

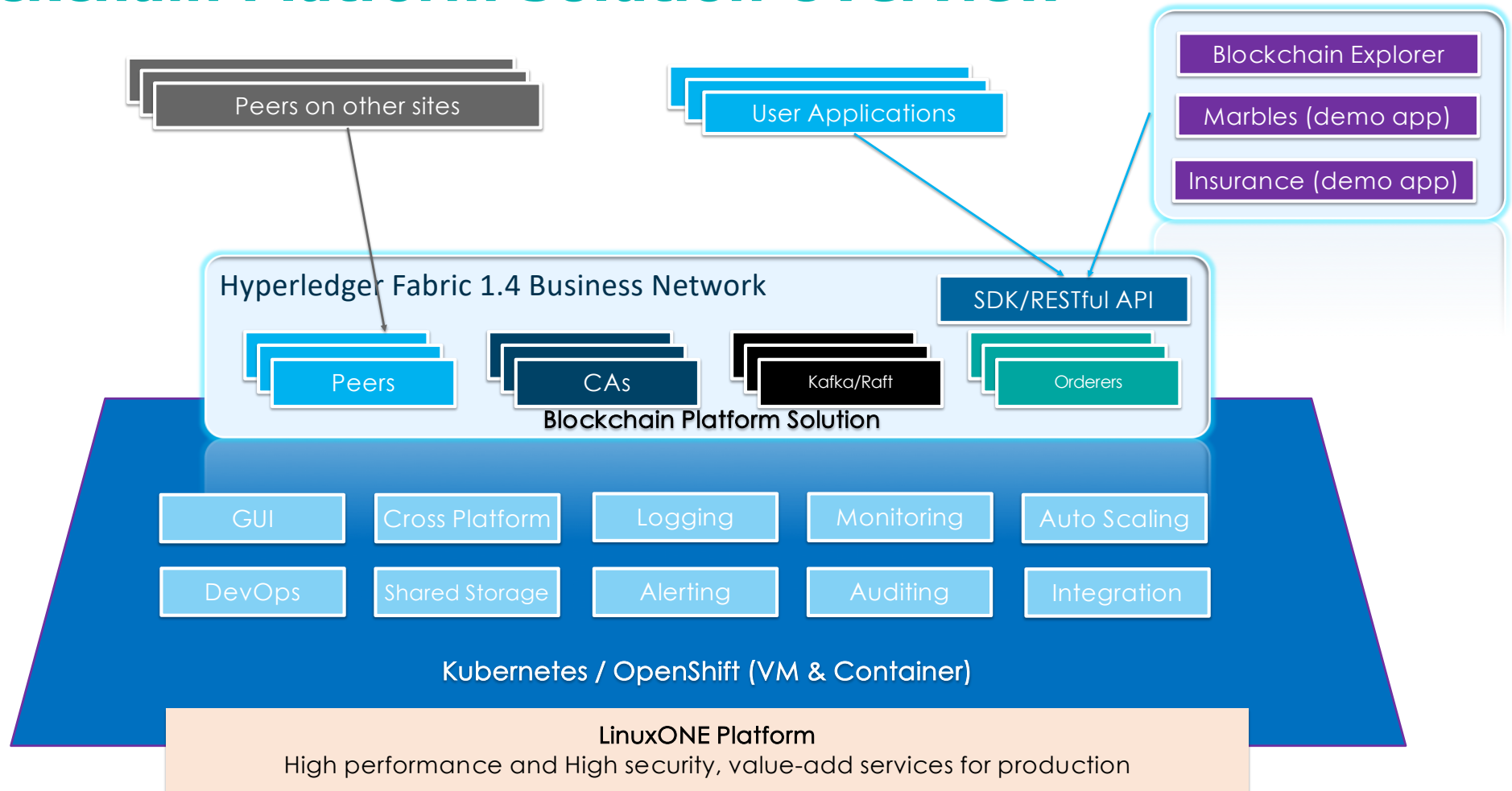


# Blockchain Platform Solution

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# Blockchain Platform Solution Overview



# Blockchain Platform – GUI User Interface

- ❖ Simplify Blockchain network management with GUI
  - Network deployment
  - Network Operations
    - ✓ Resources dashboard
    - ✓ Channel management
    - ✓ CA management
    - ✓ Chaincode life-cycle management (Install/Instantiate/Invoke/Query)
    - ✓ Endorsement policy management
  - Integration and Application Scenarios
    - ✓ Integrated Hyperledger Explorer
    - ✓ Application demo cases (Marbles & Insurance)

BaaS Platform

Current Active Network: demo1 --- Network ID: xcfx883va0ww5uh49jveruxsn80vwhqk4789v1qv8mgmyd75la6v2zzj67pi0ujh [Change](#)  admin

Navigation

- Networks List
- Resources
- Operations
- Users
- Applications
- Settings

## Network List

Network List [Show/hide columns](#)

[Create Network](#)

Search this table

	NetworkName	Namespace	Network ID	Owner	Platform	Created Time	Action
<input type="checkbox"/>	demo1	admin-xfx883va0ww5	xcfx883va0ww5uh49jveruxsn80vwhqk4789v1qv8mgmyd75la6v2zzj67pi0ujh	admin	amd64	2020-01-15 14:15:34	<a href="#">Select</a> <a href="#">Delete</a> <a href="#">Log</a>

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# Blockchain Platform – RESTful Services

- ❖ Support Fabric REST SDK
  - Node, Go, Java SDK
  - RESTful API document (Swagger)
  - Background services to auto discovery channel and chaincode in the network
  - Packaging Fabric REST SDK into RESTful services as add-on features
    - Install chaincode
    - Instantiate chaincode
    - Invoke chaincode
    - Query chaincode

# Blockchain Platform – Customized Network Deployment

- Simple click to get a Hyperledger network
- Customizable organizations, orderer and peers (number, name, type)
- Orderer type Supports Solo, zookeeper/kafka and raft
- Customizable network parameters

Create New Blockchain Network

Blockchain Lis

Create Blockchain Network Options: ☒ Default ☐ Customised

Parameters

Owner

admin

Network Name

demo2

Platform

☒ amd64 ☐ s390x

Peer\_db

☒ goleveldb ☐ couchdb

Tls

☒ true ☐ false ☐ client

Logging\_level

☐ fatal ☐ panic ☒ error ☐ warning ☐ info ☐ debug

Organisation Name

orderer

Add Organisation

	<input type="checkbox"/>	CA Name	ORG Name	ORG Type (Checked : Peer --- Unchecked : Orderer)	Action
1	<input type="checkbox"/>	ca1org1	org1	<input checked="" type="checkbox"/> Peer	Delete
2	<input type="checkbox"/>	ca3orderer	orderer	<input type="checkbox"/> Orderer	Delete

ORG NAME

org1

Add Peer

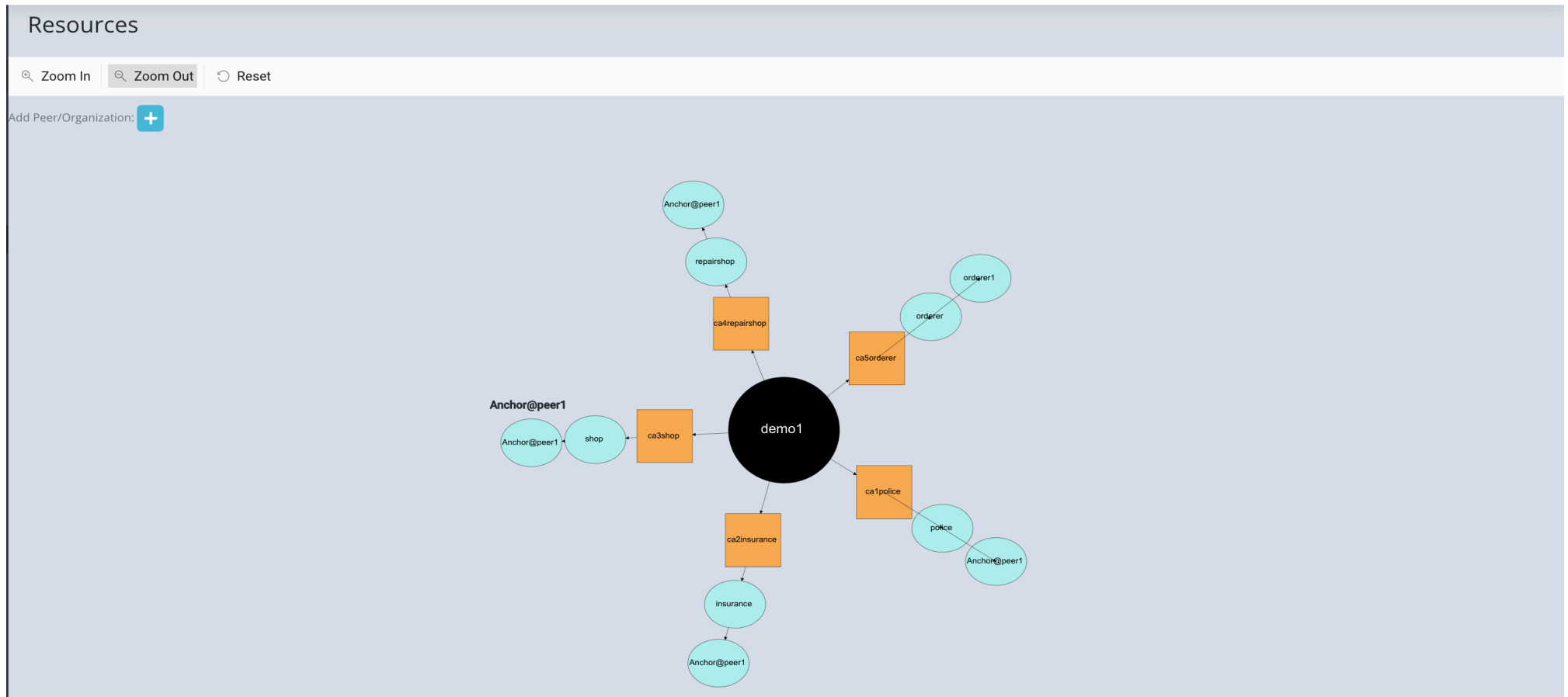
	<input type="checkbox"/>	PEER NAME	ORG NAME	ANCHOR NODE	Action
1	<input type="checkbox"/>	peer1	org1	<input checked="" type="checkbox"/> true	Delete

Orderer:

☒ solo ☐ kafka

# Blockchain Platform – Resources Dashboard

- Visualized network relationship ca/organization/peer



# Blockchain Platform – Resources Dashboard

- Table view of Resources/Services/Deployments/Members
- Support services Restart/Log/Stop/Goto

Resources						
Resources						
Search this table						
Type	Name	Image	Status	StartTime	Action	
ca	ca1policecfx883va0ww5-police-0	hyperledger/fabric-ca:amd64-1.4.1	🟢	2020-01-15T14:17:23Z	Restart	Log
ca	ca2insurancecfx883va0ww5-insurance-0	hyperledger/fabric-ca:amd64-1.4.1	🟢	2020-01-15T14:17:23Z	Restart	Log
ca	ca3shopcfx883va0ww5-shop-0	hyperledger/fabric-ca:amd64-1.4.1	🟢	2020-01-15T14:17:23Z	Restart	Log
ca	ca4repairshopcfx883va0ww5-repairshop-0	hyperledger/fabric-ca:amd64-1.4.1	🟢	2020-01-15T14:17:23Z	Restart	Log
ca	ca5orderercfx883va0ww5-orderer-0	hyperledger/fabric-ca:amd64-1.4.1	🟢	2020-01-15T14:17:23Z	Restart	Log
dind	dind-bs4sn	docker:dind.baas	🟢	2020-01-15T14:17:20Z	Restart	Log
explorer	fabricexplorer-7f75695d75-lzqz2	hyperledger/explorer:0.3.9.4	🟢	2020-01-15T14:37:18Z	Restart	Log
explorer	fabricexplorer-db-56d84dfb8b-44rdd	hyperledger/explorer-db:0.3.9.4.baas	🟢	2020-01-15T14:37:06Z	Restart	Log
fabriccli	fabriccli	hyperledger/fabric-tools:amd64-1.4.1	Succeeded	2020-01-15T14:17:46Z	Restart	Log
orderer	orderer1xcfx883va0ww5-orderer-0	hyperledger/fabric-orderer:amd64-1.4.1	🟢	2020-01-15T14:17:24Z	Restart	Log
peer	peer1xcfx883va0ww5-insurance-0	hyperledger/fabric-peer:amd64-1.4.1	🟢	2020-01-15T14:17:24Z	Restart	Log
peer	peer1xcfx883va0ww5-police-0	hyperledger/fabric-peer:amd64-1.4.1	🟢	2020-01-15T14:17:24Z	Restart	Log
peer	peer1xcfx883va0ww5-repairshop-0	hyperledger/fabric-peer:amd64-1.4.1	🟢	2020-01-15T14:17:23Z	Restart	Log
peer	peer1xcfx883va0ww5-shop-0	hyperledger/fabric-peer:amd64-1.4.1	🟢	2020-01-15T14:17:23Z	Restart	Log
sdk	fabricsdkxcfx883va0ww5-56bbf557bd-l2zz5	sdk:v1.0	🟢	2020-01-15T14:17:32Z	Restart	Log
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# Blockchain Platform – CA Management

➤ Support Register/Update/Revoke network user

CA Management

Enrolled with insurance-admin

Network Users

Show/hide columns

Register

Search this table

Username	Role	Affiliation	Max Enrollments	Attributes	Action
admin	client		-1	<div><div>hf.Revoker1</div><div>hf.IntermediateCA1</div><div>hf.GenCRL1</div><div>hf.Registrar.Attributes*</div><div>hf.AffiliationMgr1</div><div>hf.Registrar.Roles*</div><div>hf.Registrar.DelegateRoles*</div></div>	<div>Operations</div>

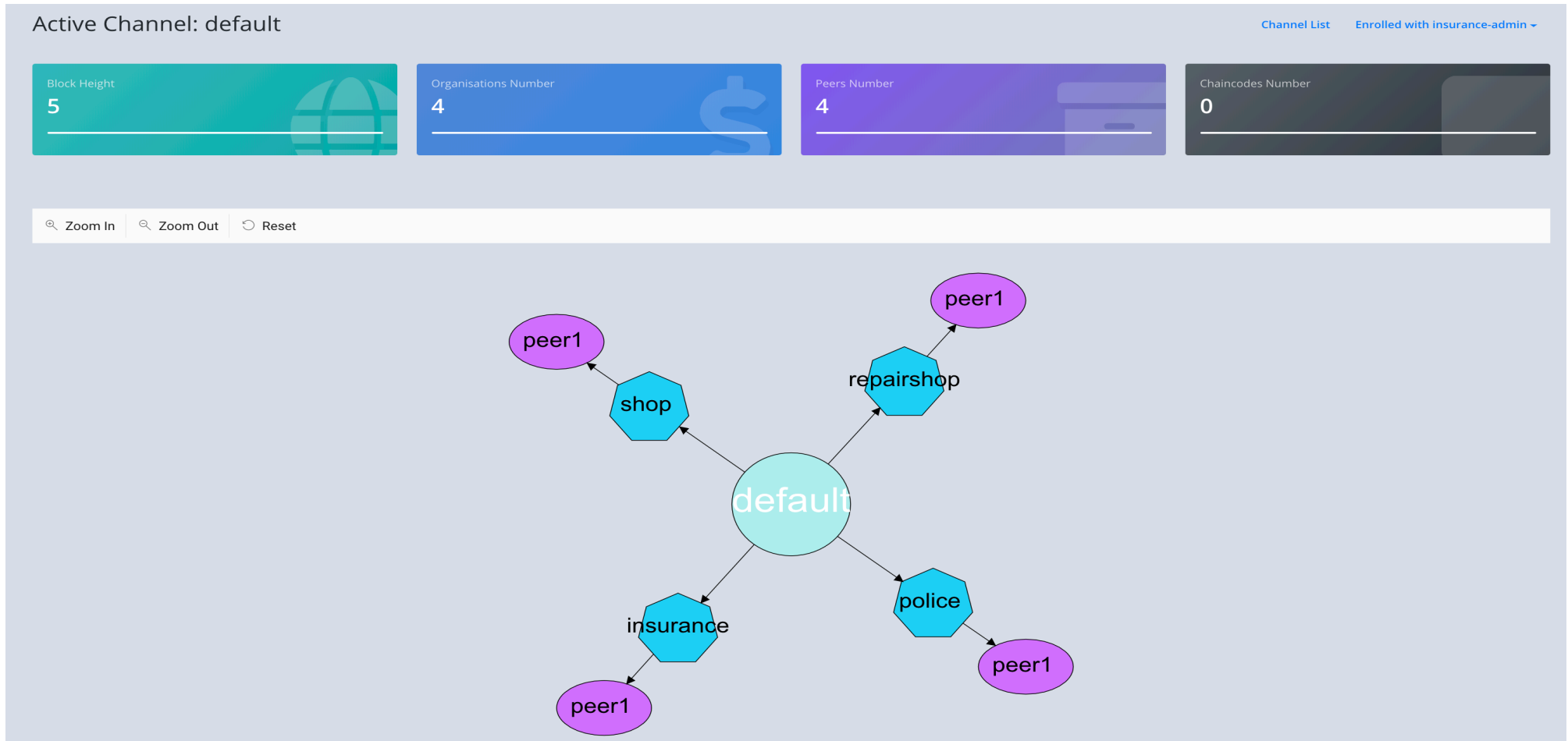
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# Blockchain Platform – Channel Management

- Visualized joining operations to a channel



# Blockchain Platform – Chaincode Management

- Chaincode List in the network
- Support Install/Instantiate/Invoke/Query
- Support auto discover chaincode in the network

Chaincode Management

Install CC

Search this table

Id	Chaincode Name	Version	Chaincode Type	Channel	Installed peers	Instantiated peers	Endorsement policy	ops
1	bcins	v2			<div><div>✓</div>peer1xcfx883va0ww5-police</div> <div><div>✓</div>peer1xcfx883va0ww5-insurance</div> <div><div>✓</div>peer1xcfx883va0ww5-shop</div> <div><div>✓</div>peer1xcfx883va0ww5-repairshop</div>		N/A	<a href="#">Operations ▼</a>

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# Blockchain Platform – Endorsement Policy

➤ Customized Endorsement Policy

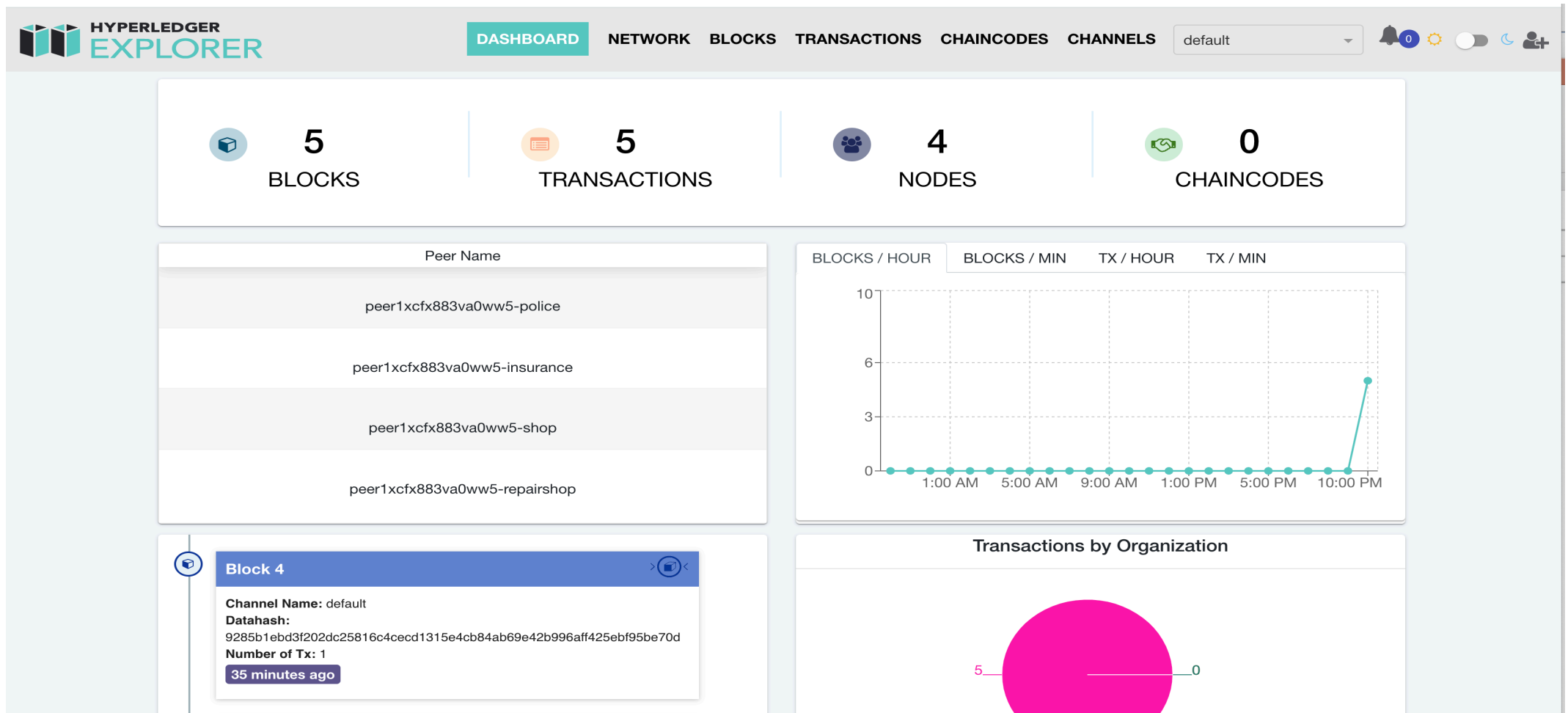
Endorsement Policies

Create Policy

	Name	Description	Action
1	Default	At least one endorsement from all the related groups	<a href="#">Details</a> <a href="#">Delete</a>

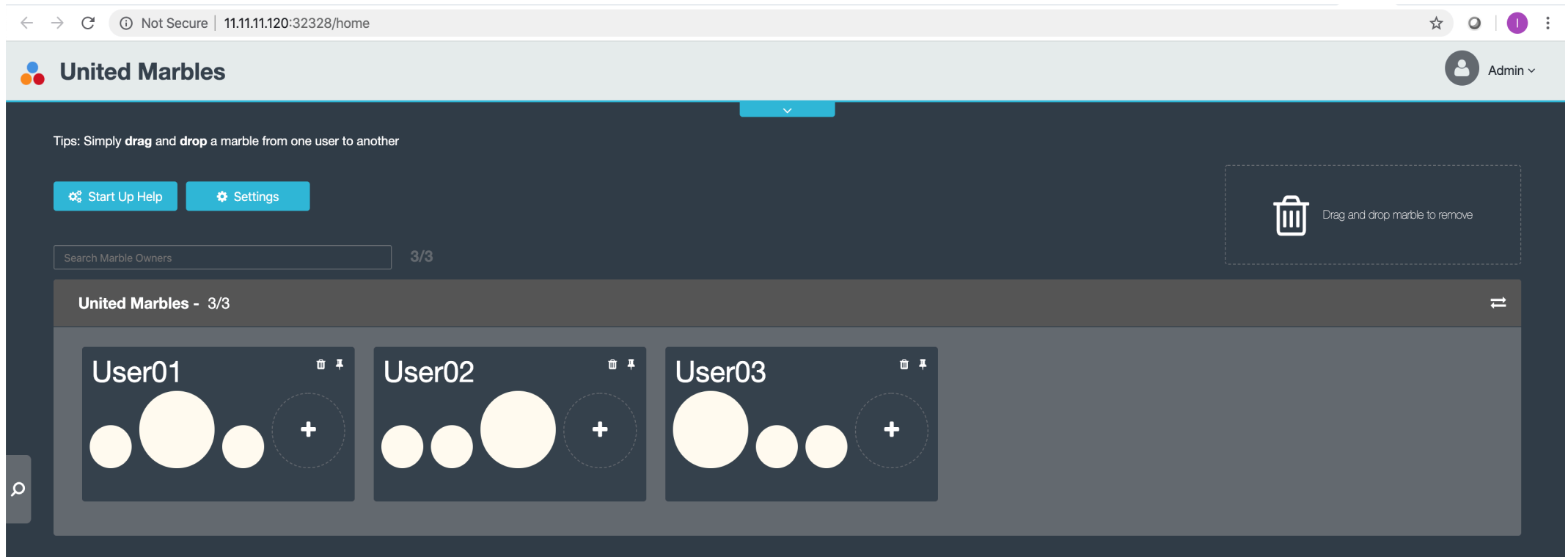
# Blockchain Platform –Integrated with Hyperledger Explorer

➤ One-Click to deploy



# Blockchain Platform – Demo application scenario (Marbles)

- One-Click to deploy
- <https://github.com/IBM-Blockchain-Archive/marbles>



# Blockchain Platform – Demo application scenario (Insurance)

- One-Click to deploy
- <https://github.com/IBM/build-blockchain-insurance-app>

← → ↻ ⓘ Not Secure | 11.11.11.120:30675 ☆ 🔍 ⓘ ⋮

IBM

Blockchain for Insurance

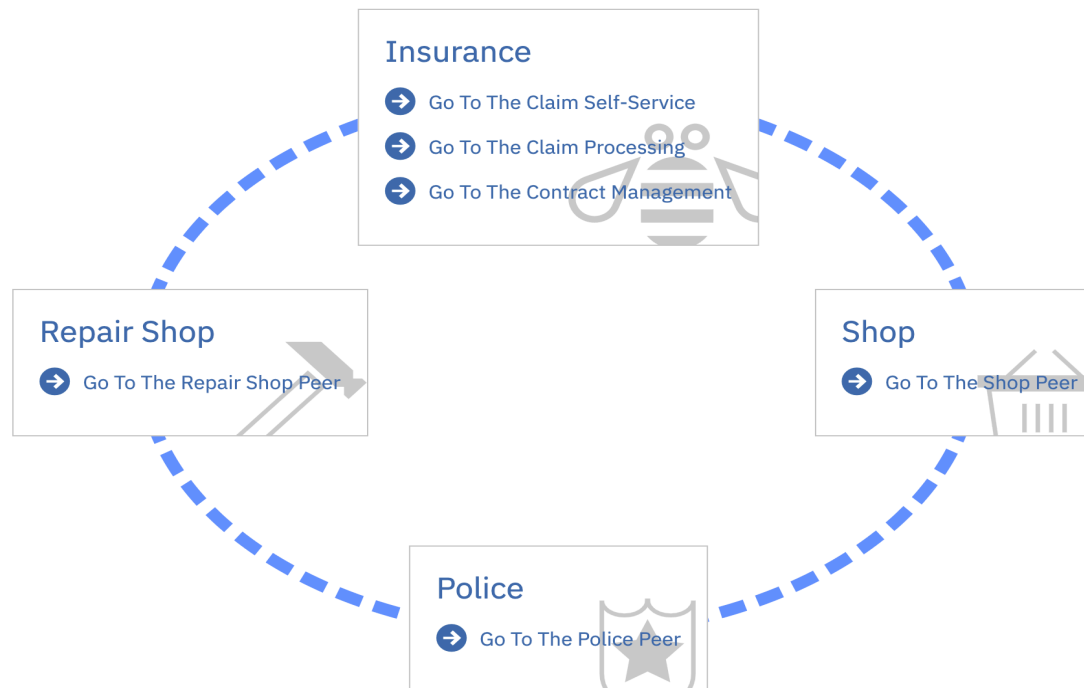
Home

Shop ▾

Police

Repair Shop

Insurance ▾



# Thank You