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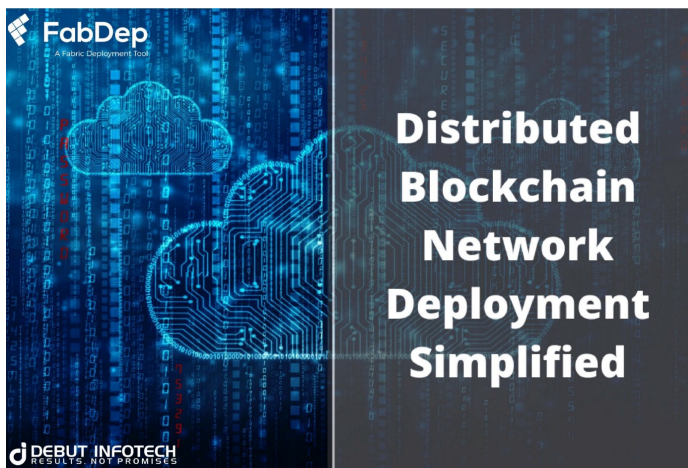


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Demystifying the Process of Building Distributed Multi-cloud Blockchain Network



Let's face it, working in a production environment like Hyperledger Fabric is a grueling adventure, even with a good understanding of the concepts. There's a complex set of challenges

that you need to overcome before you decide to take the plunge and enroll in Hyperledger Fabric development/deployment. Based on our market experience and in-depth expertise in permissioned Distributed Ledger technologies like Blockchain, we've identified some key challenges that every Blockchain developer needs to be prepared for before venturing a foot forward into the process of building distributed multi-cloud Blockchain network.

A rundown of the most critical challenges follows.

- Lack of governance across multiple cloud networks.
- Building a distributed Blockchain network and deploying it on any hybrid cloud or multi-cloud is an arduous task.
- While setting up a Blockchain network, keeping sensitive information private from other organization members on a channel is a matter of concern.
- It is difficult for multiple

organizations to transact on the same Hyperledger Fabric network, regardless of their cloud preference.

- Because of vendor lock-in, users don't have the authority to move to any other authentic version of Fabric (Amazon, Microsoft, Oracle, etc.).
- It's difficult to maintain complete control of your identities, ledger, and smart contracts.
- Hybrid and Multicloud strategies can eventually turn out to be time-consuming, expensive, and difficult to manage due to scattered visibility, security, and workloads spread across multiple clusters and clouds.

If you're involved in Hyperledger Fabric deployment and looking for an ideal solution that could help you overcome the above-mentioned impediments with ease and grace, then this blog post is for you.

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Multicloud Blockchain network setup is no longer a cumbersome endeavor, thanks to FabDep 2.0 — a robust Hyperledger Fabric based solution that allows organizations to securely set up, deploy and manage distributed multi-cloud Blockchain networks on diverse cloud environments without the risk of being locked in.

FabDep At a Glance

A reliable Blockchain-based solution that enables a consortium of organizations to effectively deploy Blockchain components on different cloud-based production environments (Google Cloud, AWS, Microsoft Azure, etc.) using Kubernetes and help manage them all in one place. The tool features an intuitive, intelligible user interface that simplifies and

accelerates the deployment & management of Hyperledger Fabric components.

In simpler words, FabDep lets you deploy only the components you need (Peer, Ordering Service, Certificate Authority, etc.) and upgrade easily through Kubernetes. Its meticulously designed console empowers you to manage all your network components in one place, no matter where they're deployed, giving you the complete control of your identities, ledger, and smart contracts.

All in all, FabDep is an ideal choice for enterprises when it comes to building a multi-cloud Blockchain network. The reason being it integrates all environments in a single view, thereby providing enterprises optimal control over what they see, govern and automate. The tool helps you to cut your operating costs and save your time & effort in deploying a distributed Blockchain network to your preferred cloud.

What Makes FabDep 2.0 Stand Out?

FabDep 2.0 comes with a gazillion distinct features that give it a definite edge over other similar tools in the industry. Listed below are some of the top features of the product:

Kubernetes Cluster Support

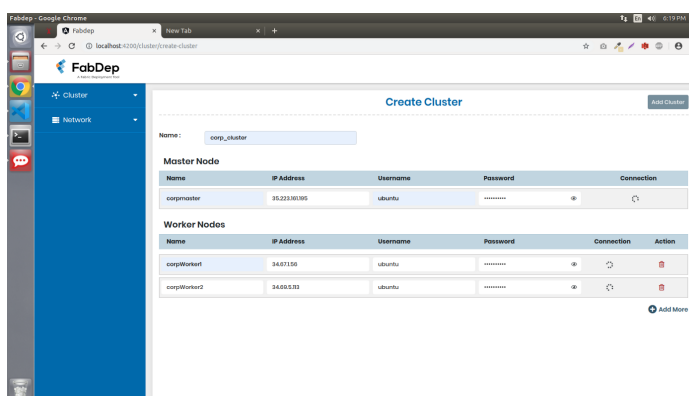
The tool comes with built-in Kubernetes cluster support which gives full authority to users to seamlessly set up and deploy a distributed Blockchain network on any Kubernetes cluster (v1.11 or higher). It is tailor-made for organizations that are looking to deploy their Blockchain components or run their workloads on their own infrastructure.

Below is a step-by-step approach on how to create a Kubernetes cluster on your preferred cloud leveraging FabDep. So, without any further ado, let's get moving.

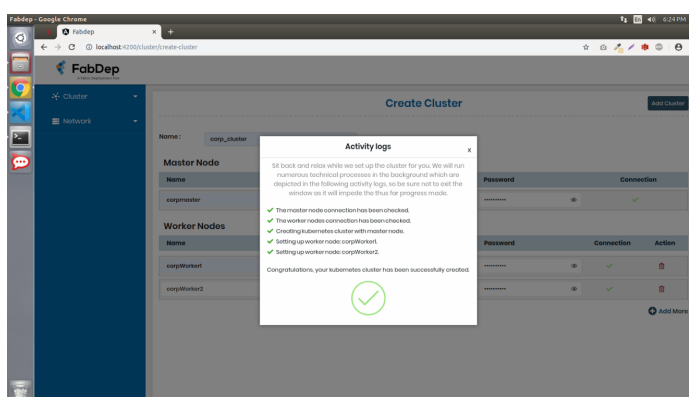
- In the FabDep Cloud console, create a standard Cluster with an

arbitrary number of Master and Worker nodes based on your requirement.

- Give a suitable name to your Cluster and fill in the necessary information for each node, including its Name, IP address, Username, and Password.

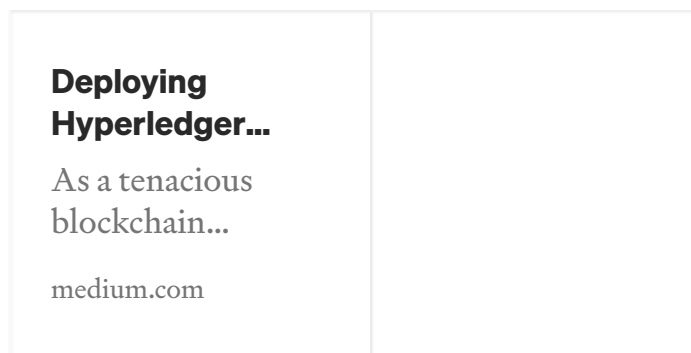


- If the connection is successful, a green tick would appear under the “Connection” field of each node, as shown in the screenshot below.



- After then, click on the “Add

Cluster” button appearing on the upper top right corner of your screen. Within a few seconds, several technical processes would start running in the background which will be depicted in the Activity Logs, as shown in the screenshot above.



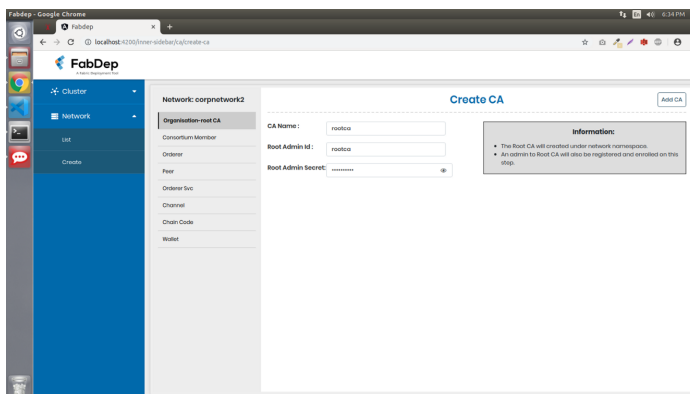
Customized Certificate Authority

FabDep doesn't use Cryptogen for generating Hyperledger Fabric cryptographic material or artifacts. Instead, it gives power to the users to create their own Certificate Authority (CA) using Hyperledger Fabric CA and deploy it to a Kubernetes cluster. This is another distinct feature that distinguishes FabDep from other analogous solutions in the Blockchain space.

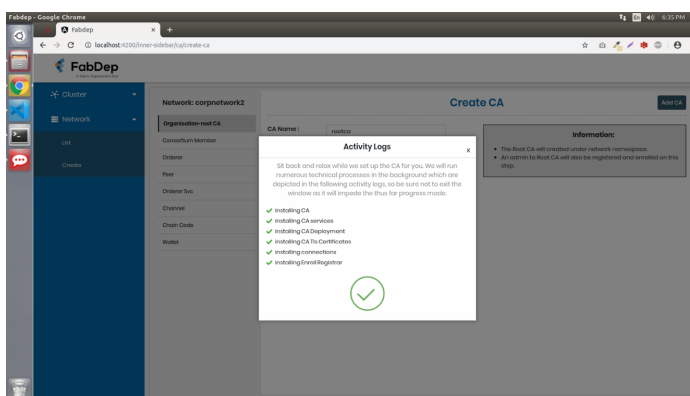
Here's how you can create a CA

tailored to your specific requirements:

- Just like you did while creating a Cluster, enter the CA Name and other necessary information including the Root Admin Id and Root Admin Secret into their respective fields.



- Once you've done that, click on the "Add CA" button appearing on the upper top right corner of your screen, as shown in the screenshot below.

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- As it happened at the time of Cluster creation, numerous technical processes would start running in the background, which would be depicted in the Activity Logs. During that time, you are requested not to exit your window as it will impede the thus far progress made.

Smart Contracts Management

FabDep empowers you to effectively deploy, integrate, and manage smart contracts (also known as chain code) across multiple cloud environments, whether it is Digital Ocean, Google Cloud, Microsoft Azure, Amazon Web Services (AWS), or any other public cloud. Added to that, you are also given the privilege to instantiate smart contracts from your console, which is another great feature of this innovative Blockchain tool. Thanks to its no vendor lock-in attribute, you have the complete control of your identities, ledger, and smart contracts.

Here's a detailed set of instructions which you need to follow to add Chain



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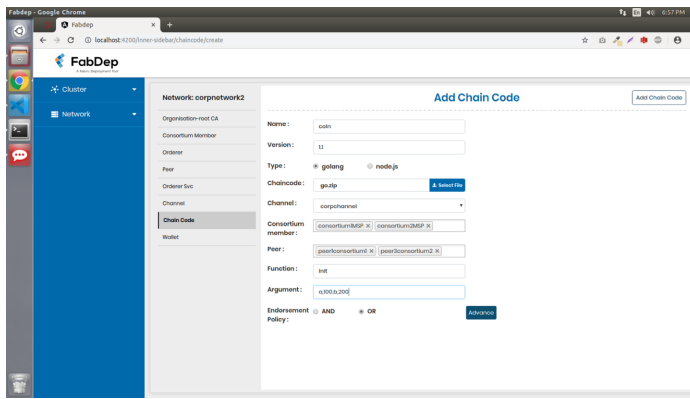
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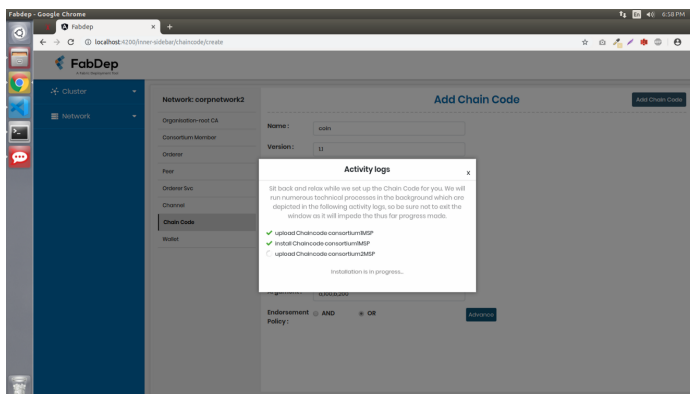
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Code or Smart Contracts to your Hyperledger Fabric network:

- Add relevant data in the fields displayed on the “Add Chain Code” screen of FabDep Cloud Console, including Name, Version, Consortium Member, Peer, Function, and Argument.
- Choose the type of Chain Code you want to create — either Golang or Node.js.
- Select the Chain Code file you want to upload.
- Select the Channel and Endorsement Policy for your Chain Code.
- Once you’ve entered the appropriate information in all the fields, click on the “Advance Button” corresponding to the “Endorsement Policy”, as shown in the image below.



- Again, various technical procedures would run in the background and you'd be asked to sit tight and wait till the whole process completes.



Just like how you've created the cluster, CA, and Smart Contracts, you can create various other essential Hyperledger Fabric entities such as Network, Consortium Member & Nodes, Orderer, and Peer, and that too in minimal time and effort. And beyond the ones mentioned above, there are numerous other benefits of

FabDep, which include scalable fault-tolerance, multi-cloud flexibility, multi-network support, total control of deployments, impeccable channel management, incessant network monitoring, real-time crash alerts, regular network health checks, and plenty more.

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To know about FabDep in detail, visit www.fabricdeployer.com

Register today to get an Early Bird Enterprise Package for FREE for exclusive 3 months from FabDep Beta roll-out, i.e. till May 15, 2020. Offer valid for a limited time period only; so, hurry before the time runs out! For a free consultation, call at 1-703-537-5009 or drop a line at fabdep@debutinfotech.com

For any technical queries related to