

▶ step-1-create-subscription-pac...

▶ step-2-approve-account.mp4

▶ step-3-create-system-name.mp4

▶ step-4-create-users-and-grant...

Public Officers can access [how-to videos for subscription via TechBiz](#) via Intranet.

1

Subscribe using TechBiz

1. Agency Subscription Admin create Subscription Package on TechBiz Portal

2. Agency Approver approves the subscription account

3. Create systems and users

4. Update details on Jira Migration ticket re: mapping

Mapping of 1.0. to 2.0. Accounts

Update Jira Migration ticket after subscribing on TechBiz!

1. TechBiz Account ID
2. SHIP-HATS Portal Subscription ID
3. Projects to be mapped (if doing partial migration)

Note: Once we have mapped your 1.0. subscription to your 2.0. subscription in the SHIP-HATS Portal, your 1.0. subscription in the SHIP-HATS Portal will be “**frozen**” and you will have to **raise an SR** to make changes to your 1.0. subscription

- The mapping will take 2 to 3 business days
- Refer to the Jira ticket for updates on whether mapping has been completed
- After completion, you may proceed to the next step to verify on SHIP-HATS Portal

2 Configure SHIP-HATS Portal



2 Configure SHIP-HATS Portal

1. Access SHIP-HATS Portal

2. Verify Users & Systems

3. Verify Project & Tools

4. Create any new Projects & Assign Project Admin

5. Set up GitLab & other tools

SHIP-HATS Portal Access link:

portal.ship.gov.sg

A Singapore Government Agency Website [How to identify](#)

shiphats ? 🔔 NM ▼ CURRENT ROLE **SUBSCRIPTION ADMIN** 🗖

Dashboard Workspace Users All User Groups All Users

OVERVIEW / All Users

6 / 8 GitLab quota consumed. 0 / 0 Jira/Confluence consumed. 0 / 1 Sonatype quota consumed.

[Export CSV](#)

Name	Project Role	GitLab	Jira/Confluence	Sonatype	Last Login
KY Subscr Admin @tech.gov.sg		✓			5 days ago 5:48 PM
NM Subscr Admin 1@tech.gov.sg		✓			Yesterday 1:56 PM
CG @tech.gov.sg	Project Admin	✓			4 days ago 5:16 PM
DN hive.gov.sg					5 days ago 3:30 PM
HW tech.gov.sg	Project Admin	✓			4 days ago 5:23 PM
JT ech.gov.sg		✓			Yesterday 10:57 PM
KK tech.gov.sg		✓			Yesterday 5:23 PM

2 Configure SHIP-HATS Portal

1. Access SHIP-HATS Portal

2. Verify Users & Systems

3. Verify Project & Tools

4. Create any new Projects & Assign Project Admin

5. Set up GitLab & other tools

SHIP-HATS Portal Access link:

portal.ship.gov.sg

The screenshot displays the SHIP-HATS Portal interface. At the top, the header shows the user's role as 'SUBSCRIPTION ADMIN' and the current user 'Natasha Mahajan'. The main content area is divided into two sections: 'System(s)' and 'Project(s)'. The 'System(s)' section lists 'Health hub' as a system. The 'Project(s)' section lists 'MOH-THIRDPROJ', 'MOH-Documentation', and 'MOH-NEW PROJ'. A red box highlights the 'Workspace' menu on the left, which includes 'Projects without System' and 'Users'. Another red box highlights the 'Manage System' option in the 'Project Admin' dropdown menu. A third red box highlights the 'Not Subscribed Tools' section, which includes 'GitLab', 'Nexus IQ', 'Nexus Repo', 'pCloudy', 'Jira Software', 'Confluence', 'Fortify on Demand', and 'SonarQube'. A red arrow points from the 'Manage System' option to the 'Not Subscribed Tools' section.

Workspace

- Projects without System
- Users

MOH

Search systems

System(s)

Health hub

Project(s)

Project Name

- MOH-THIRDPROJ
- MOH-Documentation
- MOH-NEW PROJ

Project Admin

- KY
- HW JT
- CG
- HW
- HW

Manage System

Manage Admins

Delete Project

Previous 1 Next

Project Description

This is a project for documentation.

Subscribed Tools

- GitLab
- Nexus IQ
- Nexus Repo
- pCloudy

Not Subscribed Tools

- Jira Software
- Confluence
- Fortify on Demand
- SonarQube

SonarQube

1 SonarQube application

Created on 21 Jan 2022

3 Configure GitLab

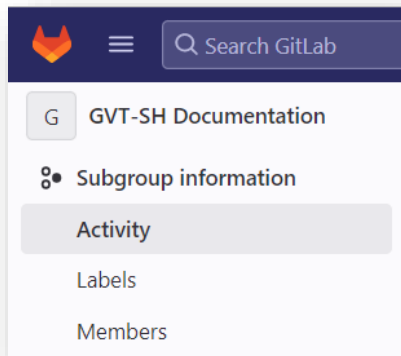


3

Set up GitLab

Access GitLab:

<https://sgts.gitlab-dedicated.com/>



- ✓ Verify user mapping
- ✓ Set up SSH Keys
- ✓ Set up GPG Keys

Auto-Migrate SCR to 2.0

Migrate Fortify SSC to FOD

For Bitbucket

Wave (optional)	Source URL to migrate (.git format)	Destination: Parent Path <a href="https://sgts.gitlab-dedicated.com/wog/<subscription name>/<groupname>">https://sgts.gitlab-dedicated.com/wog/<subscription name>/<groupname>
Wave1	<a href="https://bitbucket.ship.gov.sg/projects/<project_key>/repos/<repo_name>">https://bitbucket.ship.gov.sg/projects/<project_key>/repos/<repo_name>	<subscription name>/<groupname>
Wave2	https://bitbucket.ship.gov.sg/scm/ship/booth-demo.git	gvt/ship

< 2 GB Source Repo

Migrated by SHIP-HATS within 2 business days

Your bitbucket structure will be migration to GitLab.

Bitbucket	GitLab
Project	Group
Repository	Project

4 Verify SCR (FOD)



SAMPLE VERIFICATION REPORT

Instructions

This report is a high level view of the migration with diffs listed between source and destination. The report is meant for engineers to get details and stats without having to rely on other teams to verify all the details about the migration. This report DOES NOT replace User Acceptance Testing. The report will show a color coded 'Overall Accuracy' along with individual endpoint 'Accuracy'. Anything with an accuracy of 90% or above is considered a success, and isn't worth looking at unless something comes up in User Acceptance Testing. Items under 90% accuracy should merit further investigation.

Project Migration Results	Overall Accuracy	Result
Staged Project's: '13' Successful Project's: '13'	99.94%	success
Project	Accuracy	Result
gitlab-instance-0b24Sec6 Monitoring	99.26%	success

All Migrated Projects Results

Individual Migrated Project Results

endpoint	accuracy	diff
/projects/:id	77.78%	show/hide <pre>{ "visibility": { "---": "internal", "+++": "private" } }</pre>
Total Number of Merge/Pull Requests	N/A	source: 0 destination: 0
Total Number of Branches	N/A	source: 1 destination: 1
Total Number of Tags	N/A	source: 1 destination: 1
Total Number of Commits	N/A	source: 1 destination: 1
Repo Permission Mapping	100.00%	show/hide
Branch Permission Mapping	100.00%	show/hide

Data set verification details

Difference details

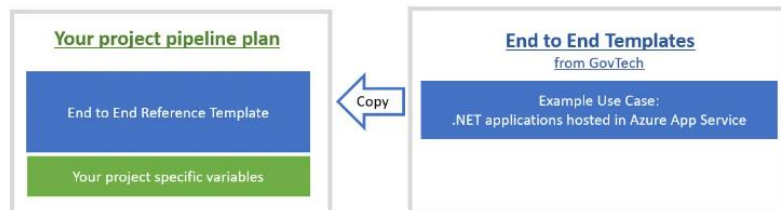
5 Configure Pipelines



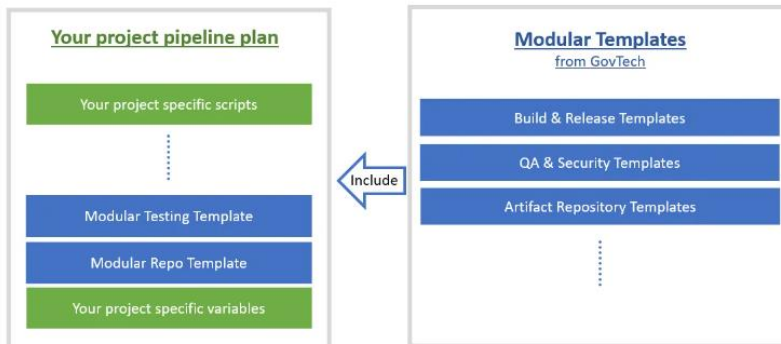
Configure Pipeline

Pipeline Template list & links available on Developer Portal

- End-to-End templates:** An end-to-end CI/CD workflow for a specific use case such as .Net application hosted in Azure App Service, Java application hosted in AWS EC2, etc.



- Modular templates:** A stand-alone basic template for invoking build, test, deploy tools, etc.



E2E templates

Template	Description
SHIP-HATS Docker Image CI Pipeline Templates	This template allows you to deliver a compliant CI pipeline for a standard docker application (regardless of language) considering best practices as well as security aspects.
SHIP-HATS Docker Multi Services App E2E Templates	This template allows you to deliver a compliant CI/CD pipeline for a standard docker application (regardless of language) considering best practices as well as security aspects.
SHIP-HATS Docker Single Service App E2E Templates	This template allows you to deliver a compliant CI/CD pipeline for a standard docker application (regardless of language) considering best practices as well as security aspects.
SHIP-HATS Webapp E2E Templates	This template allows you to deliver a compliant CI/CD pipeline for a standard web application (regardless of language) considering best practices as well as security aspects.

Common templates

Template	Description
Readiness check for web application	This template allows you to check if a web application is ready by querying the URL and searching for a given text in a loop until a give wait duration.
Readiness check for docker service	This template allows you to check if a web application is ready by querying the URL and searching for a given text in a loop until a give wait duration.
AZ CLI Invocation	This template allows you to invoke Azure CLI commands.
Depcheck for NPM projects	This template allows you to perform depcheck for their npm project to identify unused dependencies.
AWS identity federation	This template allows you to invoke AWS CLI within the <i>script</i> key.
AWS Secret Retrieval	This template allows you to invoke AWS CLI within the <i>script</i> key.
AWS EKS kubectl	This template allows you to invoke kubectl commands within the <i>script</i> key.

.gitlab-ci.yml	953 KB
<pre> 1 include: 2 - local: BUILD.gitlab-ci.yml 3 - local: TEST.gitlab-ci.yml 4 - local: DEPLOY.gitlab-ci.yml 5 - project: "000/001/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-docker-push.yml 11 - /templates/vars/.gitlab-ci-pipeline-coe-vars.yml 12 - /templates/.gitlab-ci-common.yml 13 - /templates/.gitlab-ci-docker-delete.yml 14 15 .converge_parallel_matrix: &converge_parallel_matrix # call this if you need to consolidate 16 before_script: 17 - 18 for file in \$(find -name "*.sh"); do 19 source \$file # gain PRODUCT_IMAGE_NAME and OUTPUT_BUILD_ARTIFACT as environment 20 OUTPUT_BUILD_ARTIFACTS=\$(OUTPUT_BUILD_ARTIFACTS\$OUTPUT_BUILD_ARTIFACT, # to add it 21 done 22 23 for file in \$(find -name "*.sh"); do 24 source \$file # gain PRODUCT_IMAGE_NAME and OUTPUT_IMAGE_ARTIFACT as environment 25 PRODUCT_IMAGE_NAMES=\$(PRODUCT_IMAGE_NAMES\$PRODUCT_IMAGE_NAME:VERSION, # to add it 26 OUTPUT_IMAGE_ARTIFACTS=\$(OUTPUT_IMAGE_ARTIFACTS\$OUTPUT_IMAGE_ARTIFACT, # to add it 27 done 28 - PRODUCT_IMAGE_NAMES=\$(PRODUCT_IMAGE_NAMES:-) 29 - OUTPUT_BUILD_ARTIFACTS=\$(OUTPUT_BUILD_ARTIFACTS:-) 30 - OUTPUT_IMAGE_ARTIFACTS=\$(OUTPUT_IMAGE_ARTIFACTS:-) 31 - SCAL_TARGETS=\$(OUTPUT_BUILD_ARTIFACTS, OUTPUT_IMAGE_ARTIFACTS) 32 33 stages: 34 - build 35 - static-test 36 - runtime-test 37 - publish 38 - sign 39 - deploy-to-prod # to PROD 40 41 image: SHIP-HATS_DOCKER_PROXY_HOSTNAME/alpine:latest </pre>	
.gitlab-ci-azure.yml	755 bytes
<pre> 1 include: 2 - local: "/templates/.gitlab-ci-common.yml" 3 - local: "/templates/vars/.gitlab-ci-sonatype-vars.yml" 4 5 .invoke-azcli-commands-with-serviceprincipal: 6 image: mcr.microsoft.com/azure-cli 7 tags: 8 - non_privileged 9 - no_root 10 - cstack 11 before_script: 12 - export VARIABLE_NAME=AZ_SERVICEPRINCIPAL_ID 13 - Ireference [.check-variable-sh, script] 14 - export VARIABLE_NAME=AZ_SERVICEPRINCIPAL_PASSWORD 15 - Ireference [.check-variable-sh, script] 16 - export VARIABLE_NAME=AZ_TENANT_ID 17 - Ireference [.check-variable-sh, script] 18 - az login --service-principal --username \$AZ_SERVICEPRINCIPAL_ID --password \$AZ_SERV 19 after_script: 20 - az logout --username \$AZ_SERVICEPRINCIPAL_ID 21 </pre>	

3

Set up CI/CD Pipeline

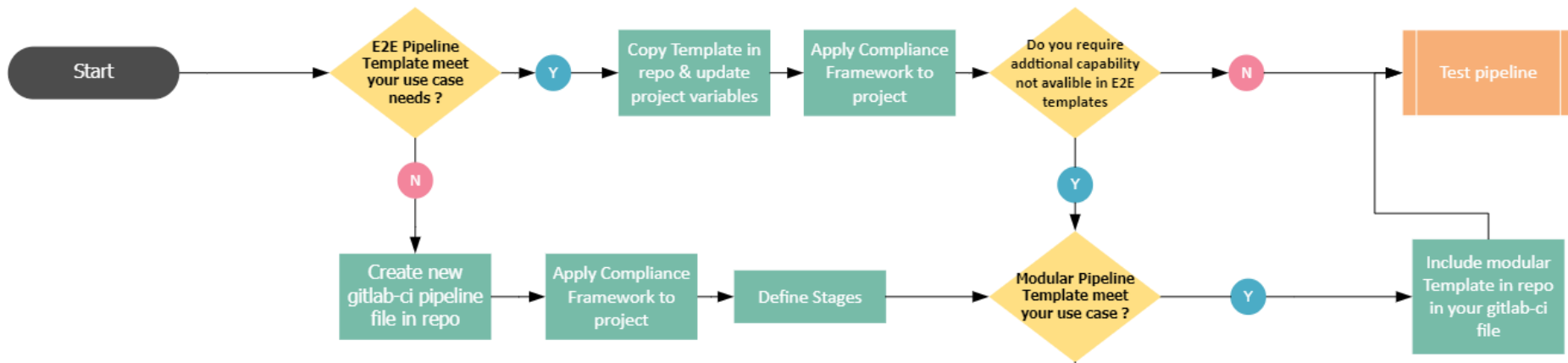
4

CD Environment Setup

TEMPLATE DRIVEN PIPELINE CONFIGURATION



Pipeline
Task



Decision



Milestone
Activity



6 BAU in GitLab








 Projects

 Groups


 Explore


 Milestones


 Snippets

 Activity

Your dashboards


 Environments


 Operations


 Security





Operations Dashboard


 GitLab.org / gitlab


 master → 3085e736
Merge branch 'upd...' 2 hours ago 0 Alerts
passed


 GitLab.com / GitLab Docs

 master → a5fb0ff0
Merge branch 'styl...' 0 Alerts
running

 GitLab.org / gitlab-runner

 master → 83323c12
Merge branch 'extr...' 12 hours ago 0 Alerts
failed

 GitLab.org / GitLab Community Edition

 master → 1a58801c
Merge branch 'doc...' 0 Alerts
running

Security Dashboard

Vulnerabilities over time

August 19th to today

30 Days

60 Days

90 Days



Severity	2020-09-17	%	#
Critical			0
High			3
Medium			13
Low			30

Project security status


Projects are graded based on the highest severity vulnerability present

- > F 0 projects
- > D 1 project
- > C 0 projects
- > B 4 projects
- > A 2 projects


Environments Dashboard



 GitLab.org >  GitLab

gprd


 master → 77e42d18
Fix the failing specs 5 hours ago
passed

gprd-cny


 master → 77e42d18
Fix the failing specs 7 hours ago
passed

 GitLab.com >  www-gitlab-com

staging

 deploy_staging #352485...
master → c8b4ad21
Merge branch 'brendan-c...' 3 minutes ago
passed

production


 deploy #352485803
master → c8b4ad21
Merge branch 'brendan-c...' 3 minutes ago
passed

Lead time charts

These charts display the median time between a merge request being merged and deployed to production, as part of the DORA 4 metrics. [Learn more](#)

Last week Last month Last 90 days

Date range: Mar 8 - Apr 7



Median merge to deploy

--- No merge requests were deployed during this period --- Lead time

Copyright of GovTech © Not to be reproduced unless with explicit consent by GovTech.

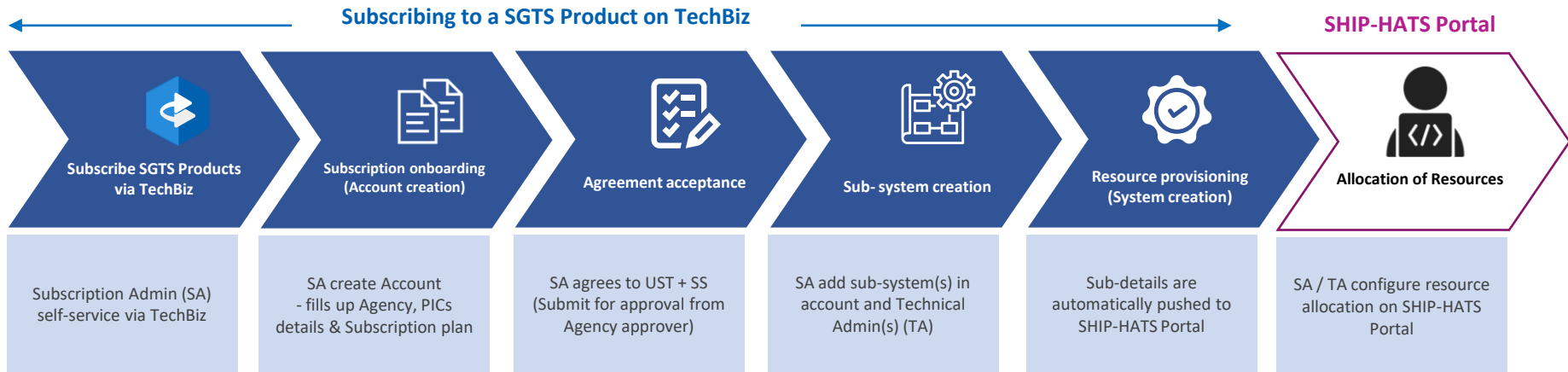
GOVTECH
SINGAPORE

Demo



TechBiz – Onboarding Portal for all SGTS Products incl SHIP-HATS

- All subscription onboarding will be via TechBiz, including agencies who are migrating to 2.0.
- TechBiz will streamline the onboarding process and enable more self-service





Have more
questions?

- Reach out to us at
<https://go.gov.sg/she>
- Technical documentation
<https://go.gov.sg/ship-hats-docs>

Thank You

