



Connect

Accelerate Deployments With Validated Patterns

David Pearson MBCS MIET CEng

Associate Principal Account Solution Architect - Ecosystem

Red Hat UK

Mailto: davpears@redhat.com | LinkedIn: [linkedin.com/in/davpea/](https://www.linkedin.com/in/davpea/)





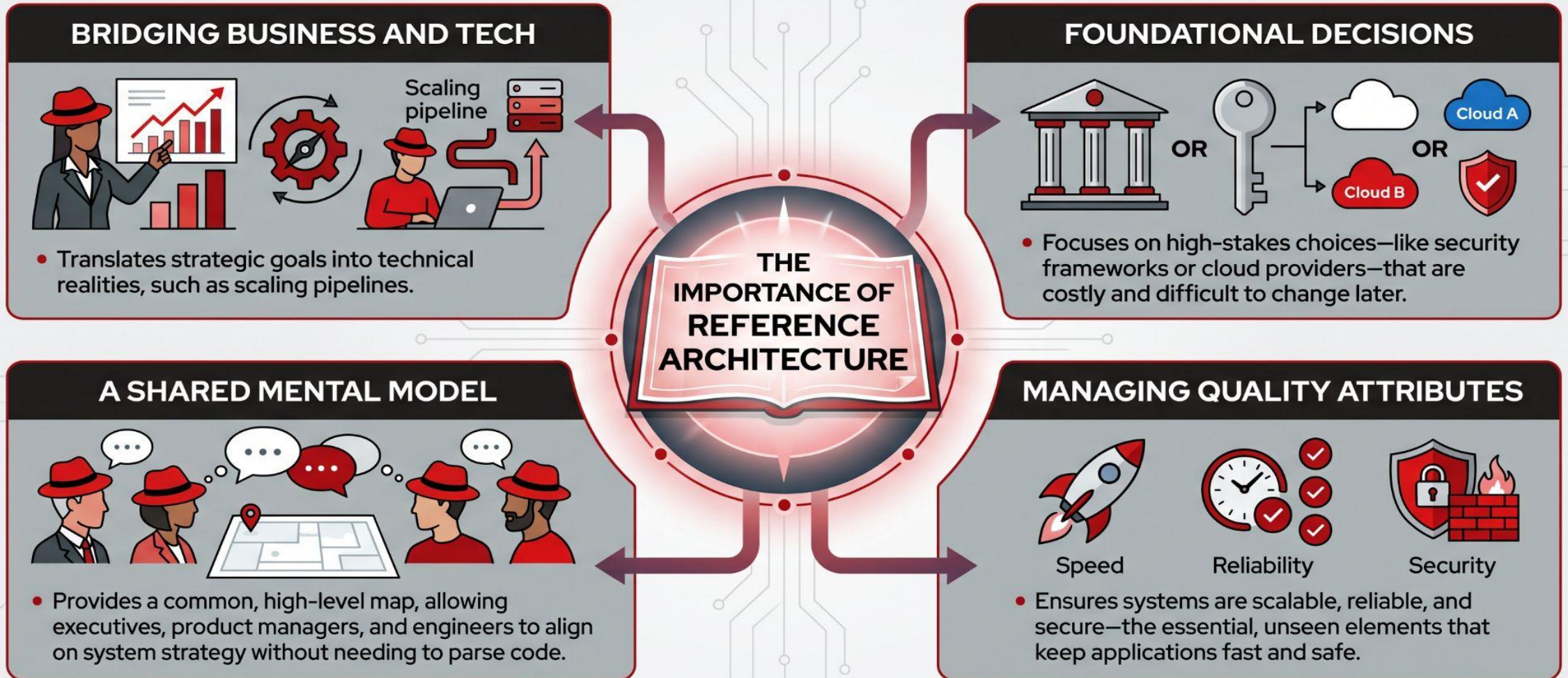
David Pearson MBCS MIET CEng

Associate Principal Account Solution Architect - Ecosystem
Red Hat UK

- ▶ >35 years in IT, Primarily in Technical Consulting, Sales Engineering & Enterprise Architecture Roles (26 years at IBM Expert Labs / GTS TLS).
- ▶ 3 Years at Red Hat working with Partners to accelerate their goto market success with Red Hat software.
- ▶ BCS & IET Member & Chartered Engineer (CEng)
- ▶ Open Group TOGAF Certified Enterprise Architect.



DESIGN BLUEPRINT FOR YOUR HYBRID APPS PLATFORM



Ways To Create Software Design Blueprints

MS WORD / GOOGLE DOCS



TRADITIONAL TEXT EDITORS

Familiar Interface
Rich Text Formatting
Collaboration & Review
Version History

WIKIS (e.g., Confluence, Notion)



INTERNAL COLLABORATIVE WEB PLATFORMS

Easy to Create & Edit
Real-Time Collaboration
Centralized Knowledge Base
Page Linking

MARKDOWN FILES (e.g., in Code Editors, Obsidian)



VERSION-CONTROLLED PLAIN TEXT

Simple Syntax
MKDocs
Plaintext Format
Platform Independent

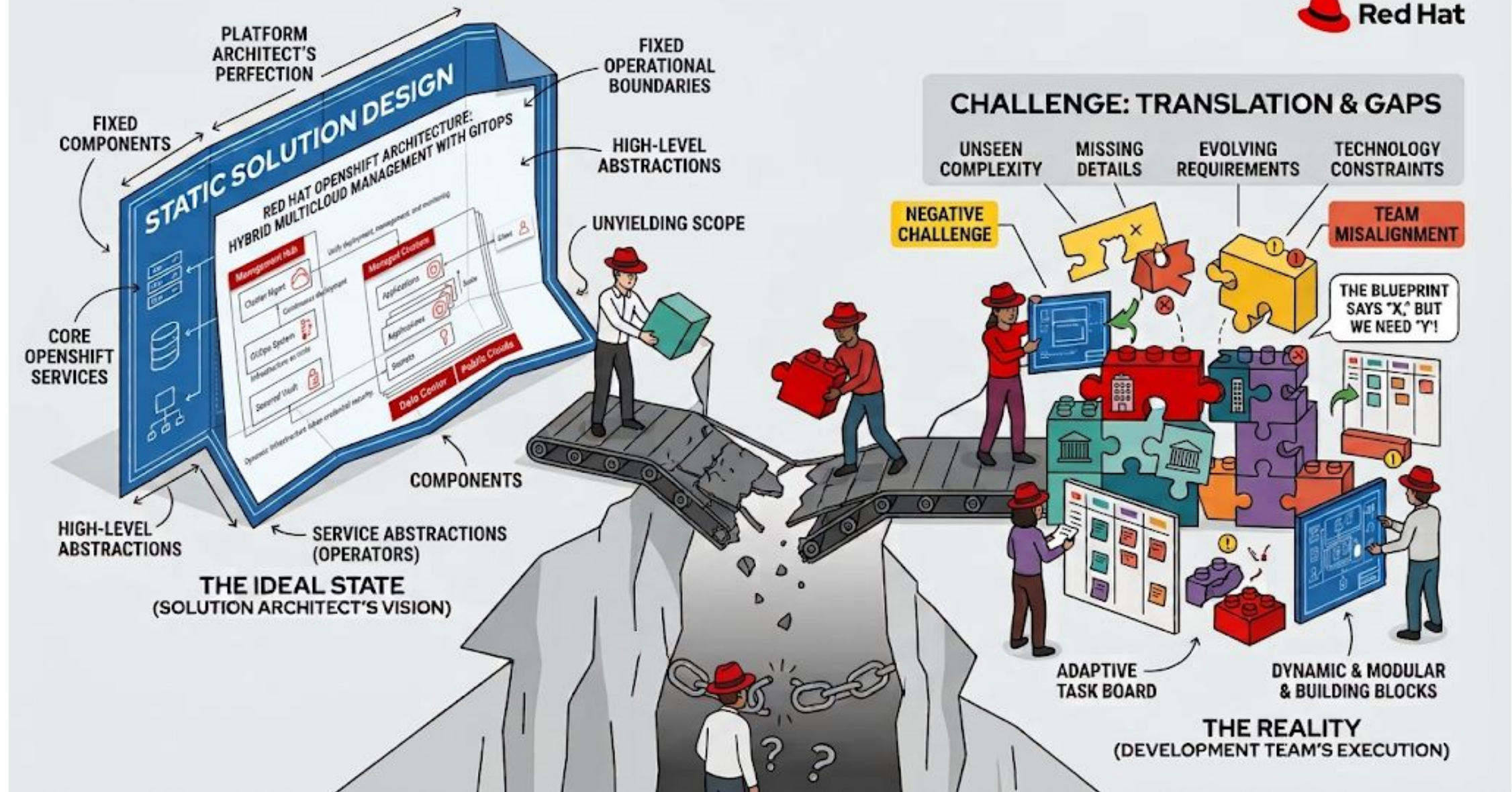
CUSTOM WORKBENCH TOOLS (e.g., tailor-made apps)



SPECIALIZED INTERNAL SOLUTIONS

Tailored to Team Workflows
Internal System Integration
Workflow Automation
Proprietary Tooling





The bridge to reality - gap between concept and production

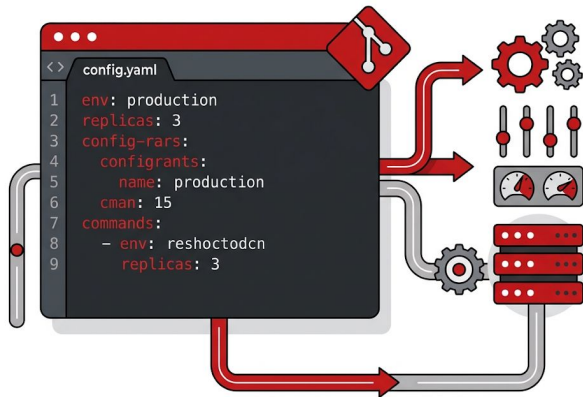


Validated Patterns

Providing The Bridge To Operational Reality For Common Use Cases

Configuration as code

Go beyond documentation using
GitOps process to simplify deployment

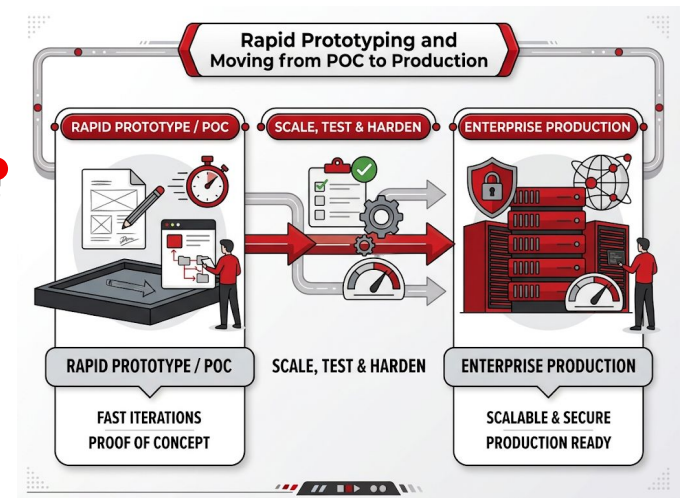


Maintained over time

Each use case has a lifecycle to ensure they
are kept up to date while they are being
used

From POC to production

Ensure your teams are ready to operate at scale



Open for collaboration

Anyone can suggest improvements and
contribute

Tested as a use case

Confidence the configuration continues to work





Validated Patterns Library - September 2026



New Patterns over the last quarter are **bolded**

Sandbox & Tested Validated Patterns:

<u>Connected Vehicle</u>	<u>Kong Gateway</u> ®	<u>MLOps Fraud Detection</u>	<u>Hypershift</u>
<u>Retail Edge</u>	<u>RAG-LLM</u>	<u>Takebishi</u> ® <u>Gateway</u>	<u>TravelOps</u> → ServiceMesh
<u>Multicloud DevSecOps</u>	<u>Ansible GitOps Framework</u>	<u>Edge Anomaly Detection</u>	<u>Layered Zero Trust</u>
<u>Emerging Disease Detection</u>	<u>Regional Disaster Recovery</u>	<u>Federated Edge Observability</u>	<u>GPFS Tester</u>
<u>Confidential Containers</u>	<u>Virtualization Starter Kit</u>	<u>CockroachDB</u>	<u>OpenShift AI</u>
<u>OmniCloud as a Service</u>	<u>RamenDR Starter Kit</u>	<u>Telco Hub</u>	<u>Ingress Mesh BGP</u>
<u>RAG-LLM CPU</u>	<u>Model as a Service AI Quickstart</u>	<u>Lemonade Stand AI Quickstart</u>	<u>RAG AI Quickstart</u>
<u>NetApp DR Starter Kit</u>	<u>RHOSO GitOps</u>		

Maintained Validated Patterns

- Industrial Edge
- Medical Diagnosis
- Multicloud GitOps (MCG)
- Ansible Edge GitOps
→ OpenShift Virt

Partner Patterns & Testing

- Intel® AMX, QAT and SGX and Gaudi 2
→ 7 Sandbox patterns
- MCG with Portworx®
- Portworx DR**
- Cisco® FlashStack + VP Blog
- CVD for Medical Diagnosis
- Fraud Detection, RAG-LLM, Medical
→ Inclusion in 3 patterns
- RAG-LLM with Microsoft SQL on Azure
- Trilio Continuous Restore**
- AMD** OPEA Chat QnA accelerated with AMD Instinct
- veeam** Veeam® Kasten - OpenShift Virt Data Protection

40 Sandbox Tiered Patterns

More information on individual patterns can be found on validatedpatterns.io

5 Tested Tiered Pattern

4 Maintained Tiered Patterns

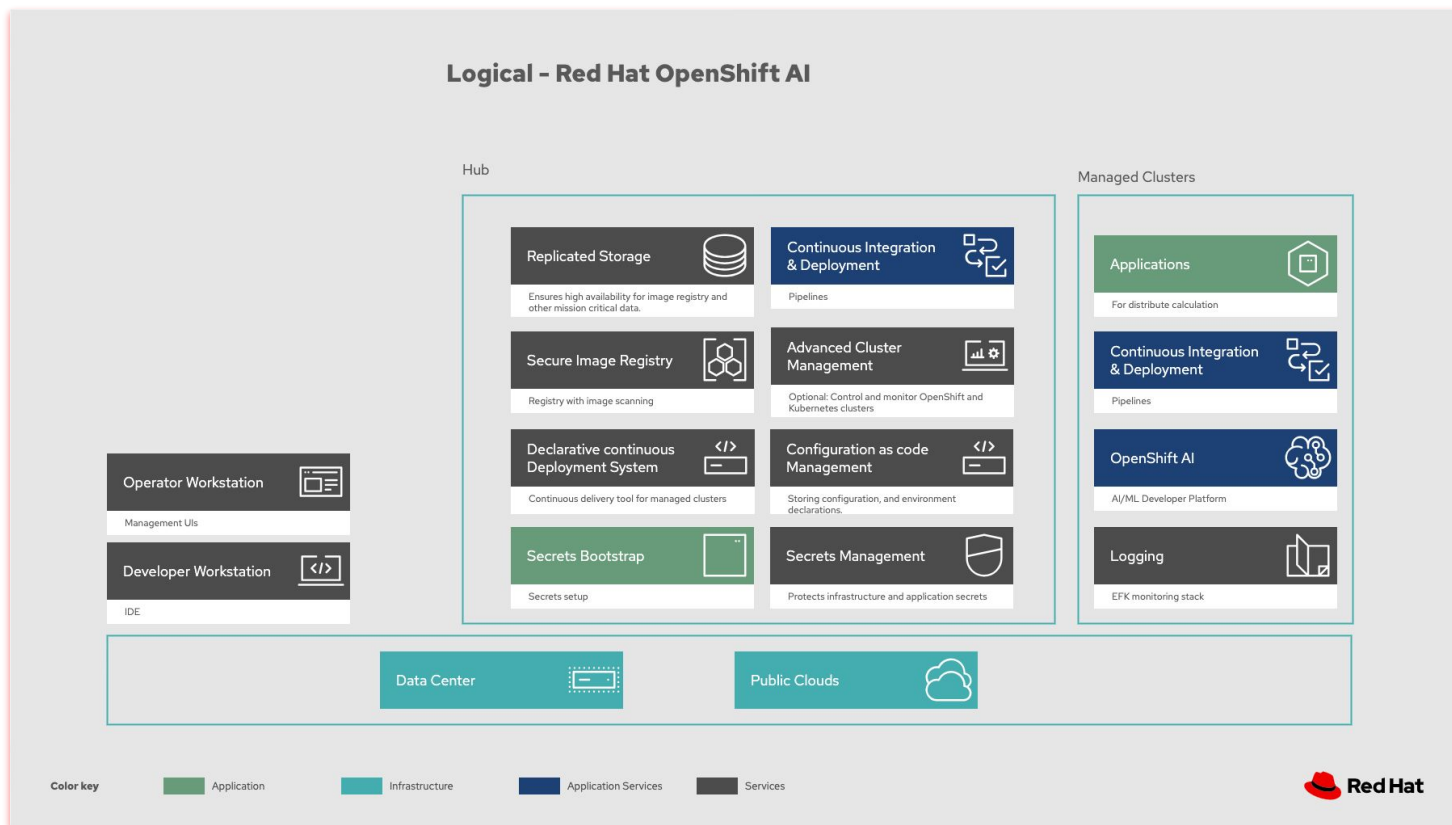
Partner Engaged

Customer Engaged

AI Patterns

Validated Patterns Content

Example: OpenShift AI



About the Red Hat OpenShift AI pattern

About the solution

About the technology

Overview of the architectures

Hybrid Multicloud
GitOps

Dynamic security
management

Next steps

<https://validatedpatterns.io/patterns/openshift-ai/>



Validated Patterns Tiering



Sandbox Tier

An entry point for inclusion.

At minimum, this includes using the validated patterns framework and some documentation.

The patterns in this tier are either a work-in-progress or has not risen to Tested tier.

Reasons include support for a limited set of cloud platforms, a lack of testing or no SME for the use case.



Tested Tier

The pattern's owner (SMEs, partners, etc) will run manual or automated test periodically.

This is on a quarterly basis at a minimum, but is recommended monthly or when new versions of the services included in the pattern are released.

The pattern includes a business use case and demo along with documentation.



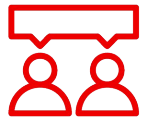
Maintained Tier

These patterns are tested for functionality on all currently supported EUS versions and pre-release versions of Red Hat component products.

This requires a formal release process with release candidates and patch releases.

They typically include continuous integration (CI) automation testing on multiple platforms on a regular basis.

Validated Patterns Value



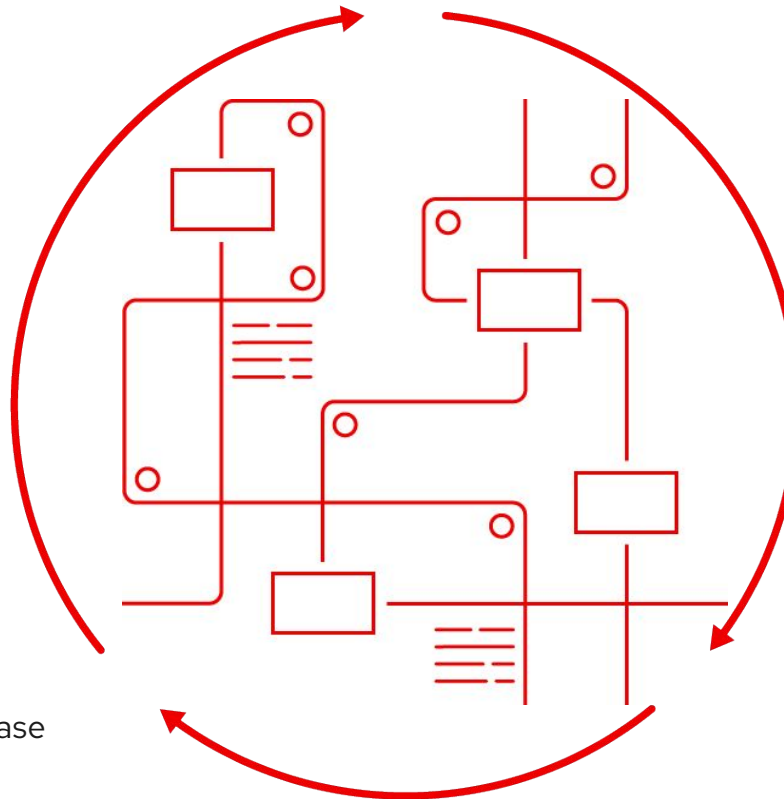
Customers

Streamlined deployment
Reduced risk
Validated architecture



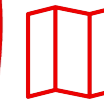
Solution Architects

Business value demo
Accelerate PoC
Validated architecture
Aligned with business use case



Partners

Validated architecture to build upon
Easy partner entry points
Joint deployment and promotion
Leveraged collaboration



Services/GSIs

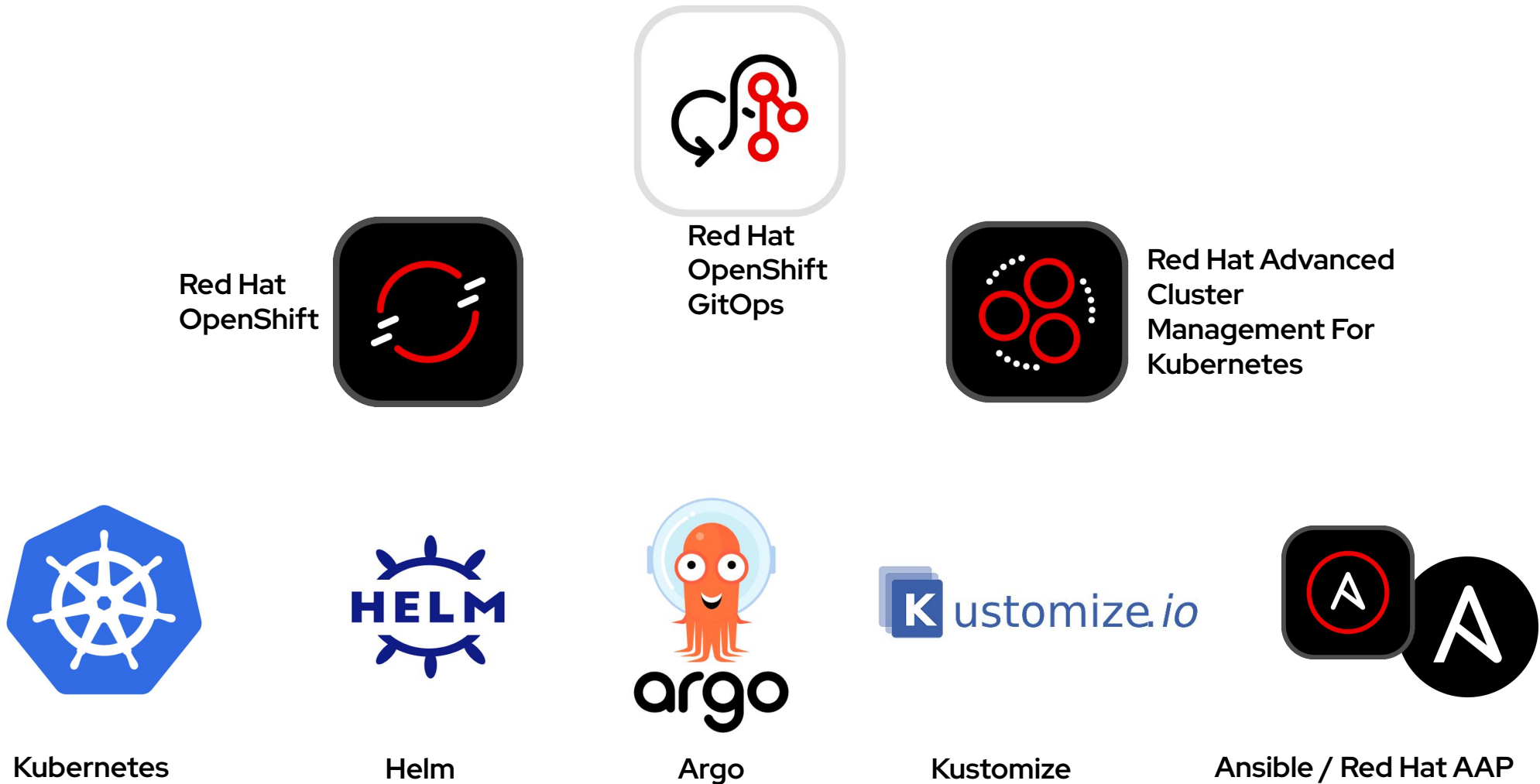
Validated architecture to build upon
Solution starting point
Common deployment framework

Validated Patterns provide the "golden paths" that empower your teams to build faster and more reliably.



Our Technology Stack

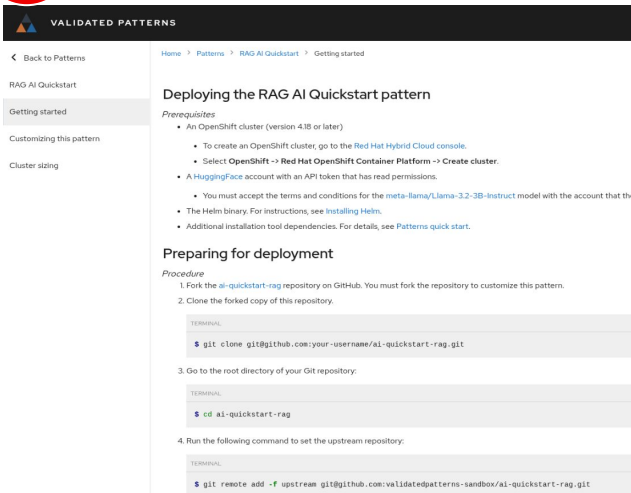
What's Required To Build / Maintain Patterns



Our Technology Stack

How To Use A Pattern

1 Access Patterns Install Link



VALIDATED PATTERNS

Home > Patterns > RAG AI Quickstart > Getting started

Deploying the RAG AI Quickstart pattern

Prerequisites

- An OpenShift cluster (version 4.18 or later)
 - To create an OpenShift cluster, go to the [Red Hat Hybrid Cloud console](#).
 - Select **OpenShift** -> **Red Hat OpenShift Container Platform** -> **Create cluster**.
- A [HuggingFace](#) account with an API token that has read permissions.
 - You must accept the terms and conditions for the [meta-llama/llama-3.2-3B-instruct](#) model with the account that the Helm binary. For instructions, see [Installing Helm](#).
 - Additional installation tool dependencies. For details, see [Patterns quick start](#).

Preparing for deployment

Procedure

- Fork the `ai-quickstart-rag` repository on GitHub. You must fork the repository to customize this pattern.
- Clone the forked copy of this repository.

```
TERMINAL
$ git clone git@github.com:your-username/ai-quickstart-rag.git
```

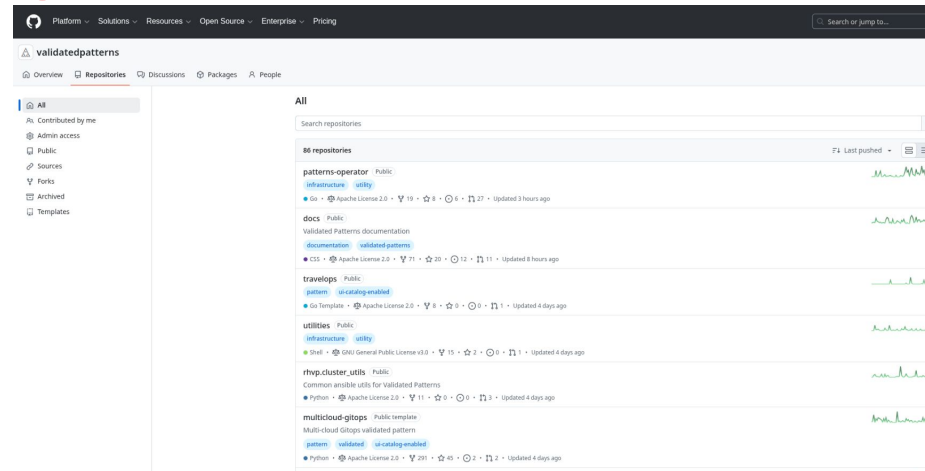
- Go to the root directory of your Git repository.

```
TERMINAL
$ cd ai-quickstart-rag
```

- Run the following command to set the upstream repository:

```
TERMINAL
$ git remote add -f upstream git@github.com:validatedpatterns-sandbox/ai-quickstart-rag.git
```

2 Fork & Clone Git Repository



Platform > Solutions > Resources > Open Source > Enterprise > Pricing

validatedpatterns

Overview > Repositories > Discussions > Packages > People

All

Search repositories

86 repositories

patterns-operator Public

infrastructure utility

docs Public

Validated Patterns documentation

documentation validatedpatterns

travelops Public

pattern ui catalog enabled

utilities Public

infrastructure utility

rhsp.cluster.utils Public

Common ansible utils for Validated Patterns

multcloud-gitops Public template

Multi-cloud GitOps validated patterns

pattern validated ui catalog enabled

3 Follow Deployment Instructions

Deploying the pattern by using the pattern.sh file

To deploy the pattern by using the `pattern.sh` file, complete the following steps:

1. Log in to your cluster by following this procedure:

- Obtain an API token by visiting https://oauth-openshift.apps.<your_cluster>.<domain>/oauth/token/request.
- Log in to the cluster by running the following command:

```
TERMINAL
$ oc login --token=<retrieved-token> --server=https://api.<your_cluster>.<domain>:6443
```

Or log in by running the following command:

```
TERMINAL
$ export KUBECONFIG=~<path_to_kubeconfig>
```

2. Deploy the pattern to your cluster. Run the following command:

```
TERMINAL
$ ./pattern.sh make install
```

- ❖ We use a tokenization approach for secret management
- ❖ Tokens or references pull secrets from secure storage during runtime.
- ❖ Helm chart to set up the Openshift External Secrets Operator
- ❖ External Secrets Operator (ESO) – HashiCorp Vault, AWS Secrets Manager, Azure Key Vault, GCP, IBM Secrets Manager, and others.

<https://charts.validatedpatterns.io/>



Our Technology Stack

What's Required To Build / Maintain Patterns

1

add simple function to your shell configuration file (for example ~/.zshrc or ~/.bashrc) to enable easier use of the tool.

```
BASH

pattern() {
  podman run --pull=newer \
    -v "$PWD:$PWD:z" \
    -w "$PWD" \
    quay.io/validatedpatterns/patternizer "$@"
}
```

2

TERMINAL

```
$ mkdir my-pattern && cd my-pattern
$ git init
```

3

TERMINAL

```
$ pattern init
```

4

```
my-pattern
├── ansible.cfg
├── Makefile
├── Makefile-common
├── pattern.sh
├── values-global.yaml
├── values-prod.yaml
└── values-secret.yaml.template
```

YAML

```
clusterGroup:
  name: prod
  namespaces:
    my-pattern:
      vault:
        external-secrets-operator:
          operatorGroup: true
          targetNamespaces: []
        external-secrets:
          subscriptions:
            eso:
              name: openshift-external-secrets-operator
              namespace: external-secrets-operator
              channel: stable-v1
          applications:
            openshift-external-secrets:
              name: openshift-external-secrets
              namespace: external-secrets
              chart: openshift-external-secrets
              chartVersion: 0.0.*
      vault:
        name: vault
        namespace: vault
        chart: hashicorp-vault
        chartVersion: 0.1.*
```

5

Claude Skills

CURSOR



You can directly edit the generated values files to define your pattern:

- Add operator subscriptions and namespaces to values-prod.yaml
- Add Helm chart applications to values-prod.yaml
- Configure global settings in values-global.yaml
- Define secrets in values-secret.yaml.template

<https://validatedpatterns.io/learn/creating-patterns-with-patternizer/>



Leverage Red Hat Architecture Assets

Design From Successful Deployments

The screenshot shows the Red Hat Architecture Center interface. The top navigation bar includes the Red Hat logo and links for AI, Hybrid Cloud, Products, Training & services, Resources, Partners, and About. Below this, a secondary navigation bar has links for Red Hat Architecture Center, Catalog, Learn, and Diagramming Tool. The main content area features a search bar and a list of results. The first result is titled 'Kubernetes-Native Authentication in OpenShift using External Authentication' and is dated April 27, 2026. It includes a brief description: 'Enable OIDC-based access workflows across managed and self-managed cluster environments.' The results are displayed in a grid of cards, each showing a thumbnail image, a title, a brief description, and a 'Solution Architecture' button.

- ▶ Evidence-based architecture reference
- ▶ Review Submissions - Ensure accuracy
- ▶ Combination of recommended practices and patterns
- ▶ Tools to help you create and architect your deployment
- ▶ Genericize Technology



Partners – Start Collaborating With Red Hat

Validated Patterns Accelerator

Validated Patterns Accelerator Event Outline

Morning Session

- 09:00-09:15: Welcome / Introductions
- 09:15-09:45: The Value Of Validated Patterns
- 09:45-11:00: Overview Of Existing Patterns
- 11:00-11:20: ** Comfort Break **
- 11:20-12:30: How We Have Assisted Other Partners
- 12:30-13:30: ** Lunch Break **

Afternoon Session

- 13:30-14:30: Pattern Creation Overview & Demo
- 14:30-15:30: Partner Existing Solution Architecture & Opportunities For Collaboration
- 15:30-15:45: ** Comfort Break **
- 15:45-16:30: Partner Existing Solution Architecture & Opportunities For Collaboration (Cont.)
- 16:30-17:00: Next Steps
- 17:00-17:10: Event Closure

- ▶ **Audience:** CTO, Senior Architects, Line Of Business Owners.
- ▶ **Cost:** Free
- ▶ **Outcomes:** Learn how Validated Patterns can add value to your business + agree a use case to work on with Red Hat assistance



Validated Patterns Workshop – Agenda Overview

Pre-Event – preparation activities	Day 1	Day 2	Day 3	Day 4	Day 5
Logistics • Date & Venue • Participant List • Demo environment • Remote Participation Setting Expectations: • <Partner>-RH Core team alignment • 2h webinar for all participants to cover ○ Pre-requisites ○ WS Objectives ○ Intro to VPs, landscape and tiers ○ Q&A	Welcome & Intros • Setting expectations for the week The Value of Validated Patterns • G2M/ROI discussion, • Private vs public patterns • Practice Multiplier How to create a Validated Pattern • Helm charts and how they are used • Declarative vs. Imperative frameworks	How to create a Validated Pattern (ctnd) • Secrets Management within GitOps • Self-Contained Patterns • GitOps rough edges Partner specific use case presentation (<Partner>) Go To Market / Expectations (<Partner>) Pattern creation activities/organization	Pattern Creation - Workgroup activities Build a validated pattern based on Partner use case	Pattern Creation - Workgroup activities Build a validated pattern based on Partner use case Testing discussion	Pattern Creation - Workgroup activities Build a validated pattern based on Partner use case Documentation discussion Expected outcome: A fully functional, deployable public pattern for Partner use case

Target Audience: ALL

Target Audience: Tech architects & practitioners



Where to go for more information

EXPLORE

- [Website: validatedpatterns.io](https://validatedpatterns.io)
- [Videos: red.ht/commons-vpsig-playlist](https://red.ht/commons-vpsig-playlist)
- [Learn: validatedpatterns.io/learn](https://validatedpatterns.io/learn)

INTERACT

- [Contribute: validatedpatterns.io/contribute](https://validatedpatterns.io/contribute)
- [Online workshop: play.validatedpatterns.io](https://play.validatedpatterns.io)
- [Interactive demo: validatedpatterns.io/demos/](https://validatedpatterns.io/demos/)

ENGAGE

- Email David Pearson (davpears@redhat.com)





Connect

Thank you



linkedin.com/company/red-hat



facebook.com/redhatinc



youtube.com/user/RedHatVideos



x.com/RedHat

