

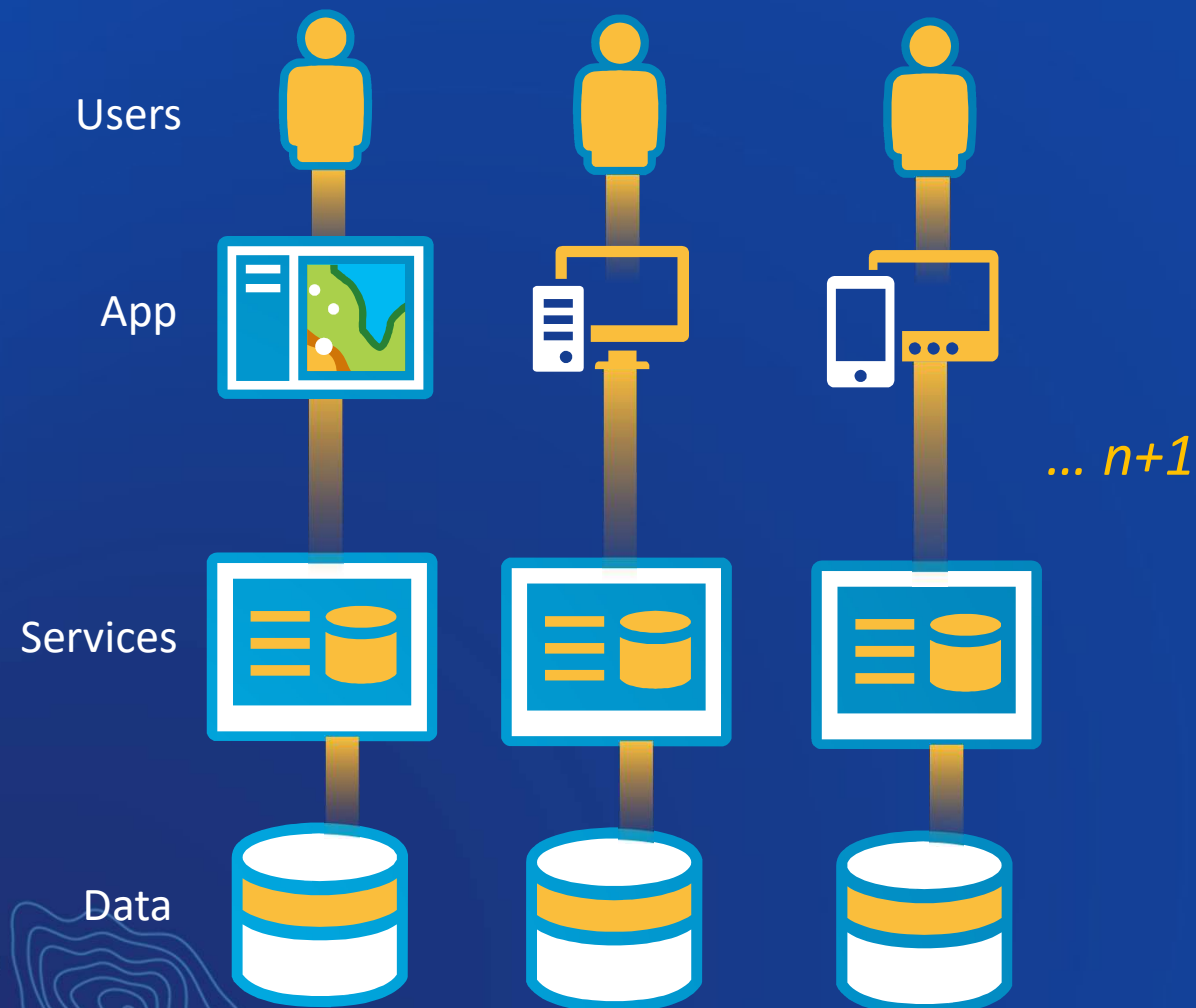
Dienstearchitektur in ArcGIS Enterprise: Das WebGIS Pattern

Matthias Schenker

ArcGIS Enterprise | Server GIS vs. Web GIS

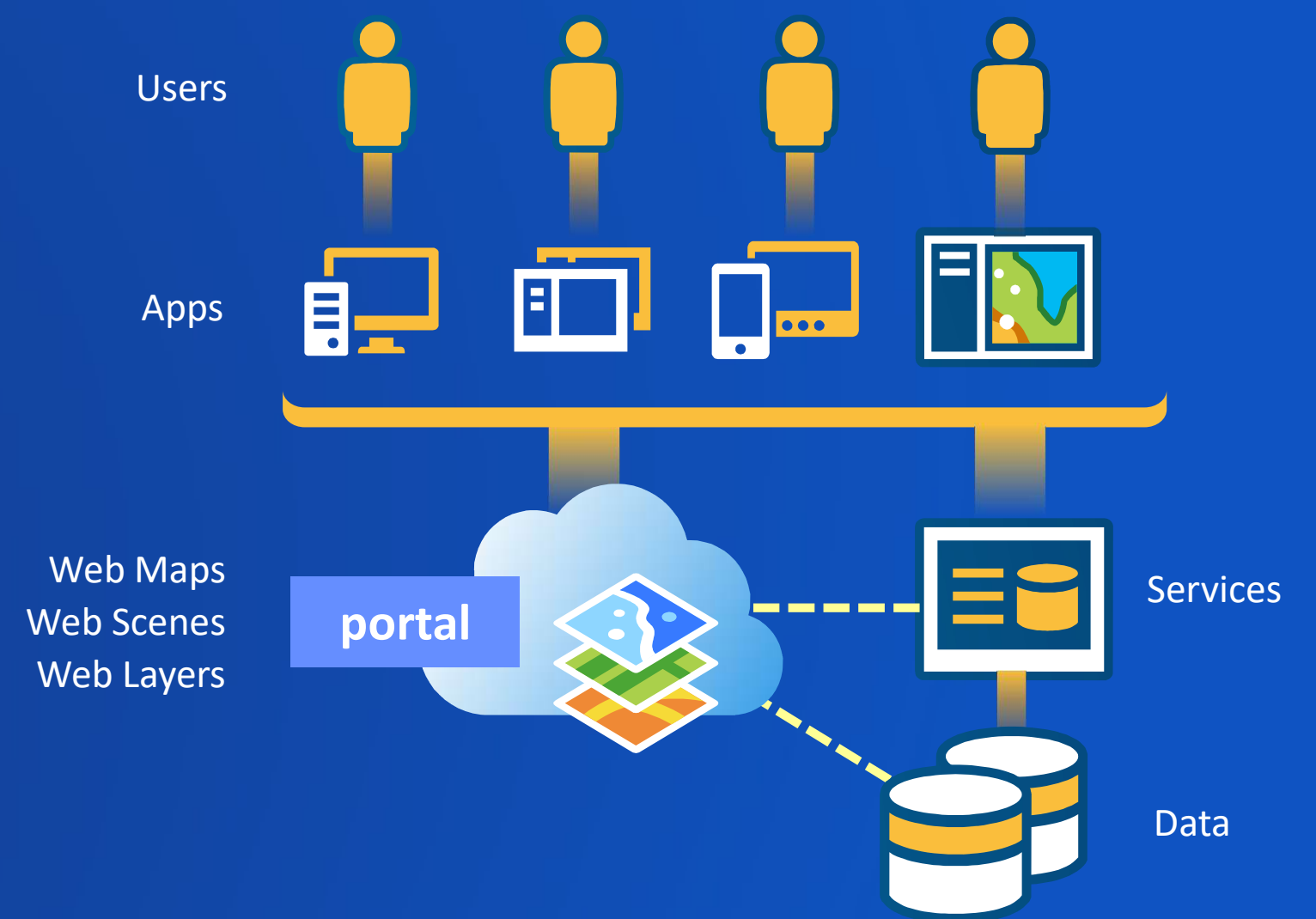
Server GIS

Use of GIS services with custom front end applications



Web GIS

Pervasive use of web layers, scenes, and maps within all of the ArcGIS apps



ArcGIS Enterprise is

Foundational

Powerful

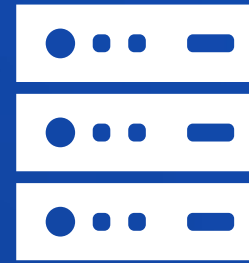
Flexible

Collaborative

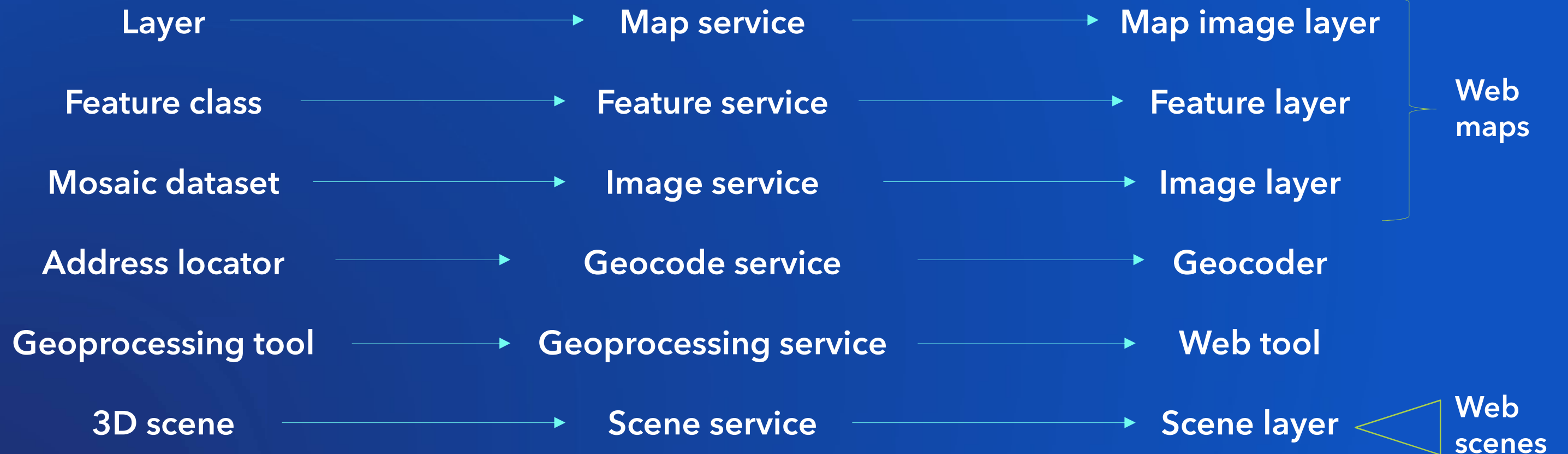
Desktop



Server



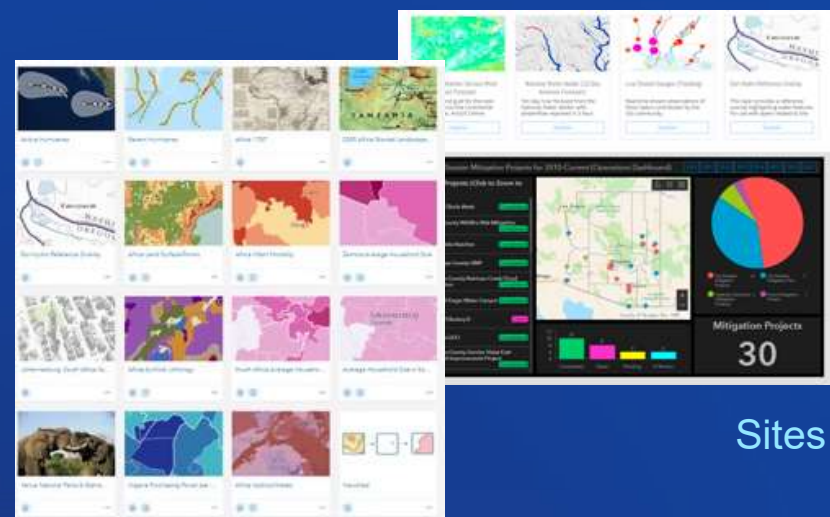
Portal



ArcGIS

Organizes and Manages All Aspects of Geographic Knowledge

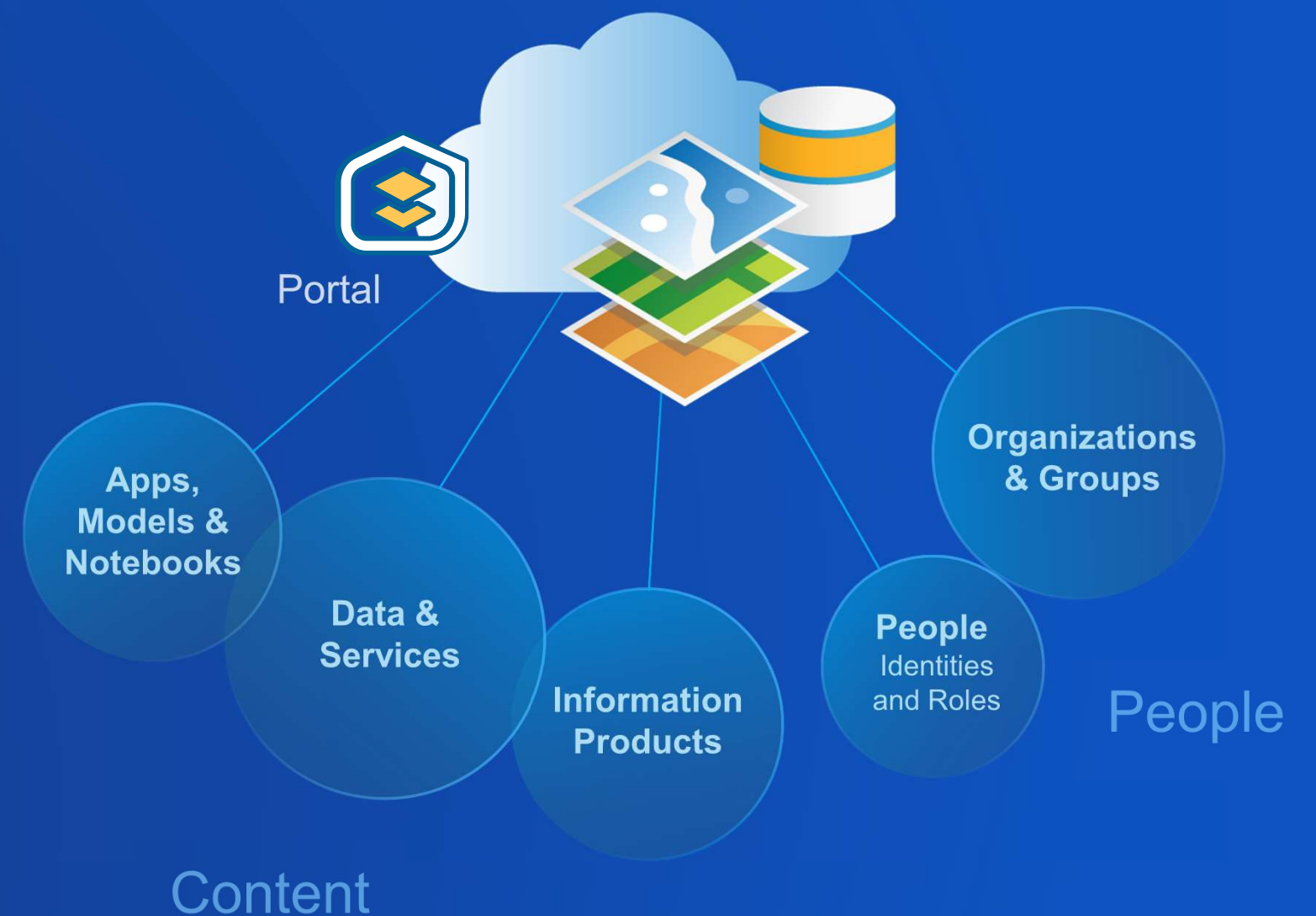
Data, Information Products, Apps, Models . . .
. . . and People and Their Organizations



Sites

Catalog

Integrated User
Experiences



ArcGIS

Integrates All Types of Data

Creating
a Common Language

Maps,
Scenes,
Layers



ArcGIS

ArcGIS Online

ArcGIS Enterprise

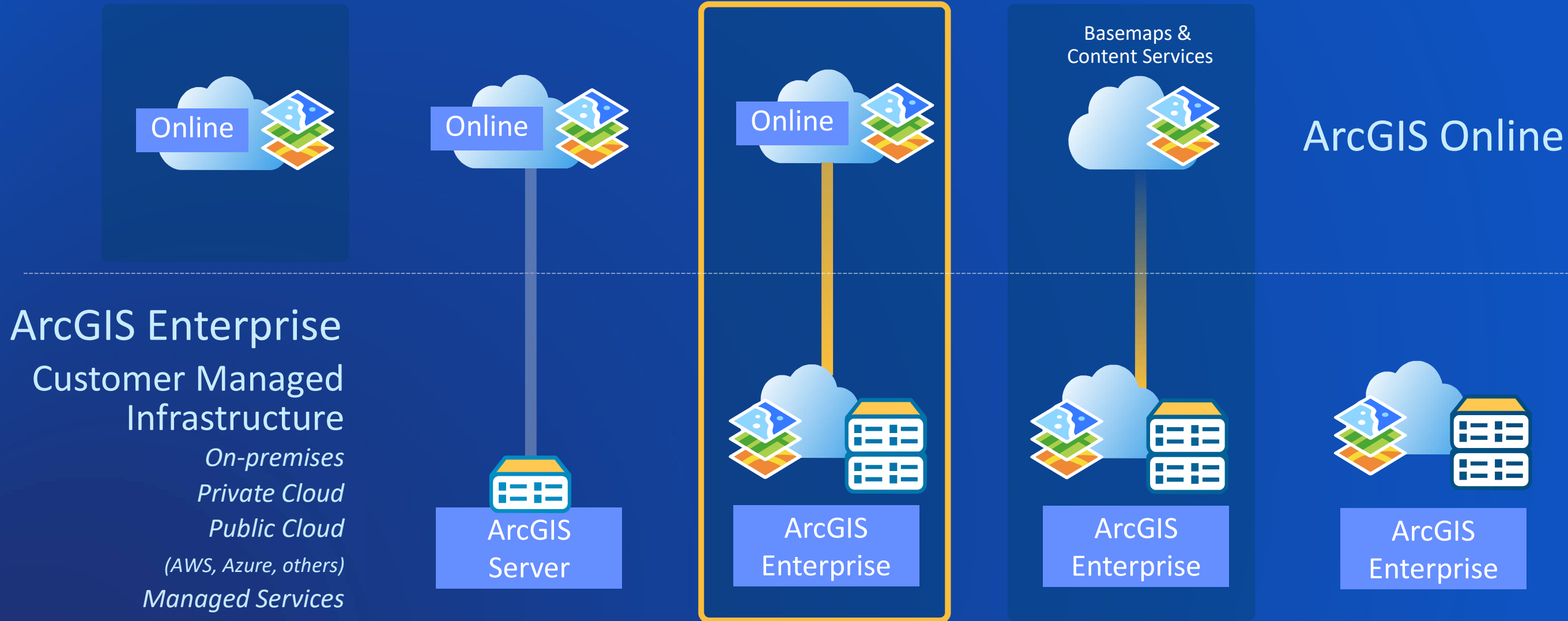
Core Web GIS functionality
(Apps, visualization, smart mapping, analysis...)

- Hosted by Esri (SaaS)
 - Upgraded automatically (by Esri)
 - Esri controls SLA
- Esri-provided content and services
 - Basemaps
 - Living Atlas
 - GeoEnrichment, Routing, ...

- In your own infrastructure (Software)
 - Upgraded by the organization
 - Organization controls SLA
- Advanced GIS functionality
 - GIS Server
 - Image Server (optional)
 - GeoEvent Server (optional)
 - GeoAnalytics Server (optional)
 - Notebook Server (optional)

ArcGIS Enterprise | Web GIS Pattern Evolution

Begin with ArcGIS Online & SaaS



Begin with ArcGIS Enterprise & Software

User Types | Match the way how your team works



Identity



Capabilities



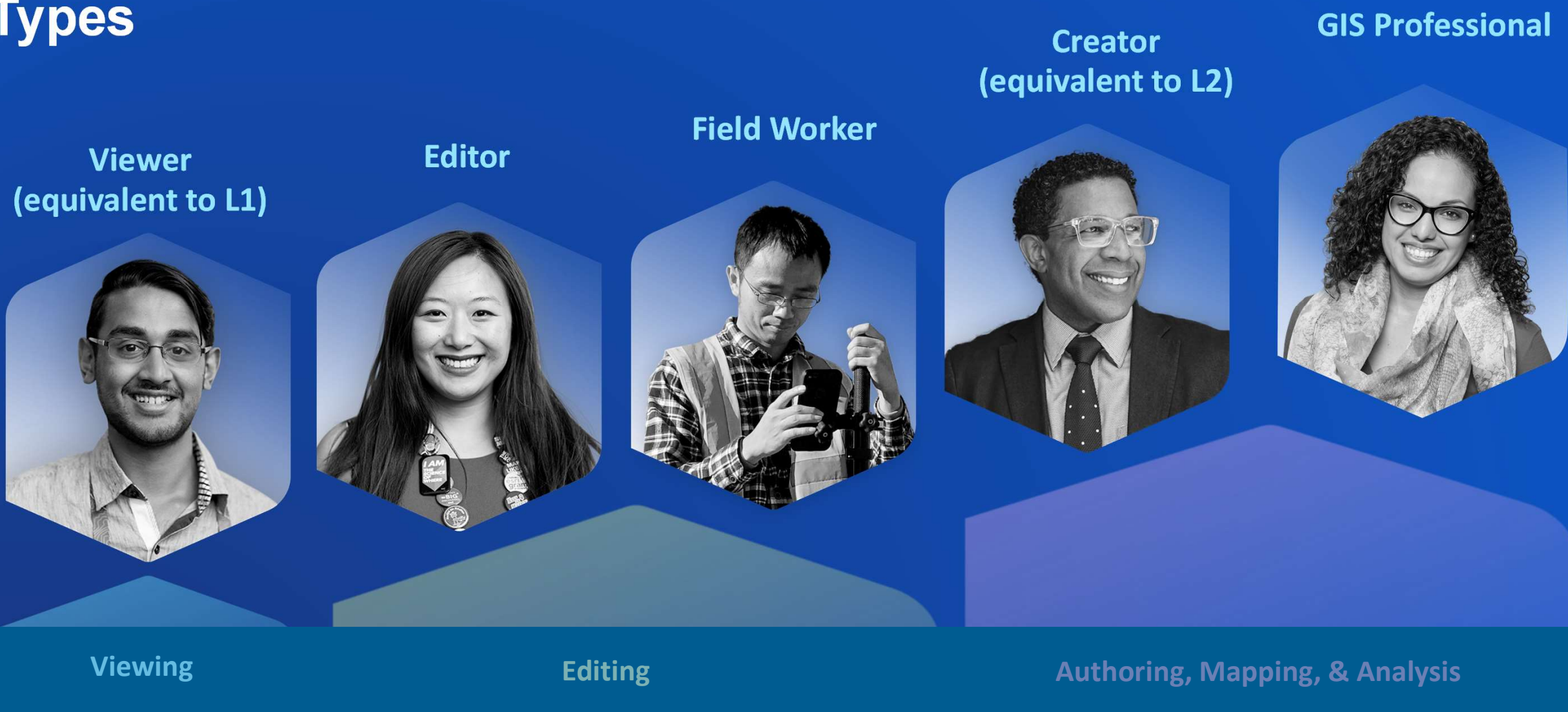
Apps



View
Edit
Analyze
Create
Share
Administer



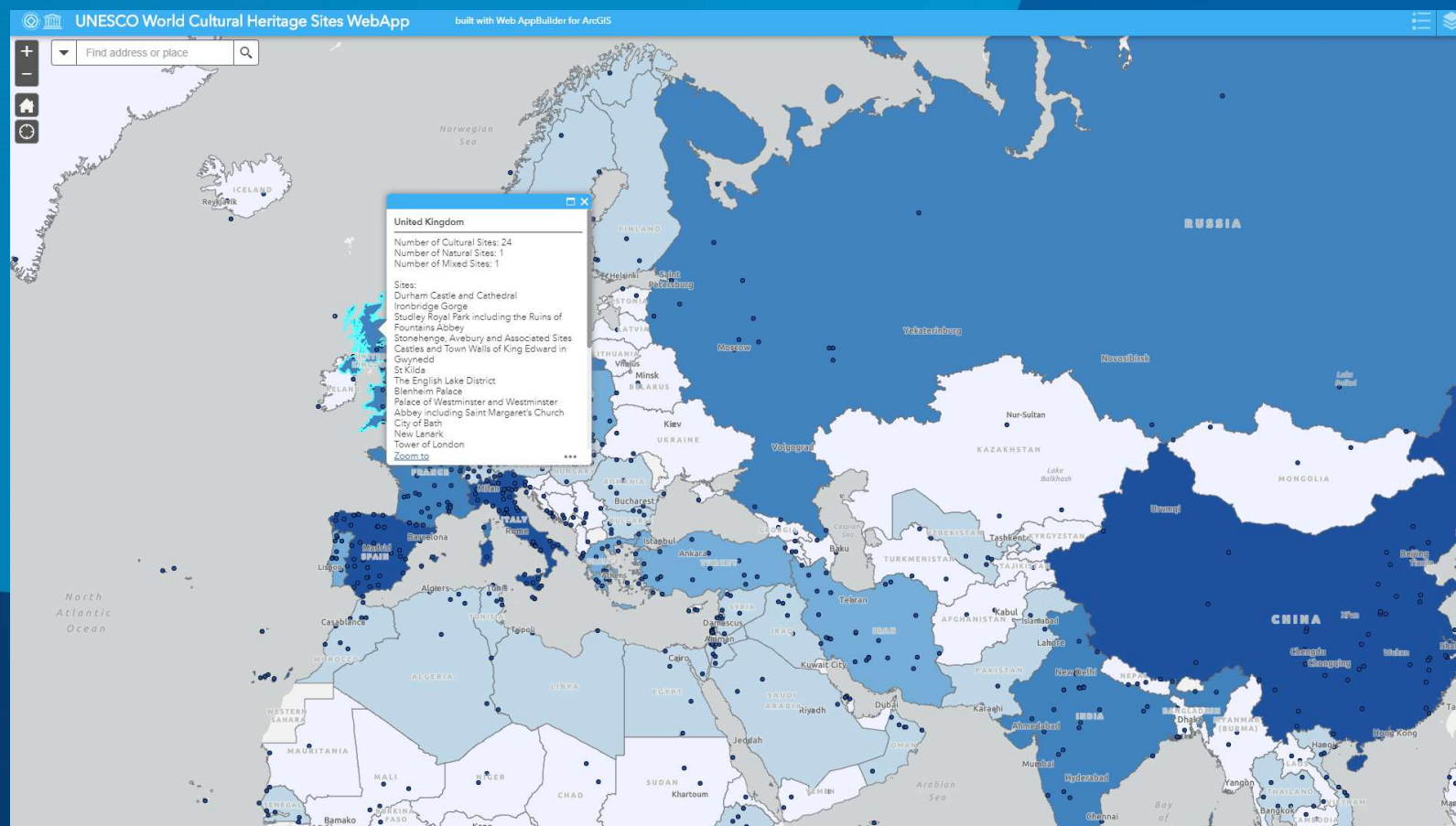
User Types



- New licensing model for users beginning at 10.7
- Provides the much requested 'intermediate level' user
- Each user type has an identity, capabilities and included applications
- Match your licensing to your workflows

User Types | Summary





Using ArcGIS Enterprise

Upload CSV, Symbology, WebMap, Arcade

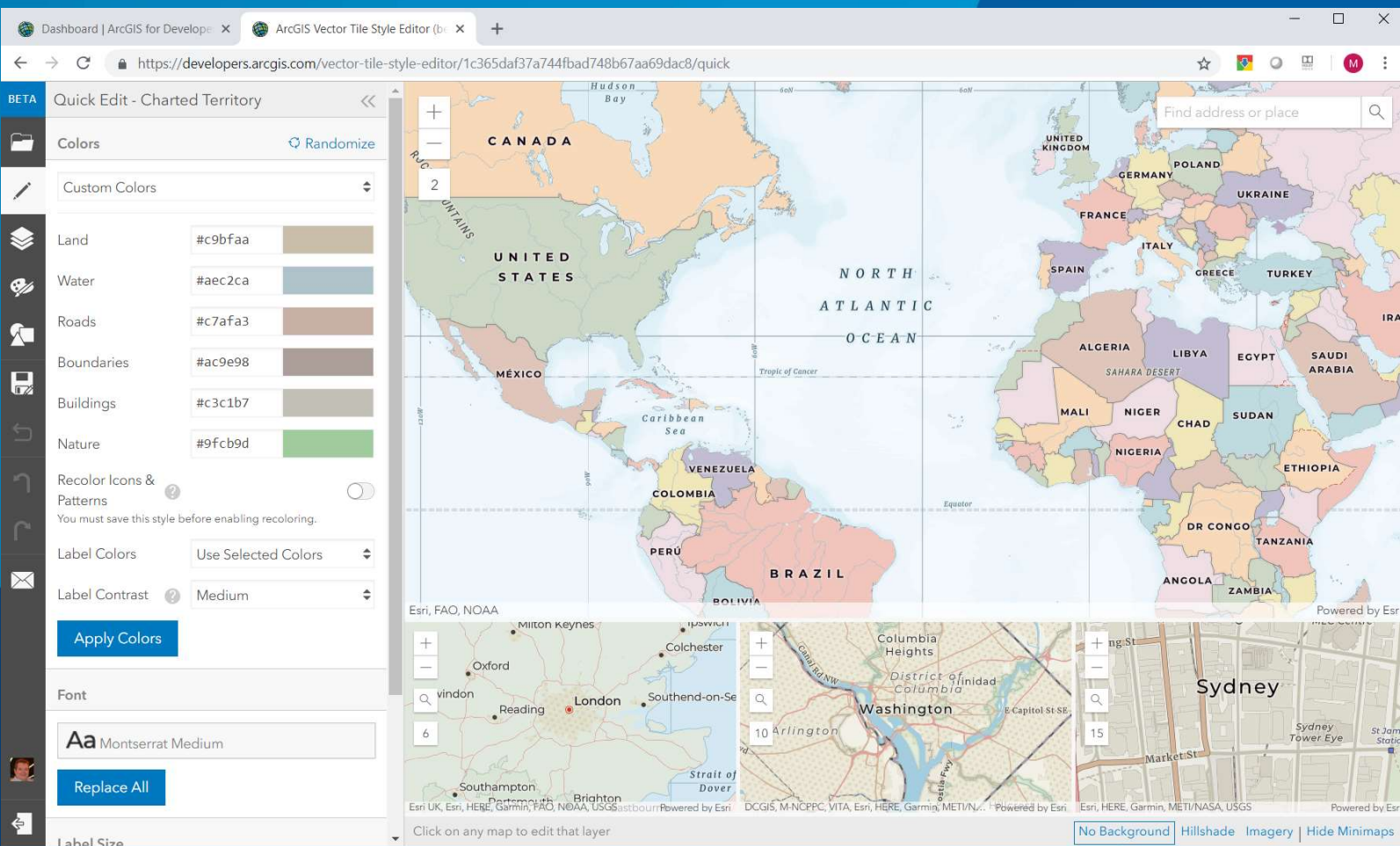
Styling Vectortiles

Using vector tiles in your applications

- **Multiple ways to use vector tiles:**
 - **A) Use Esri provided vector tiles / styles**
 - **B) Style Esri vector tiles for your own use**
 - **Change colors**
 - **Drop layers**
 - **Match the needs of your application**
 - **C) Create your own vector tiles from your own data**

Styling vector tiles

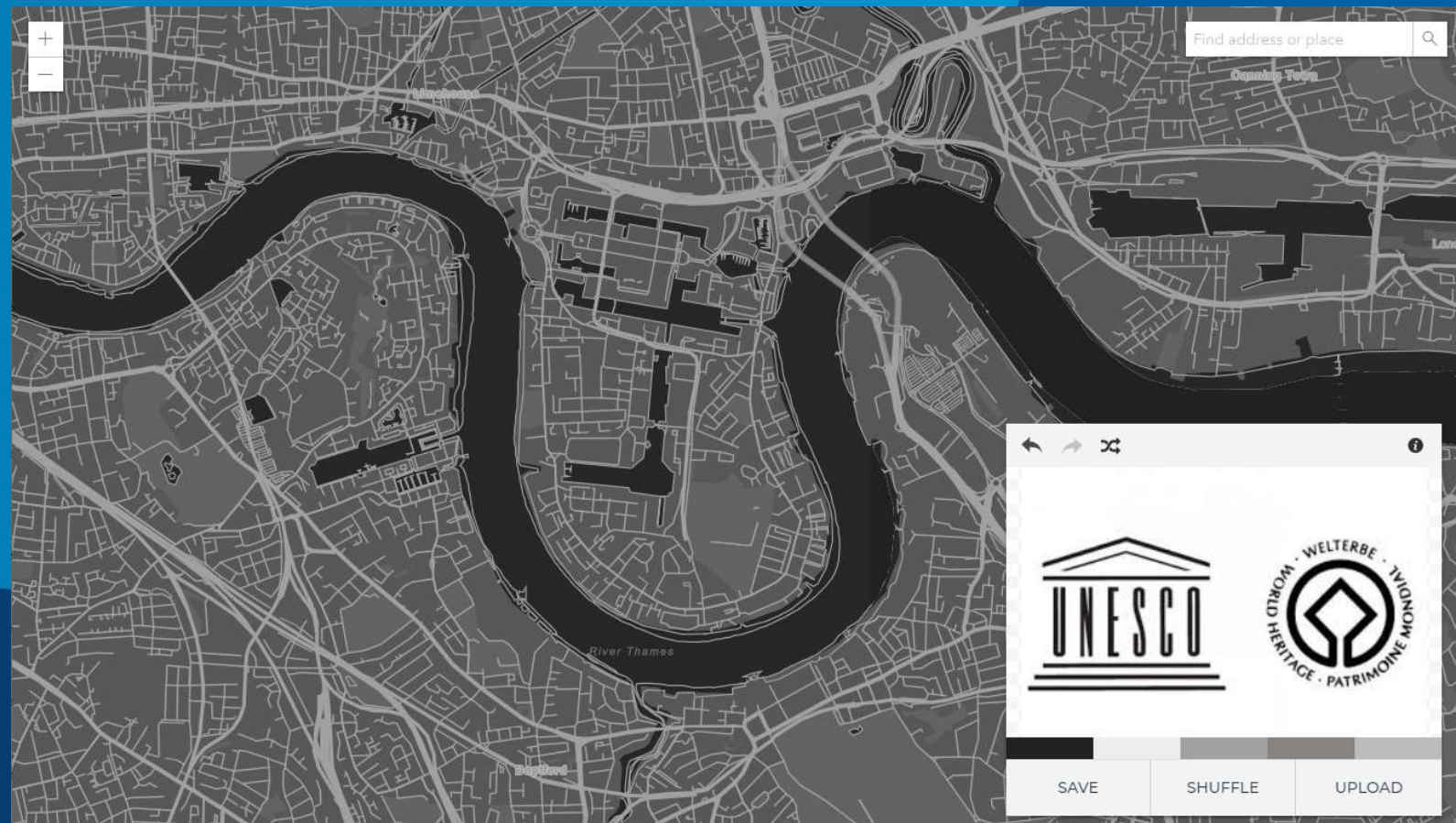
- **Simple Style Copy**
 - Save tile layer to Enterprise or Online account
- **ArcGIS Vector Tile Style Editor now available in ArcGIS Online**
- **Two additional sample Vector Styling Apps simplify this:**
 - Vector Style JSON Editor - GitHub
 - Vector Basemap Style Editor – GitHub
 - Mapstyler by Esri UK- GitHub
 - Hand editing JSON and uploading is also an option



Styling vector tiles

Demo

Vector Basemap Style Editor



Mapstyler

Demo

Sharing Content

with ArcGIS Enterprise

Gallery

Gallery for ArcGIS Enterprise PM portal

Search gallery

Item Type

- Maps
- Layers
- Scenes
- Apps
- Tools
- Files

> Date Modified

> Status

World Imagery

National Geographic World Map

Atlanta

USA Forest Type

World Traffic Service

USA Roads

Streets (Night)

Terrain: Slope Map

World Topo Base

- View all content or a curated group
- Filters: Date Modified, Status
- Search
- Living Atlas tab ('Esri Featured Content') moved to Content page

Content

Home Gallery Map Scene Groups **Content** Organization

Content

My Content My Favorites My Groups My Organization Living Atlas

+ Add Item Create

Folders New

Filter folders

- All My Content
- hcurtis
- Content Categories**
- GeoAnalytics
- Item Management
- Living Atlas
- OOTB Spatial Analysis
- Quantization

> Categories

> Item Type

> Date Modified

> Date Created

> Shared

> Status

Search Content Categories

1 - 7 of 7 in Content Categories Sort by: Date Modified

<input type="checkbox"/>	Title		Modified
<input type="checkbox"/>	Crime Incidents	Feature Layer (hosted)	Jul 5, 2018
<input type="checkbox"/>	Crash Data	Feature Layer (hosted)	Jun 29, 2018
<input type="checkbox"/>	Fire Hydrants	Feature Layer (hosted)	Jun 29, 2018
<input type="checkbox"/>	Cultural Areas	Feature Layer (hosted)	Jun 29, 2018
<input type="checkbox"/>	Snow Emergency Roads	Feature Layer (hosted)	Jun 29, 2018
<input type="checkbox"/>	Tour Bus Dropoff Pickup Locations	Feature Layer (hosted)	Jun 29, 2018
<input type="checkbox"/>	Police Stations	Feature Layer (hosted)	Jun 29, 2018

- Tabs for Subsets
- Filters: categories, date modified, date created, shared, status
- Sort by date modified, title
- Display: grid, table, list
- Search

Groups

[Home](#) [Gallery](#) [Map](#) [Scene](#) [Groups](#) [Content](#) [Organization](#)

Hilary

▼

Groups

My Groups

Featured Groups

My Organization's Groups

Create New Group

Only show groups with new membership requests

▼ Owner

Owned by Me

Owned by Others

▼ Date Created

Today

Yesterday

Last 7 Days


Last 30 Days

Custom Range...

Search My Groups

1 - 6 of 6

Sort by: Date Created ▼ ↑




Big data number crunchers

Owner: admin

Created: Jul 21, 2017 Last Updated: Jul 21, 2017 Viewable by: Everyone (public)

Leave Group




PM team work

Owner: pheede

Created: Aug 31, 2017 Last Updated: Aug 31, 2017 Viewable by: Group Members

Leave Group



Site Administration Group

Owner: admin

Created: Jun 21, 2018 Last Updated: Jun 21, 2018 Viewable by: Organization

Leave Group

DO NOT DELETE OR MODIFY THIS GROUP. This group is managed by the ArcGIS Enterprise Sites application. To make changes to this group, please visit the Team tab at <https://pm.demo.geocloud.com/arcgis/apps/sites/admin/#/team>

- Filters: date created, viewable by
- Sort by title, date modified, date created
- Search

Item level enhancements

- New item information bar

- Authoritative and deprecated badges

The screenshot shows the 'Crash Data' item page. The 'Item Information' modal is open, displaying a progress bar and a list of metadata items to be added. The modal includes a title 'Item Information', a close button 'X Hide', and a progress bar. Below the progress bar, it says 'Low' and 'High'. The main text reads: 'Make your item easy to find, understand and use by completing item information.' The list of items includes: 'Add a longer summary' (radio button), 'Add a thumbnail' (checked), 'Add a longer description' (radio button), 'Add a title' (checked), 'Add tags' (checked), and 'Add terms of use' (radio button). A blue arrow points from the modal to the 'Item Information' section on the right side of the page.

Crash Data [Edit](#)

Overview Data Visualization Settings

Edit Thumbnail

Crash data in DC from Open Data DC.

Feature Layer (hosted) by hcurtis

Created: Jun 29, 2018 Updated: Jun 29, 2018 View Count: 18

Add to Favorites

Description

Crashes in DC. Crashes on the street center line network of V

Layers

Crashes_in_DC

Open In Export To Time Settings

Terms of Use

Add any special restrictions, disclaimers, terms and

Item Information X Hide

Low High

Make your item easy to find, understand and use by completing item information.

- ☐ Add a longer summary
- ☒ Add a thumbnail
- ☐ Add a longer description
- ☒ Add a title
- ☒ Add tags
- ☐ Add terms of use

Item Information X Hide

Low High

Make your item easy to find, understand and use by completing item information.

- ☐ Add a longer summary
- ☒ Add a thumbnail
- ☐ Add a longer description
- ☒ Add a title
- ☒ Add tags
- ☐ Add terms of use

Encourage quality metadata

The screenshot shows the 'Golf Courses' item page. The 'Content Status' modal is open, displaying two options: 'Mark as Authoritative' and 'Mark as Deprecated'. The modal includes a title 'Content Status' and two sections: 'Recommend the use of this item.' and 'Discourage the use of this item.'.

Golf Courses

Overview Data Visualization Settings

General Feature Layer (hosted)

General

Content Status

Recommend the use of this item.

Mark as Authoritative

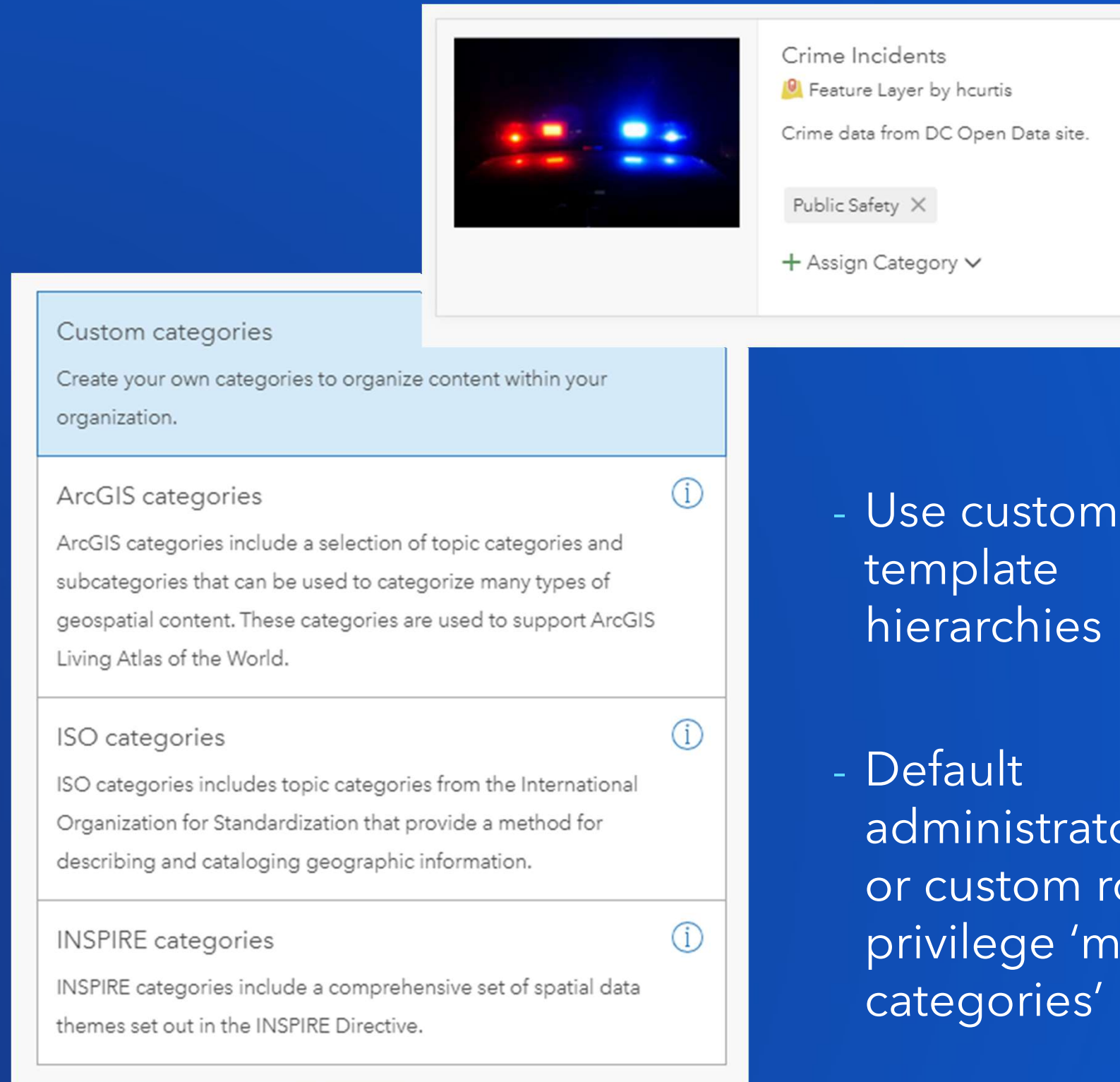
Discourage the use of this item.

Mark as Deprecated

Promote quality items

Content categories

- A way to arrange and discover content based on organization-wide themes
- Categories allow members to organize items consistently and provide a simple way to browse content in the organization



The screenshot displays the ArcGIS Content Manager interface. At the top, a card for 'Crime Incidents' is visible, featuring a thumbnail of police lights, the text 'Feature Layer by hcurtis', a description 'Crime data from DC Open Data site.', a 'Public Safety' tag with a close button, and an 'Assign Category' button. Below this, a panel titled 'Custom categories' explains that users can create their own categories. This panel lists three category types: 'ArcGIS categories' (which include topic categories and subcategories for geospatial content), 'ISO categories' (which include topic categories from the International Organization for Standardization), and 'INSPIRE categories' (which include a comprehensive set of spatial data themes from the INSPIRE Directive). Each category type has an information icon (i) to its right.

Crime Incidents
Feature Layer by hcurtis
Crime data from DC Open Data site.
Public Safety X
+ Assign Category

Custom categories
Create your own categories to organize content within your organization.

ArcGIS categories ⓘ
ArcGIS categories include a selection of topic categories and subcategories that can be used to categorize many types of geospatial content. These categories are used to support ArcGIS Living Atlas of the World.

ISO categories ⓘ
ISO categories includes topic categories from the International Organization for Standardization that provide a method for describing and cataloging geographic information.

INSPIRE categories ⓘ
INSPIRE categories include a comprehensive set of spatial data themes set out in the INSPIRE Directive.

- Use custom or template hierarchies
- Default administrator role or custom role with privilege 'manage categories'

Questions ?

