

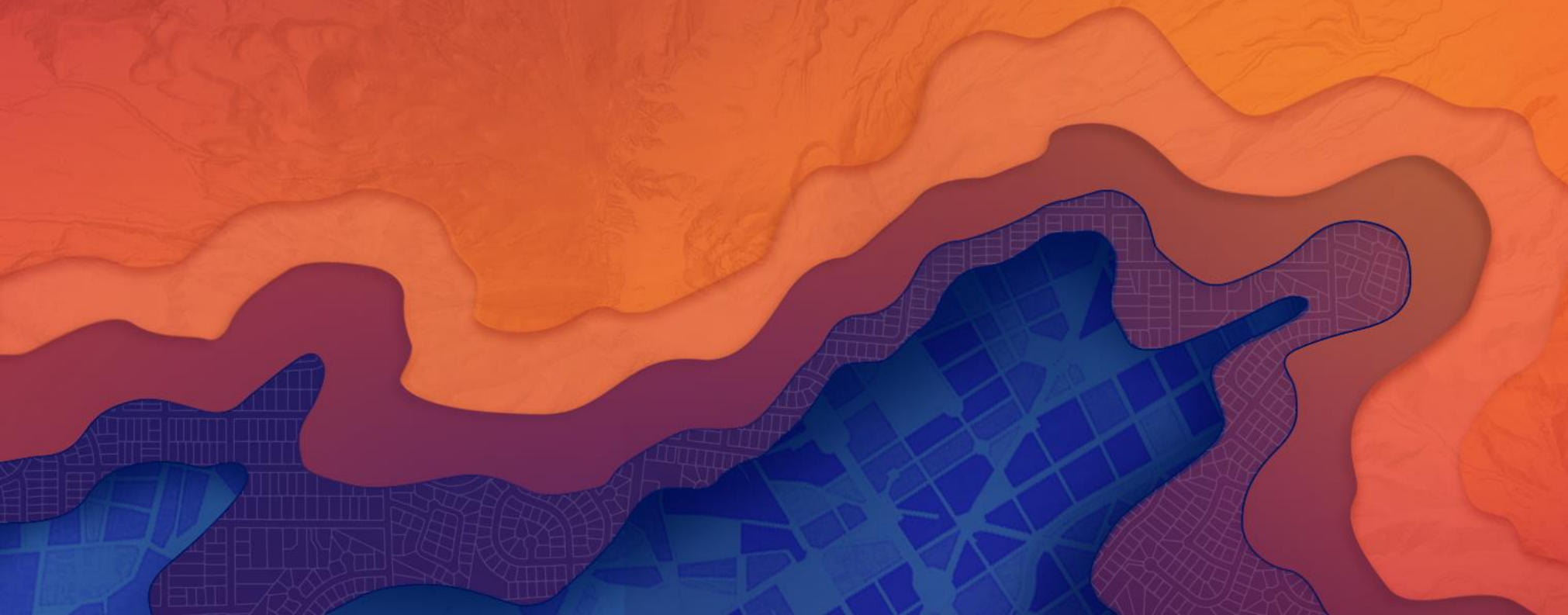
Operations Dashboard for ArcGIS: Extending Operation Views

Tif Pun

Agenda

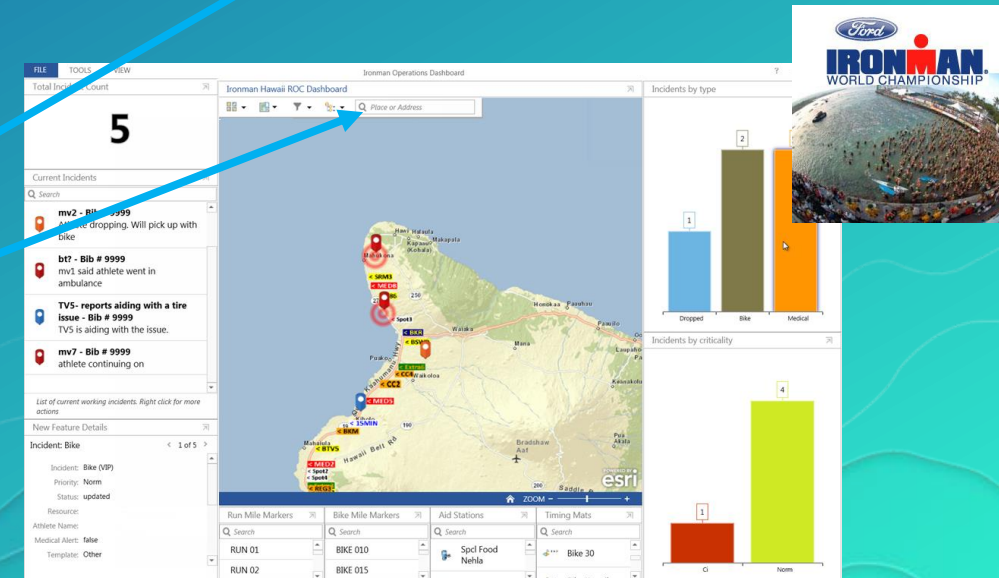
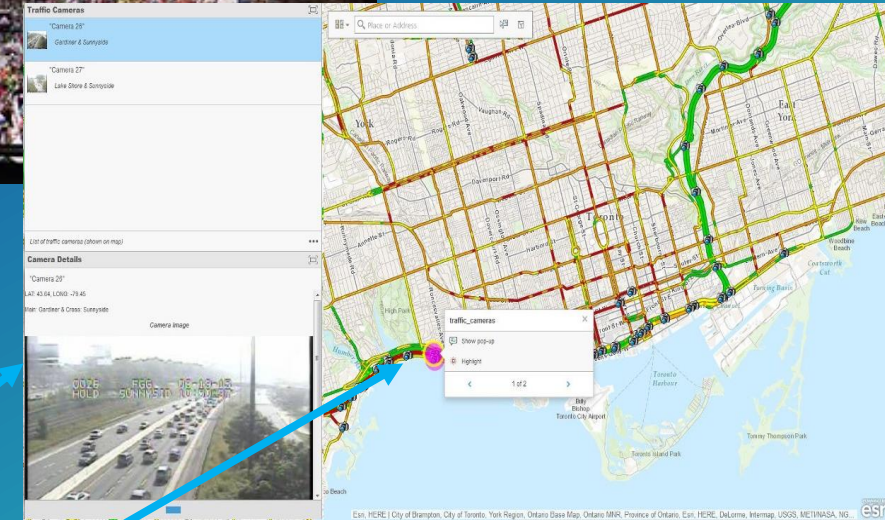
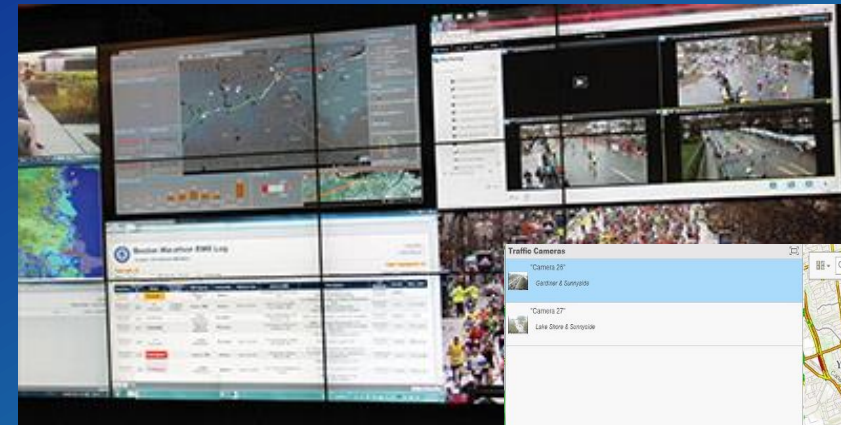
- Overview of Operations Dashboard
- Extend Operation Views
- Demos
- Deploy Extensions
- Roadmap
- Takeaways
- Q&A

Overview of Operations Dashboard



Operations Dashboard

- Monitor and manage operations
 - Monitor real-time events
 - Visualize key performance indicators
 - Free download from ArcGIS Online/Portal for ArcGIS
 - Run on Windows and browser platforms
- Operation views
 - Publishers build and configure operation views
 - Users interact with operation view components
- Components of an operation view
 - Widgets – information display (e.g. charts)
 - Feature actions – feature interaction (e.g. highlight)
 - Map Tools – map interaction (e.g. bookmarks)
 - Components are configurable



Extend Operation Views



What's an extension?

- Can be a widget, a map tool, or a feature action
- A web app hosted on your web server
- Build with the 3.x ArcGIS API for JavaScript
- Can be configurable
- Run on Windows and browser platforms
- Examples:
 - Attribute table widget
 - Bomb threat buffer map tool
 - Print attributes feature action

What's an extension? (cont'd)

Name	Type
imgs	File folder
socialMediaMapTool	Chrome HTML Do...
socialMediaMapToolConfig	Chrome HTML Do...
socialMediaMapToolConfigTemplate	Chrome HTML Do...
socialMediaMapToolTemplate	Chrome HTML Do...
style	CSS File
socialMediaMapTool	JS File
socialMediaMapToolConfig	JS File
socialMediaMapTool	JSON File

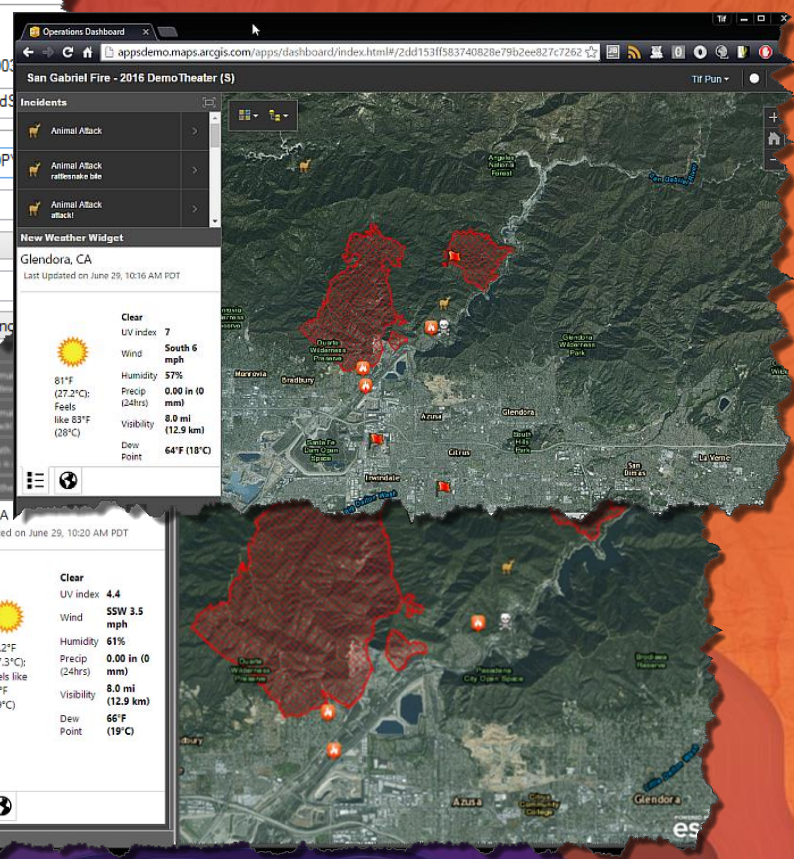
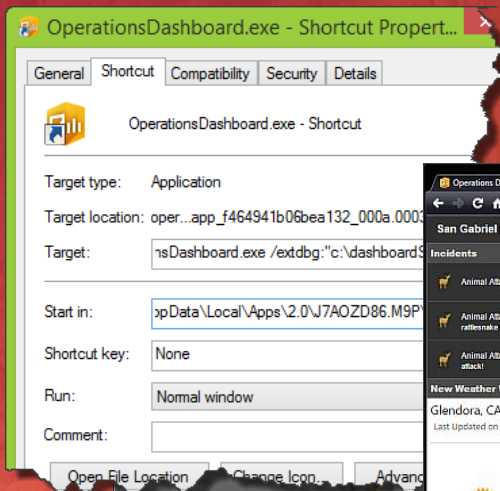
References external libraries; Container of the dijit

A template or an HTML fragment that will be rendered as the dijit

Stylesheet

Business logic

The manifest file which describes the properties of an extension e.g. Is it a widget, map tool, or feature action?

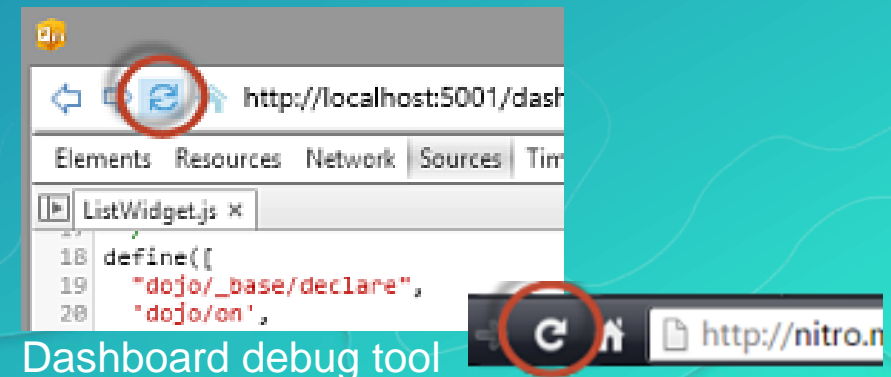


Demo

Operations Dashboard Dev Mode
Weather widget

Recap

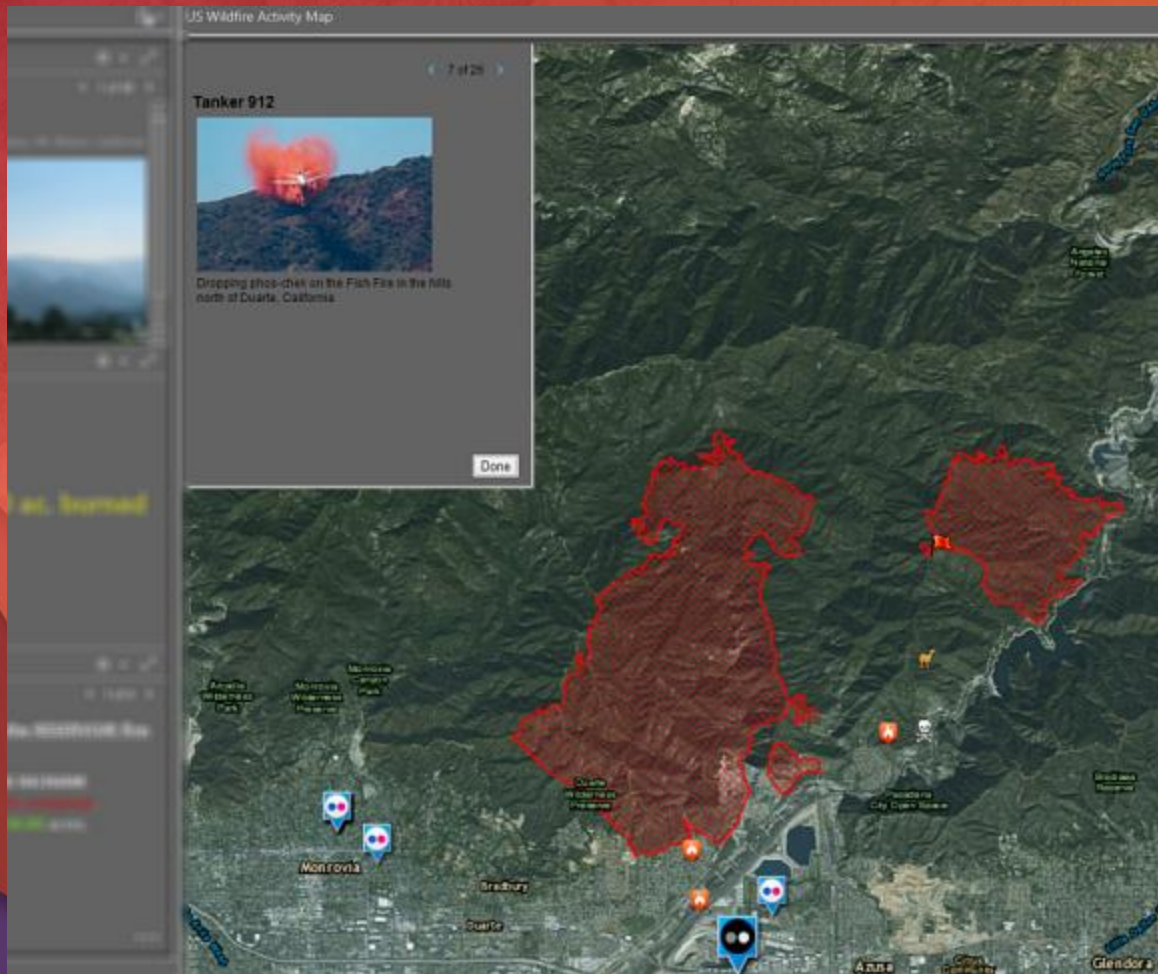
- Three types of extensions: widget, feature action, map tool
- An extension consists of a manifest, an HTML5 file, and optionally JS and CSS files and other resources
- Manifest captures properties that drive the behavior of an extension
- Use the dev tool for debugging without the need of a web server
- Make changes to an extension during dev mode?
 - HTML/JS/CSS files: Just hit the refresh button
 - Manifest: Restart the Windows app/refresh the browser app



Dashboard debug tool

Demo

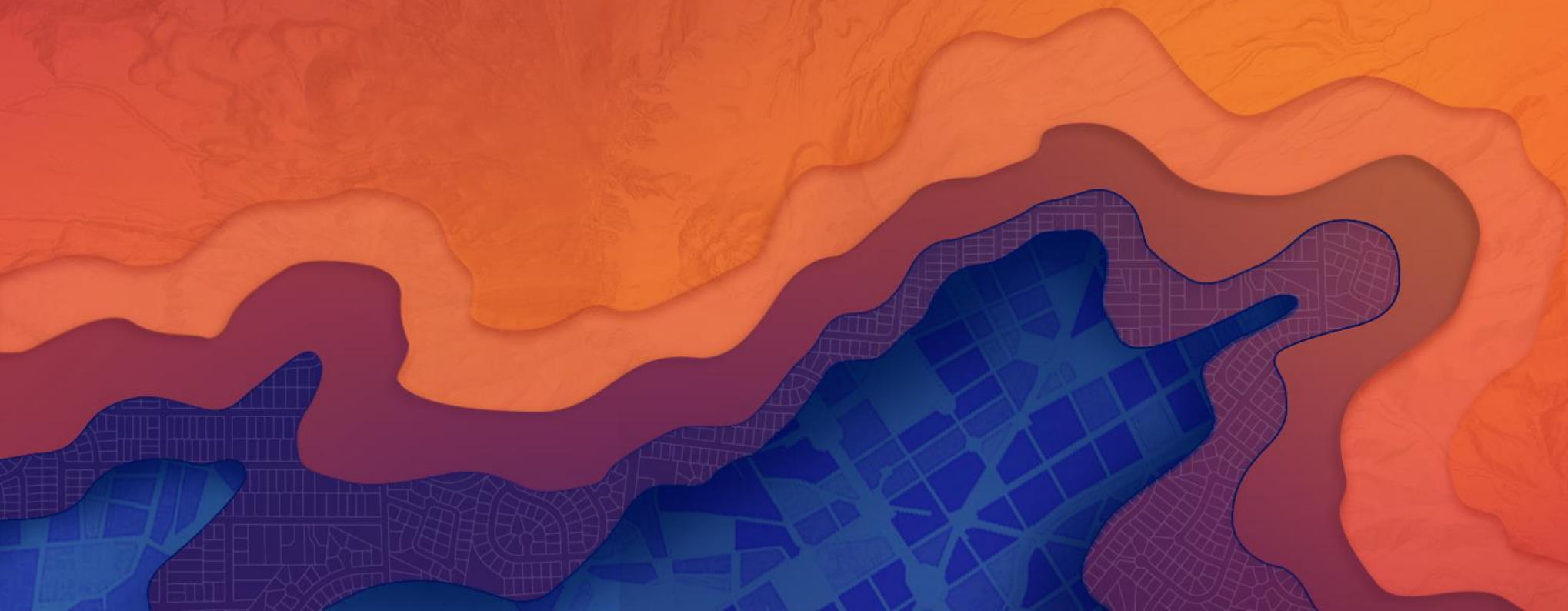
Social Media Map Tool



Recap

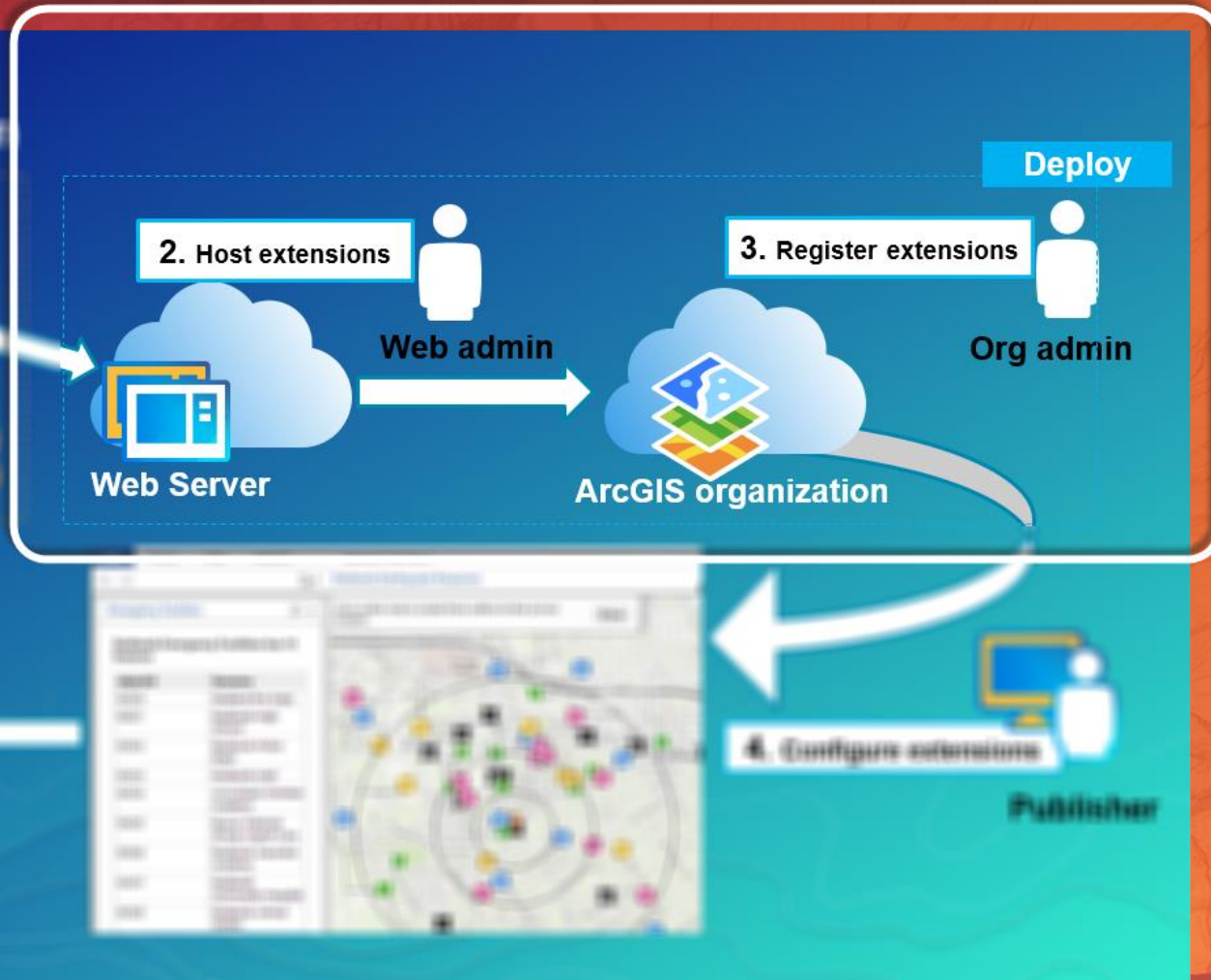
- Three types of extensions: widget, feature action, map tool
- Extensions can be configurable
 - Provide a UI and business logic to capture and validate configurations
 - Configurations are saved into the operation view

Deploy Extensions



Demo

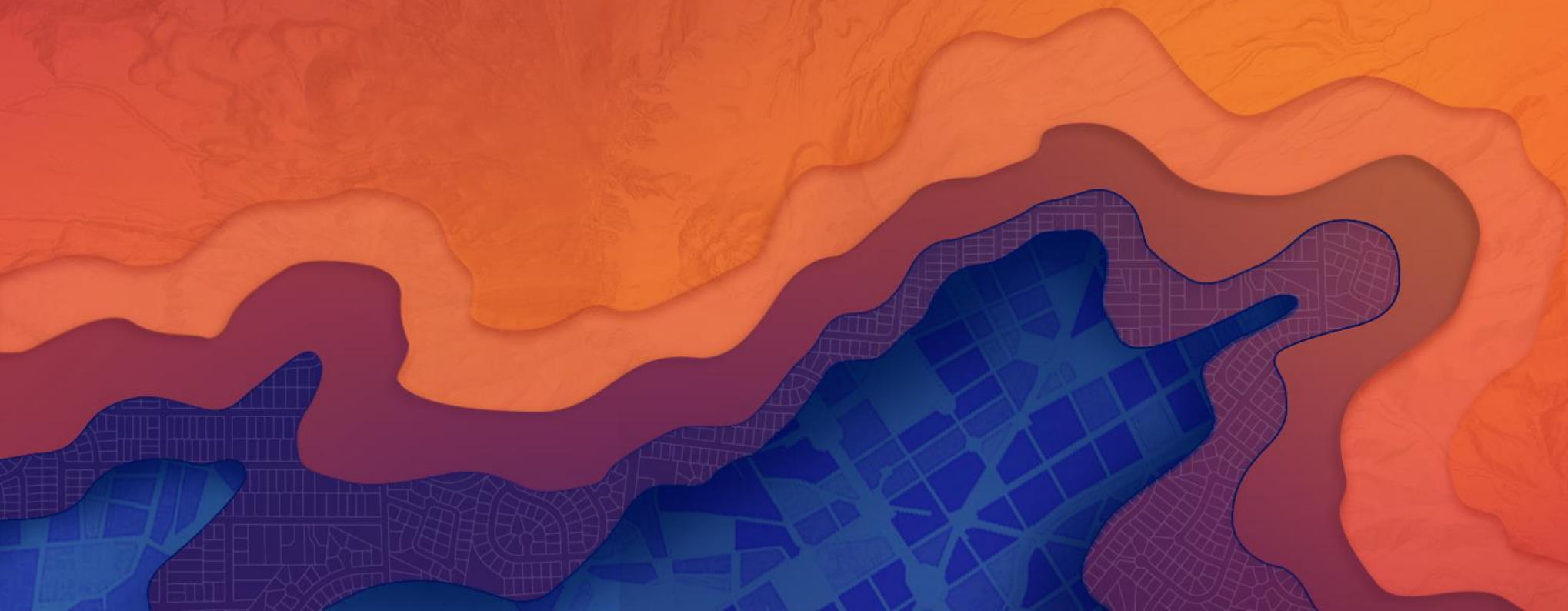
Deployment



Deployment Recap

- Step 1: Host extensions on a web server
 - HTTPS/SSL + valid certificates
 - Enable CORS
 - Anonymously accessible for extensions registered in ArcGIS Online orgs
 - For 10.4+ Portal for ArcGIS, extensions can be hosted behind web adapter
 - (Typically c:\Program Files\ArcGIS\Portal\apps\dashboard\extensions; accessible via: <https://portalDomain/webAdapter/apps/dashboard/extensions/myExtension.json>)
- Step 2: Register extensions to ArcGIS org
 - Must be performed by the org admin
 - References the extension's URL <http://myDomain/myExtension.json>
 - An Operations Dashboard Extension Item will be created
 - Important: Re-do this step if the manifest is modified
- Step 3: Share extensions with members in the org

Roadmap



Operations Dashboard | New Experience!

- Author in the browser
- Smart mapping, labeling support
- New layout with advanced capabilities
- More control over the look-and-feel
- Improved visualizations:
 - Better Color Support (Bar Chart)
 - Date-based Visualizations (Line Chart)
 - Facilitates Comparisons (Indicators/Bar Chart Series)
- Beta Release shortly after UC
- Sign up on Product Page Now!
<http://www.esri.com/products/dashboard>



Roadmap

Windows
Operations
Dashboard

Browser
Operations
Dashboard

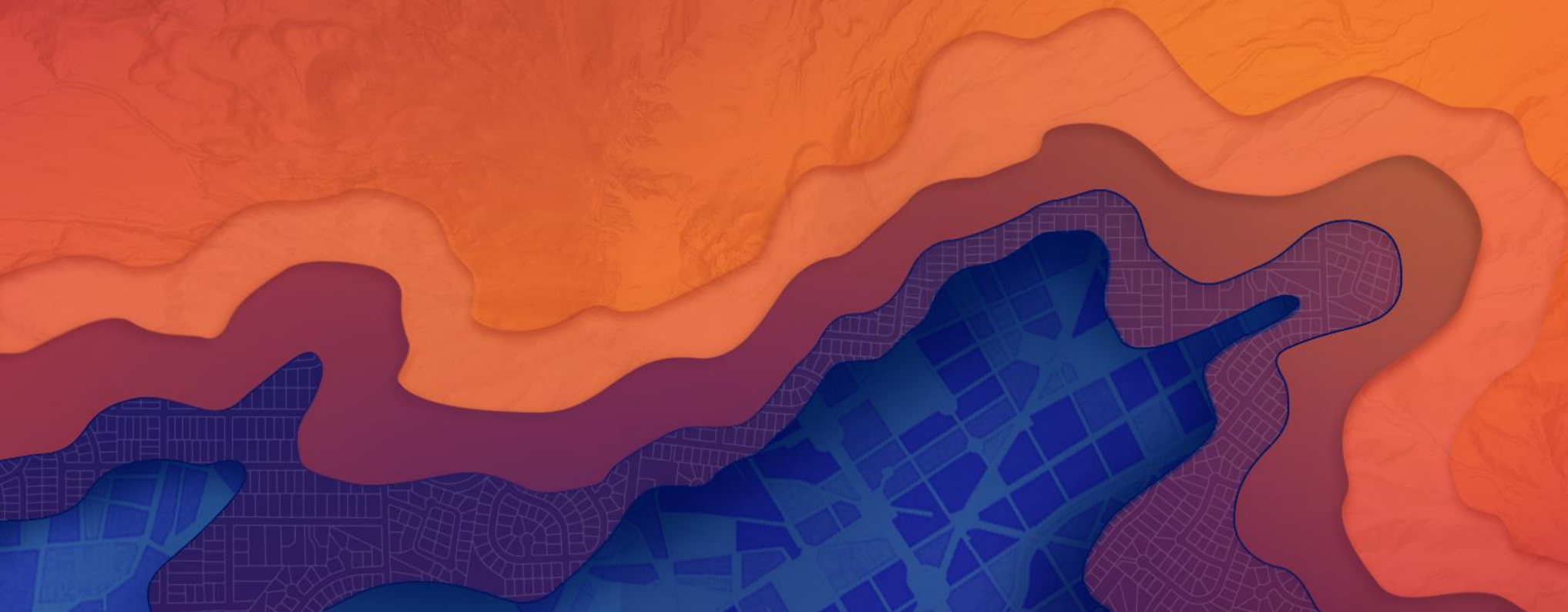


2013 - 2016

2016 - 2017

Targeting Nov 2017

Takeaways



Takeaways

- Operations Dashboard:
 - Monitor real-time events and key performance indicators
- Extensibility
 - Extensible points: Widgets, map tools, feature actions
 - Extensions are web apps developed using the 3.x ArcGIS API for JavaScript
 - Use the Dashboard debug tool to test and debug extensions
 - Extensions work on both Windows and browser platforms
 - An extension consists of a manifest, HTML5 files, JS files etc.
 - Can be used with ArcGIS Online orgs or 10.4+ Portal for ArcGIS orgs

Want to Learn More?

- Tutorials + API doc
 - <https://developers.arcgis.com/javascript/jshelp/operations-dashboard-extensibility-overview.html>
- Samples
 - <https://github.com/Esri/dashboard-samples>
- Learn more about the app
 - ArcGIS book: <http://learn.arcgis.com/en/arcgis-book/chapter9/>
 - ArcGIS blog: <https://blogs.esri.com/esri/arcgis/tag/operations-dashboard/>
- Stay in touch
 - Dashboard4ArcGIS@esri.com
 - GeoNet: <https://geonet.esri.com/community/gis/applications/operations-dashboard-for-arcgis>



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