



# Connecting the World of IoT

Bringing together the applications that bring together the Internet of Things.

## Fast, simple, connected

Juju is the fastest way to quickly model, relate, deploy and integrate big data software for IoT. By using what we call Charms and Bundles, Juju allows you to lay out your multi-application IoT solution on a blank canvas, associate the application relationships, and deploy that solution. You can rework the canvas, and re-deploy at any time.

## Charms and bundles

Charms define the actions, configurations, and relationships for an application. A bundle is a solution that has the relationships, and possibly configurations, already defined for you. By building bundles, it allows for the rapid deployment of new solution services without completely re-architecting a solution. Charms make applications dynamic and easily connected. Bundles make solution deployment an automated or GUI-driven process. Juju allows you to manage it all, via CLI, API or GUI, from one place.

## Driving Big Data solutions

Companies like DataArt are using Juju to deploy multi-service, multi-application IoT solutions quickly and dynamically. IoT combines many systems from different vendors. Juju is the service modeling tool that can keep all of those systems and applications in sync.

DeviceHive is a great example. With Juju it's easy to deploy message bus related services. When using microservices, they can be deployed as Charms. By having all the applications and services in a DeviceHive solution charmed, DataArt is able to build bundles for deployment. Deployment is now as simple as a single command line, "juju deploy", or by point-and-click, or by automation via API.

“Using Juju helps our clients structure the deployment of services that make a whole solution. It’s an efficient tool to communicate high-level component architecture across different stakeholders and yet immediately deploy the blueprint into different environments: be it bare metal, AWS or Azure.”

**Artyom Astafurov**  
Managing Partner, DataArt

## Reusability increases return

The components in a DeviceHive, or other big data solution deployment, may change at any time. Companies are also looking for ways to make reusable service offerings from big data solutions. Reusability is another driving tenet behind Juju. Bundles aren’t one-time use, they’re meant for deployment and redeployment.

Bundles can also be modified to create variations on a solution. Maybe you want to add Apache Zeppelin, for analytics, to an existing solution. You can pull the Zeppelin charm onto your canvas, add its relationship to the DeviceHive solution, and deploy it.

The ability to not only deploy complex solutions, but also modify them and reuse them, is critical for IoT. The quantity and the types of devices that are feeding data into systems today are constantly expanding and changing. Juju can help you adapt to that change, and take action based on that change, as rapidly as it happens.

Learn more at [jujucharms.com](http://jujucharms.com)

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