



Esri International Developer Summit
Palm Springs, CA

Developing Apps for ArcGIS Marketplace

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Agenda

- **Welcome to the ArcGIS Marketplace**
- **What makes a good app?**
- **Developing Apps**
 - **Named users and OAuth authentication**
 - **Online Content and the Portal API**
- **Q&A**

Developer Scenarios



Build applications for your
ArcGIS organization

Build apps for the ArcGIS
community



Build apps for the community
at large

ArcGIS Marketplace



Build applications for your
ArcGIS organization

Build apps for the ArcGIS
community



Build apps for the community
at large



ArcGIS Marketplace



ArcGIS Marketplace

Power your enterprise with geospatial apps and data



- Home
- New
- By Esri
- Popular
- Free
- Categories
- Industries
- Not and Determined
- Business
- Defense and Intelligence
- Education

Featured Apps

Virtual Situation Room
Geospatial Realtime Collaboration

Worldwide address verification

AccuWeather
U.S. Storm Weather
Be Prepared for the Weather

Come in we're
OPEN

<http://marketplace.arcgis.com>

What makes a good app?



Add value to the ArcGIS Online Subscription



Focused Apps



Industry
Expertise

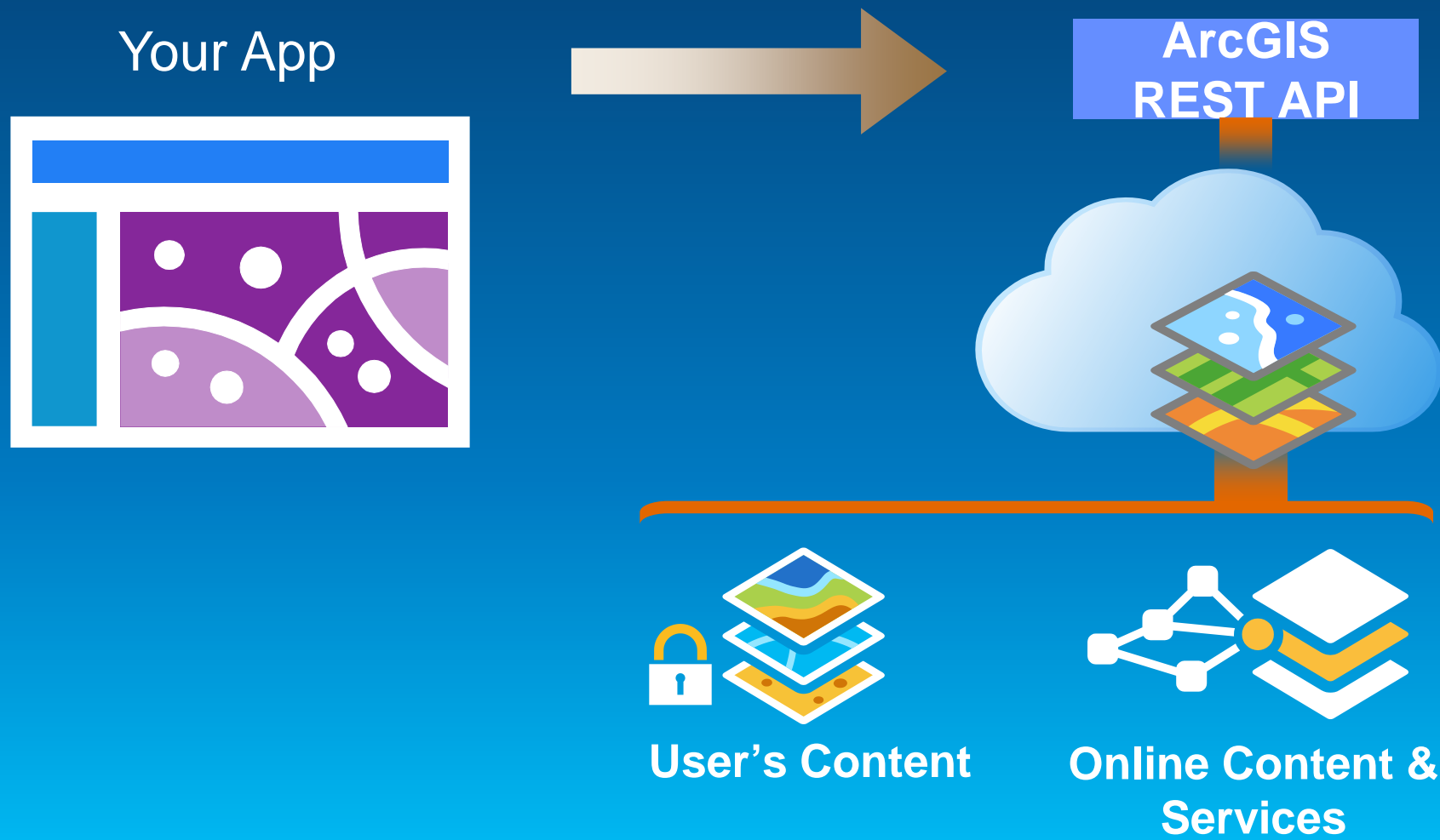


Productivity
Tools

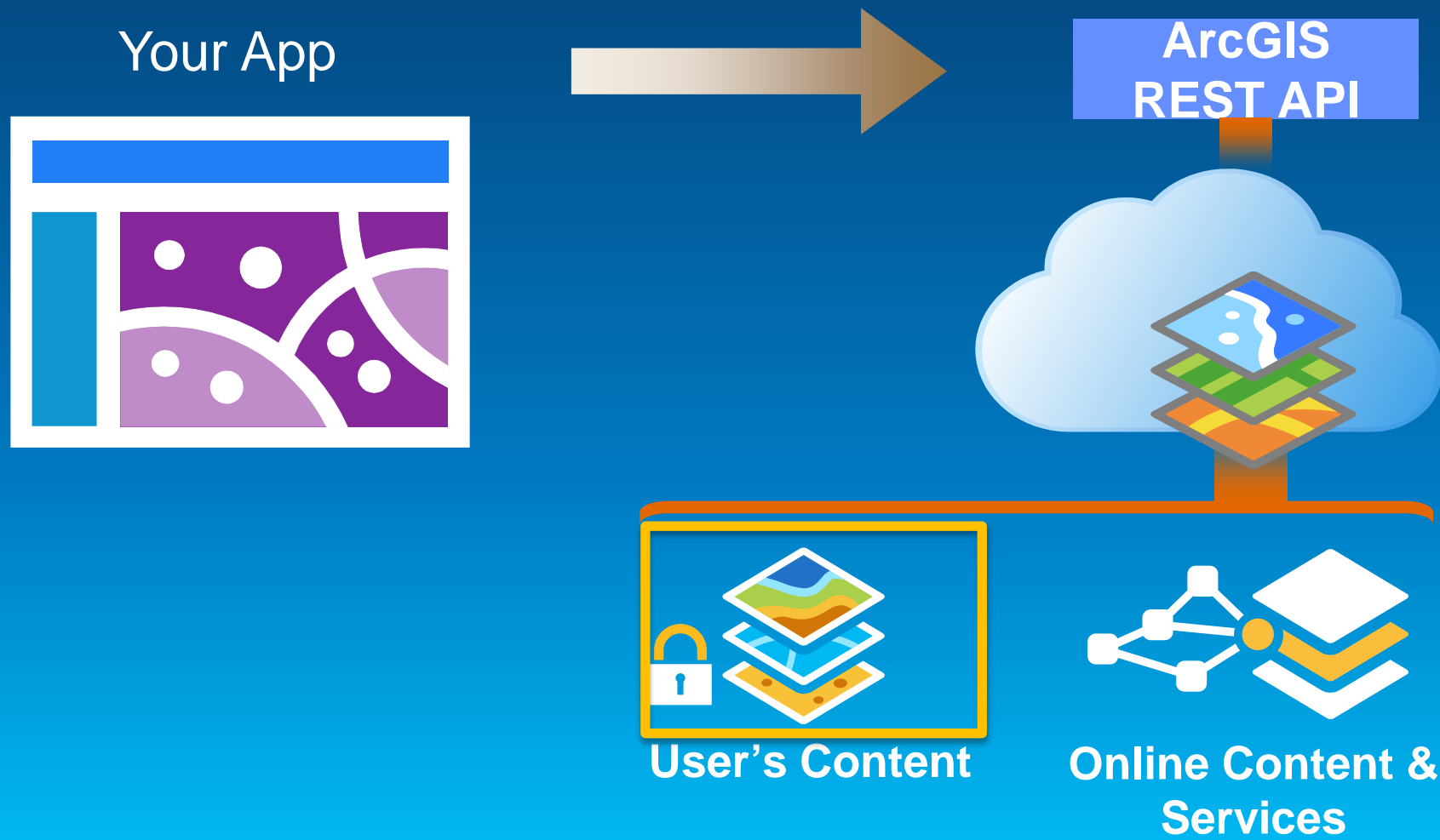


Contribute your IP
to the platform

Access Online Content



Access Online Content



Enrich Your Application with Platform Services



Developing Apps



**What is this
“OAuth2” Mumbo Jumbo?**

Concept...

The image shows a screenshot of the TravBuddy website with a Facebook login dialog box overlaid. The website header includes the TravBuddy logo, navigation links for Destinations, TravBuddies, Hotels, Write a Review, and Forums, and a search bar. A yellow banner prompts users to create an account or login. The main content area features a 'Why join?' section with a list of benefits and a 'Log into TravBuddy' button. The Facebook dialog box, titled 'Log into TravBuddy - Google Chrome', displays the TravBuddy app name, a 'Log In with Facebook' button, and a 'Cancel' button. It also shows the app's name, a '3,120 people use this app' notification, and a list of permissions: 'Your basic info (??)', 'Your email address (jule_poorel@yahoo.com)', and 'Your profile info: birthday, hometown and location'. The dialog box also includes a 'Who can see posts this app makes for you on your Facebook timeline: (??)' dropdown menu set to 'Custom' and a footer with terms of service and privacy policy links.

TravBuddy Destinations TravBuddies Hotels Write a Review Forums Search

Meet travelers. Share advice.

Please create a TravBuddy account or login to view this page!

Already have an account? Login!

Username or Email:
Password:
 Remember my username

Why join?

- Meet other travelers.
- Meet locals in the place you are visiting.
- Share hotel reviews, tips and more.
- Over 433,162 trusted users share advice.
- Save your countries and get future updates.

TravBuddy has been featured in:

OFFICIAL HONOREE
2010 WEBBY AWARDS

Log into TravBuddy - Google Chrome

facebook

TravBuddy

Log In with Facebook Cancel

3,120 people use this app.

ABOUT THIS APP:
You are logging into TravBuddy as Jule Poorel.

WHO CAN SEE POSTS THIS APP MAKES FOR YOU ON YOUR FACEBOOK TIMELINE: (??)

Custom

THIS APP WILL RECEIVE:
• Your basic info (??)
• Your email address (jule_poorel@yahoo.com)
• Your profile info: birthday, hometown and location

By proceeding, you agree to TravBuddy's Terms of Service and Privacy Policy and will be taken to www.travbuddy.com / Report App



Sign in with your Harbour Energy account to view
your work orders for the day and create an itinerary.

Sign In ▶

Route Optimizer wants to access your account information

Sign In



Username

Password

Keep me signed in

SIGN IN

CANCEL

[Forgot Username or Password?](#)

Route Optimizer developed by:



Energy

This is the boilerplate test app.


- Sign into platform.
- Approve App

Step 1: Register Item

Resource Center Show: Web Content Only My Organization: Julie

HOME GALLERY MAP GROUPS MY CONTENT Find map

Harbor Energy Jobs



Web Mapping Application by Julie_energy
Last Modified: March 22, 2013
(0 ratings, 26 views)

Facebook Twitter

Open Share Edit Delete Move Attach Code

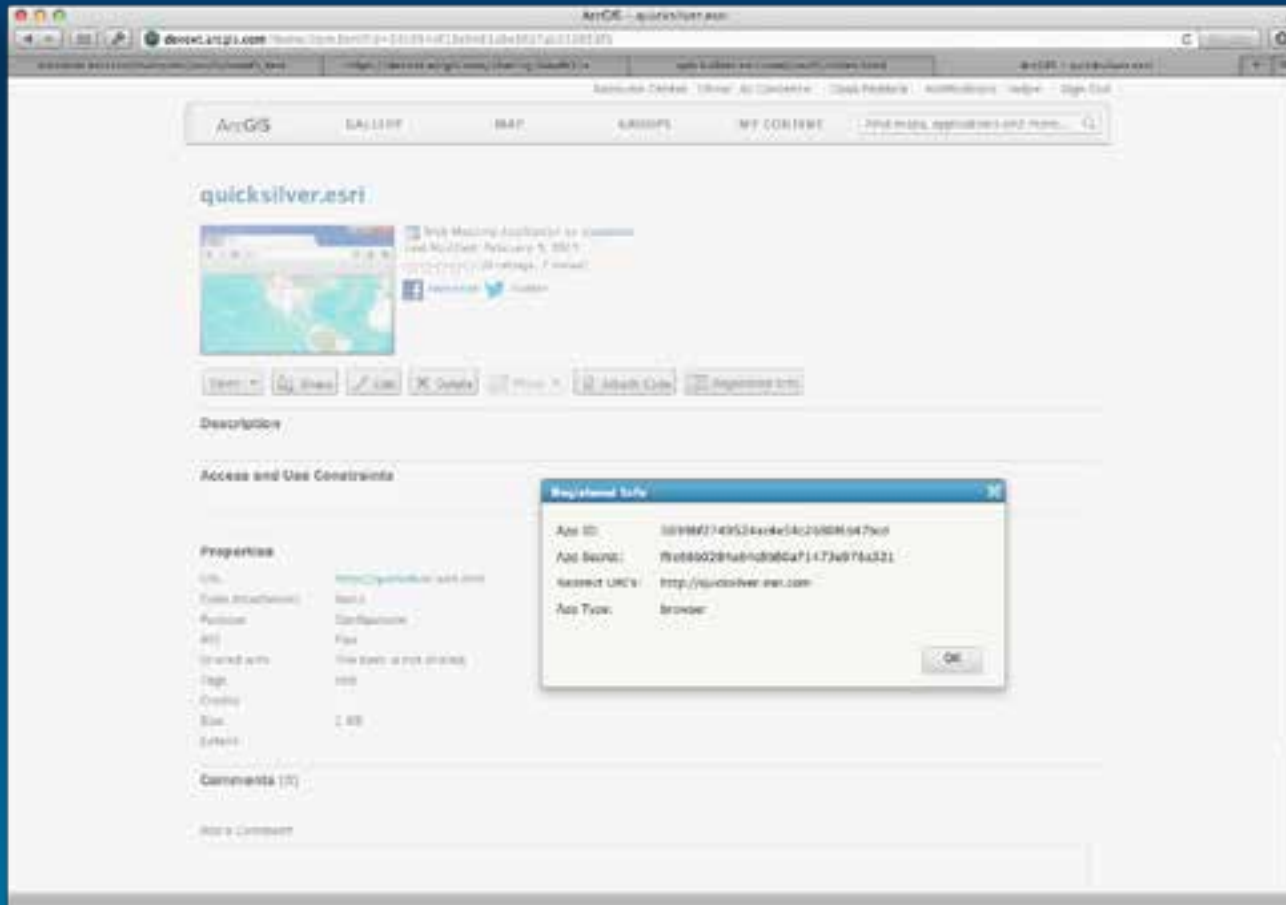
Description

Access and Use Constraints

App Registration

Registered Info

App Registration



What does it do?

- q Creates an item
- q **AppID = client_id**
- q App Secret
- q Set **application name** (shown during login)
- q Setup **allowed redirect URLs** (just domain name is ok).

“Two Step” Worklow vs. “One Step”

One Step

`response_type = token`

Two workflows:

1. Welcome page: sign in to app before accessing secured content. Get token & redirect to app.
2. Open app, prompt user with a pop-up to login to access secured content. Pop-up closes and passes token to app.

Two Step

`response_type = code`

App gets an (1) authorization *code*, which is used to then request an (2) access token (short-lived) + refresh token. Refresh token can be used to get new tokens when the old one expires.

Demo OAuth2 and Route Optimizer



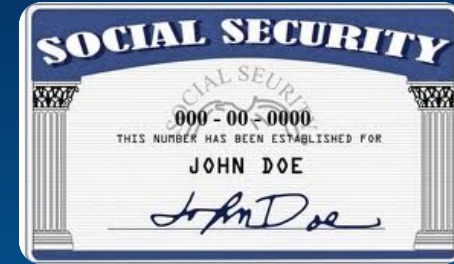
ROUTE OPTIMIZER

Create traffic-aware optimized routes for your work orders



Item ID

A unique identifier, like a social security number



www.arcgis.com/home/webmap/viewer.html?webmap=ef5920f160bd4239bdeb1348de3a3156

ArcGIS Portal

- REST-based API to access and work with
 - Users
 - Groups
 - Items

ArcGIS Portal API

[FRAMES](#) | [NO FRAMES](#)

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Overview

ArcGIS Online is Esri's SaaS platform that customers can develop maps and data via a portal.

The **ArcGIS Portal API** allows users, groups, and content to be managed and accessed via REST. The API is available via REST.

Concepts

Portals allow users and organizations to publish and share content.

A **Portal** may have users who are unaffiliated with an organization.

A Portal has **Users**, **Groups** and **Content**.

Users sign in to the portal and create and share content. The system



The image displays four maps generated using the ArcGIS Portal API. The top-left map is titled 'USA Social Vulnerability Index' and shows a heatmap of the United States with colors ranging from red (high vulnerability) to yellow (low vulnerability). The top-right map is titled 'USA Population Density' and shows a similar heatmap with colors ranging from yellow to red. The bottom-left map is titled 'USA Projected Population Change' and shows a map of the United States with green and orange areas indicating population changes. The bottom-right map is titled 'Gulf Coast Oil Spill Plume' and shows a map of the Gulf Coast with a red plume representing the oil spill, overlaid on a grey background representing uncertainty. A legend for the Gulf Coast Oil Spill Plume map includes categories: Uncertainty (white), Light (light grey), Medium (medium grey), Heavy (dark grey), and Beached Oil (red).

Portals

- Information about the user's organization
- Languages and Regions
 - /sharing/rest/portals/languages
- Manage
- File Resources
- Users

<http://www.arcgis.com/apidocs/rest/?portals.html>

Search

- **Item Search**

- `/sharing/rest/search?q=<query>`
- title, owner, type, tags, description, created/modified...
- E.g. `+type:"Web Map" -title:test`

- **User Search**

- `/sharing/rest/community/users?q=<query>`
- username, description, tags, ...
- E.g. `+fullname: "Julie Powell"`

- **Group Search**

- `/sharing/rest/community/groups?q=<query>`
- title, owner, description, tags, created/modified...
- E.g. `+title: "My Maps" +owner:julie_user`

Content

- **Item**
 - /sharing/rest/content/items/<itemId>
- **User Content**
 - /sharing/rest/content/users/<username>
- **Manage Items**
- **Folders**
- **Relationships**
- **Share/Unshare Items**
- **Ratings and Comments**
- **Group Content**
- **Analyze/Generate**

Application templates

Access when sharing a map or from the Gallery



An organization can create a custom template group

Example App

demo wants to access your account information

Sign In esri


Username

Password

Keep me signed in

[Forgot Username or Password?](#)


demo developed by:

 ArcGIS JavaScript API
Test Account for the ArcGIS JSAPI Team

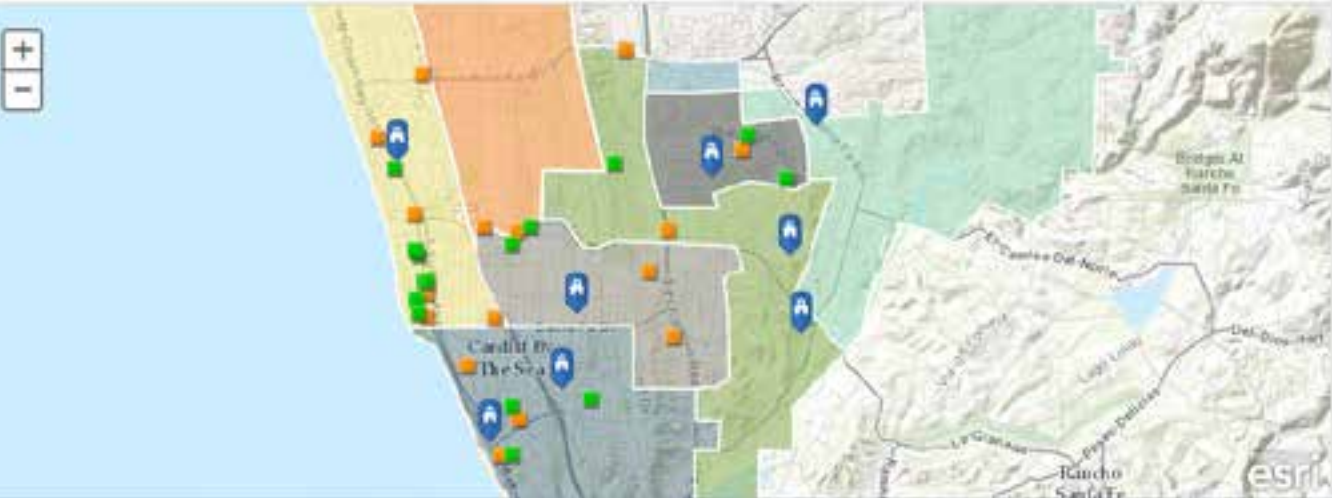


Public My Organization My Groups Julie Powell

Content



Preview



Map navigation controls: +, -

esri

Help docs



ArcGIS Marketplace [Help](#) [July](#)

Help

[Main](#) [For Consumers](#) [For Providers](#)

What is the marketplace?

ArcGIS Marketplace is a destination that allows ArcGIS Online organizations to search, discover, and get apps and data from qualified providers (Esri Business Partners, Esri Distributors, and Esri) for use within their organization. The apps and data services listed in the marketplace can be made available to any ArcGIS online organization, worldwide.



Power your enterprise

Find apps and data services to use in your organization. Once you get an app or data service you can easily share it with groups and users within your organization.

- > [Show me how](#)
- > [FAQ](#)

Reach your users

ArcGIS Marketplace provides a mechanism to generate leads, provide free trials, grant access to your listings, and manage subscriptions.

- > [Show me how](#)
- > [Qualifying as a provider](#)
- > [FAQ](#)

ArcGIS Ideas site

Don't see the app or data you need? Post a suggestion or vote on existing ideas.

Are you a provider looking for ideas? See what customers are asking for, invite contributors to privately collaborate with you to evolve ideas.

ideas.arcgis.com



Understanding our world.