

# Day 0 considerations for IT Operations to improve Observability and Efficiency

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IBM Cloud Integration Expert Labs



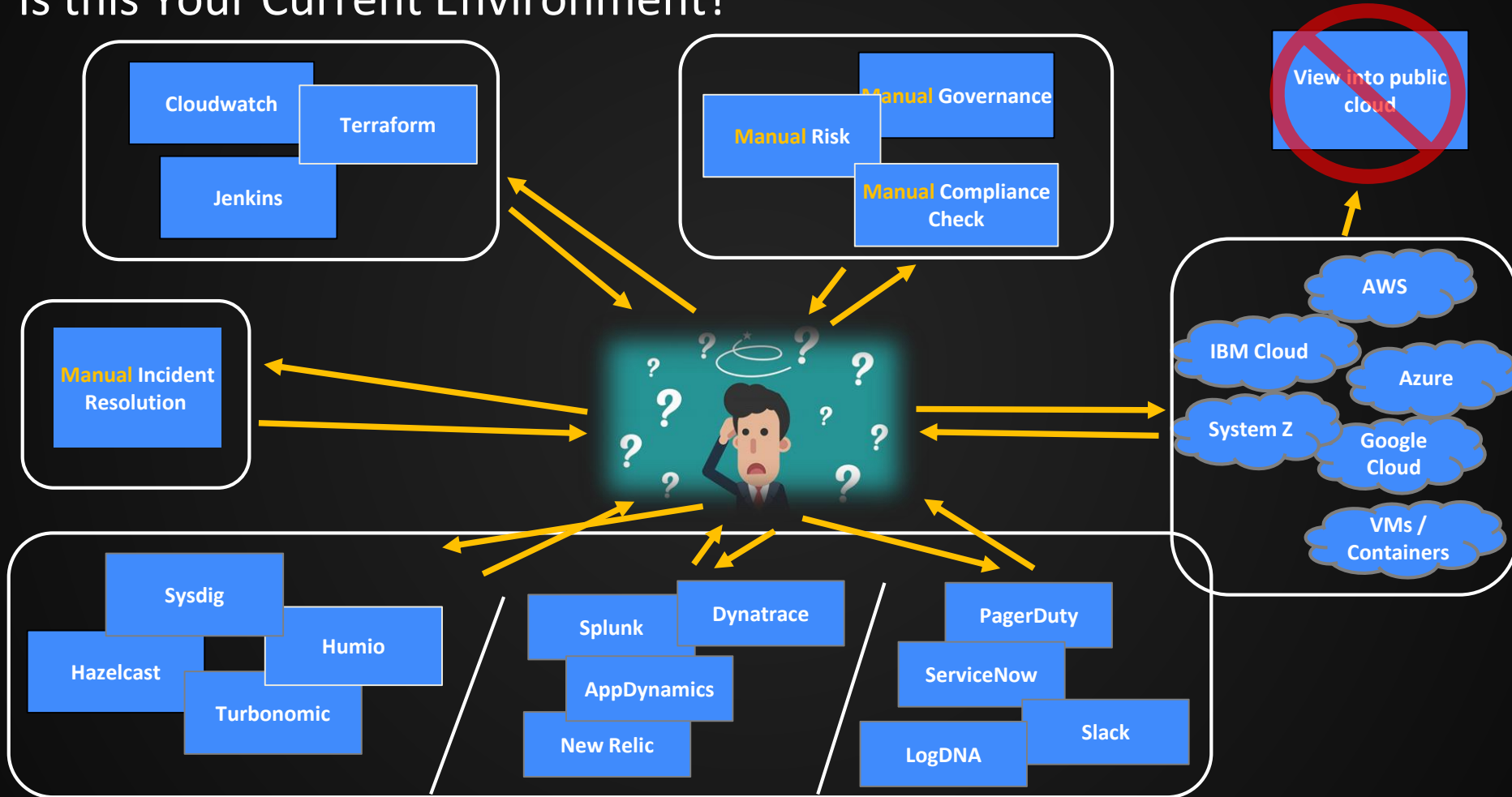
“What is Day 0” ?

**Day 0: Requirements and Design**

**Day 1: Installation and Initial  
configuration to a working state**

**Day 2: Ready to begin providing  
services**

# Is this Your Current Environment?



# Common Business Problems to Address



“I need full visibility across my entire hybrid multi cloud environment so that I can manage effectively and efficiently”



“I need to be able to detect problems across my environment before they negatively impact my clients”



“I need to be able to automatically perform repeatable tasks across my cloud environment eg. provision infrastructure, deploy/move apps, etc.”



“I need to be able to provide highly available and reliable services to my customers and measure and track key SLIs and SLOs.”

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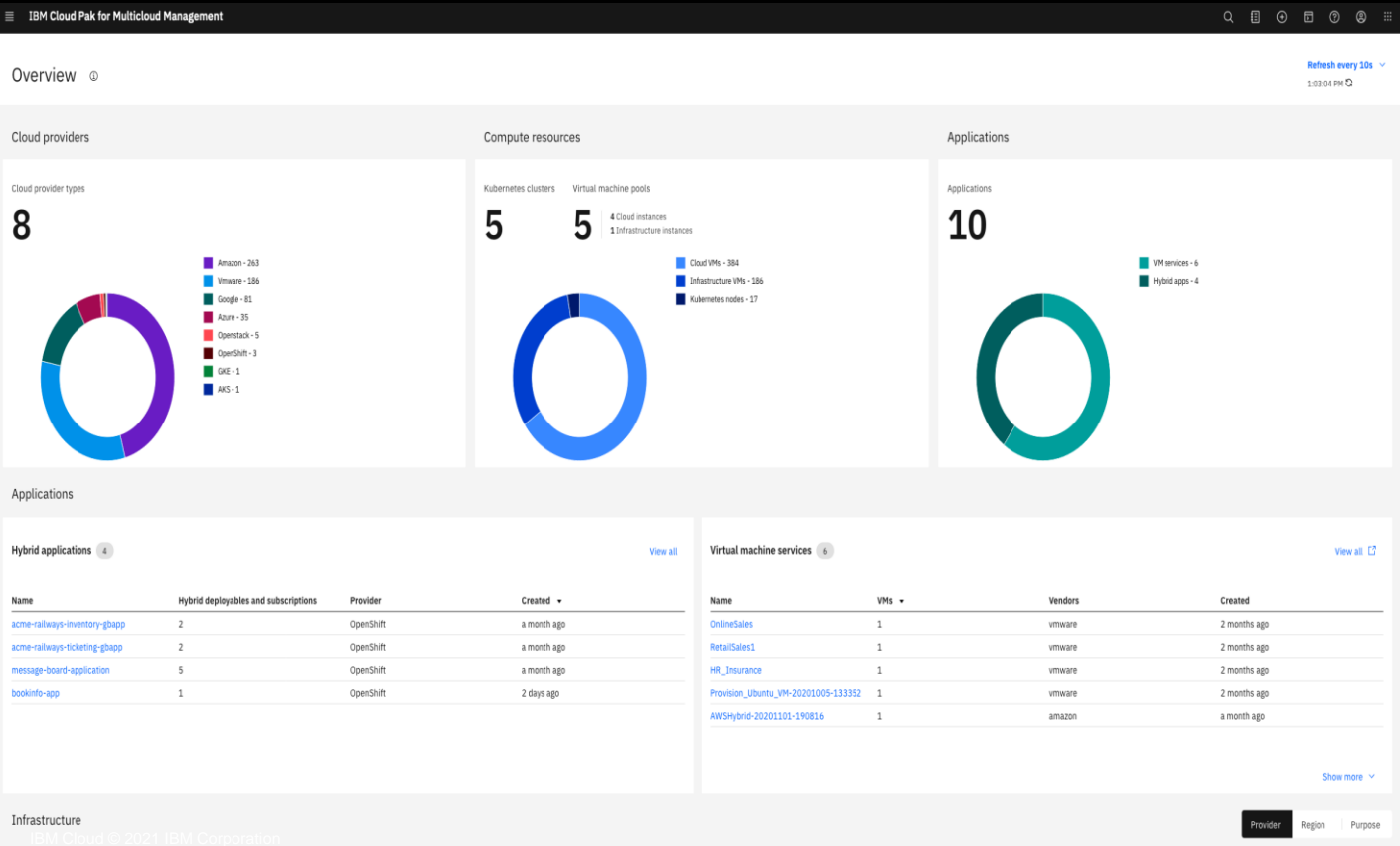
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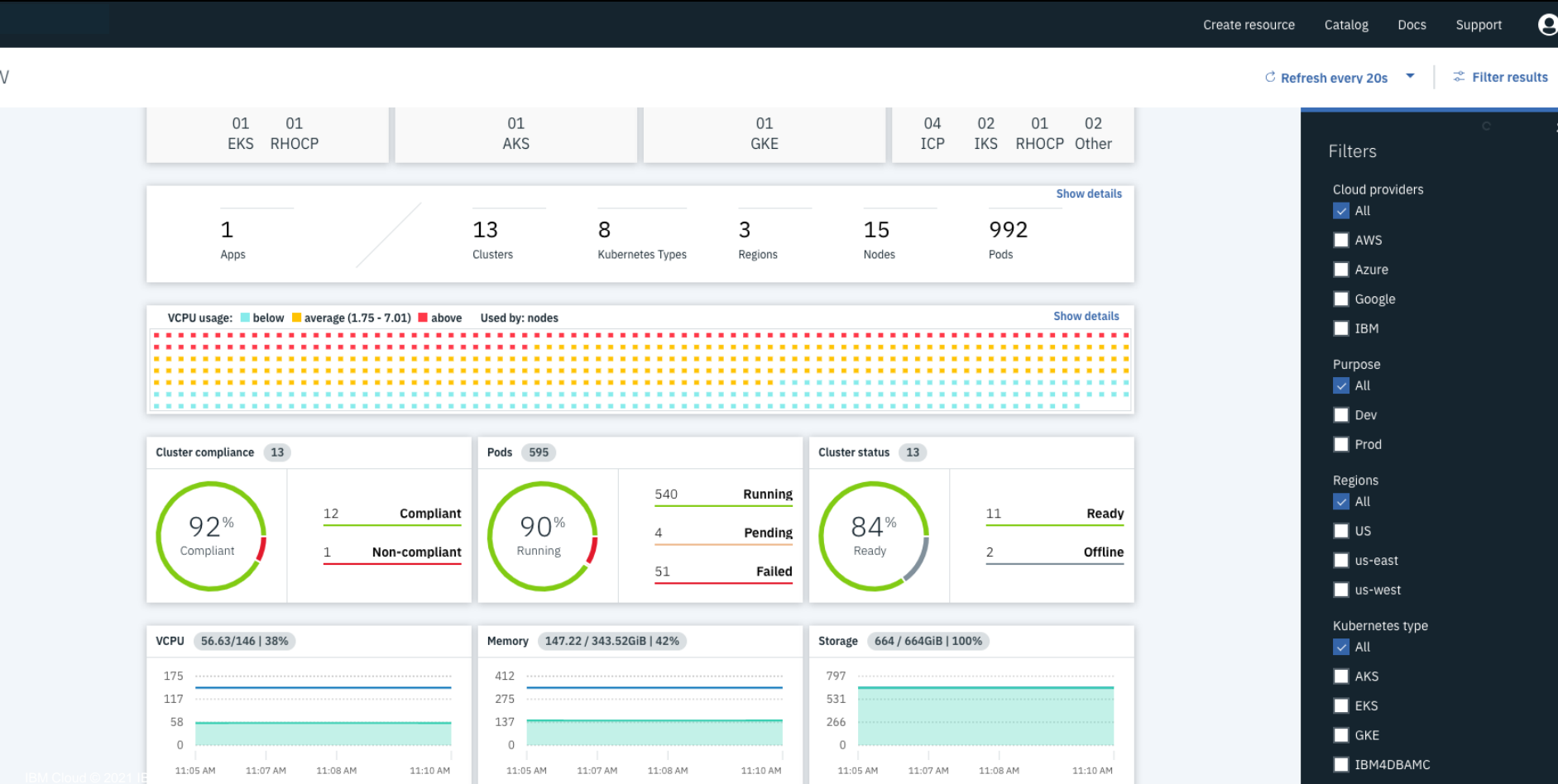
# Overview Page: Single Pane of Glass for all your clusters virtual machines

A dashboard to view your clusters and VMs by cloud



- Multicloud Overview Dashboard
- Organize your clusters and VMs by clouds
- View compliance and health status

# Overview Page (more) : Check compliance & health status of all your clusters



Demo (04:04 mins)



# Common Business Problems to Address



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# Simplify monitoring for modern applications

Learn from the SRE discipline – and focus on the golden signals



## Latency

The time it takes to service a request



## Errors

Trend view of request error rate



## Traffic

Demand being placed on the system



## Saturation

View of utilization against max capacity

### Symptoms

### Causes



## Why monitor golden signals?

- Golden signals are a common language to monitor across technologies and clouds, simplifying communication and troubleshooting without having to be an SME
- Golden signals are a direct measure of signals that impact the end user, making it clear when an important issue occurs
- Waste less time reacting to unclear or unnecessary alerts

Demo (02:56 + 03:14 mins)

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## IBM Cloud Pak for Multicloud Management

- Observe environments >
- Automate infrastructure >
- Manage applications
- Govern risk
- Monitor health >
- Administer >

This allows developers to quickly access components for application modeling while providing the IT Ops team a secure consistent way to respond to requests.

# Self-Service Capabilities with a Service Library

Self-service capabilities in this release allow developers to provision infrastructure and application components from a predefined service flow.

## IBM Cloud Pak for Multicloud Management

### Manage Service Library

default

Templates

Services

Applications

All Services (27)

Cluster Lifec... (14)

Cluster Lifecycle Services

Hybrid Cloud (3)

Application S... (0)

CloudServices (3)

VMs (1)

Virtual Machi... (5)

Search Services

Import Service +

Create Service +

Name

Date Modified



serviceNS2  
Namespace: default

1

05/20/2020 4:00 PM



serviceNS1  
Namespace: default

1

05/20/2020 4:00 PM



VMTest  
Globally Accessible

1

05/20/2020 3:00 PM



Service Now CMDB add and Delete record  
Globally Accessible

1

05/20/2020 2:02 PM



# Personas and key use-cases



Todd, IT Operations

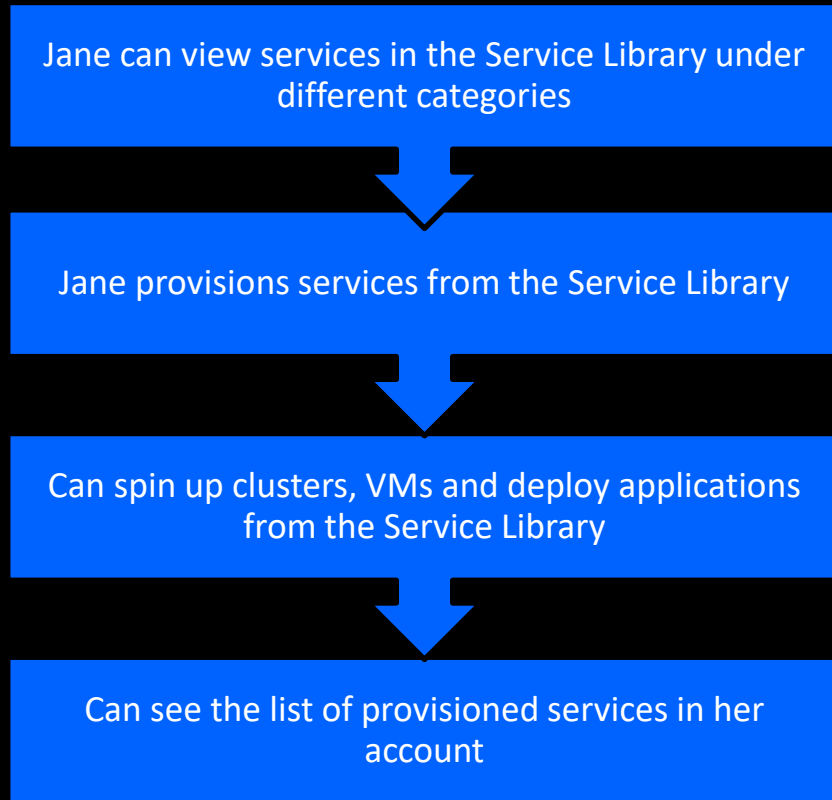
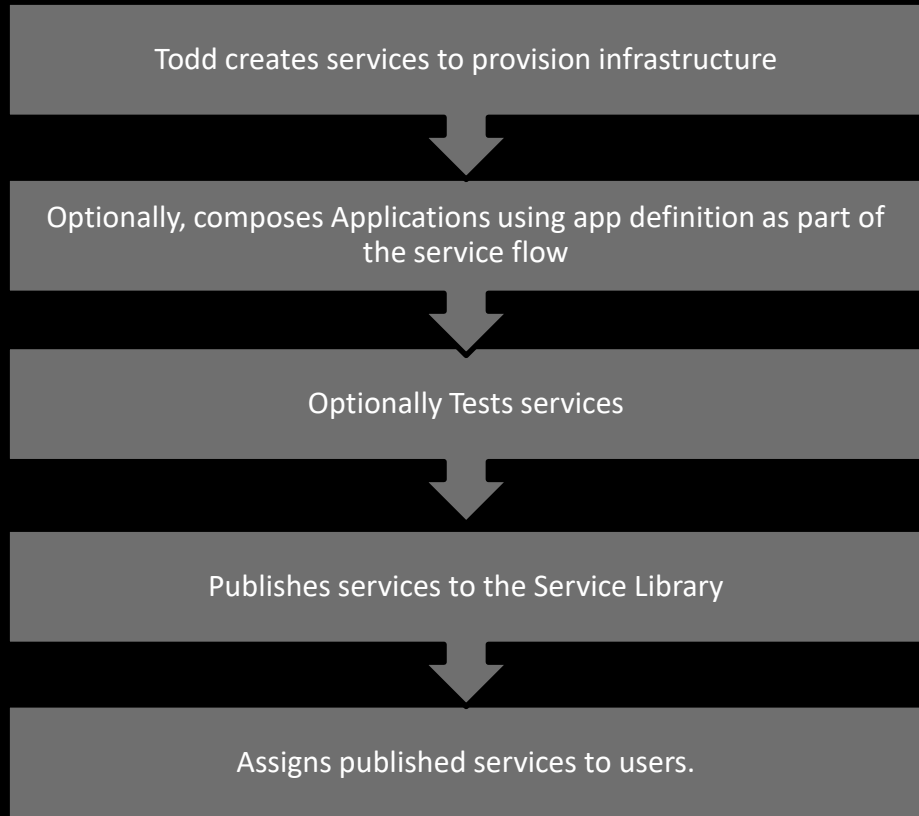
- I want to use a UI-driven way to compose service flows
- I want to be able define a complex service flow comprising of provisioning VMs + kubernetes cluster + deploy an application
- I want a library of deployable services to publish these new services for Jane to use.



Jane, Development Owner

- ✓ I want to see the list of available services that my team can use to provision infrastructure and services for their application.
- ✓ I want to see a list of service instances that have been provisioned in my team's account.

## Services Library is the consumption console for self-service



IBM Cloud Pak for Multicloud Management

## Library

Templates Services Applications

All namespaces

All Services (20)

Cluster Lifec... (14)

Integration S... (1)

Application S... (2)

Hybrid Cloud (1)

Application S... (0)

CloudServices (2)

Search Services

Import Service Create Service

Name		Date Modified	
> AWS-Lamp-Demo	Globally Accessible	1	04/27/2020 1:30 PM
> aws-lamp-two-node	Globally Accessible	1	04/16/2020 8:39 AM
> OCP cluster on Amazon EC2	Globally Accessible	1	03/30/2020 11:27 AM

### Create New Service

\* indicates required field

**Assign Access**

☒ Make this service Globally Accessible (available for all users)

☐ Make this service part of namespace

\* Select Namespace

\* Service Name

Enter service name here

\* Version Name

Version Name

Category

Cancel Create

Service Creation  
flow

Todd, IT Ops

Service Library

test 1.0.0.0

Overview Composition Parameters Plans & Form Source Code

Filter Items

Bind Action

Search Items

Ansible

- Credential
- Inventory
- Job Templates (3)
- Demo Job Template
- Hello World
- LAMP template
- Templates
- Amazon EC2 (34)

Primary Flow This flow is initiated when the user initially requests the service.

Amazon EC2 Virtual Server Demo Job Template

Error Flow This flow is initiated when the primary flow goes into error condition.

Demo Job Template\_9cded0

Basic Information Parameters

\* indicates required field

\* Title

Demo Job Template\_9cded0

Activity Id

demojobt5f9d100e

Template Name

Demo Job Template

Template Provider

Save Publish

IBM Cloud Pak for Multicloud Management

## Deployable Services

Instances Services

Search the services

New Deployable Service

All Categories

Cluster Lifecycle Services

Clusters

Integration Searches

Hybrid Cloud

Applications

Import Kubernetes cluster

OCP cluster on VMware

OCP cluster on Amazon EC2

IBM Cloud App Management

Integration Service on OpenStack

Multi Cloud - MEAN Stack deployment

ICP on OCP on VMware

Service Now CMDB add and Delete

Ticketing system application

Drag and drop canvas to easily create service flows

Published Services show up in the Service Library



# Jane flow to provision a service instance from the Service Library

IBM Cloud Pak for Multicloud Management

mydemoServiceforVM Published

**Overview**

**AUTHOR** admin  
**PUBLISHED** 05/20/2020 5:29 PM  
**NAMESPACE** default  
**CREATED** 05/19/2020 7:17 PM  
**UPDATED** 05/19/2020 8:11 PM

**Features**  
Following features are associated with this service. Order the service with the chosen plan.

**Plans**

Name	Description
Standard	To deploy a Standard plan

**Service Version**  
1.0.0.0

Cancel Next

IBM Cloud Pak for Multicloud Management

## Deploy a Service

**AUTHOR** admin  
**NAMESPACE** default  
**CREATED** 05/20/2020 5:16 PM  
**PUBLISHED** 05/20/2020 5:29 PM  
**SERVICE VERSION:** 1.0.0.0

1. Select a Namespace  
\* **Namespace**  
default
2. Enter Service Instance Name  
\* **Service Instance Name**  
mydemoinstance

Back Deploy

IBM Cloud Pak for Multicloud Management

## Deploy a Service

**AUTHOR** admin  
**NAMESPACE** default  
**CREATED** 05/20/2020 5:16 PM  
**PUBLISHED** 05/20/2020 5:29 PM  
**SERVICE VERSION:** 1.0.0.0

**Order Submitted**

Your order has been submitted successfully.  
Please check [Deployed Instances](#) for deployment status  
or order more services from [Service Library](#).

Go to Instances Go to Library

IBM Cloud Pak for Multicloud Management

## Service Library

Services Instances

**All Deployed Instances**

Name	Service Name	Status	Deployed On
deployInst4			2020-05-15T07:52:05.011Z
inst2			2020-05-19T13:30:32.677Z
serviceinstance1			2020-05-20T10:24:42.280Z
testinstance2			2020-05-20T10:26:50.737Z
testinstance22			2020-05-20T10:30:30.089Z
mydemoinstance			2020-05-20T12:00:19.121Z

Items per page: 10 1-10 items

page 1

Demo (02:43 mins)

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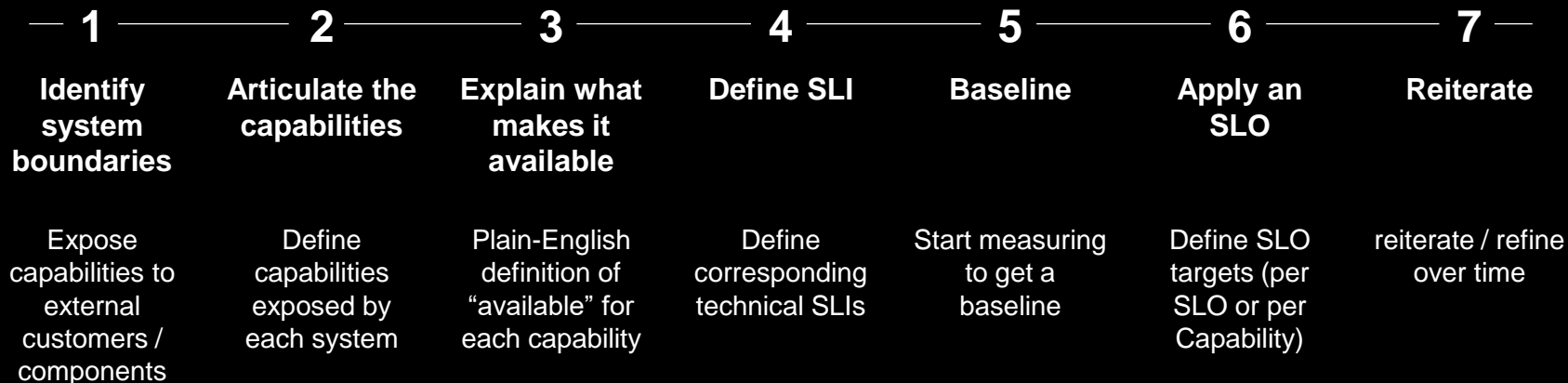


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# Approach to SLO / SLI



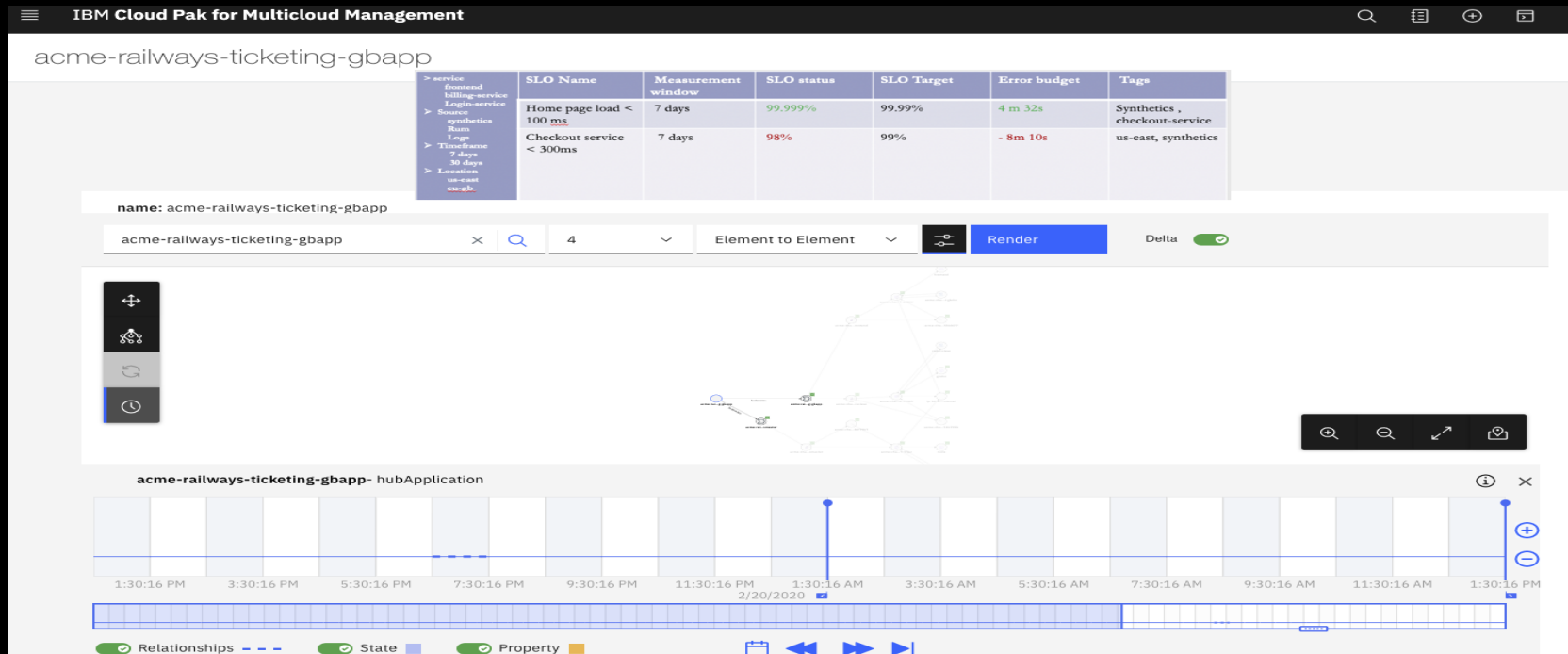
SLO numbers need to be

- What the team actually commits to supporting
- What the organization actually commits to supporting
- Reflective of technical reality

SLOs represent an ongoing commitment

When in doubt, measure first

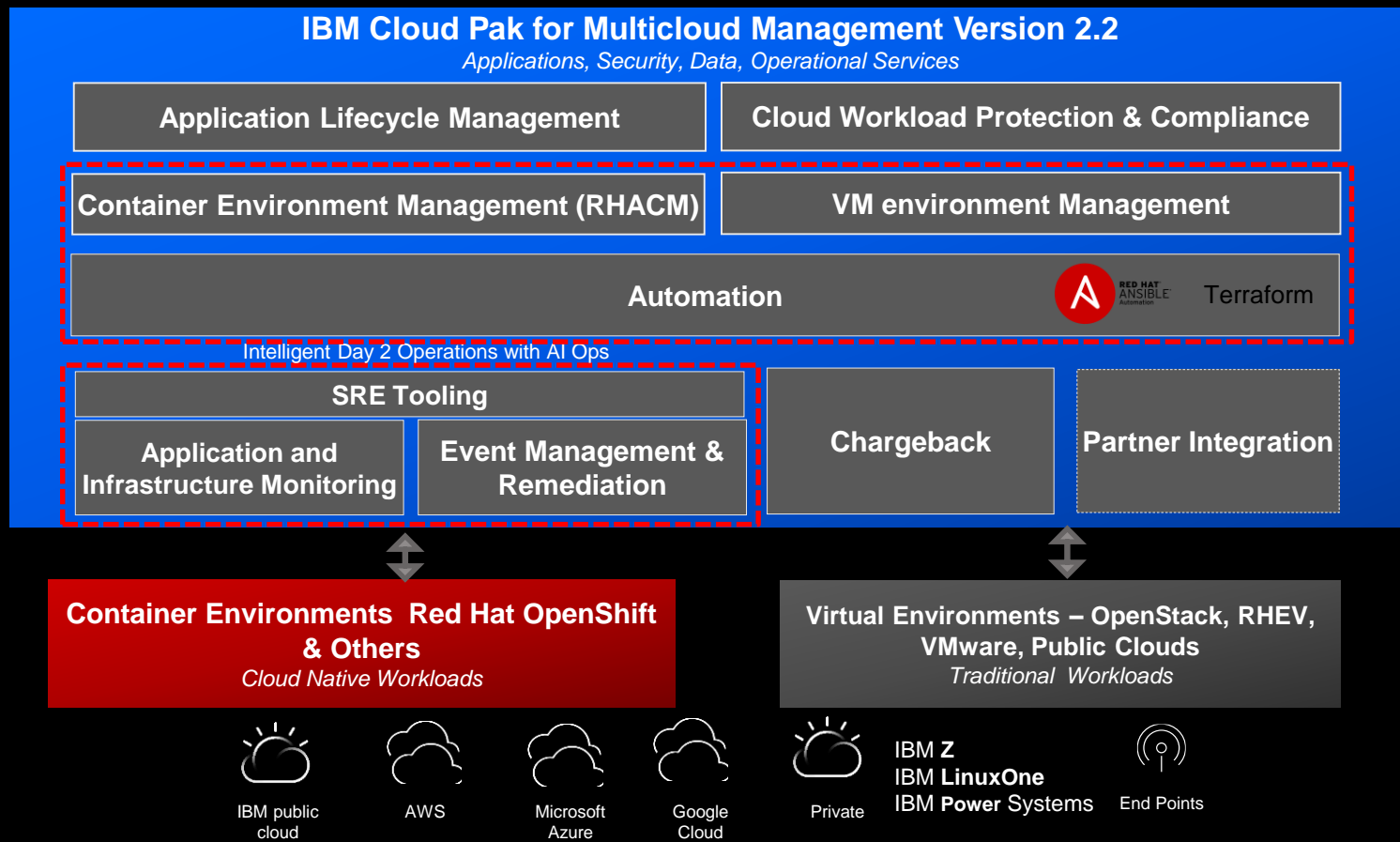
# Measure the availability and reliability of applications based on key SLI/SLOs



**Declarative Model for SLOs** – Natively build, monitor and enforce SLOs, error budgets, define SLO targets, error budgets, and monitor SLO status continuously with synthetic testing natively available. By using this feature, the SRE can create and ensure adherence to the objectives that are jointly determined with development.

Demo (04:31 mins)

# Overall Solution Capability



Management

Platform

# Why IBM Cloud Integration Expert Labs?

## Our purpose

Expedite the successful deployment of IBM's Cloud Integration Solutions

## How we drive success

Through our deep technical expertise, methodology, repeatable patterns, learning services and mentoring

## How you benefit

Faster time to value from your IBM Cloud Integration Solutions



Contact us through email: [labs@us.ibm.com](mailto:labs@us.ibm.com)



# Why IBM Cloud Integration Education?

Invest in the skills of your workforce with 3 options:

Cost effective, digital-based technical training



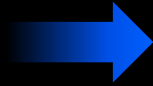
Individual and Enterprise Digital Learning Subscriptions

Understanding skill gaps and the paths to close those gaps



Skill Assessments & Augmentation with skill roadmap recommendations

Develop professional acumen



Validate your skills with IBM Cloud Certification and Digital Credentials

Motivated employees



Trained employees



Increased employee productivity



Faster ROI



# Thank you!

