

SHIP CD (Xebialabs) - Introduction and FAQ

What is "Xebialabs"?

Xebialabs is the name of the company that created the tools we are using in our Continuous Deployment (CD) & Release Management (RM) implementation for SHIP.

NOTE: Xebialabs was recently purchased by another company, and the name of the tools is now "Digital.ai Release" and "Digital.ai Deploy". From now on, the terms "Release/Deploy" "XL Release/XL Deploy" and "Digital.ai Release/Digital.ai Deploy" are used interchangeably.

Does this replace the existing SHIP services like bamboo?'

NO. Bamboo is still the endorsed method for CI (building and testing). Xebialabs is used purely for deployment and release management. You still need to configure a bamboo plan for your build and test process.

Why should we use this? We can already deploy using bamboo!

SHIP CD is the endorsed method of deployment to GCC (AWS and Azure). Currently, deployments to type 1 (mixed), 2 (internet), and 3 (intranet) compartments are supported (Please get in touch with us if you require SHIP to be able to deploy to type 0 compartments). SHIP CD offers the following benefits:

- enhanced governance (Segregation Of Duties/approval functionality)
- digital signing and verification of artifacts that are deployed
- integration with vault for better secret management

What are the different components involved, and how do I access them?

Component	What is it?	How do I access?	
Nexus Repo	The nexus repository is where artifacts need to be stored if you plan on using SHIP CD. This component is not new - this is the same nexus repo that was made available previously	It is hosted in internet, this means you can access from internet machine using SHIP VPN . Although it is hosted in internet, the artifacts are pulled to intranet - this is how SHIP CD is able to deploy to intranet environments.	
Release	This is the release orchestration service. You use it to create a "template" for your release workflow, and use this template to create releases for your product. The release tool will orchestrate deployments.	It is hosted in intranet. It can only be accessed via GSIB . You can be on your office network, or connect via SG-VPN . You need to ensure that it is whitelisted in any agency firewall that you have.	
Deploy	This is the deployment tool. Inside this tool, you configure your target infrastructure, as well as the package that you want to deploy.	There are 2 distinct deploy services: one for internet, and another for intranet: Internet: Accessible via internet machine using SHIP VPN Intranet: Accessible via GSIB (Same whitelisting process as Release applies)	
Satellite	This is the "edge" of SHIP CD i.e. it is a deploy worker assigned to your project that will connect to your target host to perform deployments. You assign the satellite as part of your deploy configuration.	There is no GUI access to the satellite. From agency perspective, it exists purely as a configuration in the deploy GUI. It is the worker that will connect to your infrastructure. There are distinct sets of satellites for internet and intranet. The IP to whitelist will be provided as part of onboarding.	
GCC Vault	Vault is used to store secrets related to the deployment. E.g. SSH keys to access target hosts, and public keys to verify signed artifacts.	It is accessible via both internet and intranet . Currently tenants cannot access the Vault GUI unless they separately onboard to vault. In order to deposit keys into vault, they should connect to vault through a VM has routing available to the GCC transit gateway. Click here for more setup instructions.	

How Does the deployment work?

The deployment is agentless (ssh/WinRM based). This means that you do not need to install any agent in your environment. You only need to whitelist the satellite that is assigned to your project for deployment tasks. We make use of the GCC common services transit gateway routing to be able to network with tenant compartments. Since the protocol used is ssh, a private key is required to authenticate with your target host. This private key is stored (by the agency) in GCC Vault. The deploy tool retrieves this private key (from vault) during the deployment task.

Is there any diagram available?

Yes. Please refer to [this page](#).

Are there any pre-requisites to using SHIP CD?

Yes. At a minimum, you need to ensure that:

1. Your SHIP subscription includes access to SHIP CD services (Please contact CHEW_Pei_Yi@tech.gov.sg or Jeyalakshmi_JEYAKANNU@tech.gov.sg for more info)
2. You have (at least) 1 release manager and engineer that has a GSIB
3. The GSIB can access the intranet URLs (details [here](#))
4. You have a devops zone with a VM that is connected to the GCC common services TGW (**AWS**) or that can be peered to our Azure staging zone.
5. **(Strongly recommended)** You have a GCC Secrets Management subscription (Please contact Karanam_BALA_KRISHNA@tech.gov.sg for more info)