



iPOP2023 Sponsor session
B-2

Navigating the Future: The Evolution of Network and Cloud Automation

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Shinya Nakamura, Director, Business Development, Asia and Far East
nshinya@ubiqube.com

Outline of my talk

- UBiqube introduction
- UBiqube Products
 - MSActivator
 - Cloudclapp
- UBiqube and iPOP showcase demo
- Evolution of the Network and Cloud Automation
- Discussion

Company



Dublin based, Global leader
in infra Automation software

Engineering in
Ireland, India,
France and Japan



Series B stage led by **strategic investors**



Sales in
EMEA, APAC
and Latam

Ubiquube's Aim...

Is to lead a **simplification shock** in the cloud infrastructure industry



Focus on non-developers and non-experts

- Application deployment
- Management of various clouds
- Manage security
- Manage compliance
- Manage costs



Focus on infrastructure owners

- Hybrid Cloud Integration/Automation
- Federation of cloud and technology
- IT/cloud infrastructure
- Built with zero code

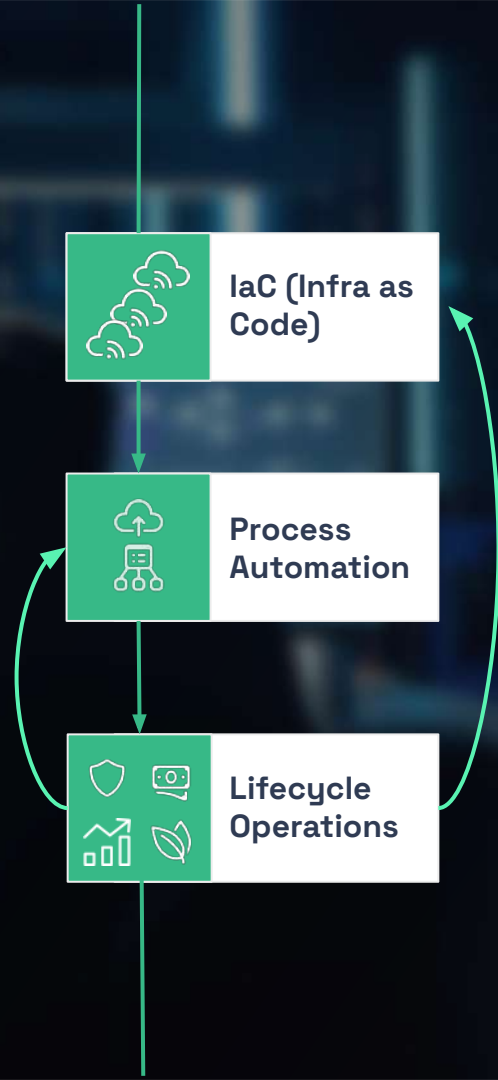


One Solution for an infinite hybrid Cloud options



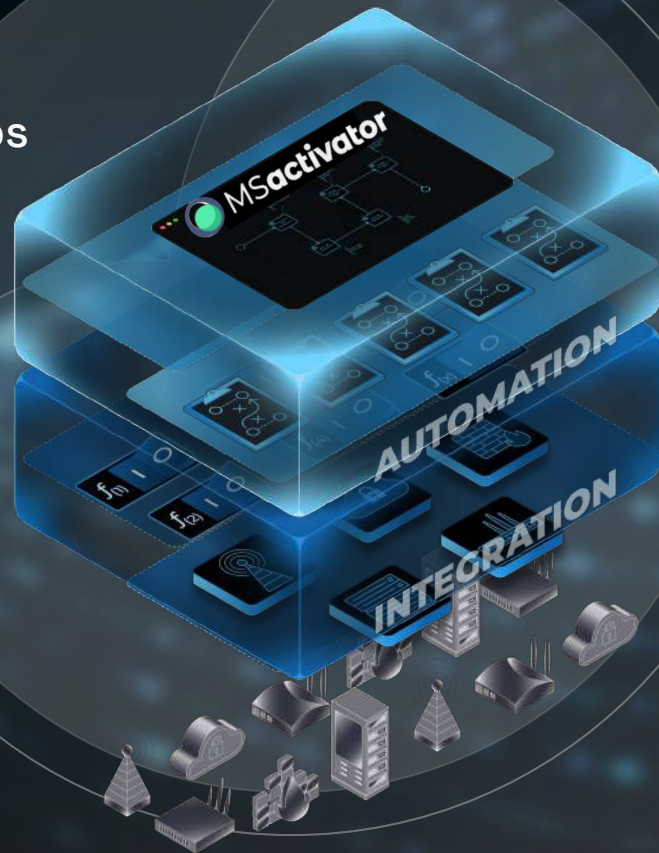
MSActivator

Infra orchestration at scale

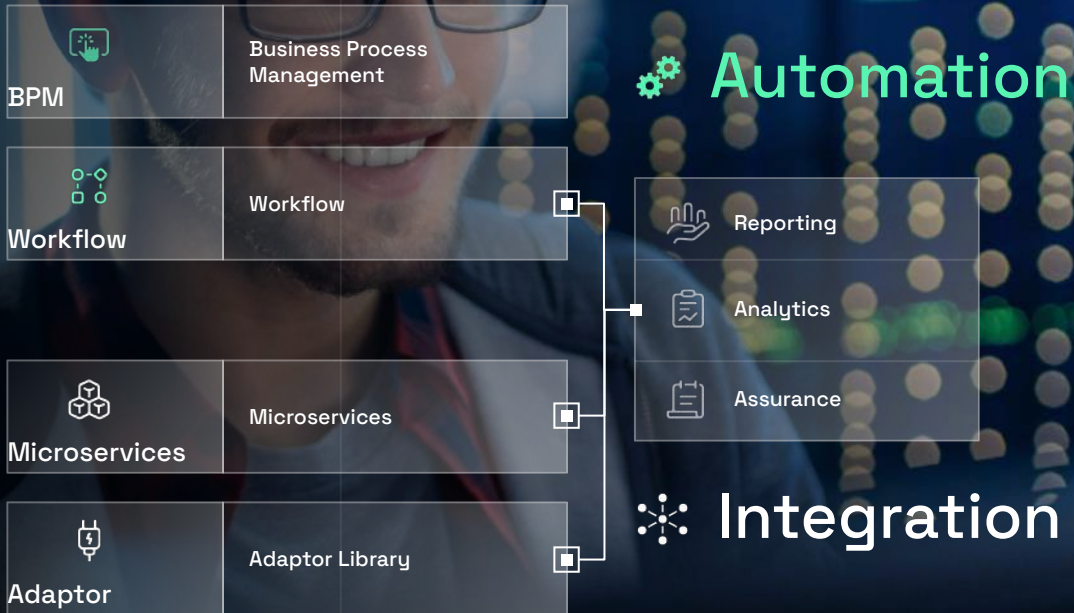


MSActivator is a carrier grade Integration and Automation Platform (IAP) used by both Dev & Ops for orchestration of any type of IT/DC/ Cloud/Security/networking related technology

MSActivator is a highly abstracted automation engine, usable by a wider range of IT professionals, vendor neutral and scalable by design



MSActivator Building blocks

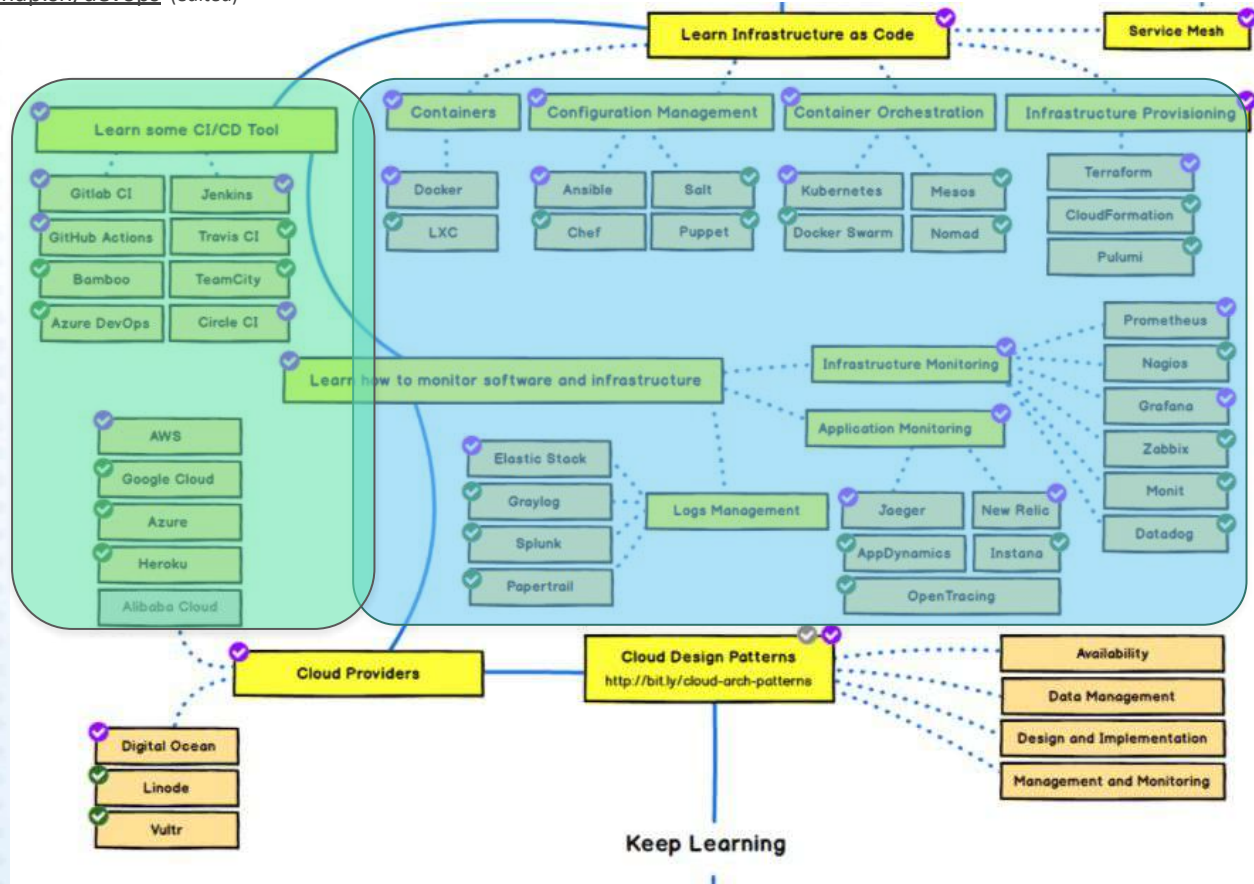


3 min video

<https://www.youtube.com/watch?v=tsqbjYfefmk>

Positioning of the UBIcube Frameworks (DevOps view)

Source: <https://roadmap.sh/devops> (edited)

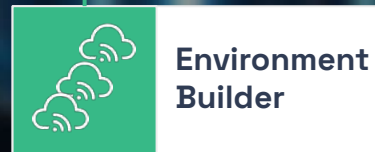


Cloudclapp

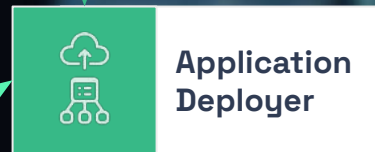
'App centric' or 'user centric'
Hybrid Cloud Management

Public-Private-Edge
Cost-Security-Compliance

1



2



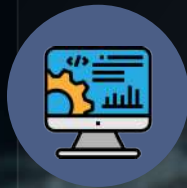
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Cloud Complexity impacts all IT engineers & Tech Ops

The 1%
Cloud
Experts +

The 100%
Tech Ops



The 99%
Application
Developers

...leading to recurrent **problems.**



Disconnected team
operations



Extended lead times



Outages & Security
risks

Industry challenge

Hybrid Cloud
increases
Complexity
compounding,



■ **Skills
shortage**



■ **Vendor
Lockins**



■ **Cloud
Cost**



■ **Compliance
breaches**

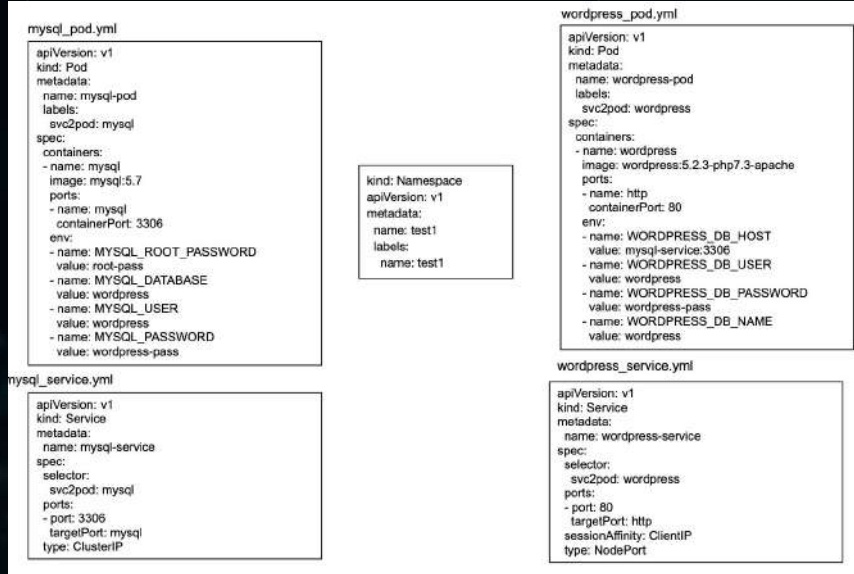


■ **Migration
Roadblocks**



■ **Security
gaps**

DevOps Dilemma: Disconnected Team Operations

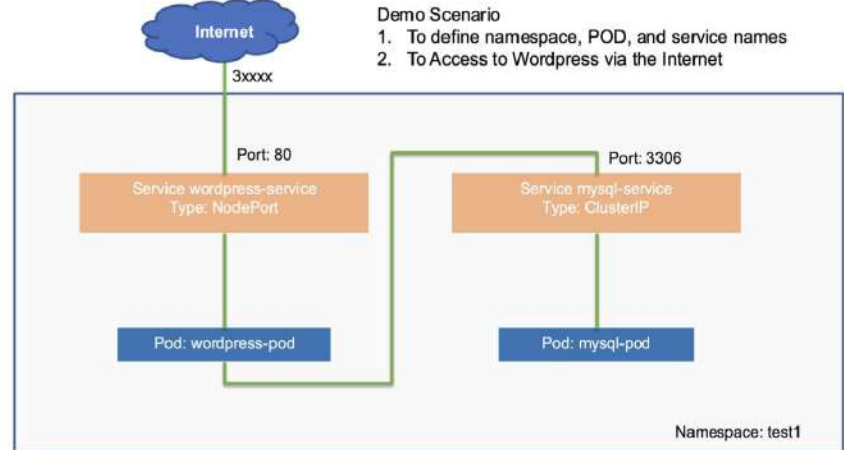


Hand-over from the Dev to Tech Ops

- Impossible to hand over without Application Topology maps
- Automated Topology mapping needed to help Tech-Ops understand tasks

Deployment(CD):

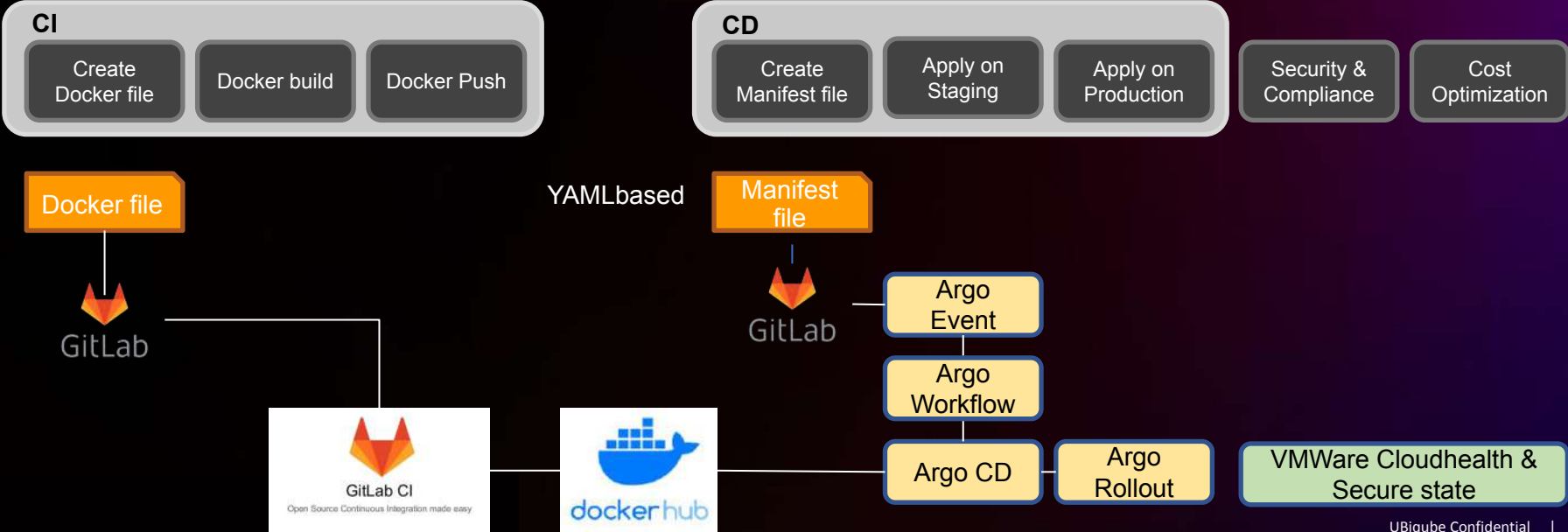
- Configure **Namespace / POD / Services**
- Configure **network communication between PODs**



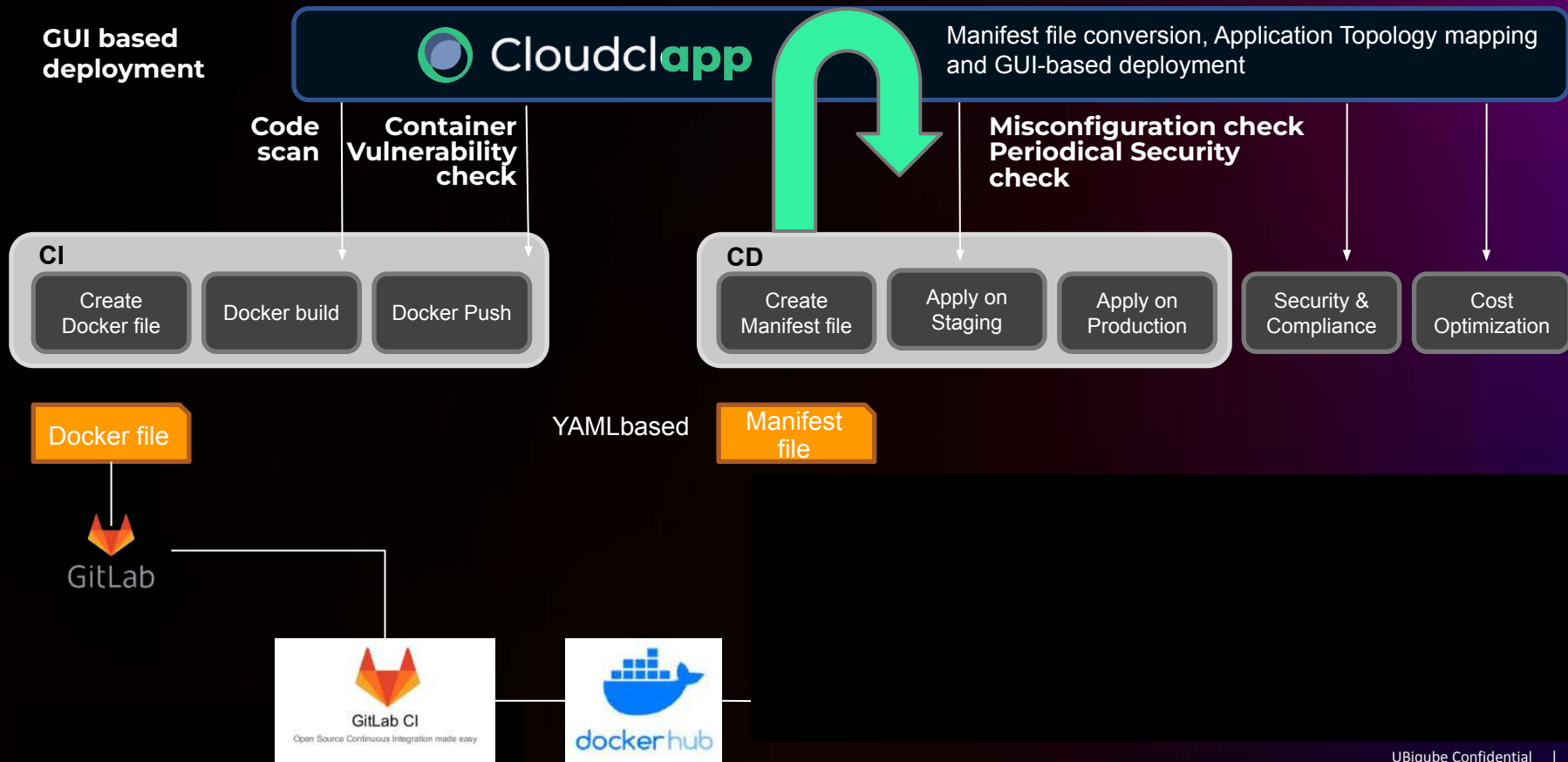
Who interprets
YAML-based Manifest
files for operation??

Cloudclapp vs. Others (eg. ArgoCD with VMWare Cloudhealth)

GUI based
deployment



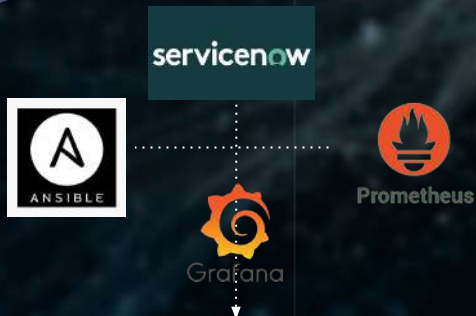
Cloudclapp vs. Others (eg. ArgoCD with VMWare Cloudhealth)



UBiqube's two frameworks

MSActivator helps
the **infrastructure owner**

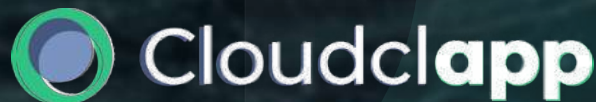
*Vendor agnostic, Scalable automation design
& Life cycle management*



Infrastructure Automation
Lifecycle management

..while **Cloudclapp** takes cloud
expertise off **developers' back...**

*Application deployment made simple
Cloud agnostic Environment as a Service*



Deployment Power to
Tech-Ops to realize real
DevOps

Operational, costing,
energy and security
insights

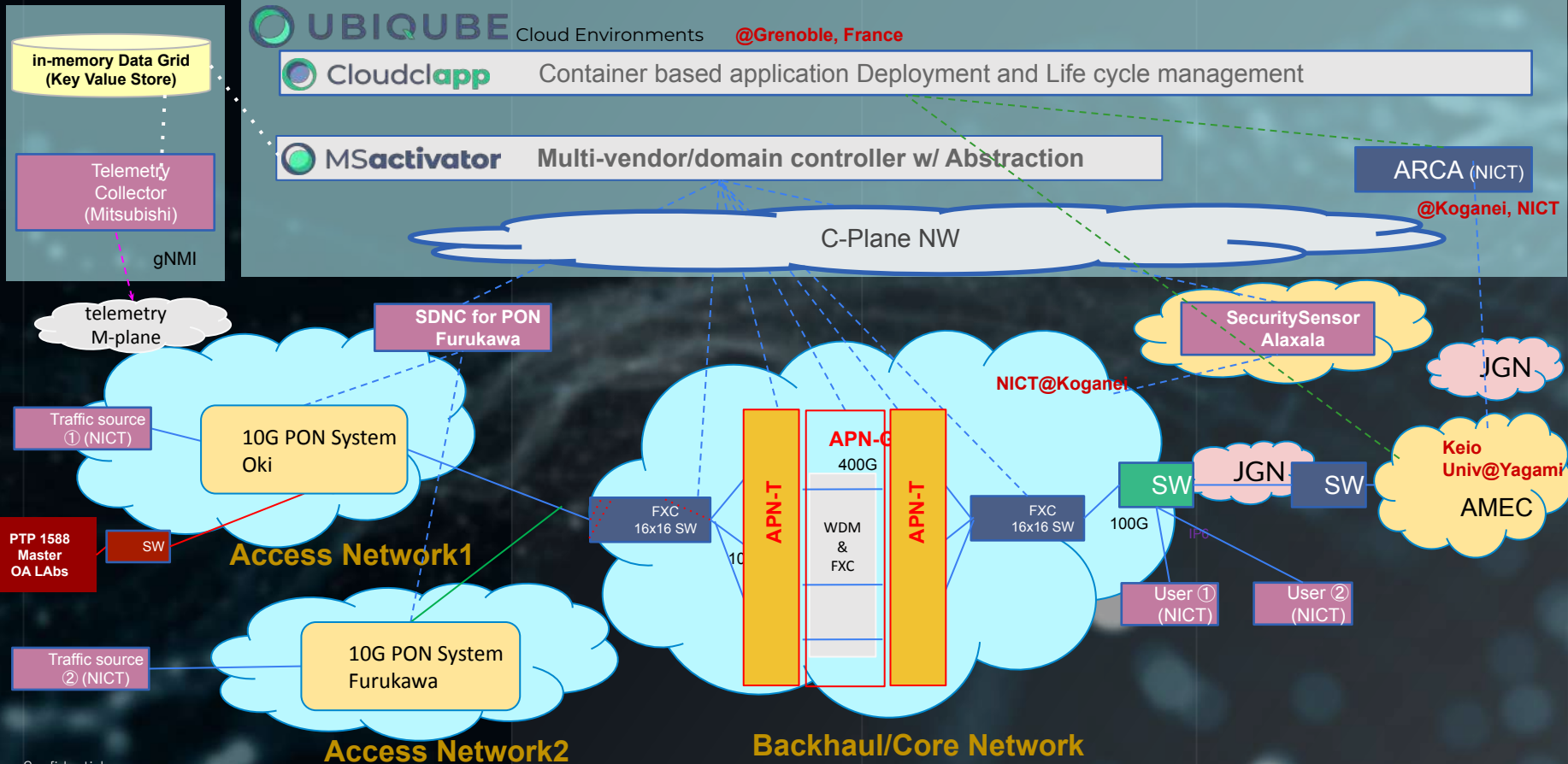
Little to no
infrastructure
expertise required

Accessible. Infrastructure. Automation.

Evolution of the Network and Cloud Automation

- UBiquote's journey has been an effort to automate the integration and operation (LCM) of the Infrastructure and Services (applications), to remove complexities
- UBiquote is fully qualified to talk about "Evolution" of the Network and Cloud Automation
- **At the iPOP2023 showcase** UBiquote provided MSActivator abstraction technology
 - Integration of the multi-vendor/domain network technologies (see table below)
 - Automation of the E2E APN system operations and management
- The “abstraction” of the multi-domain/multi-vendor technology adopting different data models and protocols, demonstrating “**Abstraction as a Service**” at the NaaS layer

Furukawa/OKi		Mitsubishi	NICT			Alaxala
SDNC (for PON system) (based on VOLTHA and ONOS/OpenFlow)		Galileo (APN-T)	FXC (optical switch)	1Finity (APN-T)	Cassini (APN-T)	Security sensor
ssh	ssh	Netconf	ssh	ssh	ssh	syslog
REST API (SDNC)	CLI (ONOS)	Yang (OpeConfig)	CLI	CLI	CLI	



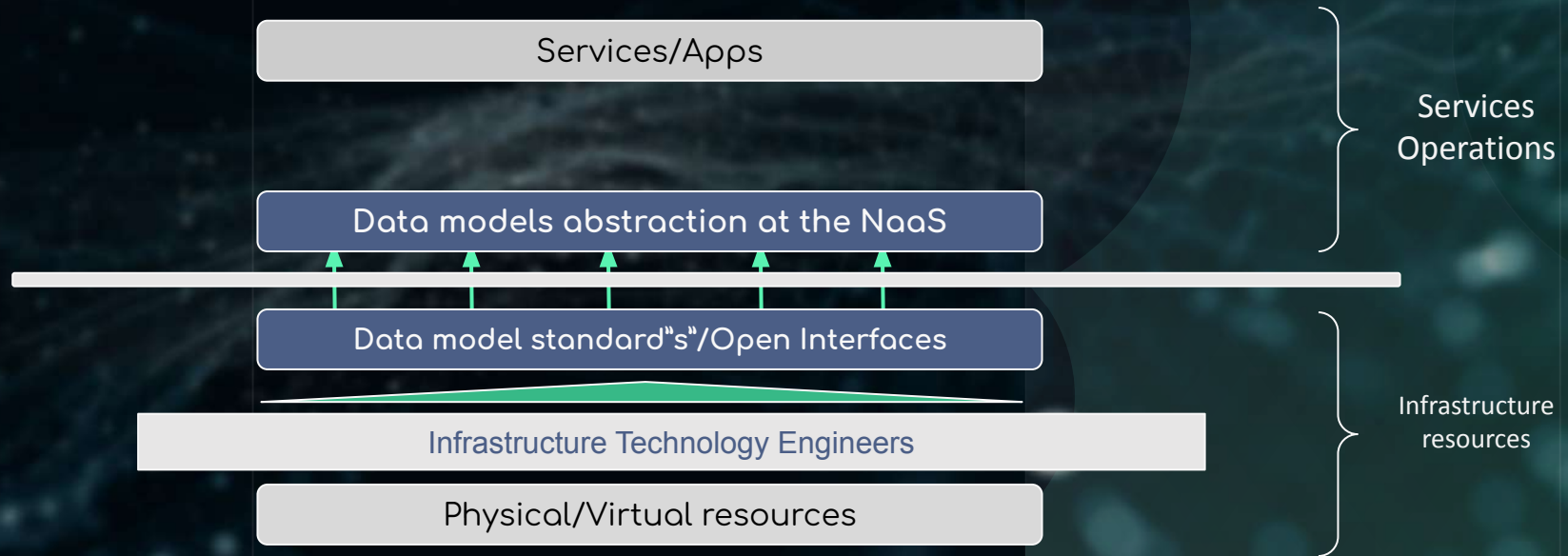
Evolution of the Network and Cloud Automation

- Data modeling and Protocol standardization is important to both Network and Cloud environments
 - Interoperability
 - Consistency and quality
 - Reusability and scalability
 - Efficient business process
- But we also know it is very time consuming and difficult to get standardized (and get it work!)
- The definition of the management surface of infrastructure/software layer is changing
 - Software programming (from CPU (assembler) to API)
 - Services QoS/SLA (from metal/fiber to application)
 - Mobility(cars) (Car driving to moving chair)
- **These are happened by the evolution of “abstraction”** (which implies high level complexity below)
 - Complexity should be supported by the Automation and Abstraction

Smart world makes infrastructure complex
Simplicity in Integration and Operation is the key

Evolution of the Network and Cloud Automation

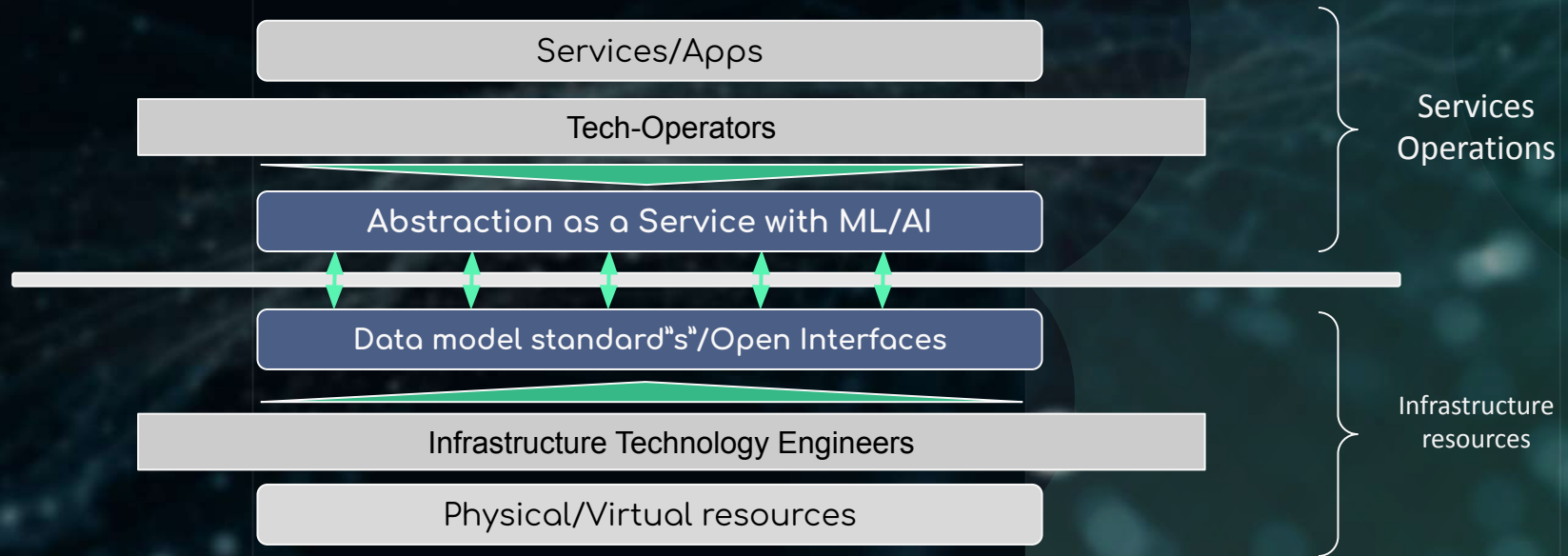
- Automation of the Data Model abstraction “as a Service”
 - UBIube has demonstrated partially at the showcase by programmed abstraction following the data models provide from the infrastructures



Evolution of the Network and Cloud Automation

- Can AI/ML technology realize “Network/Cloud abstraction as a Service” in dynamic manner?
 - Network/Cloud abstraction is the concept of hiding the complexity of underlying network or cloud infrastructure and **providing a simplified and standardized interface for users to interact with**

Just a spontaneous idea, I would like you to discuss



Thank You!

nshinya@ubiqube.com



We make

Cloud

Easy