

# Mistakes to avoid when using Hyperledger Fabric









SWIF

2007

Company overview



Digital Asset Holdings

CATALYST

Blockchain Platform by 🏥 intellect

Werledger Corda

IBM

ORACLE

🔶 ethereum





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#### **Transformations need a Catalyst**

Remove barriers. Build enterprise-grade blockchain networks — with high automation and guaranteed uptimes.



#### Setup

Quick and highly automated processes, with a UI that abstracts away technical aspects



### Blockchain, simplified

- Choose your protocol, launch applications, and onboard partners
- On Corda or Hyperledger Fabric.

#### Maintenance

Monitoring, auto-recovery and failover mechanisms free up time for building value-adding applications



#### Management

End-to-end platform to manage network, chaincode, and policy configurations



#### Catalyst Blockchain Platform



## Unified management & operations console

Manage networks, organizations, consortium proposals, peers, chaincode and more



#### **Enterprise-grade security**

Integration with HashiCorp Vault and K8s Secrets to control access to all security materials and digital identities



#### Support plans

Highly qualified and well-equipped support and troubleshooting that exceeds industry standards



# Cloud-agnostic and multi-location deployment

Any cloud service provider, hybrid, or on-premises hosting (no vendor lock-in), & deployment of a cluster in multiple availability zones



#### **Reliability and monitoring**

Failover mechanisms, disaster & recovery, simplified and supported migration between versions, technical and business monitoring, integration with existing monitoring tools



#### Intuitive user interface

Clear and consistent, including all Hyperledger Fabric and Corda Enterprise capabilities



#### **Some Catalyst Blockchain Platform Use Cases**

Programmable money Platform	KYC platform for Bank consortium	Inventory management and invoicing platform for telecommunication consortium
Platform connecting Product Providers and Collective Investment Scheme Managers	A digital share registry platform	Supply Chain Platform in Pharma



#### Not providing sufficient HLF knowledge to your team

- Onboarding technical and managerial team members is heavily underestimated
- Provide proper training process to explain key concepts of Hyperledger Fabric to your team
- Even if you use Hyperledger Management solution, Hyperledger Fabric requires knowledge for successful project implementation
- Make sure all network participants have sufficient level of understanding of the technology you use together





#### **Setting unreasonable performance expectations**

- No clear expectations in terms of performance (throughput, latency, scale)
- Balanced relationships between compute, networking and storage parameters with performance parameters.
- Make sure you actually need the high level of transactions you claim to expect (most of the use cases are successful with up to 1000 TPS)



# Believing that interoperability between HLF and other protocols is possible

Various languages used by various ledgers

Different smart-contract usage among blockchain protocols

We use Daml of Fabric to give partial answer to the problem:

Once written, smart contract deploys on any ledger

Daml apps atomically connect

Different amount of data processing

Different set of transactions and transaction mechanism



#### Not preparing instruments for your consortium's quick growth

- Many projects start with the PoC using one organization and several nodes, hoping to have more partners or clients to join
- Convincing and onboarding clients is not a trivial task
- Consider white label SaaS platforms to allow consortium members to easily connect to the Platform that you manage



#### **Relying on off-chain governance**

- Off-chain vs on-chain governance
- Integrating Voting System simplifies the process

#### How Voting System helps to speed up network scaling?

💷 CATALYST 🛛 <		X Add organization			
Dashboard	Channels / datasharing datasharing Block height: 3 Current block heah:	Organization bank3 Partners			
	Oh2EzBSNjSJ4SU+34MZ9iQDty+H6GkiKP1unuYJJ5+4	Select rights			
Peers	Previous block hash: <u>0wtYQEK3s6EytBfikFi24cFL65bO1UrTYHIn+EVt3BI=</u>	Z Admin			
Chaincodes		An organization that can take part in the channel configurations: add or delete organizations, consenters, vote for proposals, etc.			
🗘 CAs	Organizations Ordering Blocklist	Virter Virter			
ဆိုး Channels		An organization that can update a ledger.			
Grderers	Select V Search Q	Reader     An organization that can query the ledger.			
Network participants	Name	Endorser			
Partners' MSPs	bank1	An organization that is involved in approving the chaincode on a particular channel.			
General Your MSPs	+ bank2				



#### **Relying on off-chain governance**

CATAL/ST <				A A
20 Dashboard	Chaveds / datasharing datasharing			
Network components	Block height: 5 Current block hadt: xtBxUZ755NR97HBT/z127tHKJOArWS11+f01xkc Previous block hash: 6A9/I9UBb2FoSauJWLTsC/roLauWGEksHSeimsblcXt=	Application: <b>V2_0</b> Orderer: <b>V2_0</b> Policy: <b>ALL</b>		
🔿 CAs	Organizations Ordering Blocklist Proposals Chaincodes			
ဆုံး Channels				
Orderers	Select V Search Q			
Network participants	Proposal name Creator	Status	Policy	Actions
Partners' MSPs	- joinChannel bank2MSP	( Vuting	2/2	60
區 Your MSPs	Proposal purpose Joining org bank3MSP on channel datasharing Organizations bank3MSP 2 heading bank2MSP 2 not participate			



# Technical Q&A Session with our tech lead



Minimal usage (billing increment) of a member organization and a node is 1 month.

#### Thank you!



#### Yana Koldra

Head of Product Management IntellectEU yana.koldra@intellecteu.com



#### Vlad Kopayhorodkyi

Technical lead Catalyst Blockchain Platform vlad.kopayhorodsky@intellecteu.com



catalyst.intellecteu.com