

# habitat

Habitat is open source software that creates platform-independent application artifacts and provides built-in deployment and management capabilities

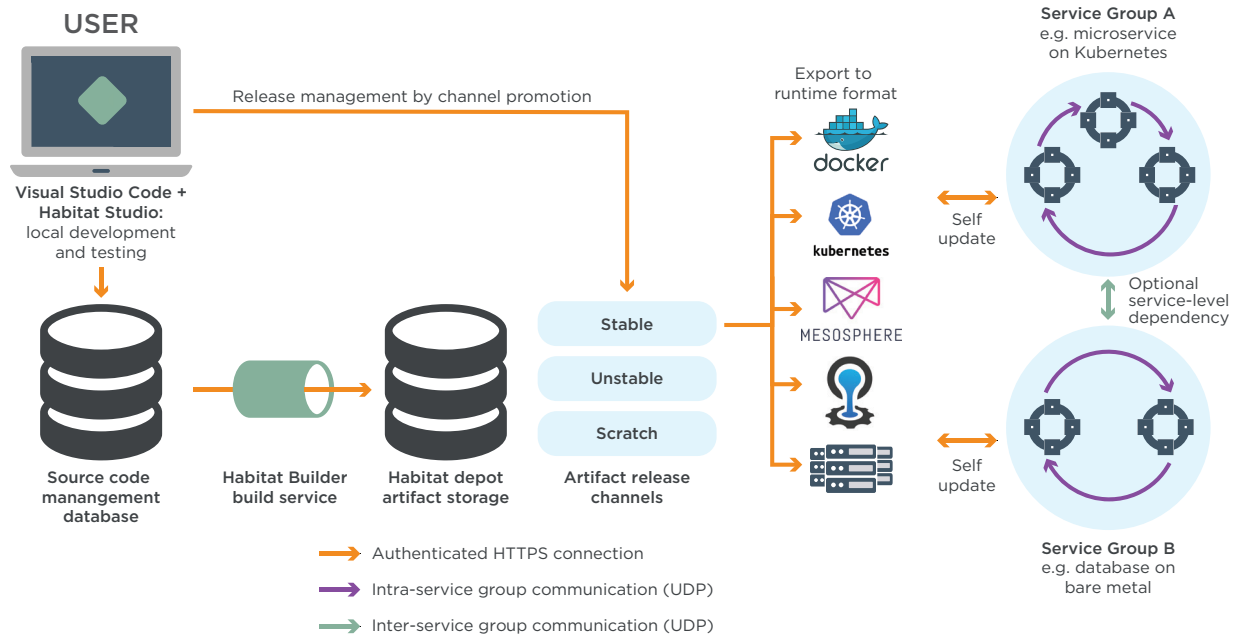
Habitat is a new approach to automation that focuses on building, deploying, and managing applications that can be run anywhere, from bare metal servers and VMs to containers and PaaS solutions.

## With Habitat, you can:

**Build** applications from an easily-configurable plan to ensure dependencies and configurations are consistently defined.

**Deploy** applications to traditional server environments, or export natively into container formats for maximum portability to any platform.

**Manage** running applications via the Supervisor, which organizes services into groups where they can dynamically update their configurations based on the status of their peers or user-defined events.



### Get Started Fast

Package services easily with a simple Plan file to build your application as a Habitat artifact



### Flexible Deployments

Publish Habitat artifacts via the build service, and run on traditional systems, or export to containers to deploy anywhere



### Traceable Content

Audit the configuration, dependencies, and health of each artifact built with Habitat via the Supervisor API



### Intelligent Run-time Management

Cluster components through gossip based service groups to enable dynamic configuration updates, leader elections, rolling deployments, and more!



## Get Started Fast

Habitat packages contain build description called a plan. Habitat plans contain package metadata, define dependencies required for building and running the package, as well as built-in scaffolding for common development patterns.

```
pkg_name=my-app
pkg_description="My sample app"
pkg_origin=my-origin pkg_version=1.2.8
pkg_maintainer="The Habitat Maintainers
<humans@habitat.sh>"
pkg_deps=(core/node)
pkg_build_deps=(core/curl core/git)
pkg_scaffolding="core/scaffolding-node"
...
```

## Traceable Content

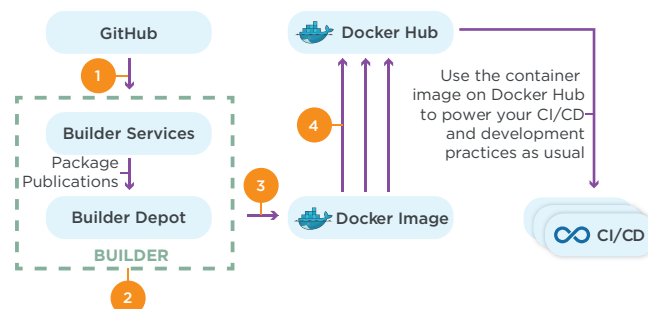
Packages built by Habitat run with a Supervisor service that can be queried via an included API. The Supervisor API can be used to audit the health and configuration of each service you deploy.

```
curl http://172.17.0.3:9631/services/my-app/
default/health

{
  "stdout": "HTTP/1.1 200 OK"
  "stderr": ""
}
```

## Flexible Deployments

Habitat packages can be run on traditional servers and VMs, or exported into a variety of immutable runtime formats such as Docker and Mesos. Builds can be automatically triggered via integrations with GitHub.



- 1 Builder detects changes committed to the branch
- 2 Builder automatically starts a new build based on the Plan.sh you defined, and publishes your package to Habitat Builder's Depot for safekeeping and sharing
- 3 Builder automatically exports your package into a new Docker image
- 4 Builder publishes the new Docker image to Docker Hub (public or private)

## Intelligent Run-time Management

Habitat packages are deployed into service groups that share configuration details between members. This allows individual services to take independent action based on the status of their neighbors, including automatic leader elections, rolling updates to application instances, and binding to service groups rather than hard-coded hosts or IPs.

```
hab start my-app --peer 172.0.0.2 --bind database:my-
database.production --strategy rolling -group
production
```

*"Habitat's application automation combined with our container management platform gives development teams the ability to easily build, deploy, and manage their containerized applications on everything from bare metal to the cloud."*

—Sheng Liang, CEO, Rancher Labs

Learn more at [www.habitat.sh](http://www.habitat.sh) and [www.chef.io](http://www.chef.io)

