

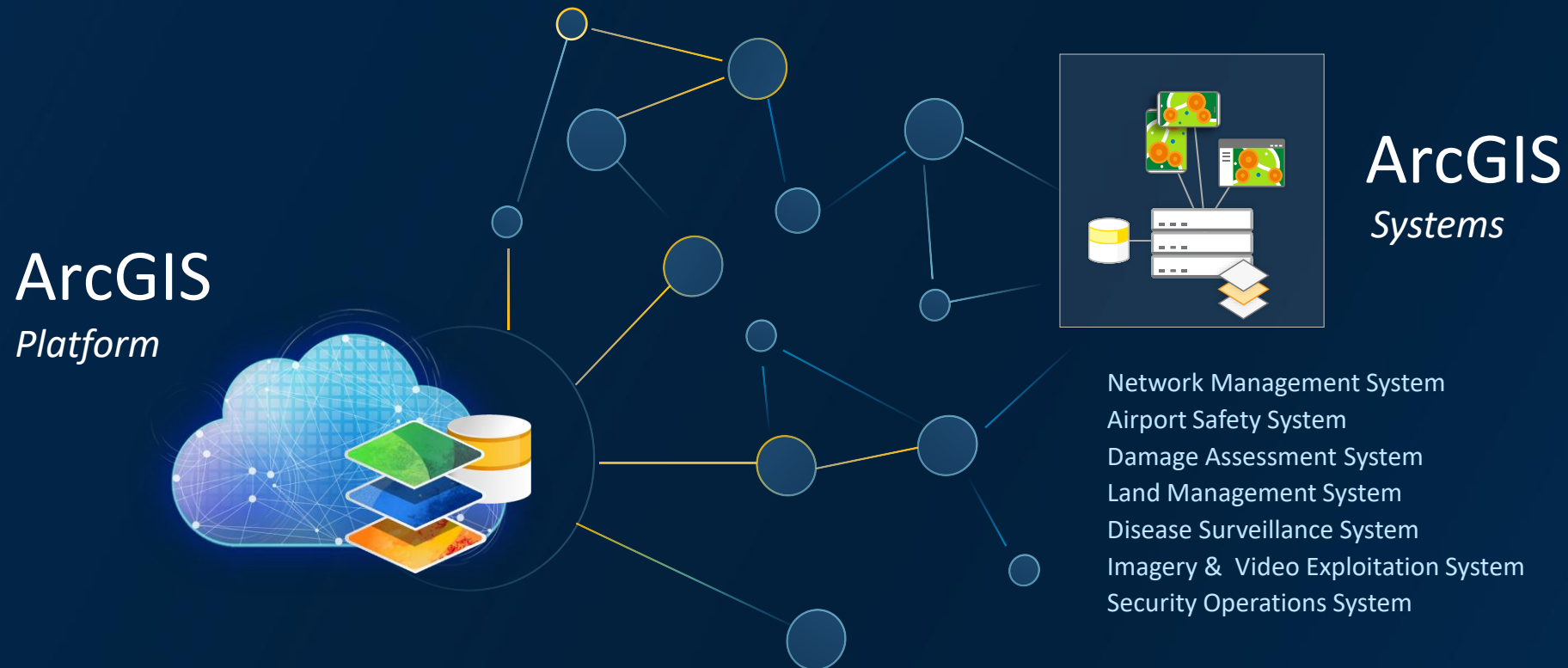
Implementing ArcGIS in an Enterprise

Cameron Muller
Richard Kaufholz



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ArcGIS is an Enterprise Platform *on which* Systems are Designed, Built & Sustained



Criticality and Complexity

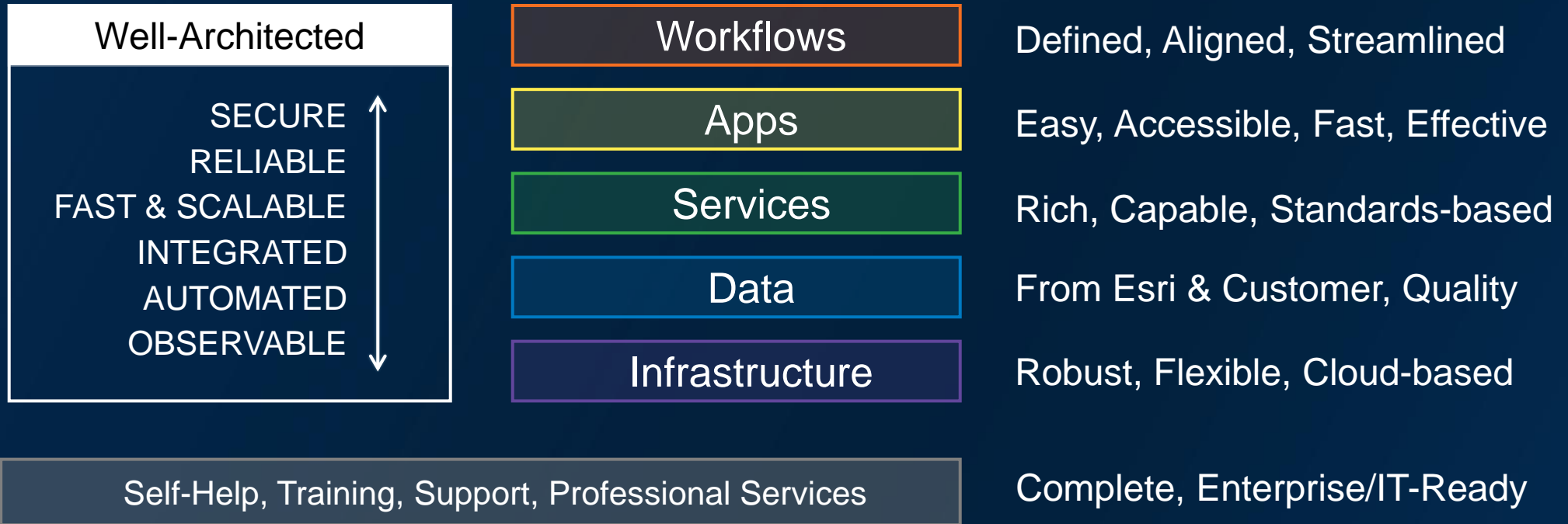
Criticality

- Measures the importance of geospatial capabilities to mission success.
- Reflects the degree of consequence if unavailable or degraded.
- Categories span informational, operational, and mission-essential.

Complexity

- System and organizational characteristics.
- Reflects how intricate, interconnected, or variable a system is.
- Encompasses technology, stakeholders, workflows, and governance.

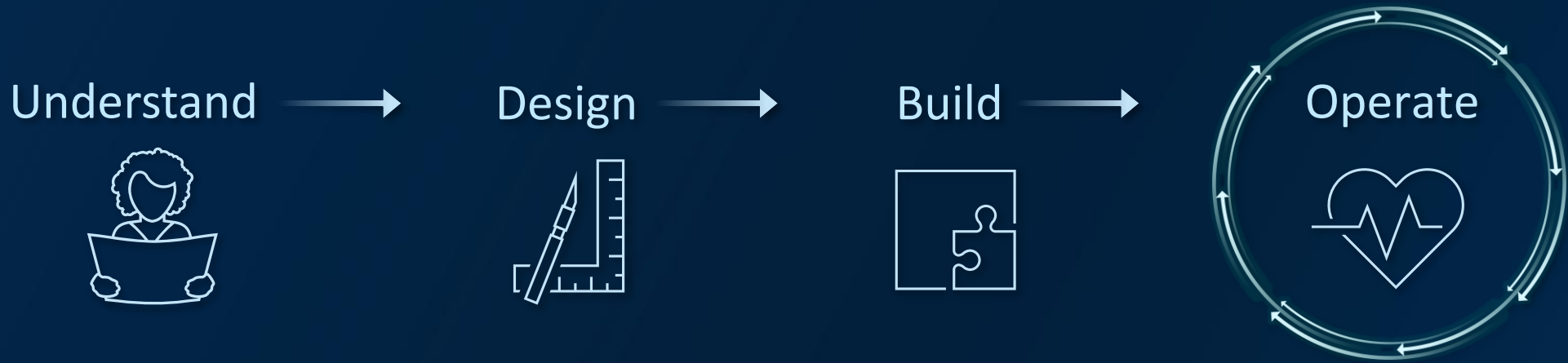
Anatomy of a Modern ArcGIS System



Enabling users across the organization ...

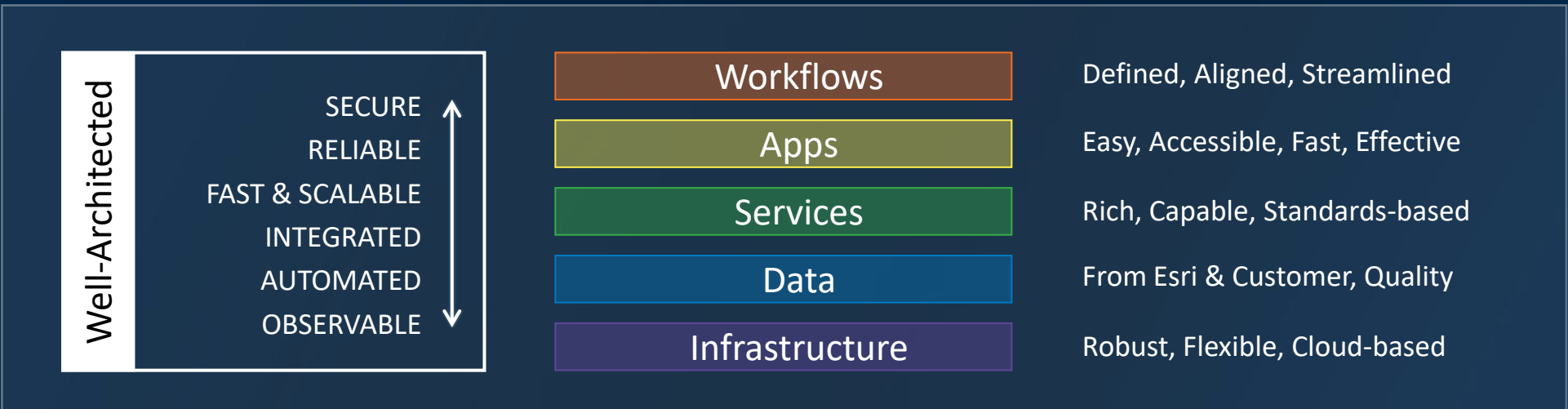
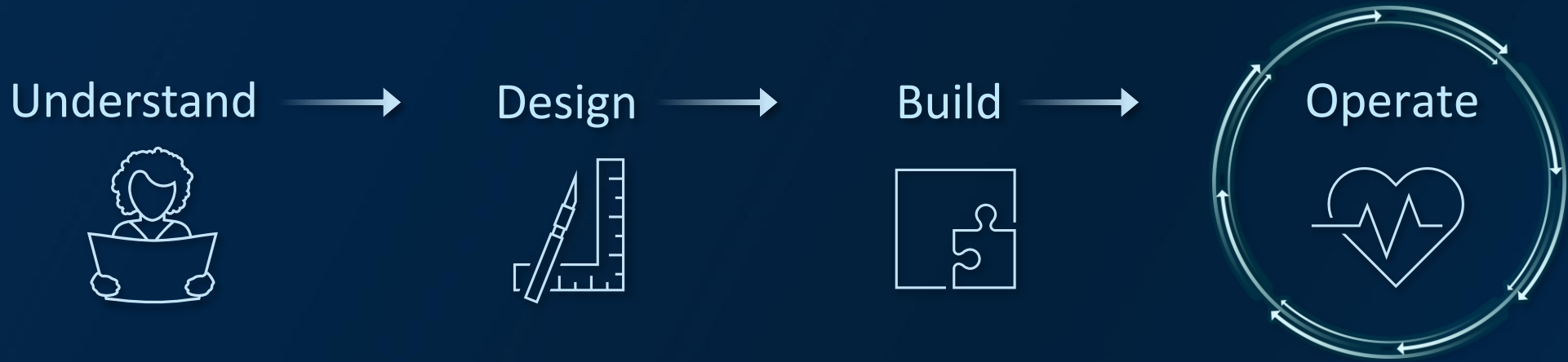
... with the tools & capabilities they need

Lifecycle of a Well-Architected System

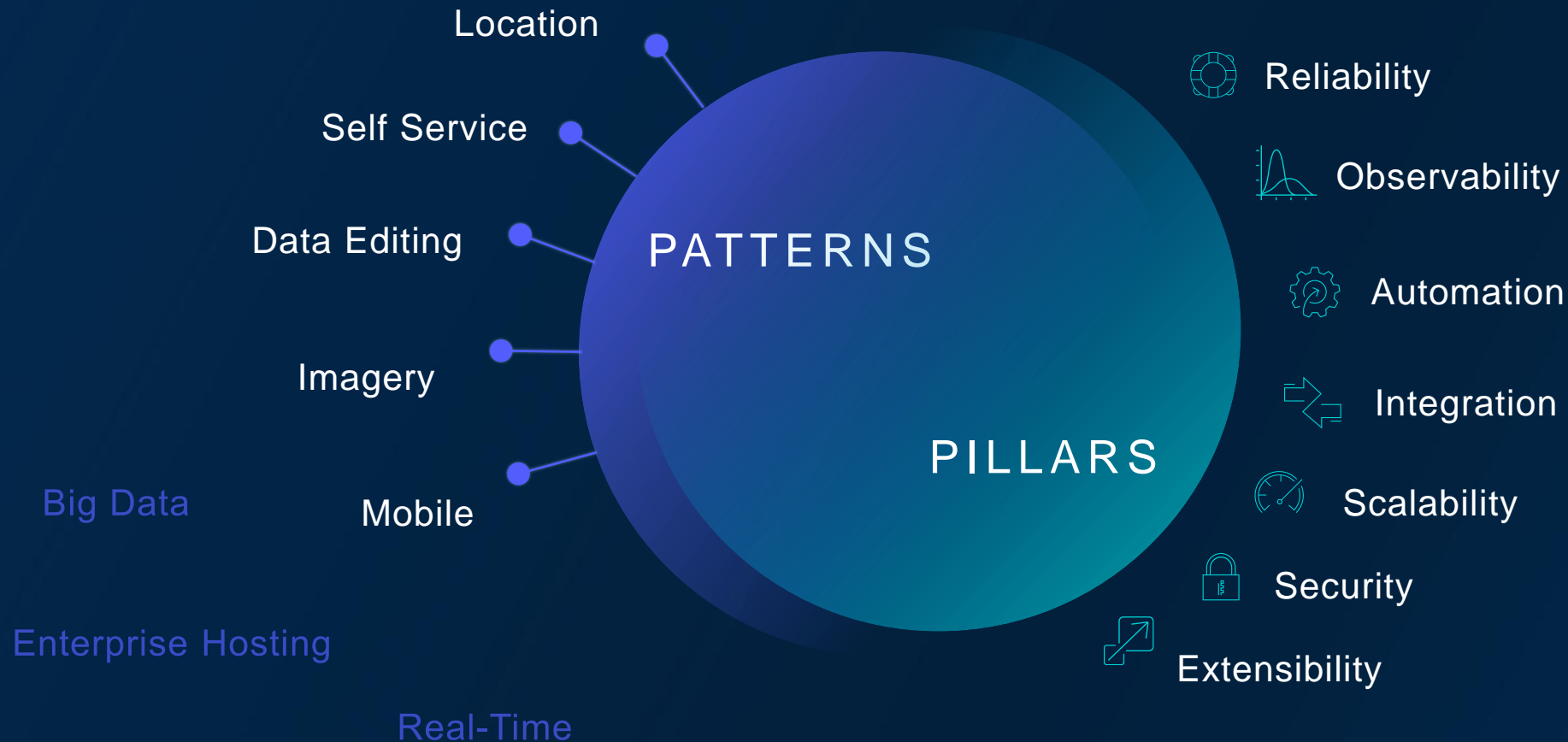


Lifecycle of a Well-Architected System

Considers and Delivers on All Aspects Throughout



ArcGIS as a Well-Architected System



Security Pillar

Protecting Data. Empowering Decisions.

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Lifecycle of a Well-Architected System

Considers and Delivers on All Aspects Throughout

BACK TO BLOG

SOE-phisticated Persistence: Inside Flax Typhoon's ArcGIS Compromise



RELIAQUEST THREAT RESEARCH
14 OCTOBER 2025

THREAT INTELLIGENCE

THREAT HUNTING AND DETECTION

EMERGING THREATS



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Application Configuration Recommendations

Strongly Recommended

Least Privilege

Environment Segmentation

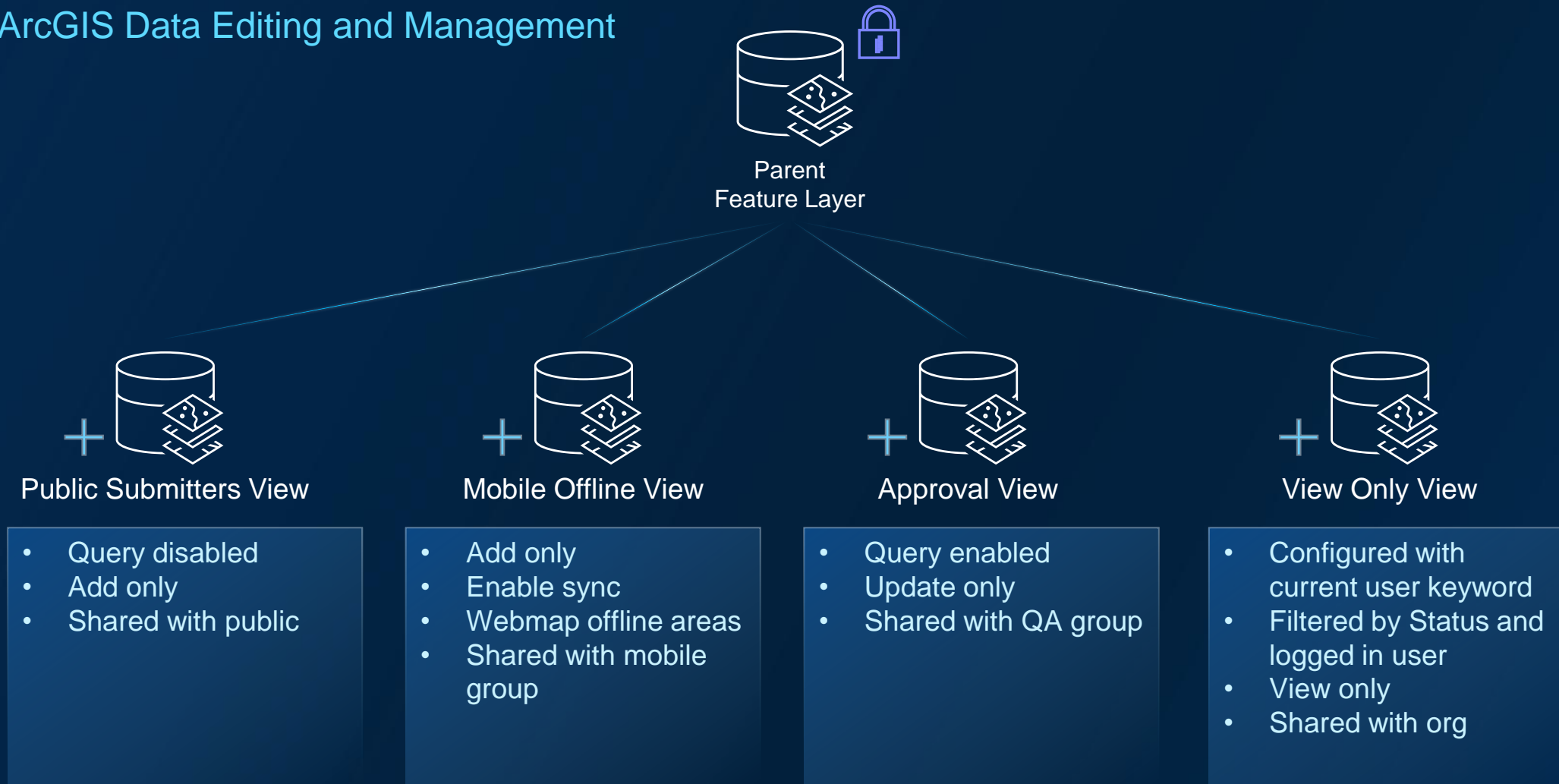
Portal Proxy Config

Organization Specific Logins

Disable Services Directories


Simplistic Example: A View Architecture

ArcGIS Data Editing and Management




Upgrades are your Friend

But...so are patches

 Products Industries Support & Services Stories About

Technical SupportOverviewProduct SupportSupport ServicesGIS DictionaryContact Support



ArcGIS Enterprise Life Cycle

Esri products are designed to work on multiple platforms and each has a unique life cycle, release dates, and support. Explore these details below.

[Sign in to Esri](#)[Download the mobile app](#)

ArcGIS Enterprise - Windows/Linux

	General Availability May 22, 2025–May 31, 2027	Extended Support June 01, 2027–May 31, 2029	Mature June 01, 2029–May 31, 2031	Retirement June 01, 2031
Technical Support Version 11.5 Release Date: May 22, 2025				
Create a case	✓	✓	✓	
Online support resources	✓	✓	✓	✓
Software updates and patches	✓	✓		
New environment certifications	✓			



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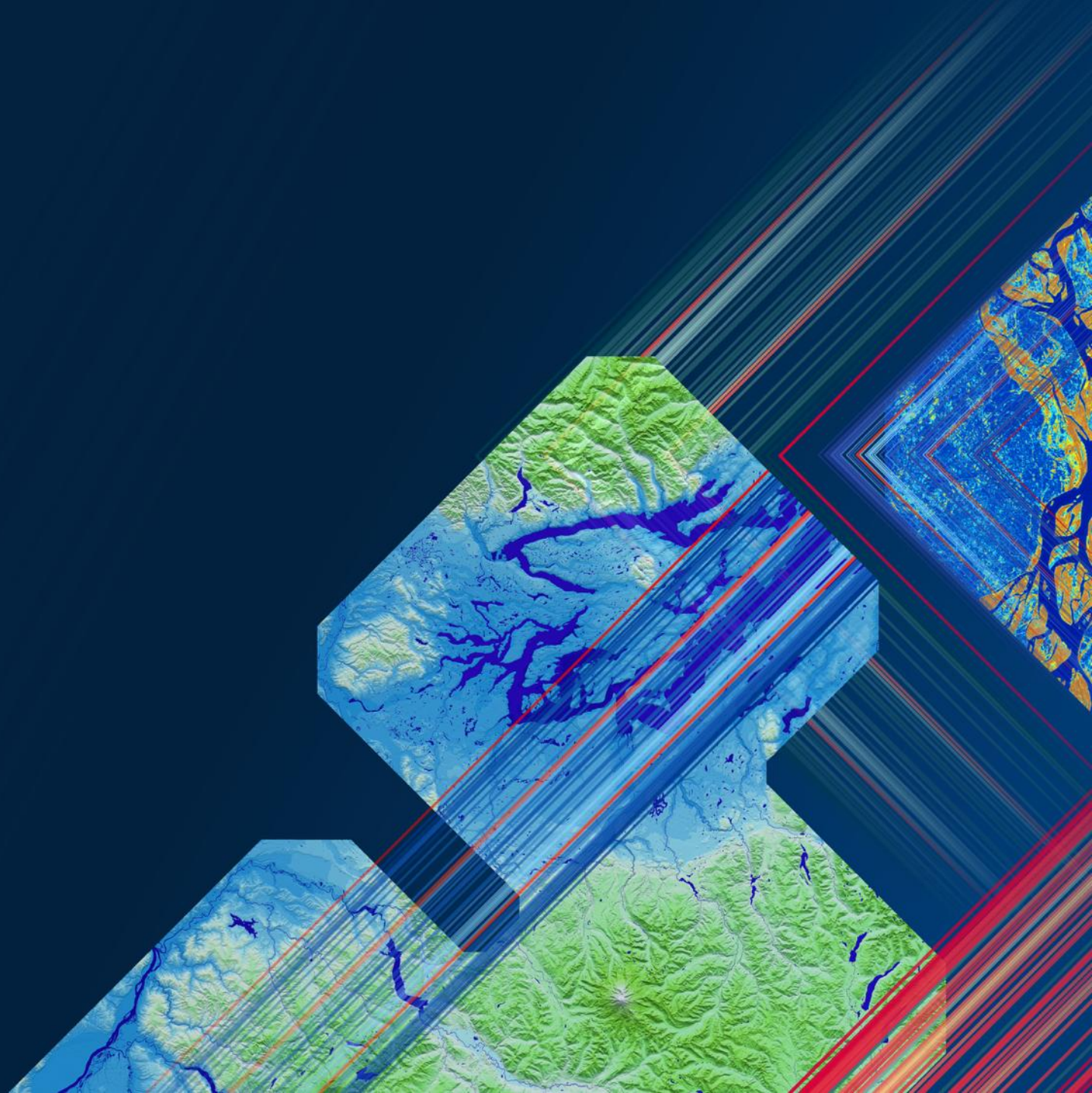
Documentation and Tooling

Clear instructions. Solid tools. No surprises.

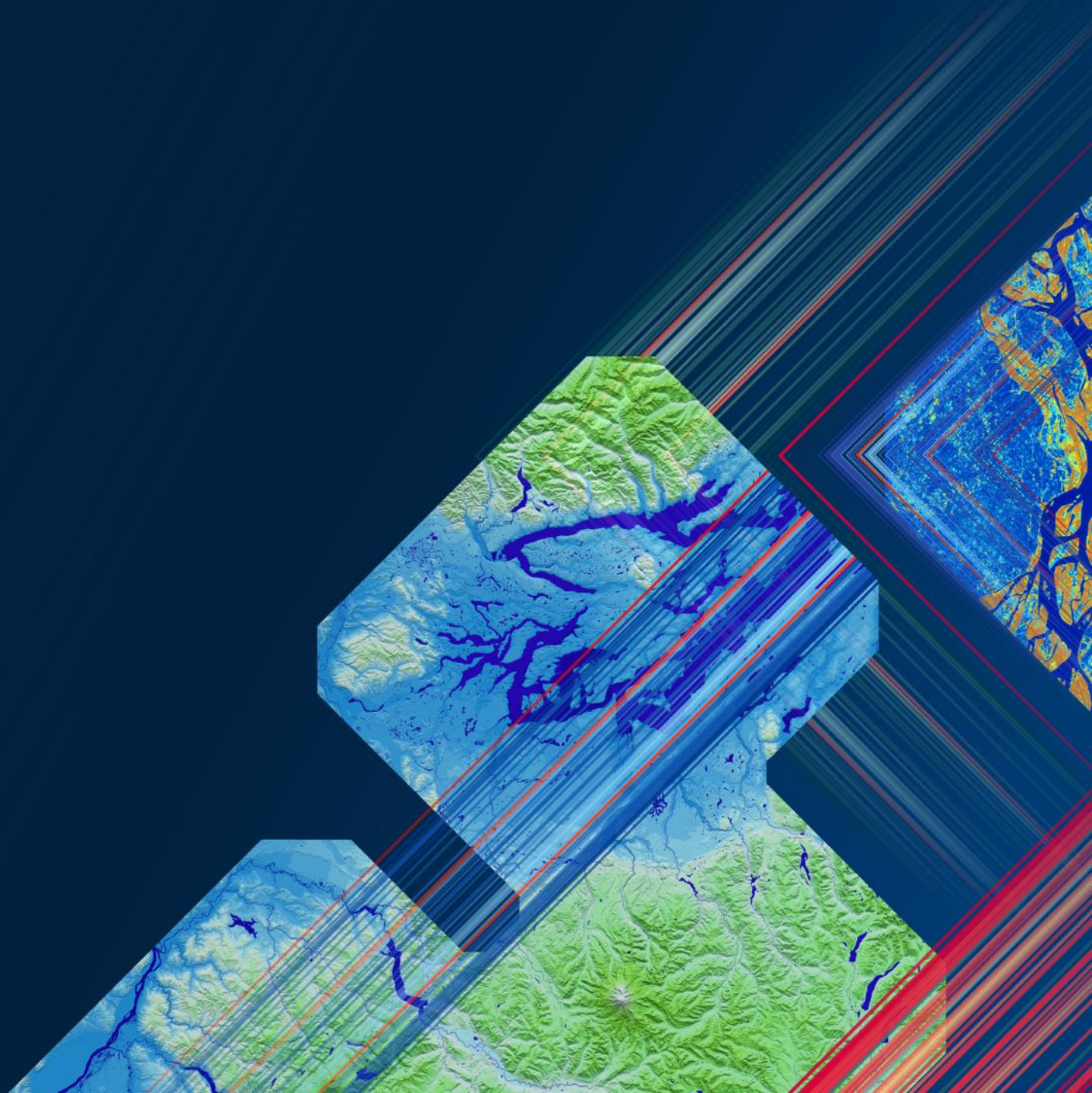


Observability

Ensuring online systems.

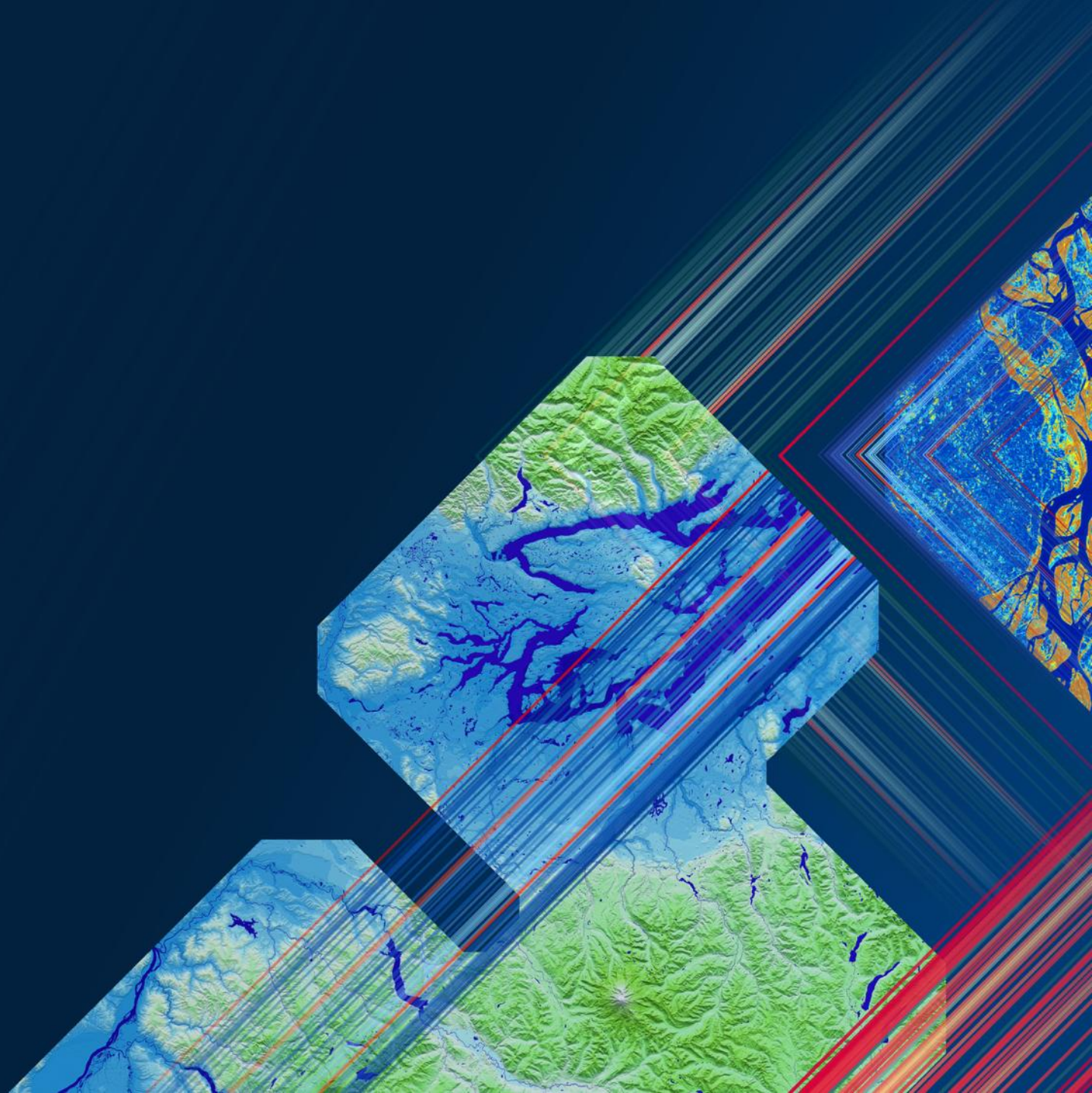


See it in Action



Automation Pillar

Automate the routine, elevate the impact.



Automating ArcGIS within Your Enterprise

ArcGIS API for Python

ArcPy

Infrastructure
Automation



DevOps
Automation



Hosted Notebooks
(Webhooks, Scheduling)



Workflow
Automation



ArcGIS Pro



ArcGIS
Enterprise

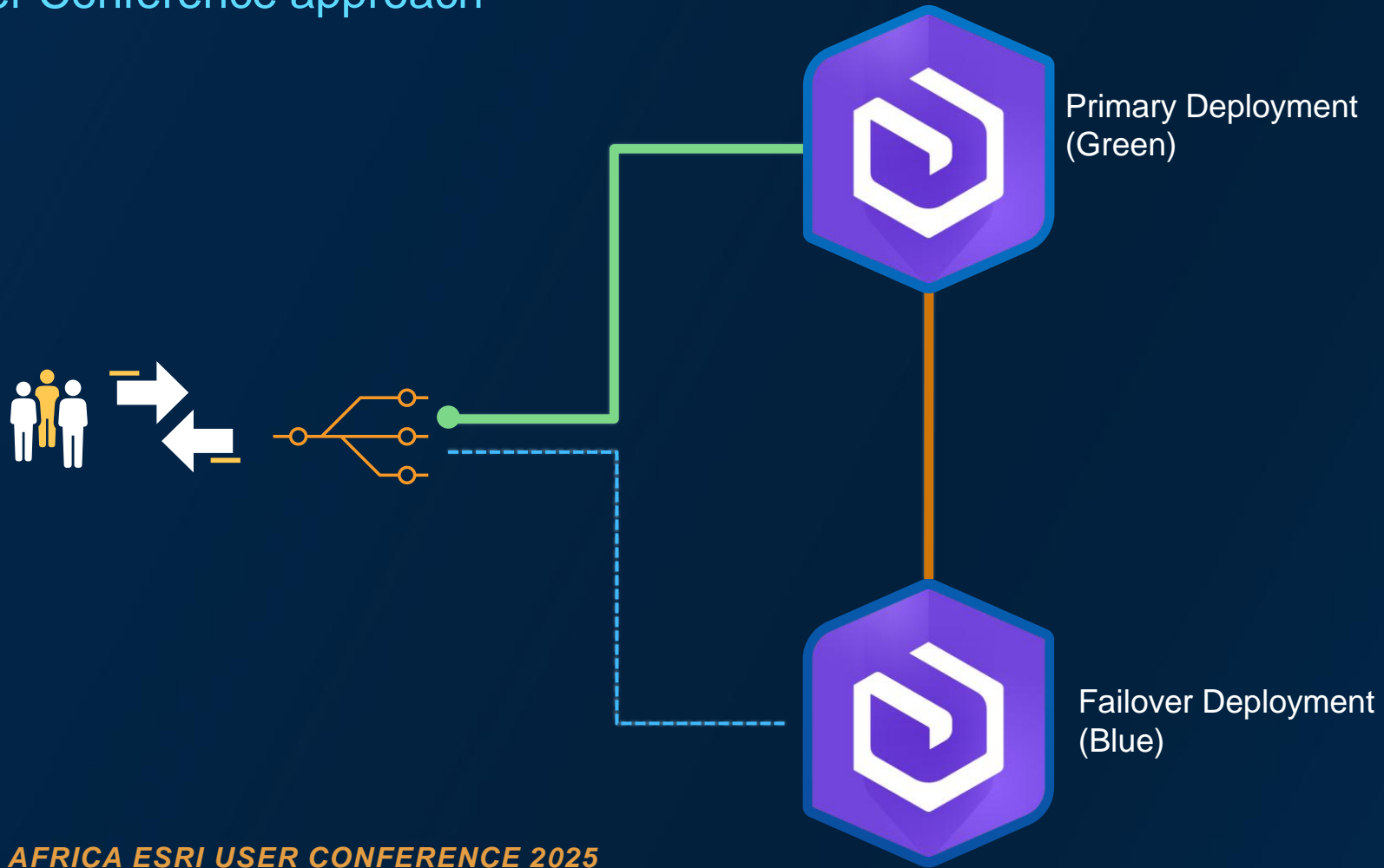


ArcGIS
Online

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Deployment Replication Solution

The User Conference approach

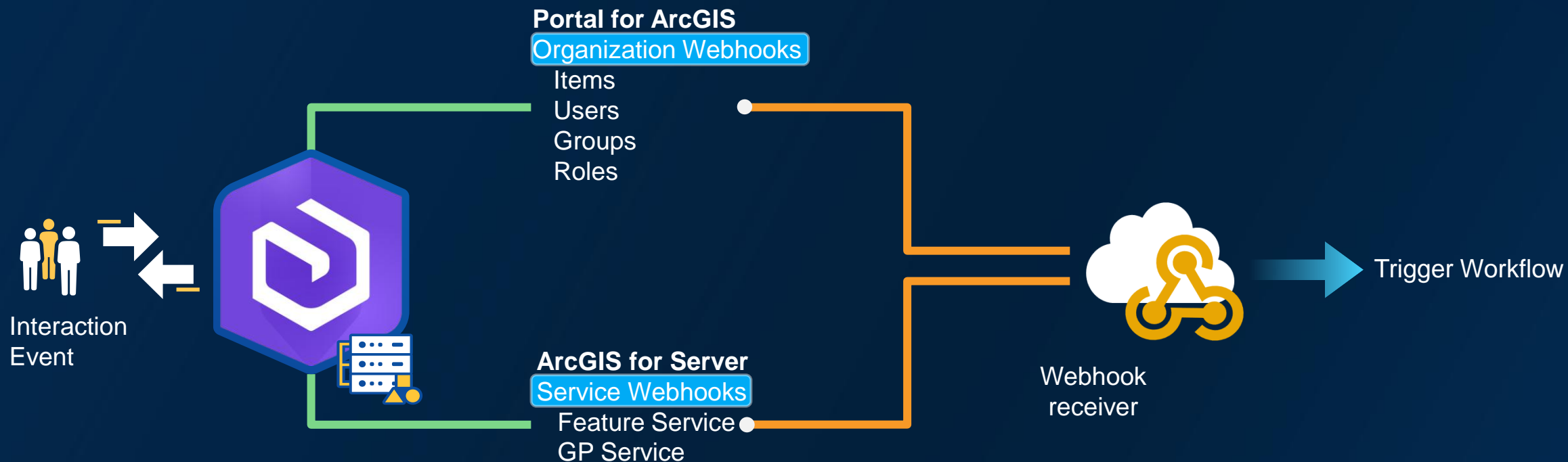


Deployment Replication Solution

```
webgisdr.properties X
Clients > South Africa > Esri South Africa > UC 2025 > Production > v11.5 > Backups > config > webgisdr.properties
1 #
2 # Configuration properties for WebGIS DR Tool
3 #
4 # If running the WebGIS DR Tool from a machine without Portal for ArcGIS installed,
5 # make sure to set the JAVA_HOME operating system environment variable to a
6 # Java Runtime Environment 11 or later installation directory.
7 #
8
9 #####
10 ##### Portal properties
11 #####
12
13 # Specify the URL to your portal.
14 # Example:
15 # https://webadaptor.domain.com/context
16 # or
17 # https://portalmachine.domain.com:7443/arcgis
18 PORTAL_ADMIN_URL = https://uc2025.esri-southafrica.com/portal
19
20 # Provide credentials for the portal administrator.
21 # Initially, leave PORTAL_ADMIN_PASSWORD_ENCRYPTED set to false.
22 # When you run the tool the first time, the password will be
23 # encrypted and PORTAL_ADMIN_PASSWORD_ENCRYPTED will change to true.
24 PORTAL_ADMIN_USERNAME = portaladmin
25 PORTAL_ADMIN_PASSWORD = sba2PDROMqfoCuqNVMDzMLUsOPB1Fixc
26 PORTAL_ADMIN_PASSWORD_ENCRYPTED = true
27
28 # Specify the Web GIS backup restore mode: backup, full or incremental. Default is backup.
29 BACKUP_RESTORE_MODE = backup
30
31 # Specify a shared location to store the Web GIS backup file. This is where the backups for
32 # individual components will be saved to before being moved to the storage that you specify
33 # for the BACKUP_STORE_PROVIDER property
34 # The following accounts must have read and write permissions on the shared location:
35 # 1) The domain account used to run the web GIS software.
36 # 2) The account to run this tool.
37 SHARED_LOCATION = \\PVW-UC-ADM.esri-southafrica.com\\backups\\v11_5\\staging
38
39 # Specify whether to include scene tile caches.
40 INCLUDE_SCENE_TILE_CACHES = false
41
42 # Specify whether to include object store caches.
```

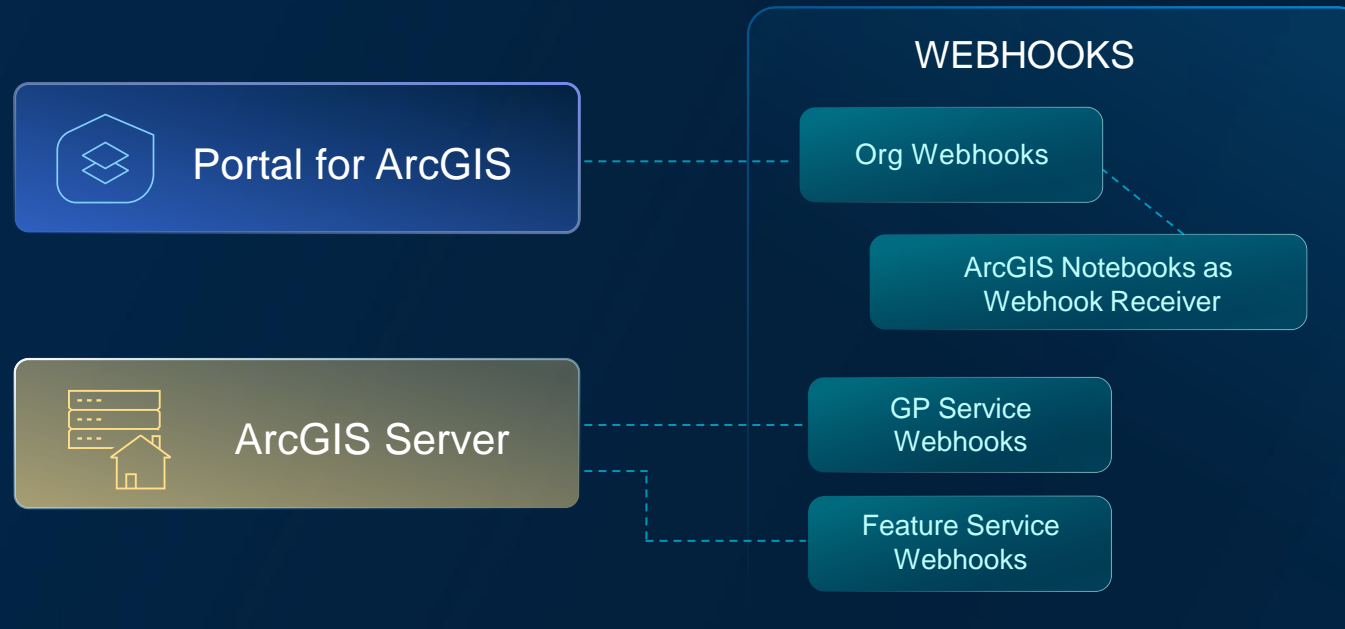
Webhooks

Because no one likes waiting for updates...

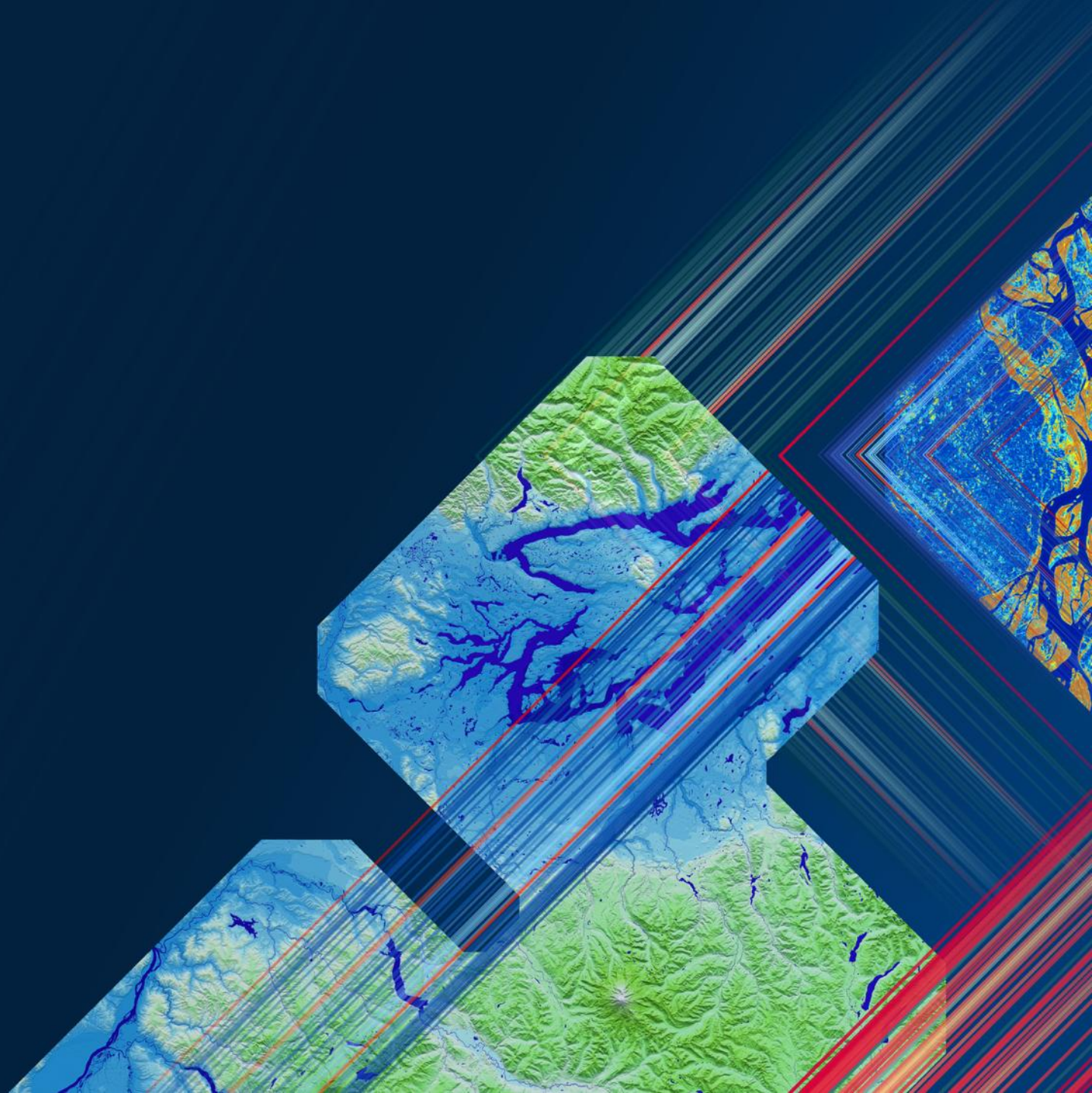


Webhooks

Because no one likes waiting for updates...



See it in Action

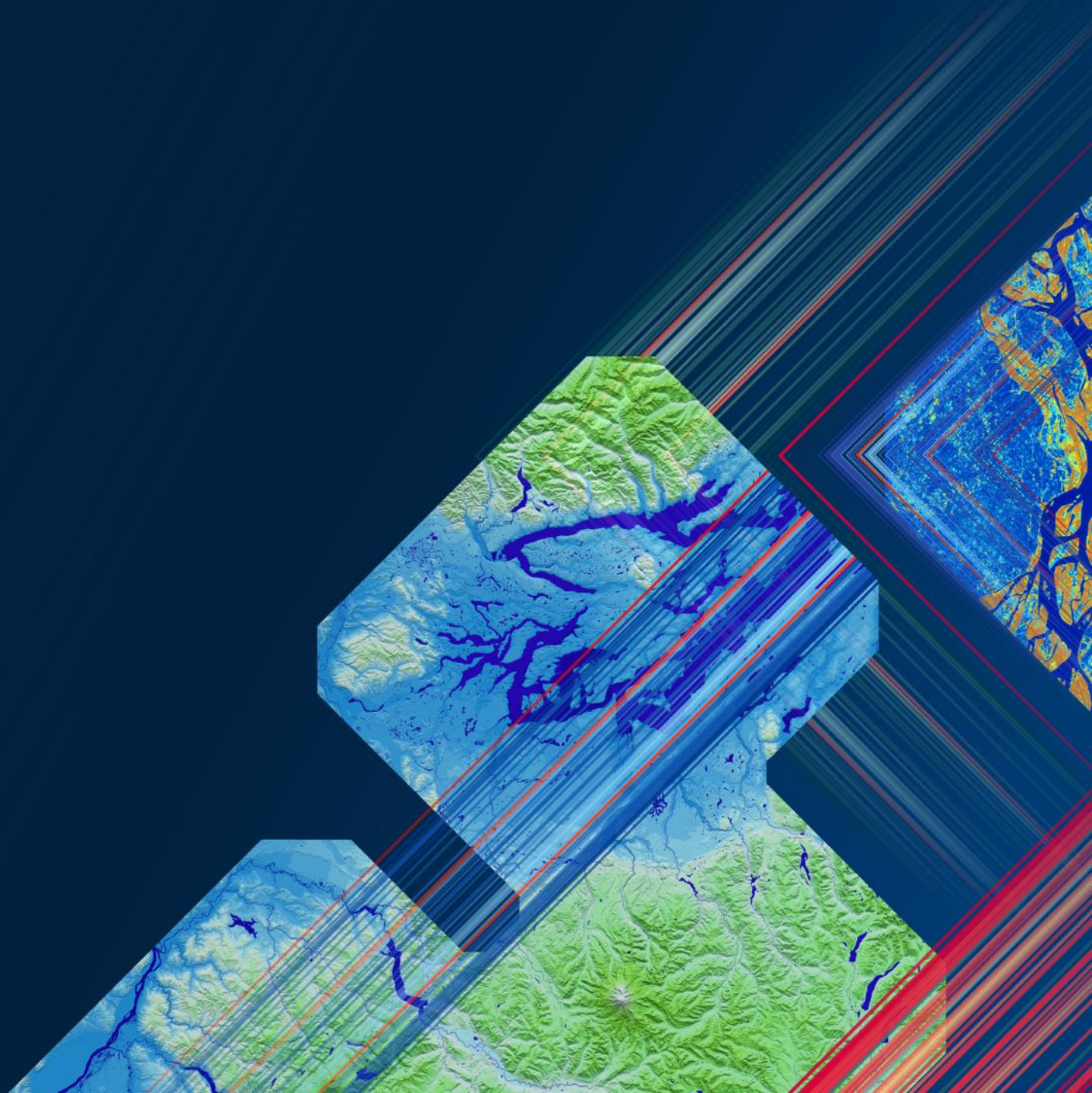


Reference Architectures

No need to re-invent the Wheel.

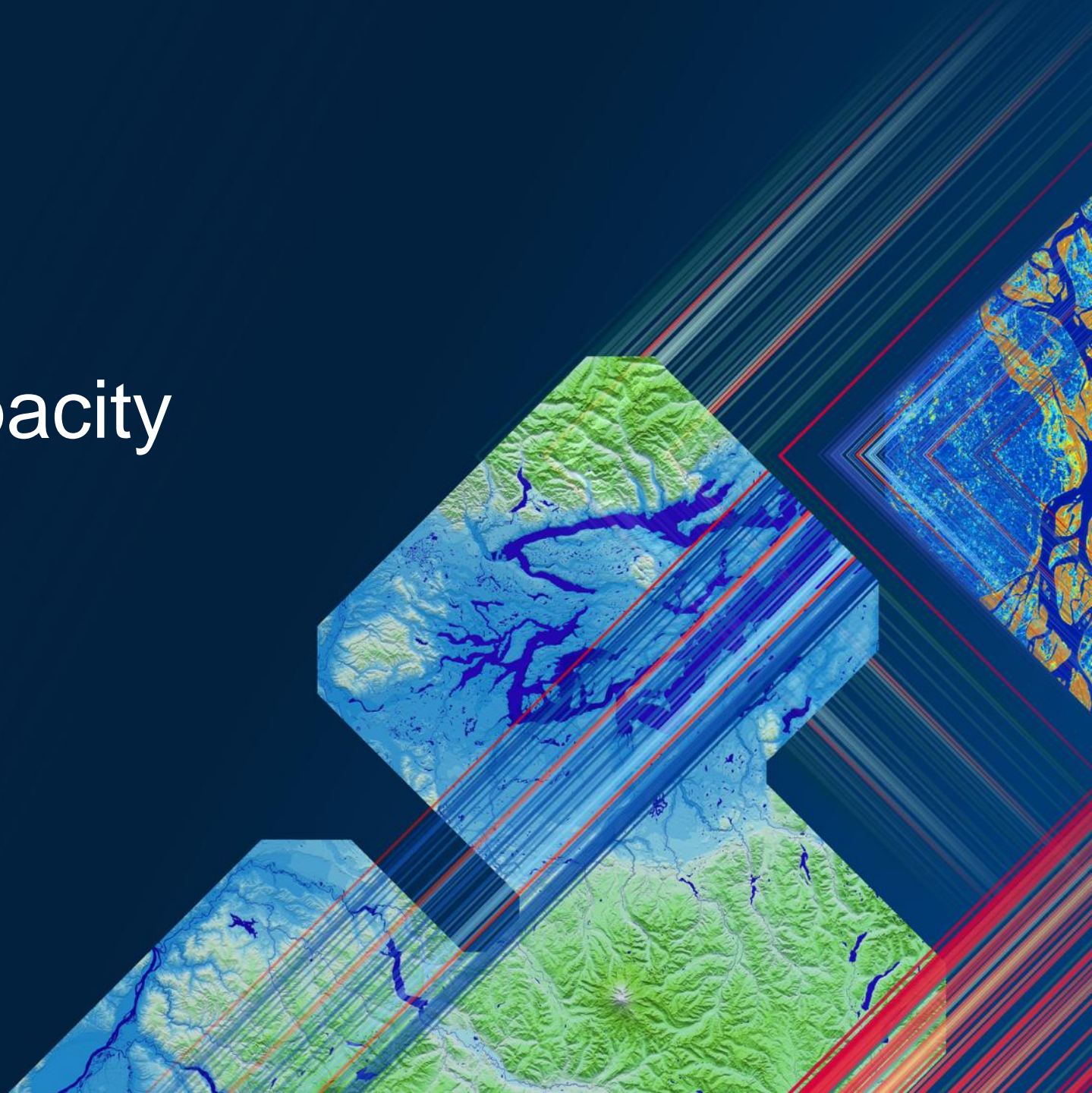


See it in Action

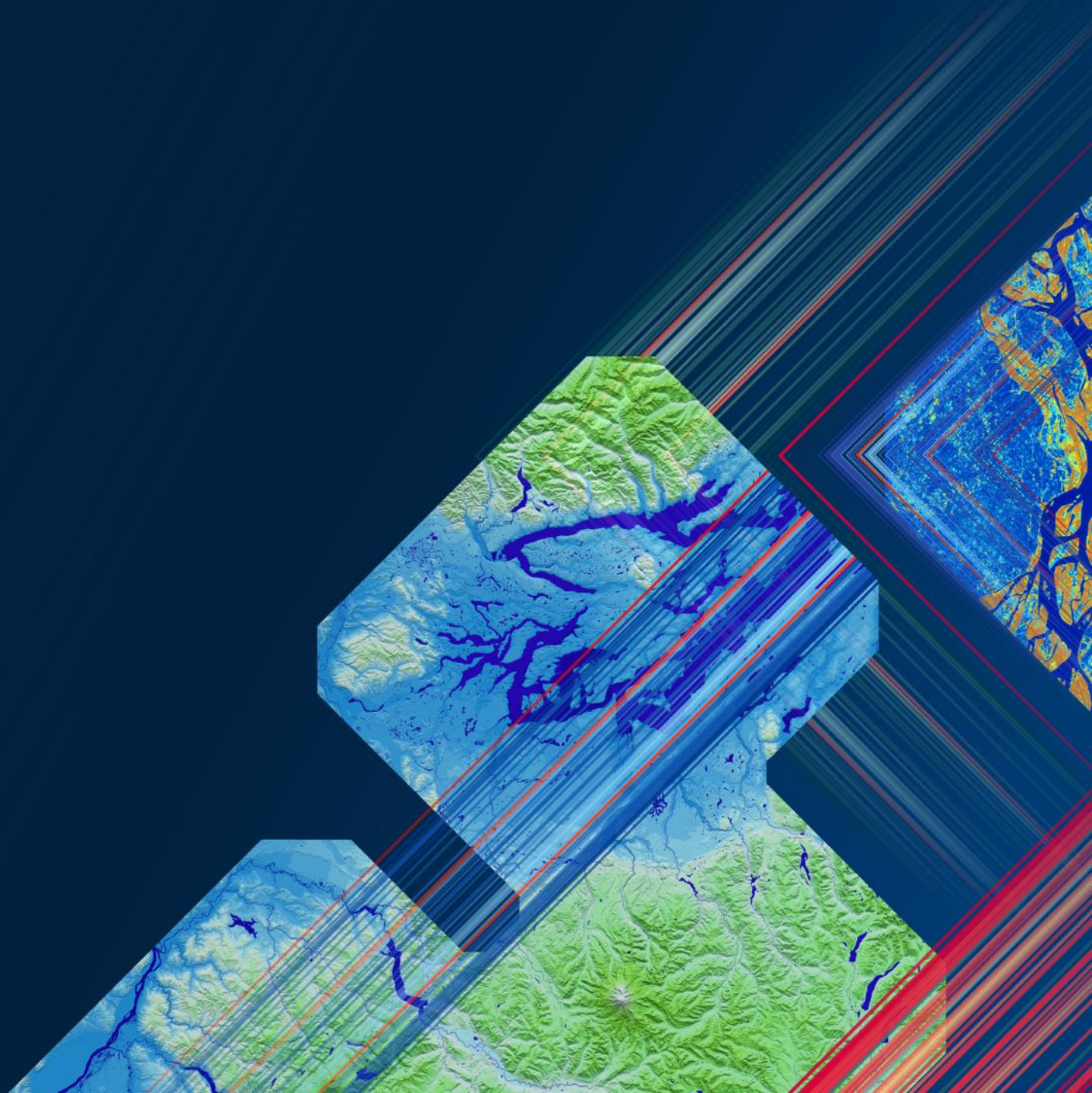


Performance & Capacity Planning

Designing for Stability.



See it in Action



Diagramming Resources

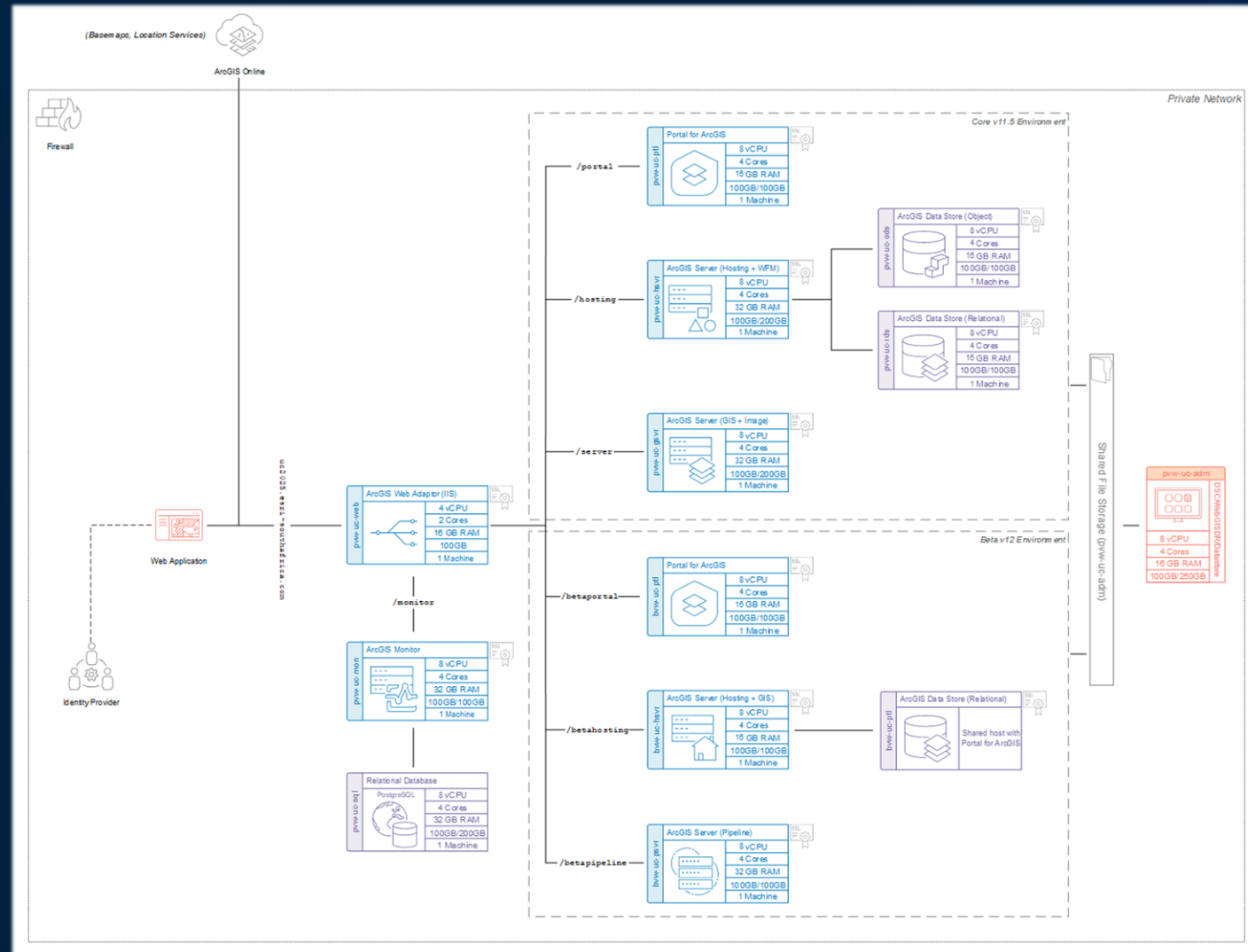
Draw it right, deploy it right.



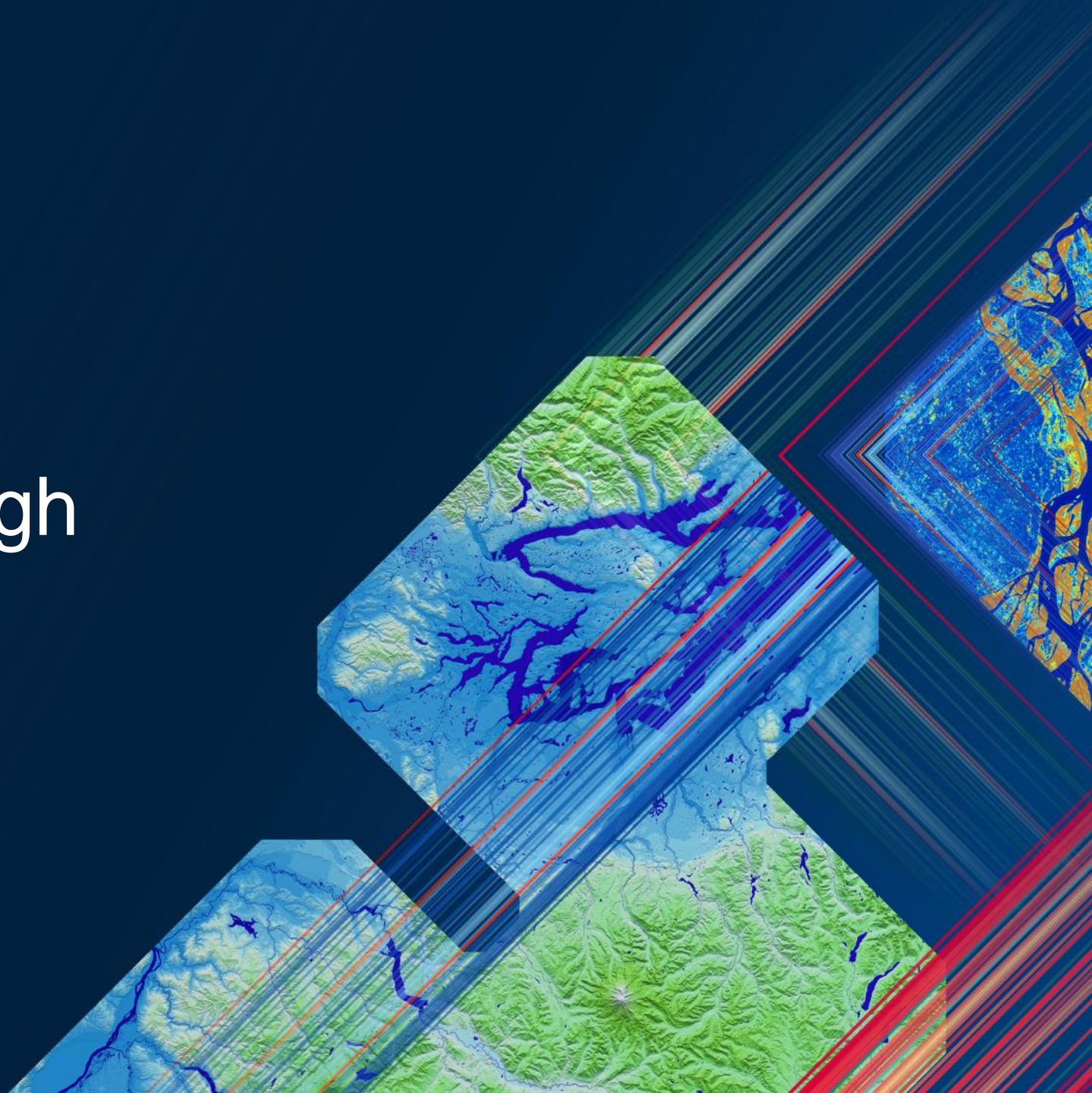
The Power of Visual Design

- Simplify the Complexity
- Team Alignment
- Issue Identification
- Streamline Communication
- Consistency

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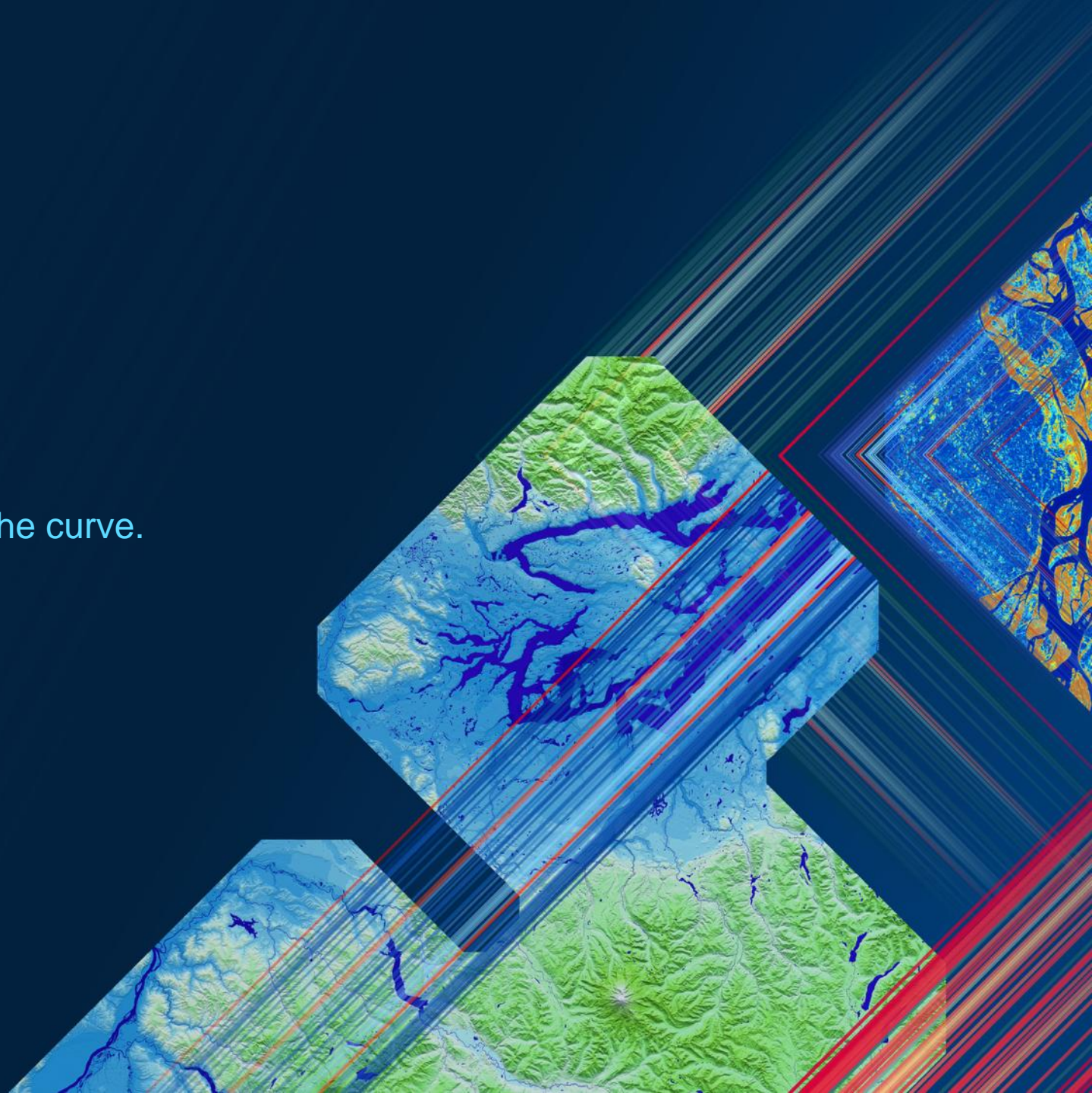


Practical Walkthrough

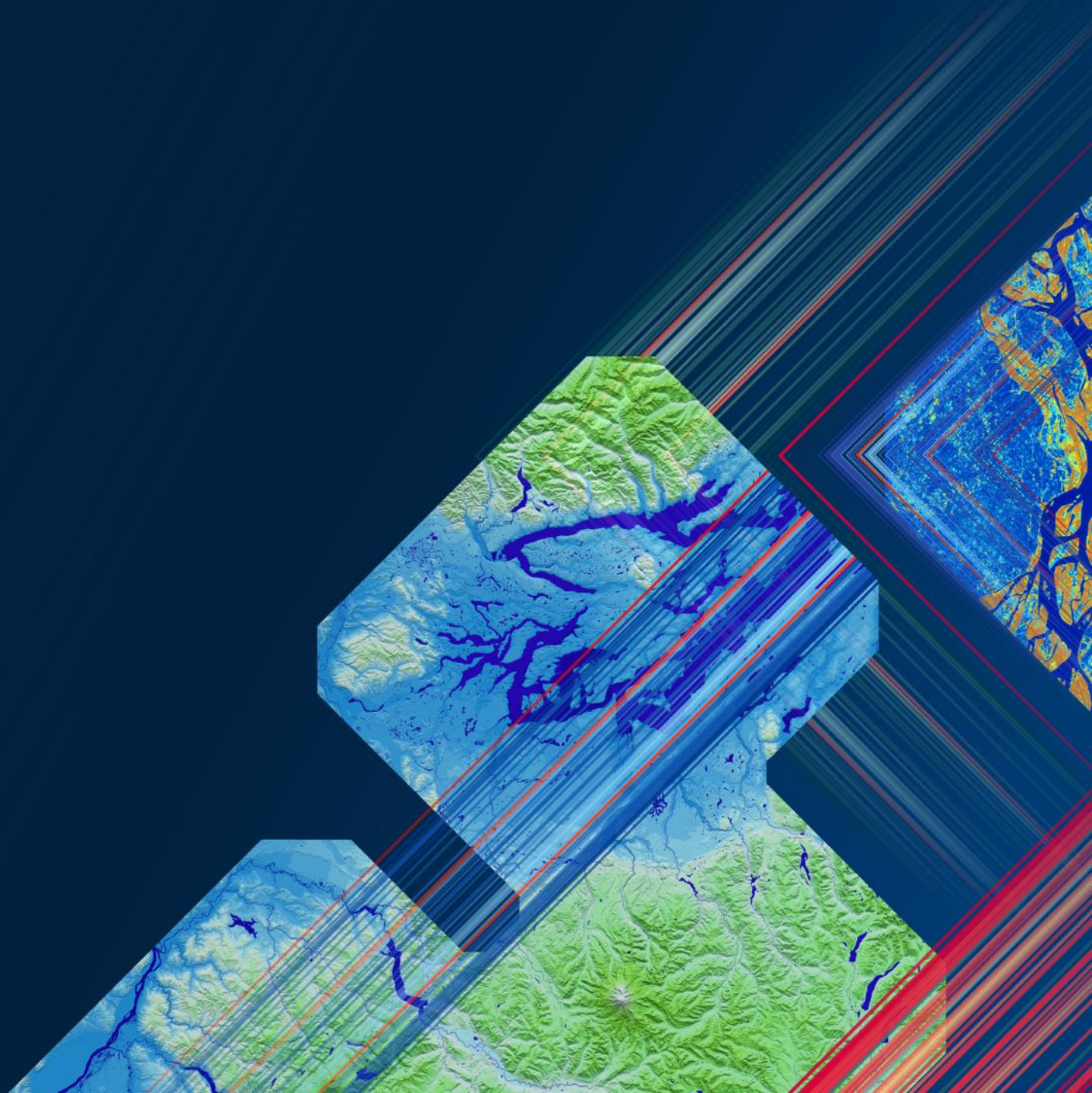


Operational Tricks

Features and advice to keep you ahead of the curve.



See it in Action



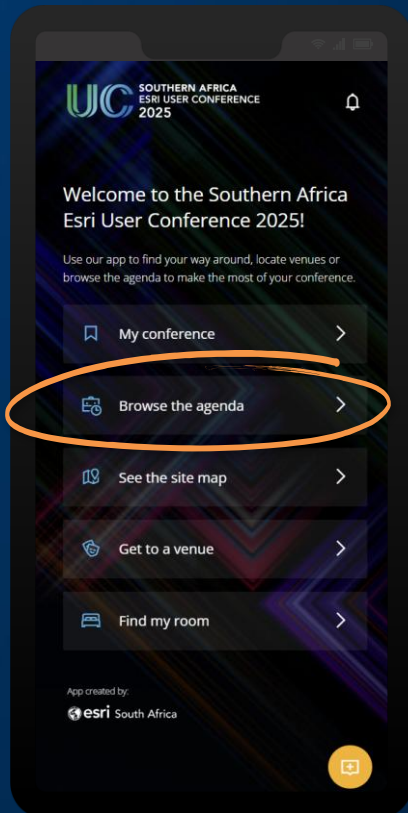


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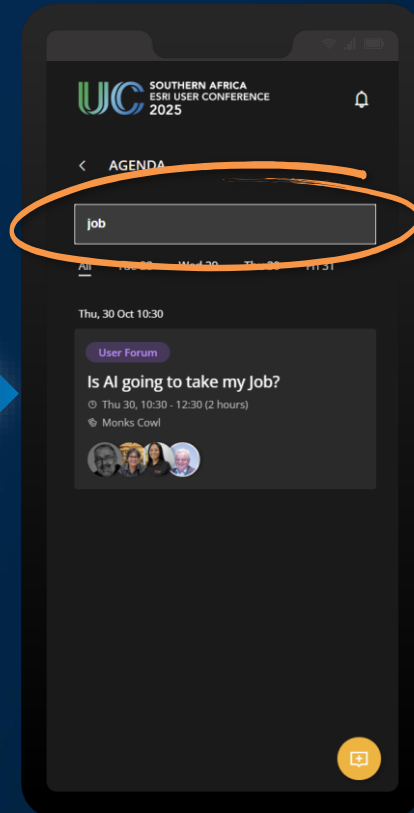
Please share your feedback in the UC app



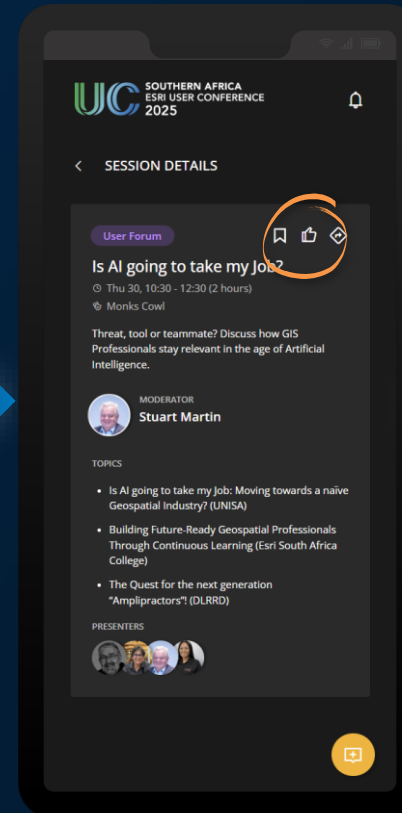
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Search and select the
session you attended



Click the "thumbs up"
icon



Complete and submit
your review

