bessemer™

ANY CLOUD. ONE RAPID, SECURE SOLUTION.

A PRODUCT OF GENERAL DYNAMICS MISSION SYSTEMS

Meet Bessemer™, the one rapid and secure software solution designed for any cloud.

Achieve faster software delivery and enhanced security with Bessemer - the proven, cloud agnostic Platform as a Service purpose-built for government programs to expedite your Authority to Operate (ATO).

What is Bessemer? Bessemer is a ready-to-use platform that makes it easier for government programs to develop, deploy, and manage software securely, by providing the tools and infrastructure to help developers build secure applications in any cloud. Bessemer aims to make it easier for government organizations to develop software that rapidly meets security requirements.

From end users to government sponsors, Bessemer's benefits set it apart →

Supports Multiple Clouds

Bessemer isn't locked into any one cloud provider; it works across any cloud provider.

Infrastructure/Deployment Automation

Bessemer automates tasks, including setting up infrastructure, deploying code, managing updates and updating software.

Security Compliance

Bessemer expedites a program's ability to meet security compliance requirements and obtaining ATO.

Mission Application Hosting Environment

Bessemer provides container orchestration, secure service mesh, and other services that deliver scalability and high availability to deliver mission software at the required scale.

Pre-Integrated DevSecOps Tools

These are tools that support the development team's ability to continuously develop, deliver, and integrate without sacrificing security.

Bessemer provides a pre-integrated, compliant, automated and scalable DevSecOps environment for government programs in any cloud.

Mission Use Cases

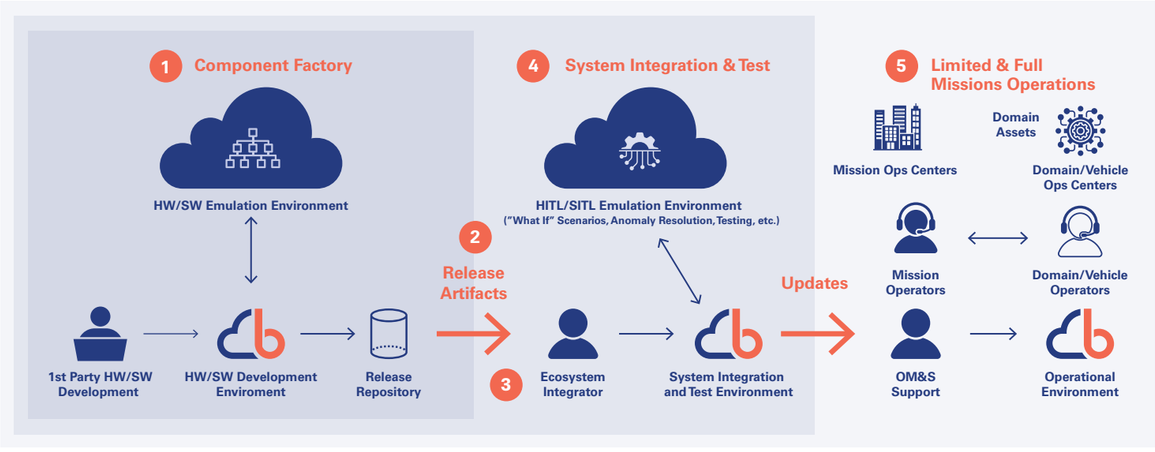
General Dynamics brings decades of successful mission understanding and deep insight to help customers leverage any cloud environment for quick and secure software management.

Bessemer provides programs with a full suite of development, security, & operations (DevSecOps) capabilities and tools, where deployments are configuration-driven and tailored to fit mission needs. Bessemer supports:

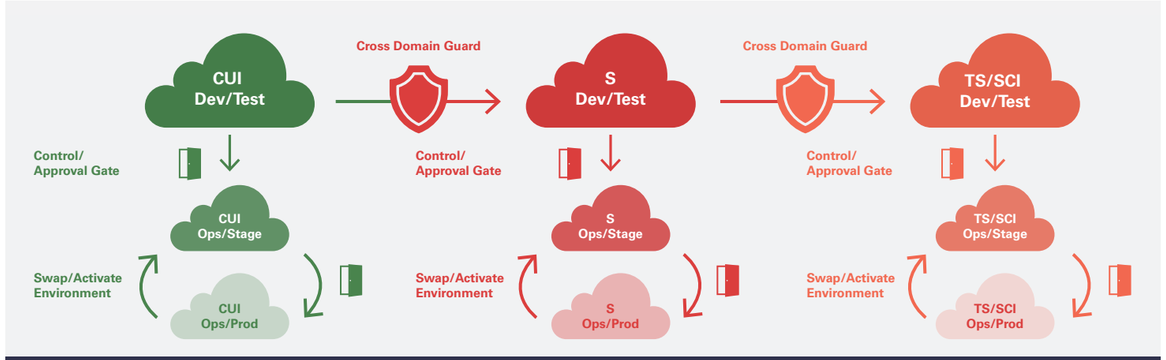
1. Developing secure applications in an enclave
2. Releasing secure artifacts to a broader community
3. Receiving artifacts from component factories
4. Integrating artifacts into secure operational baselines
5. Setting up continuous integration / continuous delivery (CI/CD) pipelines to streamline the pathway to production across classification levels

Bessemer is the solution for mission needs.

Customer Environments



Mission Portability



SUPPORTS YOUR PATHWAY TO PRODUCTION ACROSS CLOUD PROVIDERS AND CLASSIFICATION LEVELS

Since Bessemer is cloud agnostic and configurable, it can be deployed in multiple locations on various cloud providers in different configurations. For example, the Dev/Test instances could technically be configured larger and include all DevSecOps services, whereas the Ops/Stage instances could be configured smaller and include only critical operations, application and deployment services. This configuration-driven deployment can provide a greater level of security by reducing the potential attack vectors on operational systems. If cross domain guards are available, the DevSecOps tools can be configured to push artifacts across security levels. Let Bessemer support your pathway to production.

Services + Tools

The Bessemer platform is divided up into five distinct layers with each providing services while remaining cloud agnostic.

Bessemer Services

PROVIDING YOUR MISSIONS WITH CLOUD AGNOSTIC SERVICES

1. From the bottom up, the Infrastructure Abstraction Layer contains the services necessary to interface with the underlying infrastructure. It is the glue that enables Bessemer to deploy services consistently across any cloud.
2. The Deployment Layer enables CI/CD capabilities by providing services to manage artifacts and containers, and orchestrate deployments within Bessemer. Bessemer supports both standalone virtual machine deployments for capabilities that scale vertically and containerized deployments of microservices that can scale horizontally based on the demand of the users.
3. Security is at the core of Bessemer and is the next layer up. It is critical to expediting the authority to operate. There are two types of security services:
    1. First is the application security services which provides critical Identity and Access Management (IdAM) services that users, tools and applications rely on.
    2. Second is the deployment security services that enable Information System Security Officers to monitor for risks, security incidents, intrusions and viruses.
4. The Application Support Layer provides services for applications and users to view and store data and securely communicate with each other. Additionally, contains database, persistent storage, secure service mesh, messaging bus, search and container services.
5. The top and final layer is the DevOps support layer that supports two types of services: Developer Support Services and Operations Support Services.
    1. Developers have source code repositories, build, test and cyber scanning services to push out secure capabilities quickly and efficiently.
    2. Once those capabilities are deployed in operations, the operational support services are for system administrators to monitor system status, debug issues when alerted, and track the status of fixes being implemented through ticketing.

Models

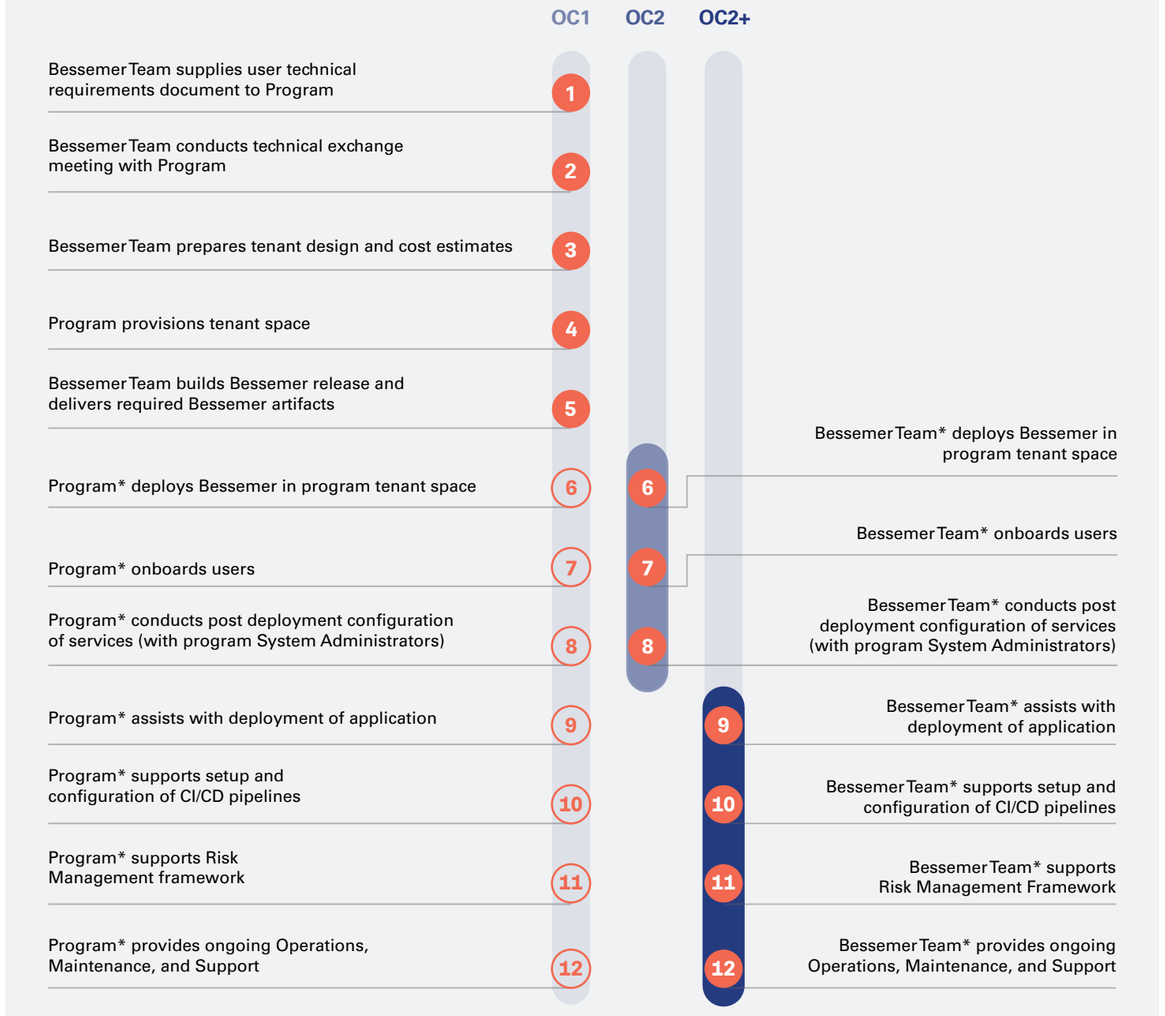
Bessemer provides three core onboarding models:

OC1 | Self Service Model - Onboarding program accesses baseline Bessemer artifact repository maintained by the General Dynamics Bessemer Team and customer manages own Bessemer instances.

OC2 | Remote Support Model - Onboarding program accesses customized Bessemer artifact repository maintained by the General Dynamics Bessemer Team, and customer manages own Bessemer instances with remote support from the Bessemer Team.

OC2+ | Integrated Support Model - The General Dynamics Bessemer team is integrated with the customer onboarding program to manage customized Bessemer artifacts and Bessemer instances.

Bessemer Onboarding Process



**Based on the Onboarding category selected by the Program, steps 7-12 may be executed by the Bessemer team*

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Get in touch with our experts to start your secure DevSecOps journey today. We offer flexible onboarding models to meet your program needs. **Bessemer@gd-ms.com**