

# ArcGIS Enterprise: What's New

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ArcGIS Enterprise  
is the **new name**  
for ArcGIS for Server

## What is ArcGIS Enterprise

**ArcGIS Enterprise is powerful server software for data management, mapping, and analysis that runs in your infrastructure. It is made up of a system of components that create a Web GIS that help you reach more people, through any device.**



ArcGIS  
Enterprise

=



ArcGIS  
Web Adaptor

+



Portal  
for ArcGIS

+



ArcGIS  
Server

+



ArcGIS  
Data Store



# Base Deployment Logical Architecture



**The base ArcGIS Enterprise deployment is the minimum configuration of ArcGIS Enterprise.**

# ArcGIS Enterprise Named User Levels



Prior to ArcGIS 10.5 there was only one named user level.

# ArcGIS Enterprise Named User Levels



This pre-10.5 named user is now called a **Level 2 named user**.

Remember this is the user level required to complete the configuration of the base ArcGIS Enterprise deployment.

# ArcGIS Enterprise Named User Levels



New at 10.5 is a **Level 1 named user**.

Members that are Level 1 named users are viewer only – they cannot own or create content.





ArcGIS  
Enterprise

=



ArcGIS  
Web Adaptor

+



Portal  
for ArcGIS

+



ArcGIS  
Server

+



ArcGIS  
Data Store

software  
component

server capabilities

server roles



ArcGIS  
Server



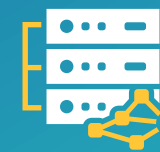
GIS  
Server



Image  
Server



GeoEvent  
Server



GeoAnalytics  
Server



Business  
Analyst  
Server

# Server Capabilities

- Publish and Share GIS Content
- Share/run advanced geoprocessing tools (the same ones you have in ArcGIS Desktop)
- Share Imagery
- Perform raster analytics (even on massive raster collections)
- Do large volume analysis on vector and tabular datasets
- Analyze streaming data sources in real-time
- Perform advanced GeoEnrichment on your business intelligence data

# Deploying ArcGIS Enterprise

ArcGIS Enterprise Builder, Chef, AWS, and Azure

# Data Store Configuration Wizard

Easily configure your ArcGIS Data Store with the data store configuration wizard.

- Configure your data store as relational, tile cache, or spatiotemporal – or as a combination of types.
- Remember, at 10.5 you must use ArcGIS Data Store as your registered managed database with your hosting server.



# How to deploy

It's not all about deploying components by hand anymore!

For GIS professionals

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## ArcGIS Enterprise Builder

A wizard that installs and configures ArcGIS Enterprise on a single machine.

For those who want to deploy  
in the cloud

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## Machine Images and tools

Easily deploy and configure ArcGIS Enterprise in the two most popular public cloud environments.

For those with DevOps

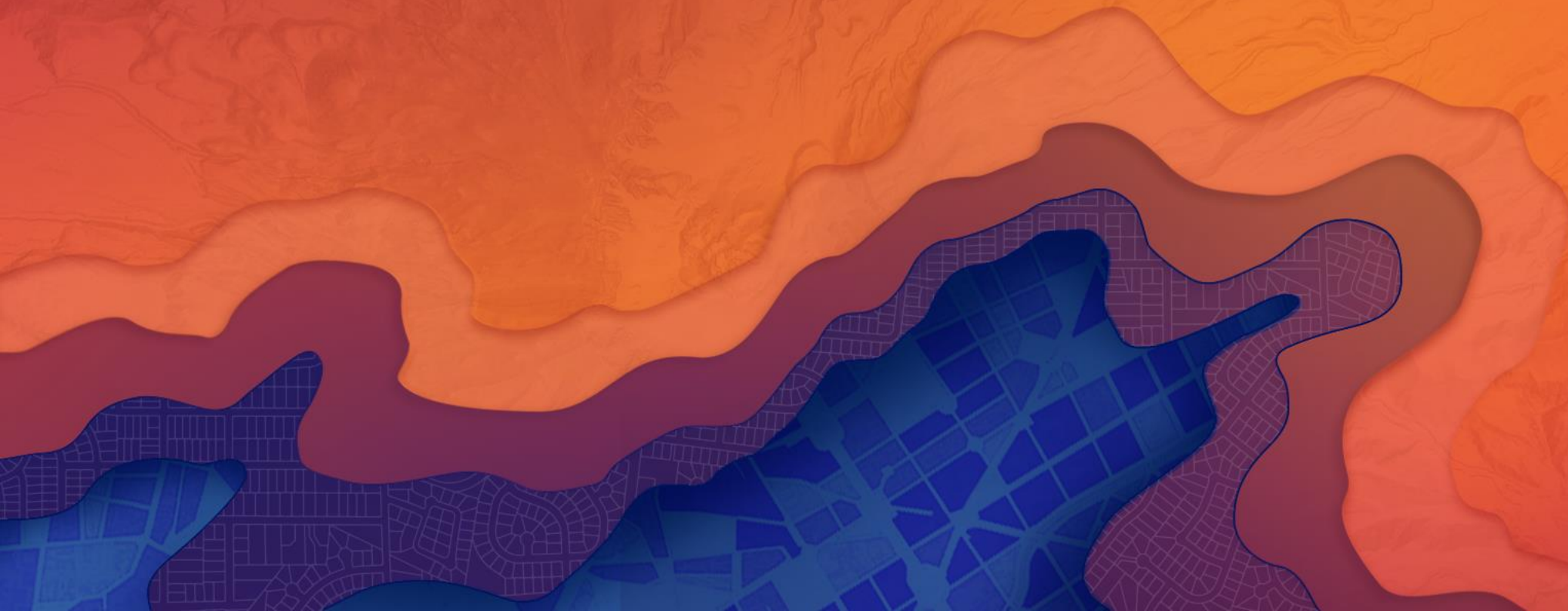
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## CHEF

Automate installation and configuration in your infrastructure.

What's New in the portal





ArcGIS  
Enterprise

=



ArcGIS  
Web Adaptor

+



Portal  
for ArcGIS

+



ArcGIS  
Server

+



ArcGIS  
Data Store



# Living Atlas

Curated content that can be used in connected and disconnected ArcGIS Enterprise deployments

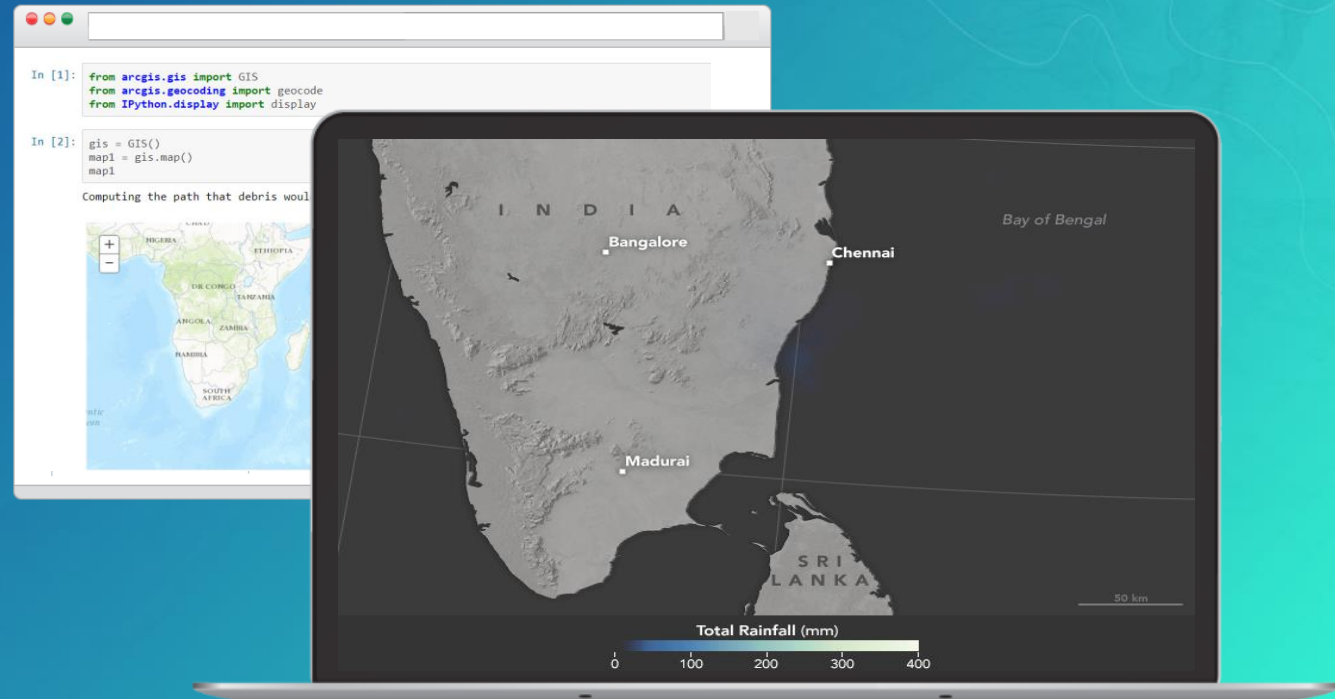
- The Living Atlas is the world's foremost and largest collection of GIS data
- You can configure Living Atlas to use Online resources
- You can download international boundary data and host locally



# ArcGIS API for Python

Control and use your Web GIS from a notebook

- New way to script and automate ArcGIS Enterprise
  - Administrative tasks
  - Analytical workflows
  - Mapping and visualization workflows



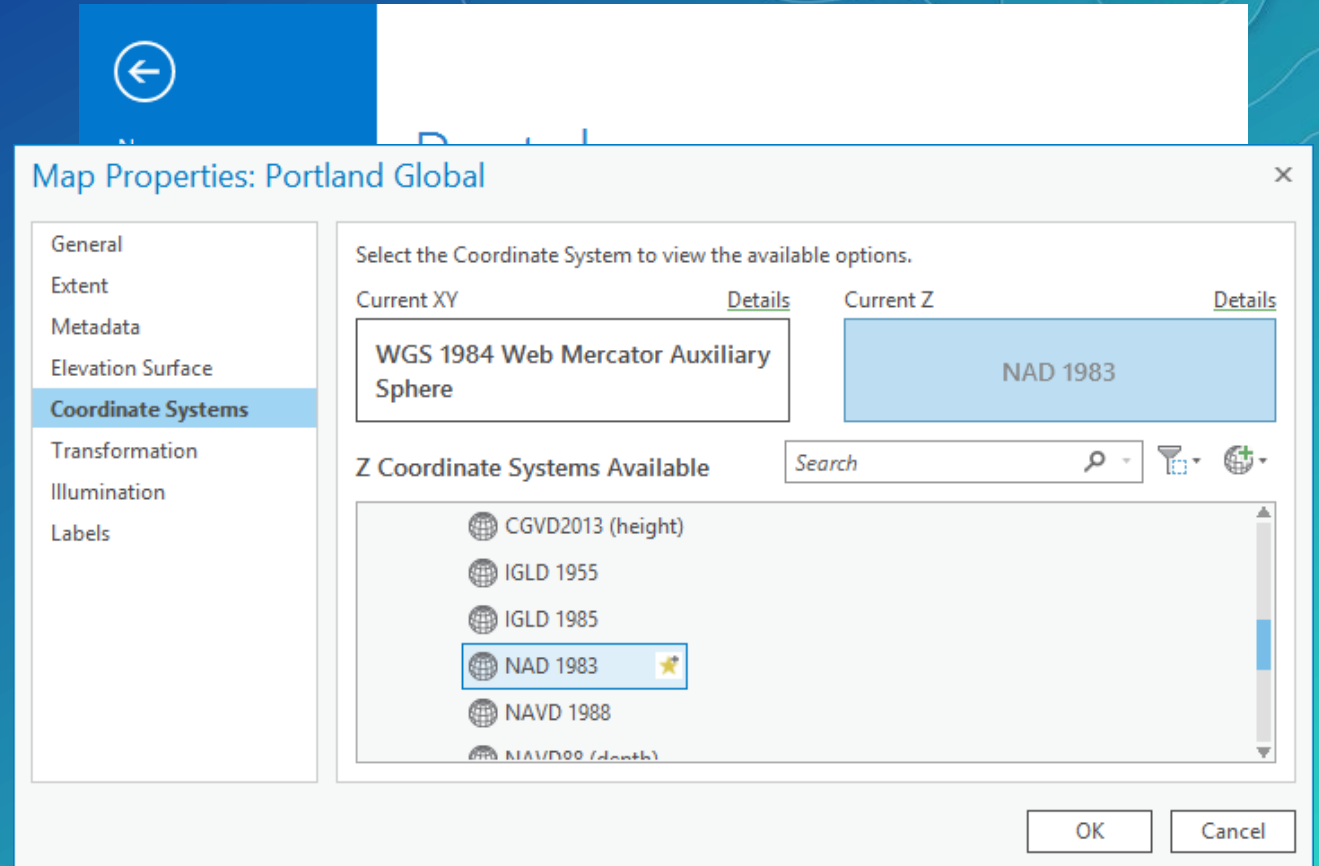


# ArcGIS Pro

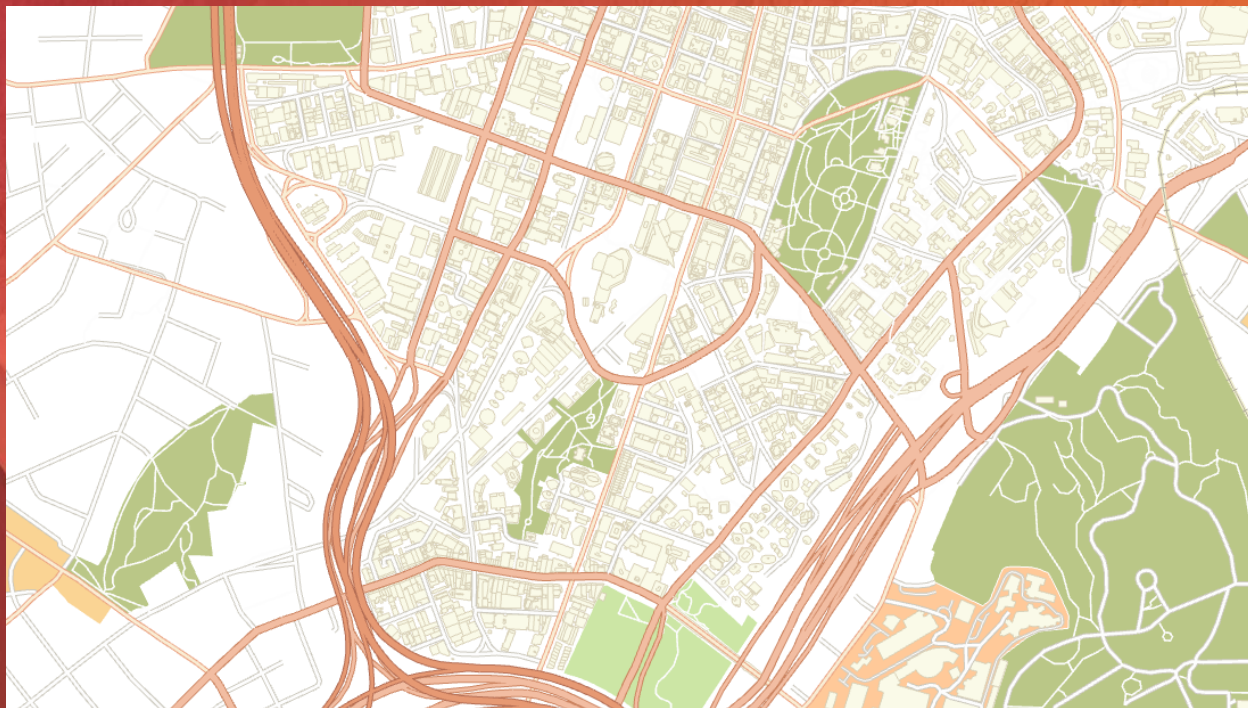
Publishing and sharing services with ArcGIS Enterprise and ArcGIS Pro

# What's new in ArcGIS Pro

- Remove the connection to ArcGIS.com manually or through installation parameters
- Set an initial portal list through installation parameters
- Vertical coordinate systems are used when sharing web scenes and web scene layers
- Expanded support for time zones, sync, and extract when sharing







# Publishing to ArcGIS Enterprise

Melanie Summers

# Distributed collaboration

ArcGIS Enterprise to ArcGIS Enterprise collaboration

ArcGIS Enterprise and ArcGIS Online collaboration



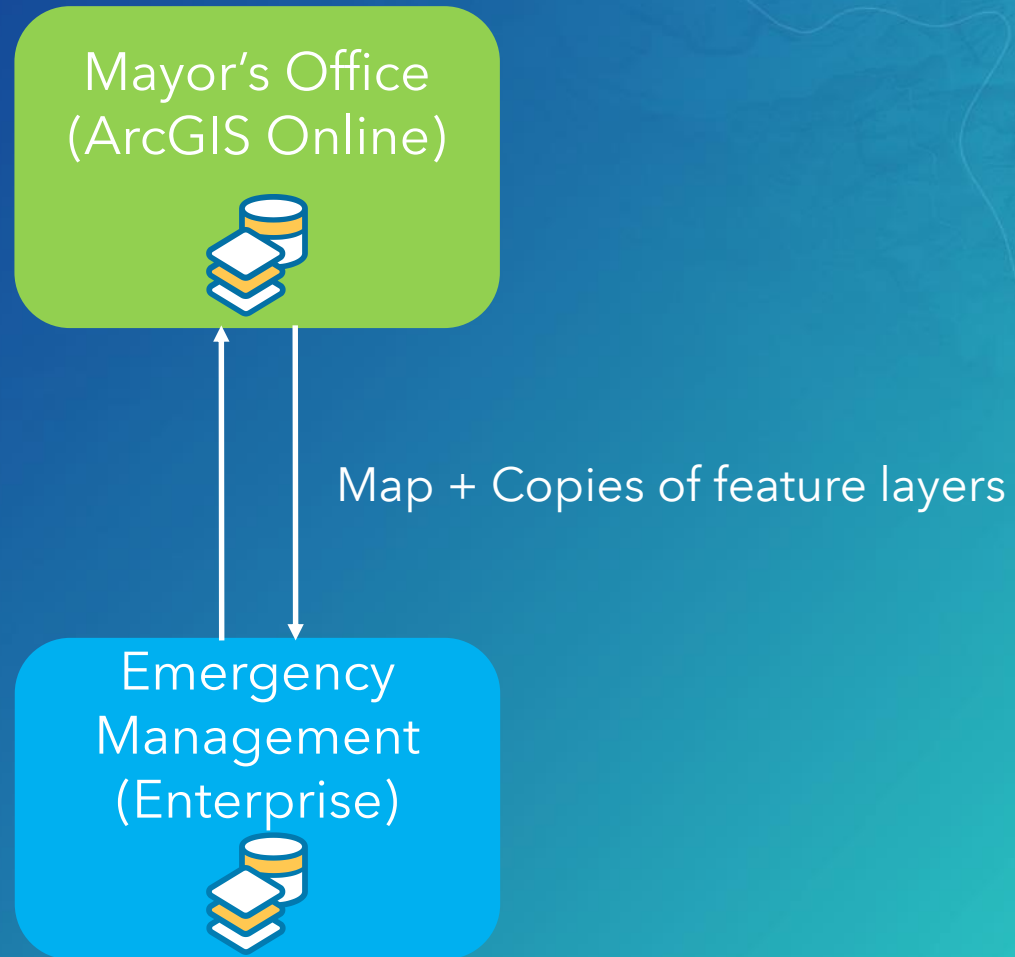
# Distributed Collaboration with ArcGIS Enterprise @ 10.5



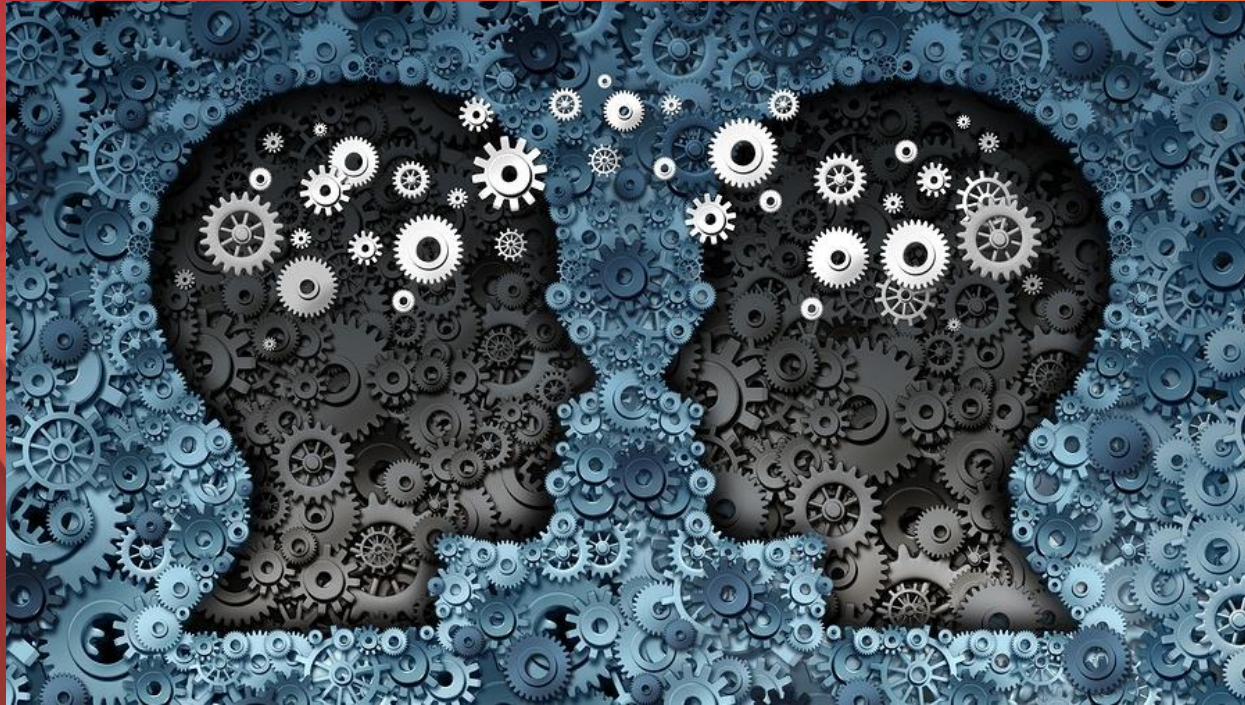
*Where liveness of the data is key!*



# Distributed Collaboration with ArcGIS Enterprise and ArcGIS Online @ 10.5.1



*Data snapshots are required between Enterprise and Online!*



# ArcGIS Enterprise and ArcGIS Online collaboration

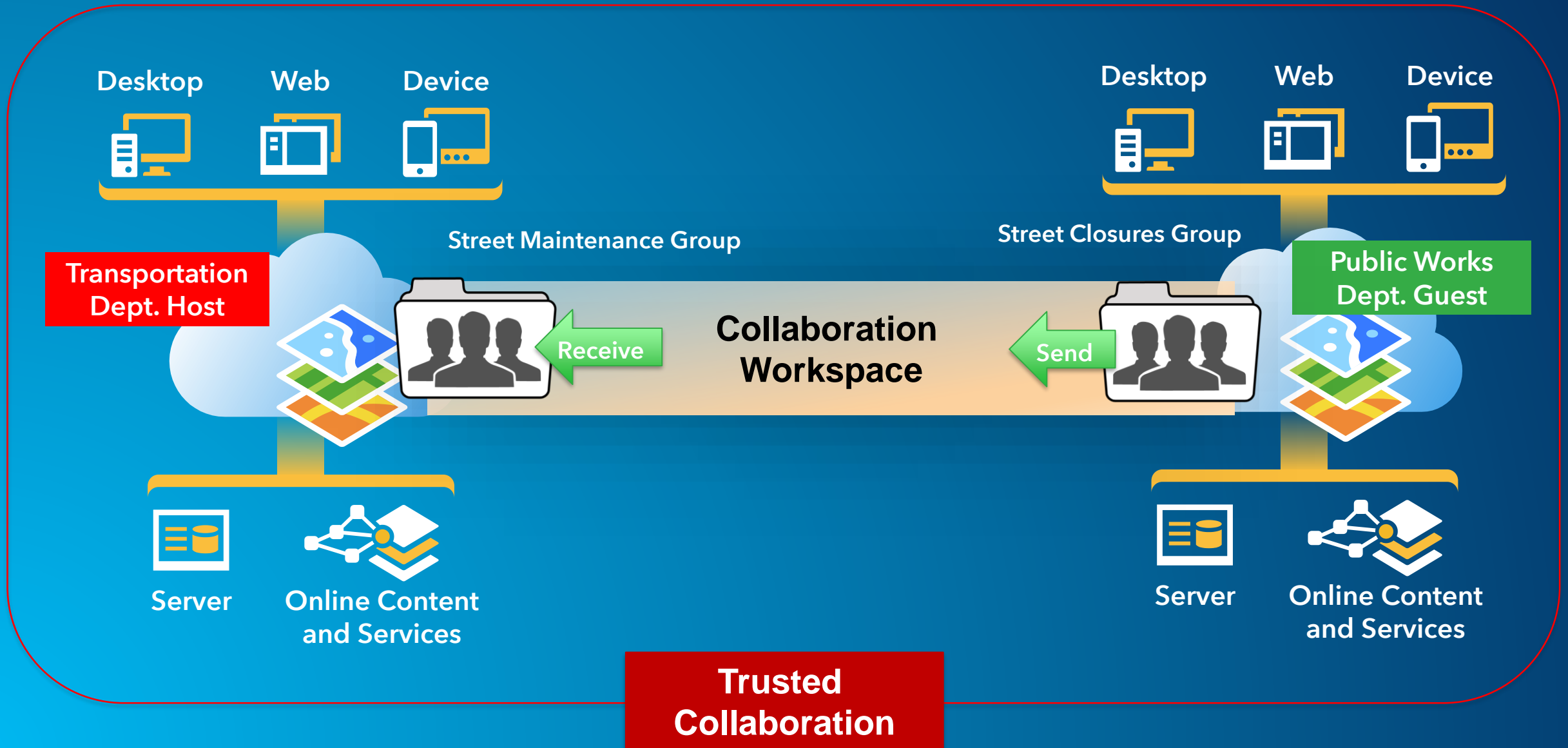
Sam Williamson



# Establishing trust

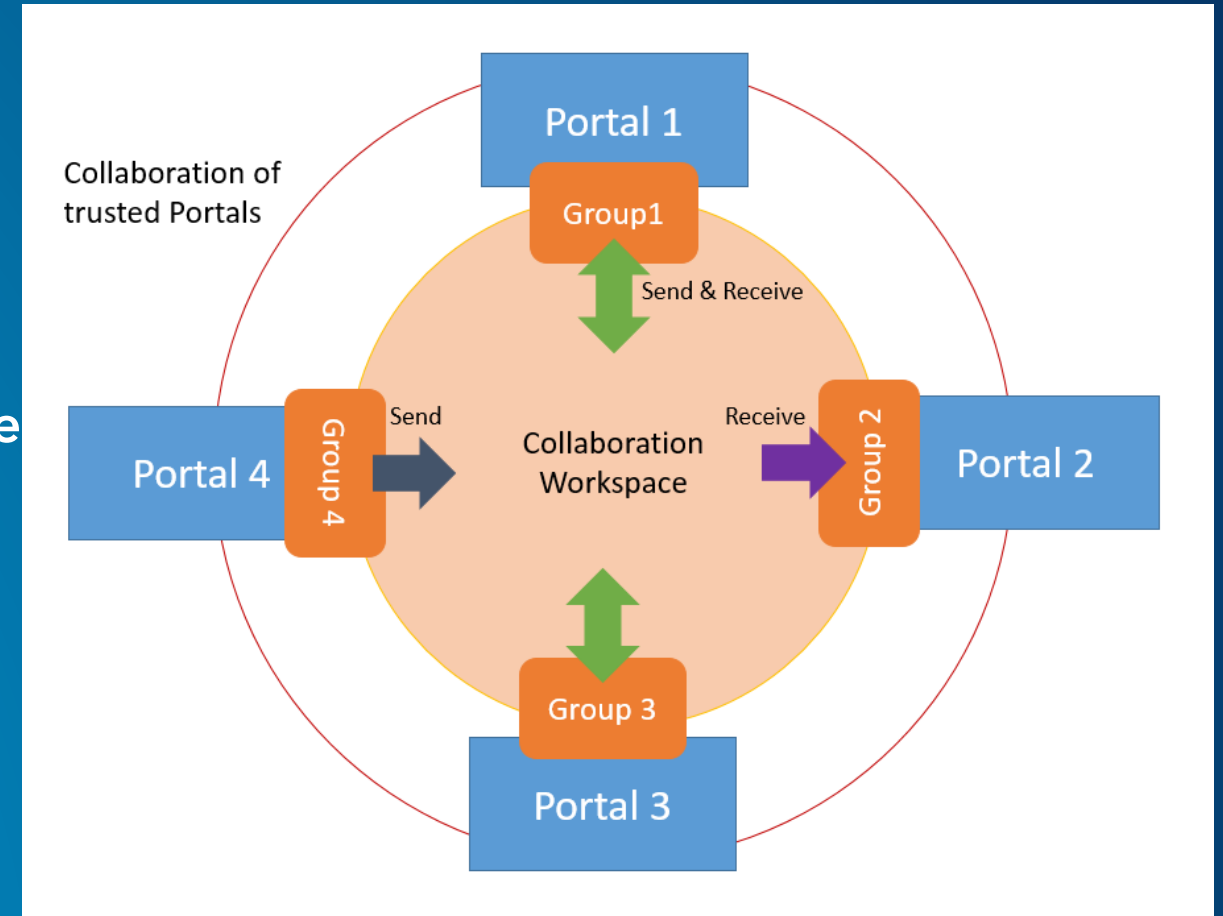
- Need network connectivity between portal
- Admin credentials are never exchanged
- Invitation and response files are used to exchange PKI-style public keys
- Keys are used to generate collaboration tokens
  - There are no accounts created specifically for collaboration
- For portals with web-tier authentication, web-tier credentials need to be provided during key exchange
  - IWA (NTLM) - service account
  - PKI - service account certificates

# Linking a group to collaboration workspace - conceptual diagram



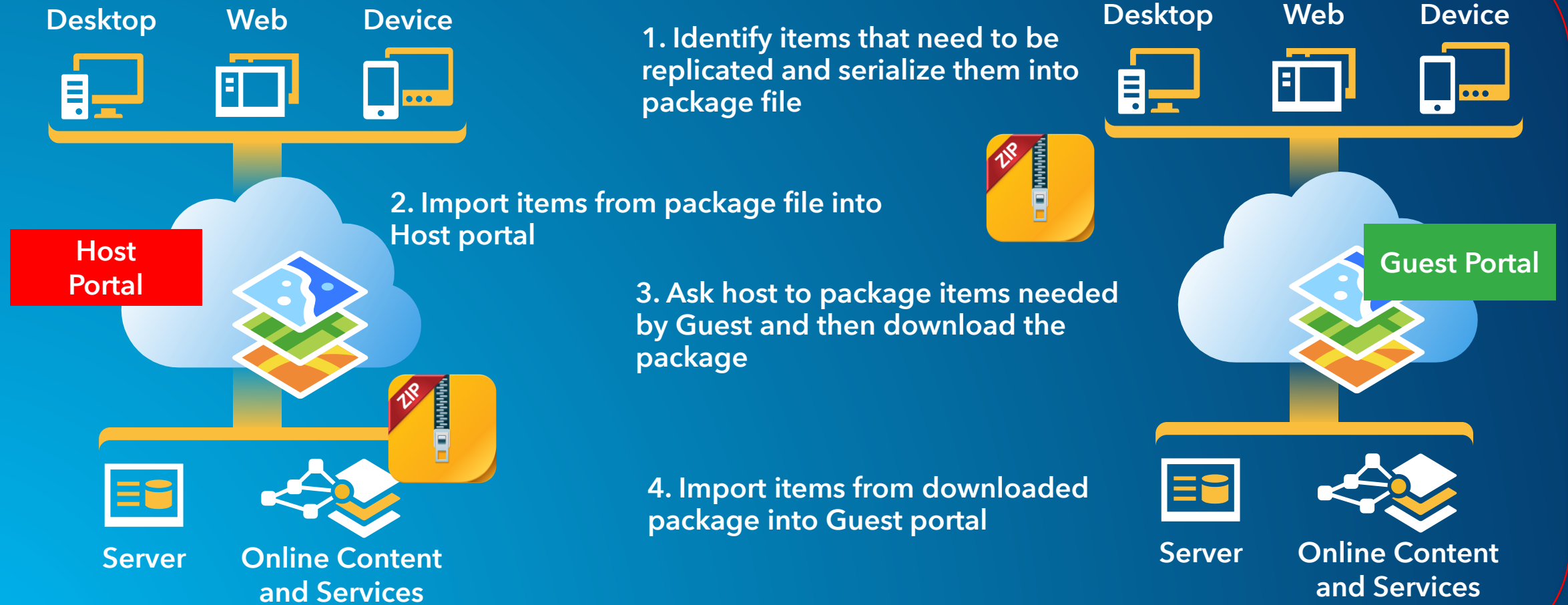
# Collaboration workspaces

- At least one
- A conceptual space where collaborated content is collected and shared with participating Portals
- Associated with an event, project or theme
- Links portal group to collaboration
- Access mode is defined per workspace





# Synchronization



# Synchronization

- Only items that have been modified or missing are exchanged
- Scheduled or immediately
- Item IDs of items are consistent across portals

# Powerful new analytics

GeoAnalytics and Raster Analytics



# GeoAnalytics Server

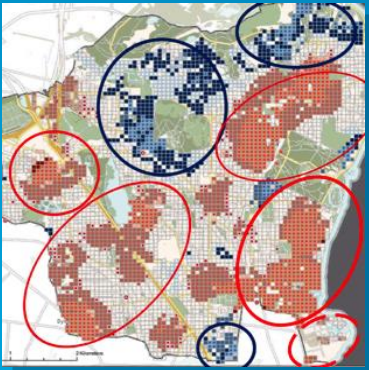
*ArcGIS has a new way of processing **vector and tabular data** with both spatial (location) and temporal (time) components that is designed for **fast distributed analytics** and storage*



# GeoAnalytics Server | Adding to ArcGIS

GeoAnalytics adds to existing ArcGIS analysis capabilities

Geoprocessing



Powerful  
analytics

more

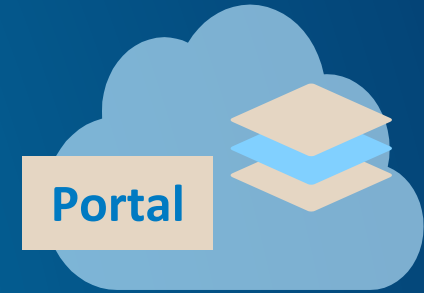
GeoAnalytics



Distributed analytics and  
storage

new

Web GIS Layers



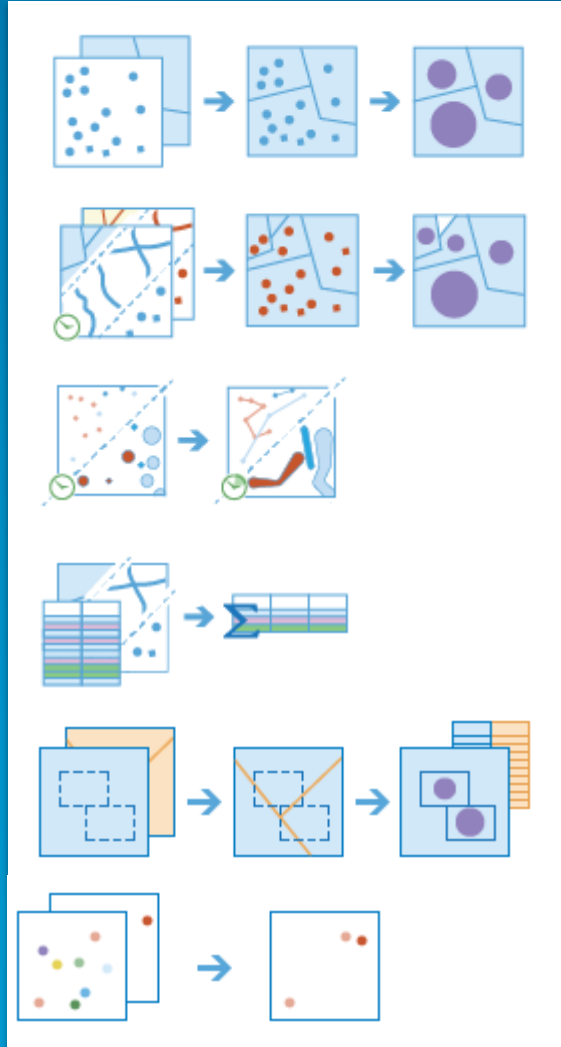
Rich geoinformation  
model

extends

# GeoAnalytics Server | Rich Collection of Analysis Tools

## Summarize Data

- Aggregate Points
- Join Features
- Reconstruct Tracks
- Summarize Attributes
- Summarize Within



## Find Locations

- Find Similar Locations

## Analyze Patterns

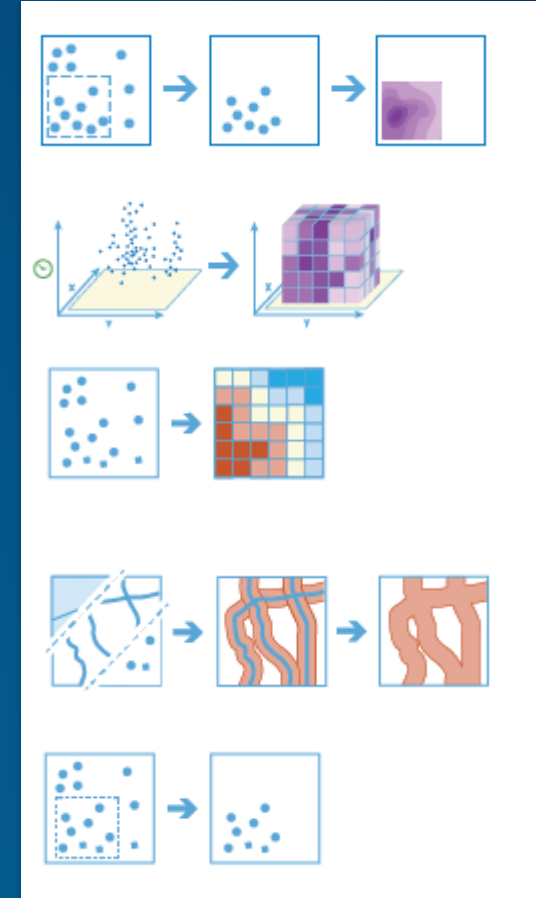
- Calculate Density
- Create Space Time Cube
- Find Hot Spots

## Use Proximity

- Create Buffers

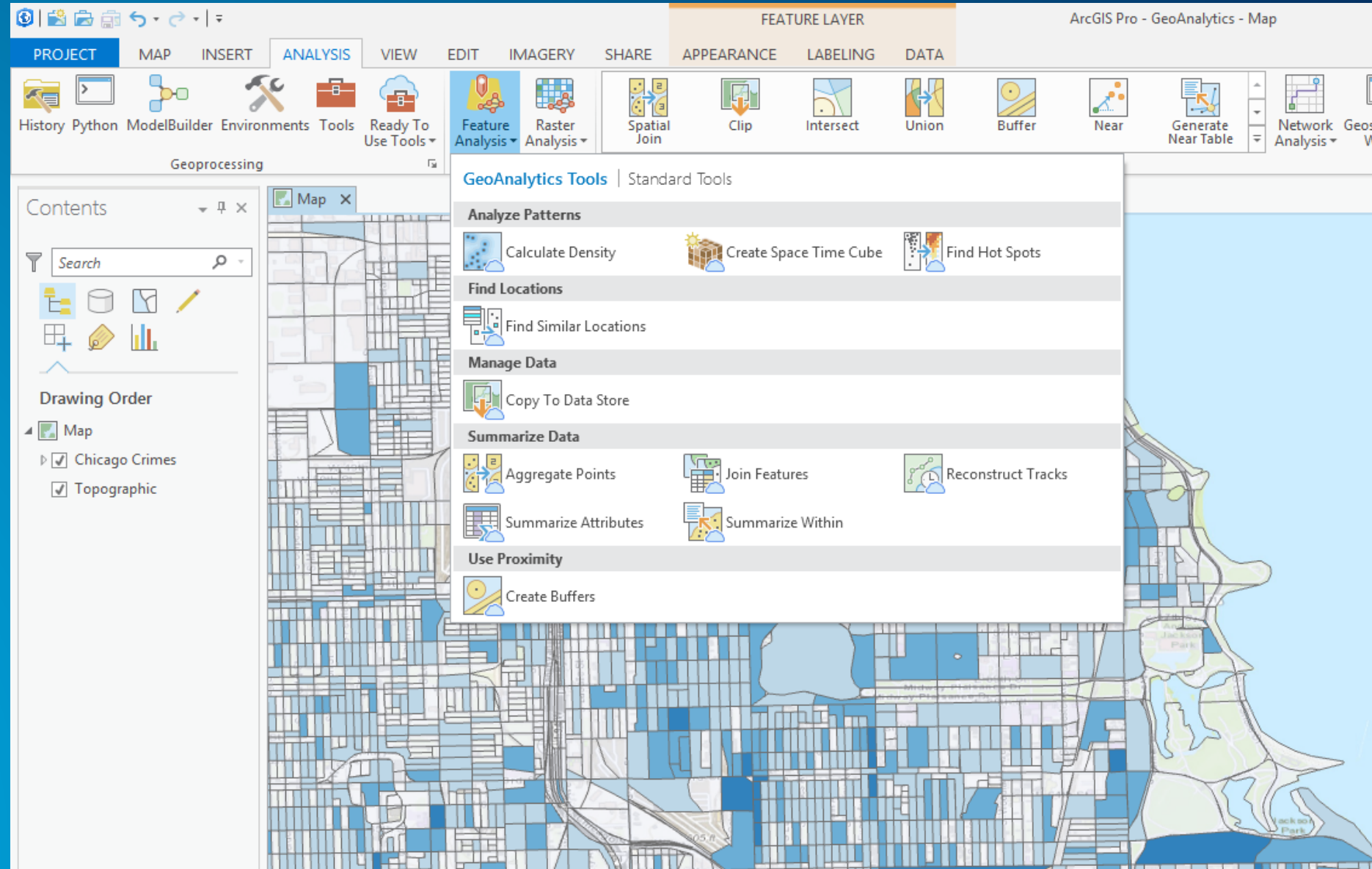
## Manage Data

- Copy to Data Store



# GeoAnalytics Server | Familiar User Interfaces

## ArcGIS Pro Map Viewer



# GeoAnalytics Server | Developer Interfaces

## Geoprocessing Service

- REST API
- ArcGIS Python API

### ArcGIS REST Services Directory

[Home](#) > [services](#) > [System](#) > [GeoAnalyticsTools \(GPServer\)](#)

[JSON](#) | [SOAP](#)

### System/GeoAnalyticsTools (GPServer)

**Service Description:** The GeoAnalyticsTools service is provided for distributed analysis of large datasets.

#### Tasks:

- [AggregatePoints](#)
- [DescribeDataset](#)
- [JoinFeatures](#)
- [CreateBuffers](#)
- [CalculateDensity](#)
- [ReconstructTracks](#)
- [CreateSpaceTimeCube](#)
- [CopyToDataStore](#)
- [SummarizeAttributes](#)
- [SummarizeWithin](#)
- [FindSimilarLocations](#)
- [FindHotSpots](#)

**Execution Type:** esriExecutionTypeAsynchronous



# Image Server | Raster Analytics

*ArcGIS has a new way to create and execute spatial analysis models and raster processing chains which leverages distributed storage and analytics*

# Image Server | Raster Analytics: Adding to ArcGIS

Raster Analytics adds to existing ArcGIS concepts

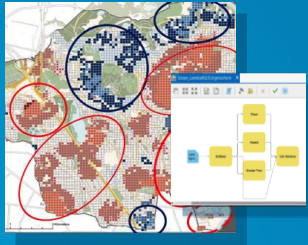
Dynamic Raster  
Models



on-the-fly processing



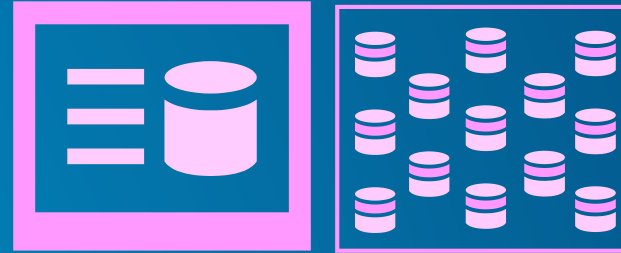
Geoprocessing  
Models / spatial  
analysis



powerful analytics



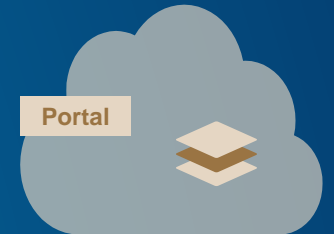
Server-based distributed  
processing and storage



Scalable distributed analytics  
with persisted storage



Web GIS Layers

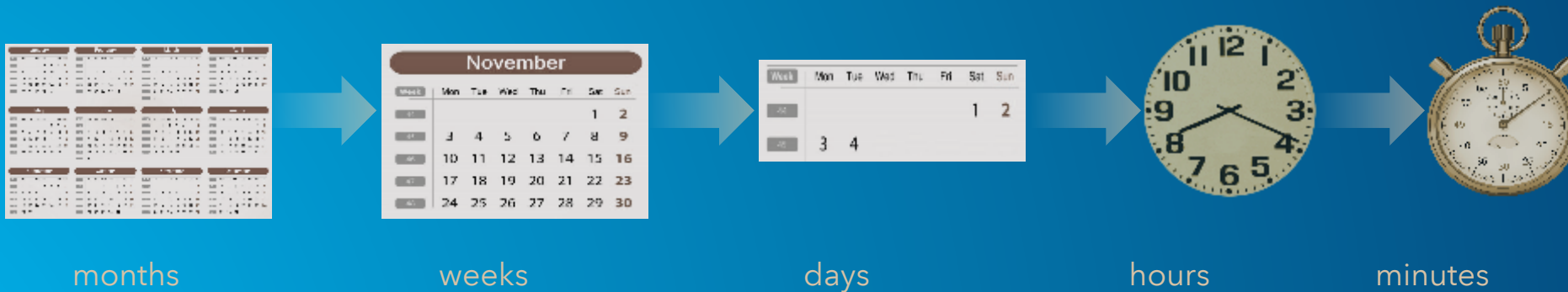


Rich geoinformation  
model



# Image Server | Solve New Problems with Raster Analytics

- **Run models against data that is too big for single desktop**
  - Global rasters (big geography)
  - Large Scale (high resolution)
  - Large Collections (many)
- **Run models and meet time constraints**

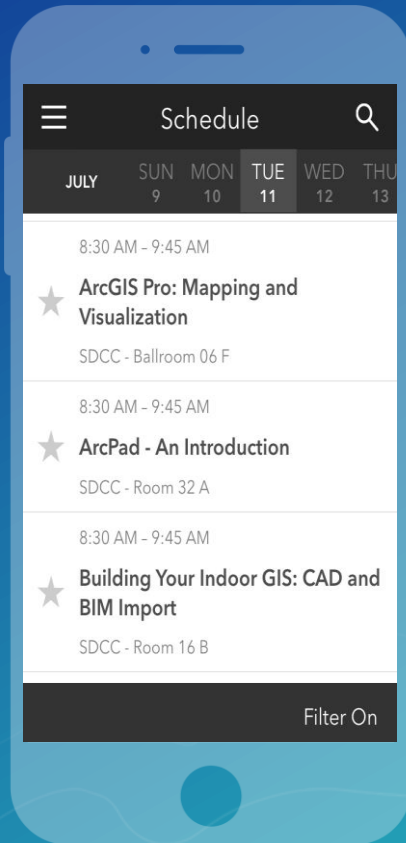


# Please Take Our Survey on the Esri Events App!

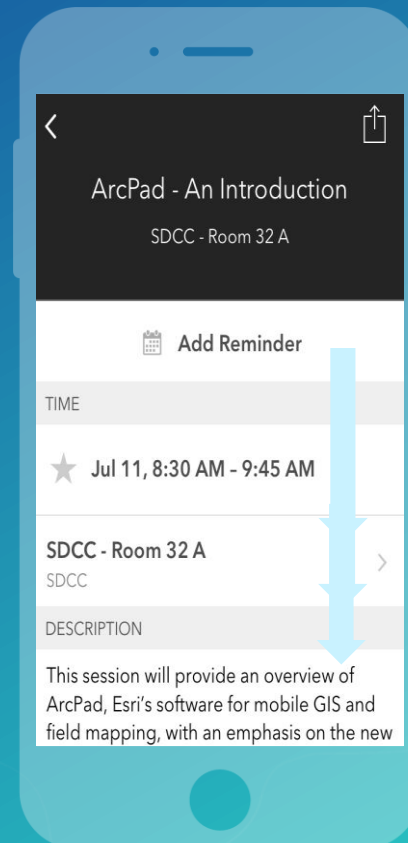
Download the Esri Events app and find your event



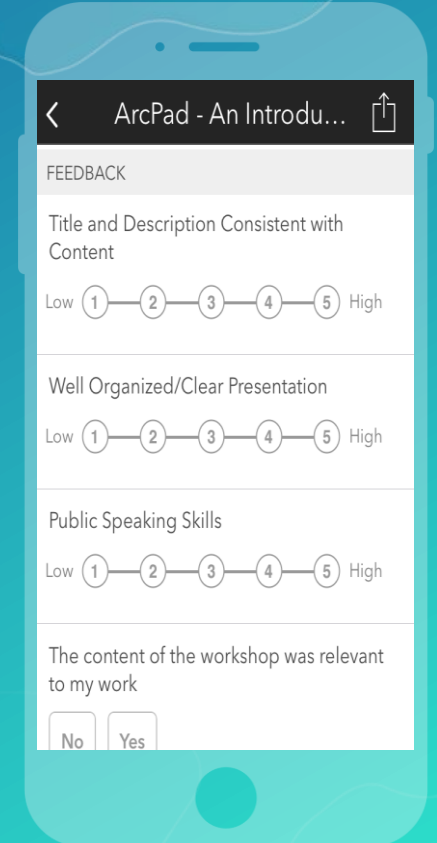
Select the session you attended



Scroll down to find the survey



Complete Answers and Select "Submit"







esri

THE  
SCIENCE  
OF  
WHERE