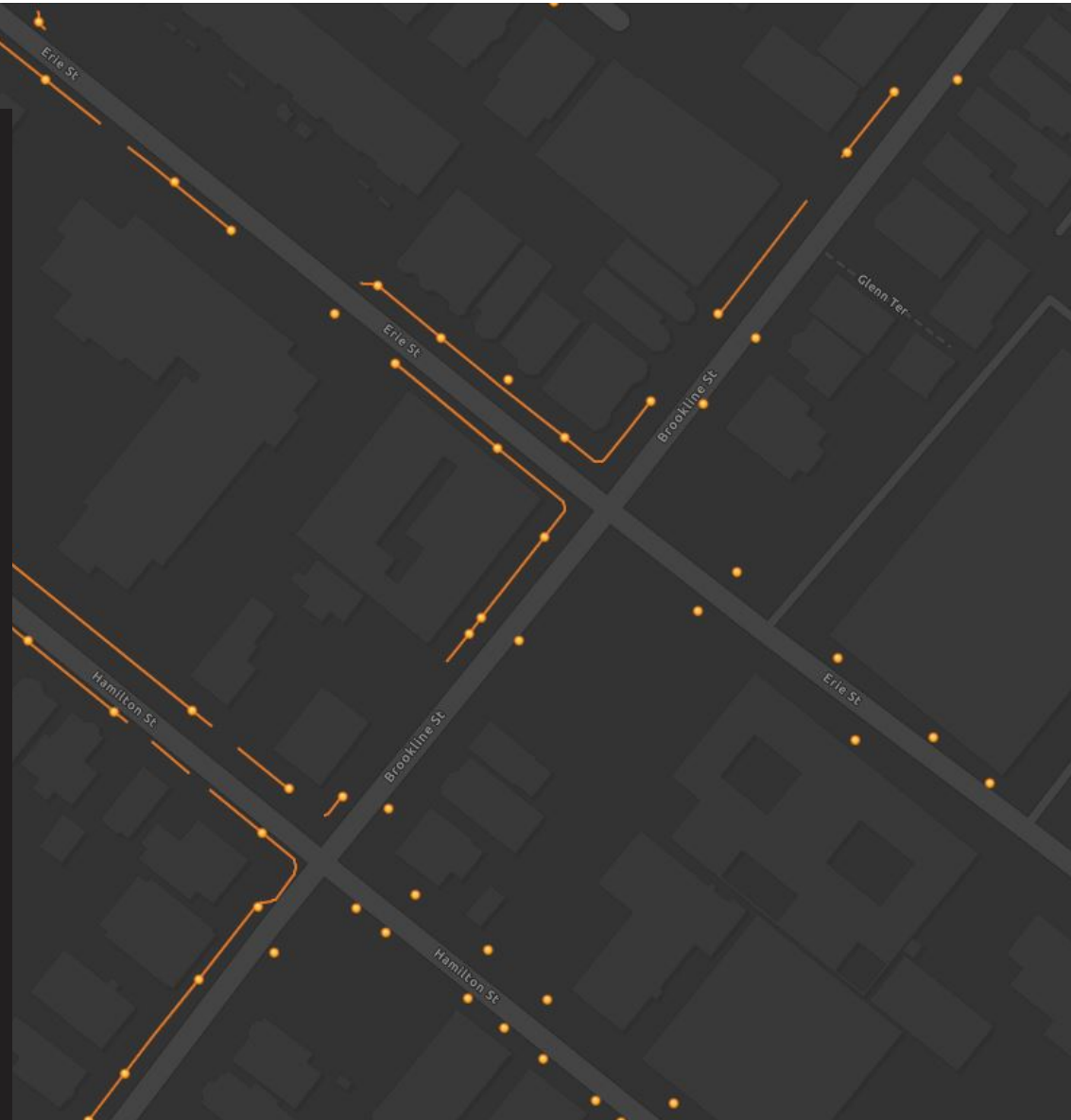
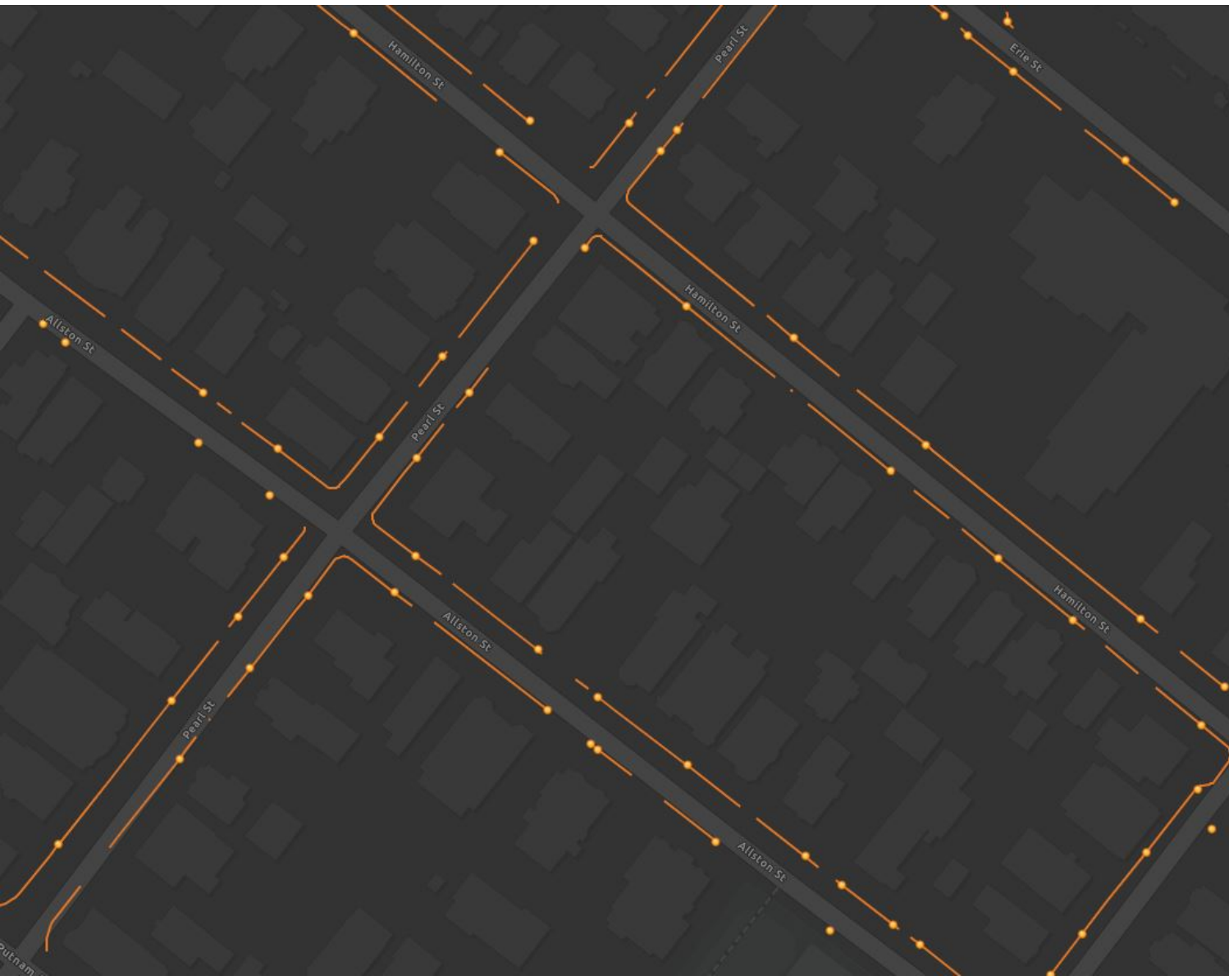




Chase Clark, GIS Analyst

Integrating webhooks,
serverless functions,
and web tools for
real-time updates



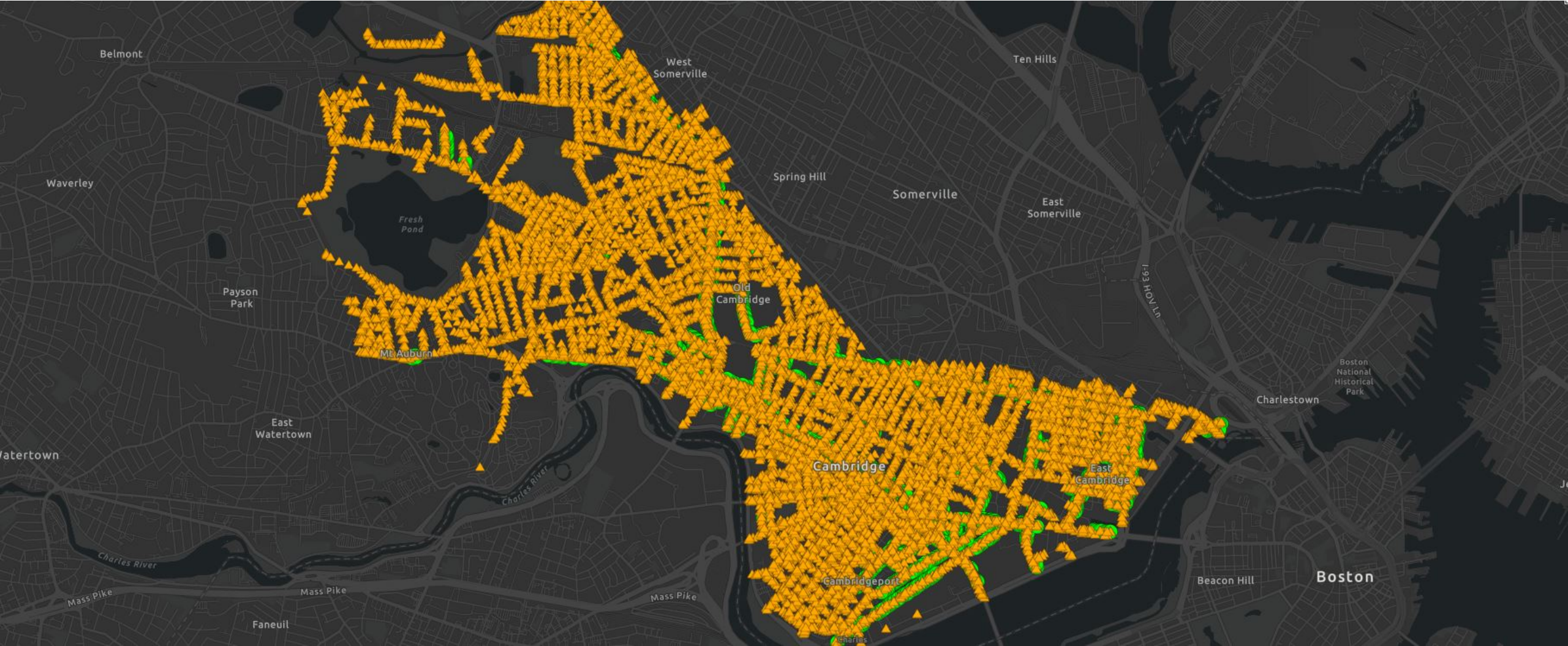


Agenda

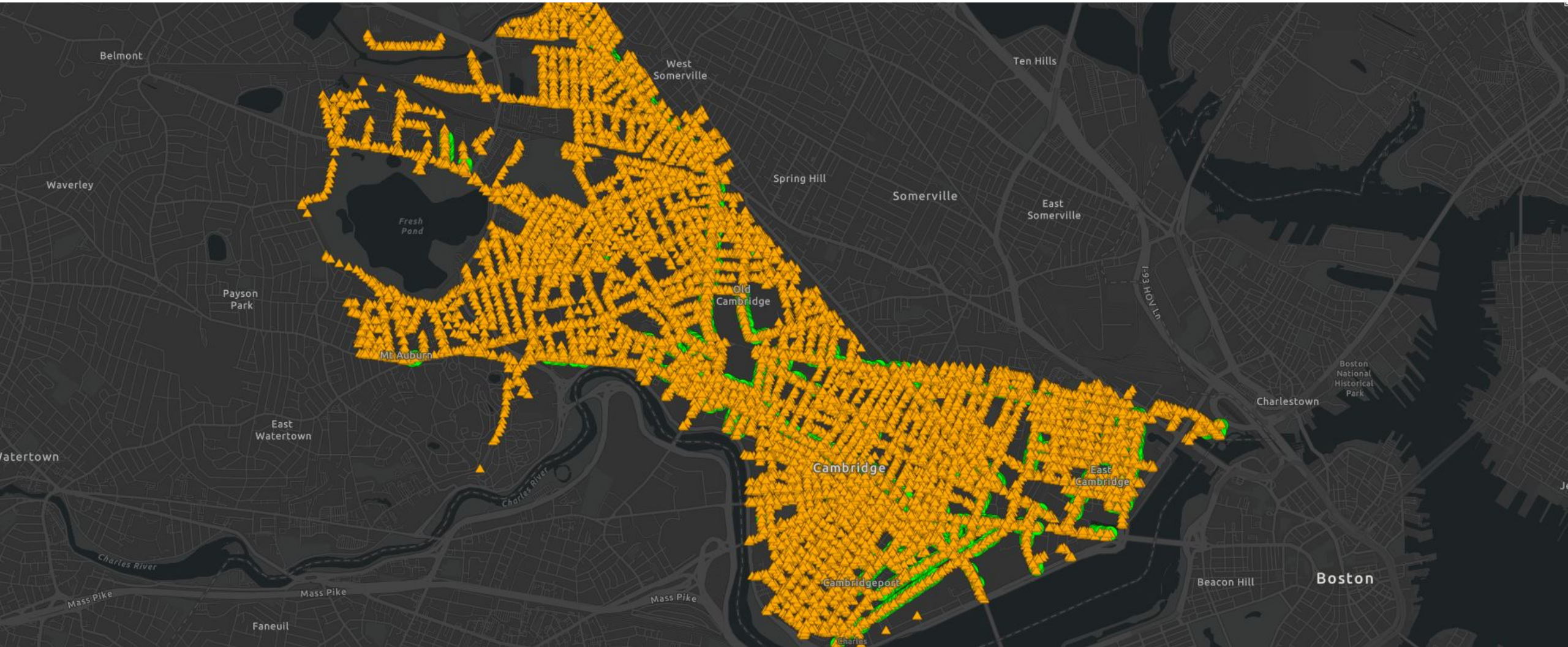
1. Scenario
2. Design Pattern
3. Demo
4. Lessons Learned

Scenario

Stantec Example

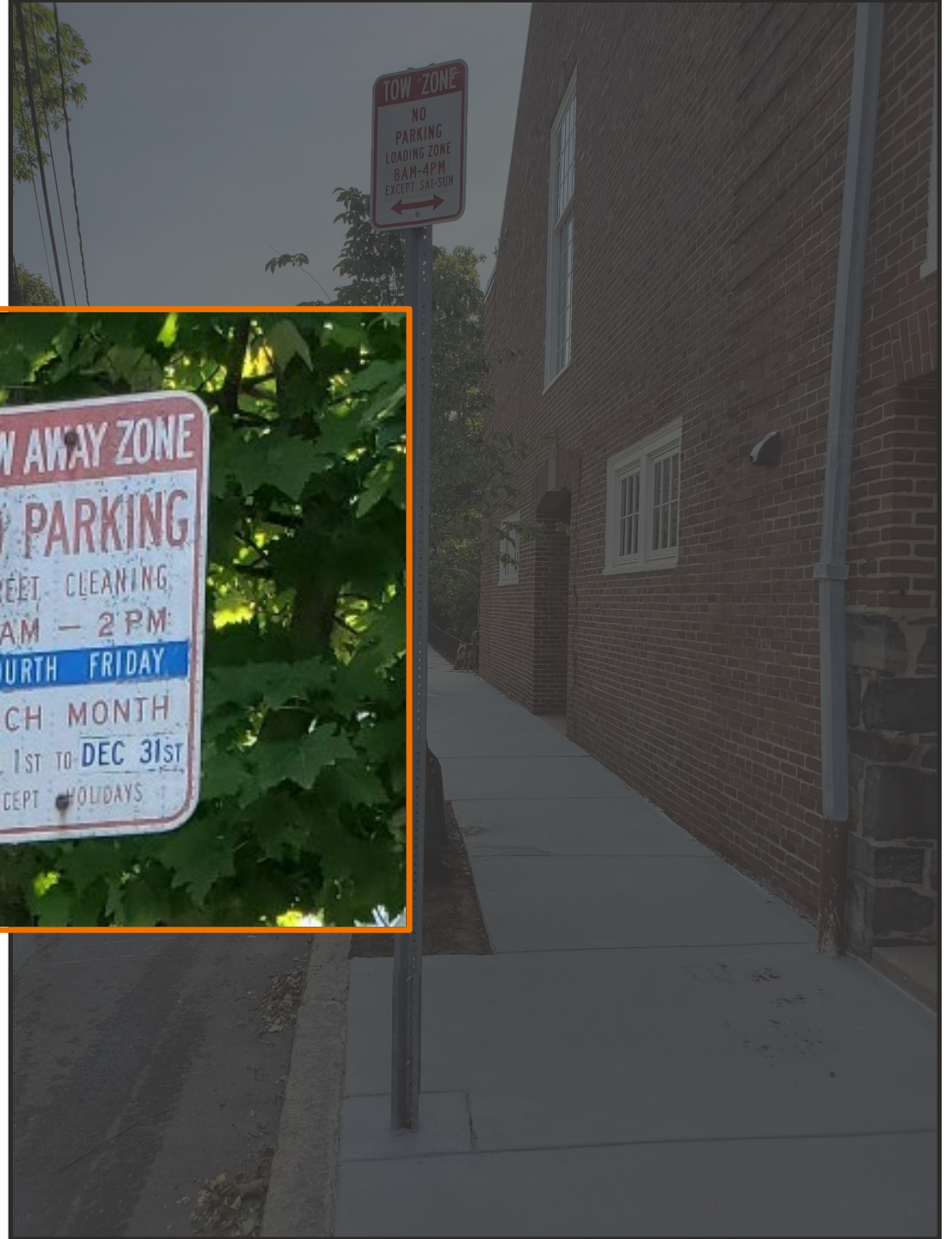


Stantec Example



Where can I park at 7pm on Friday?









No Parking Here!



Stantec Example

Street 750, Block 3176

Street 750, Block 3176

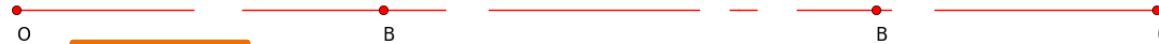
TZ No Parking



TZ No Parking Between Driveway



Parking by Permit Only Ex Sundays (Cambridge)



TZ No Parking Loading Zone 8am-4pm Ex Sat&Sun

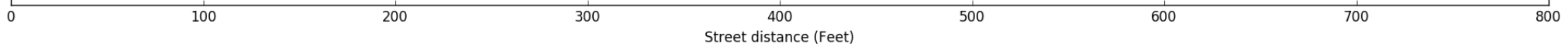


TZ No Parking Street Cleaning 8am-2pm (4 F)



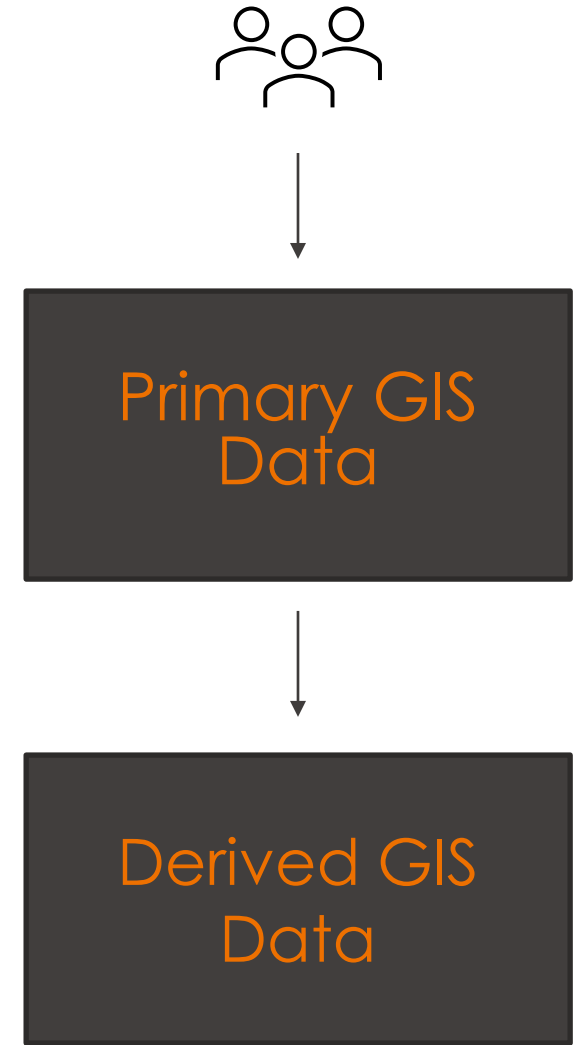
Buckingham St

Concord Ave



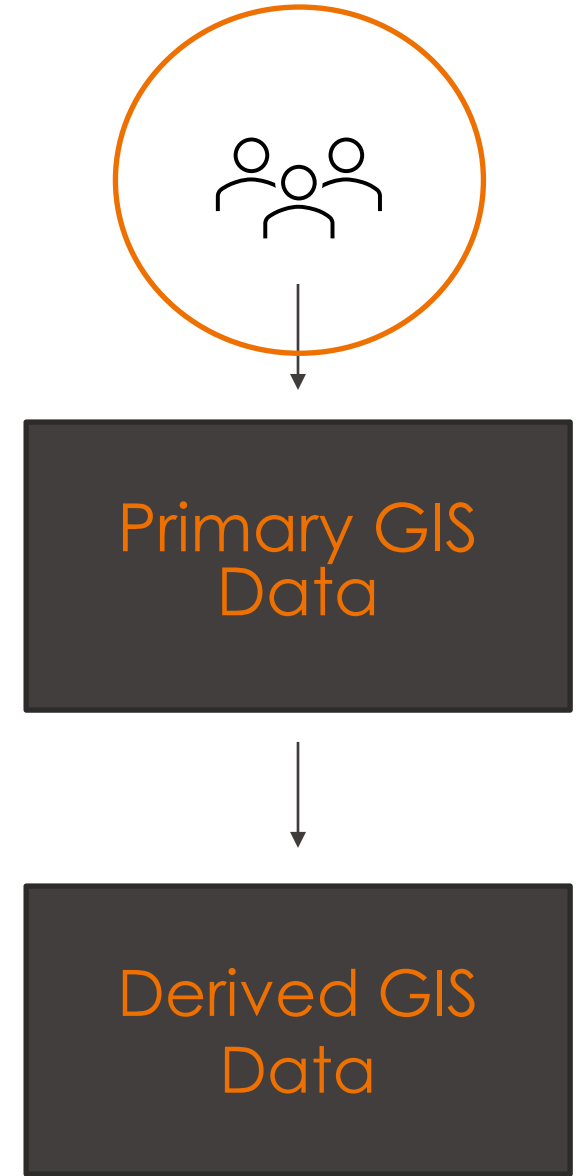
Understanding the Problem

1. Primary GIS data
2. Derived additional GIS data using licensed resources
3. Share data with client (AGO)
4. Allow updates
5. Respond to updates using licensed resources



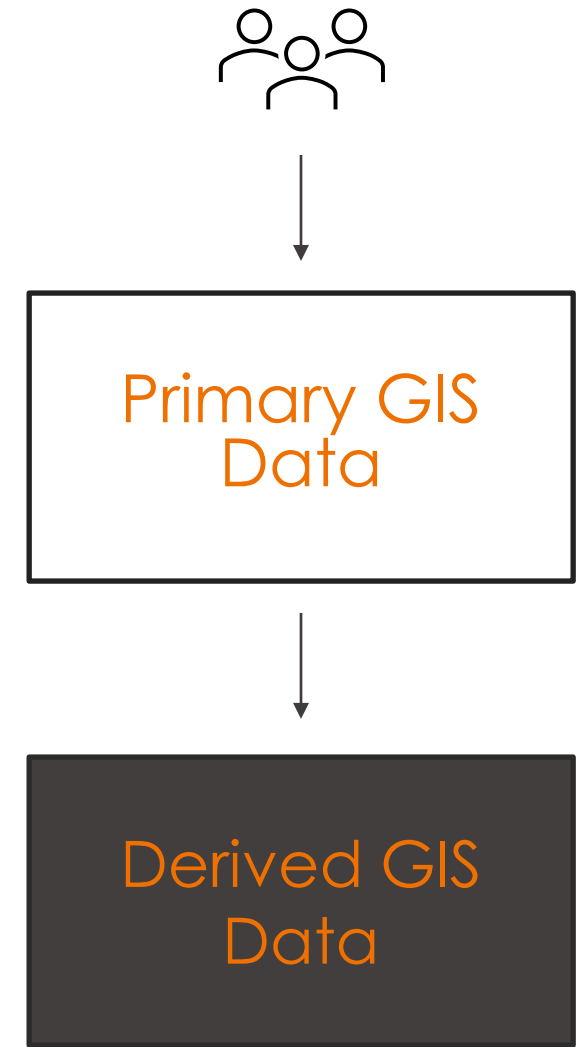
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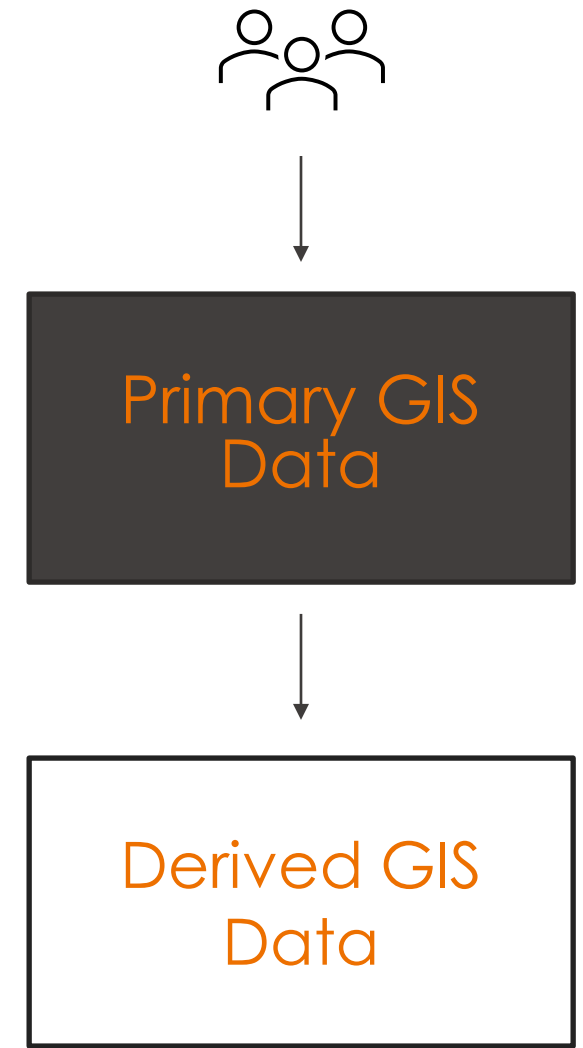
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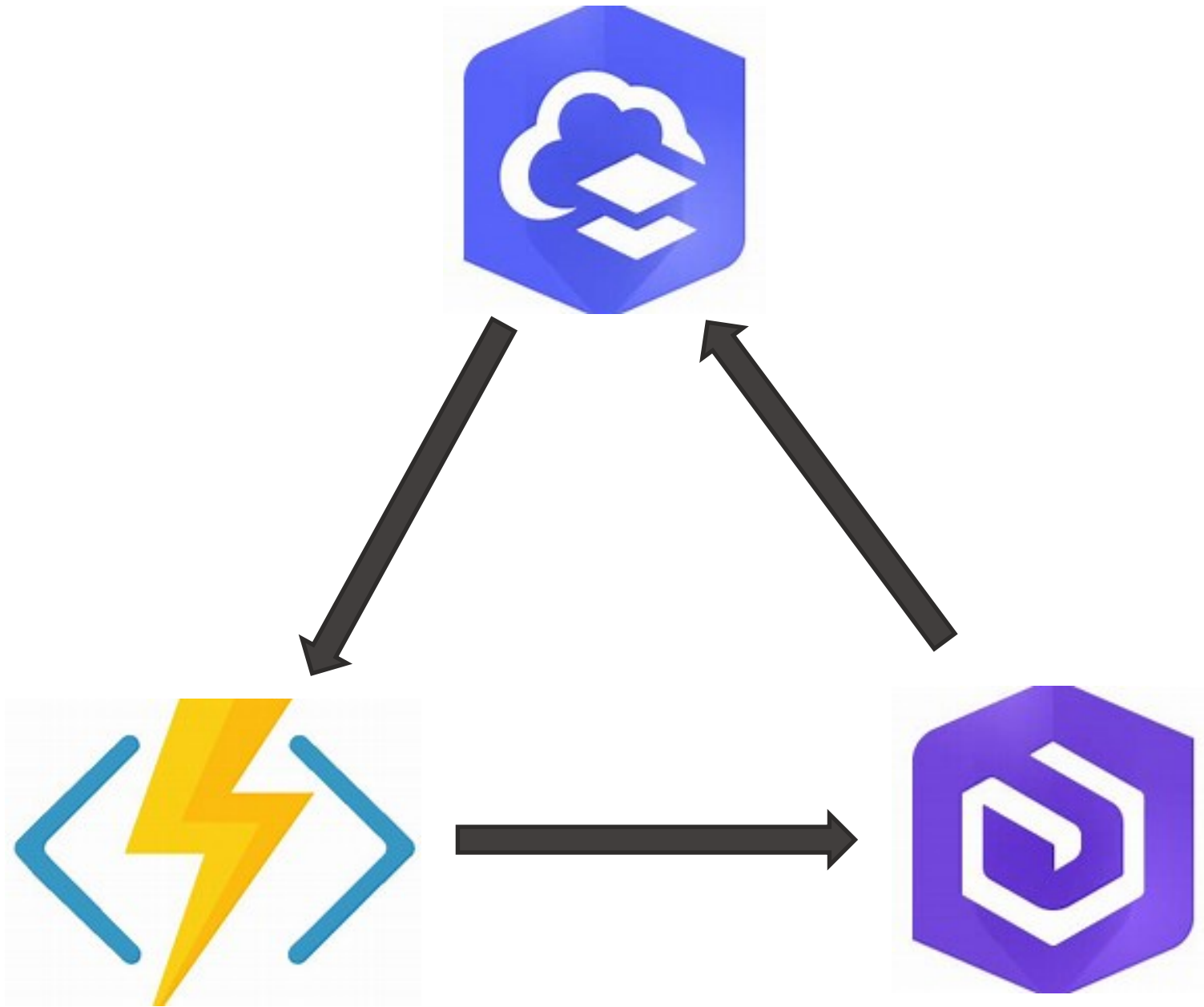


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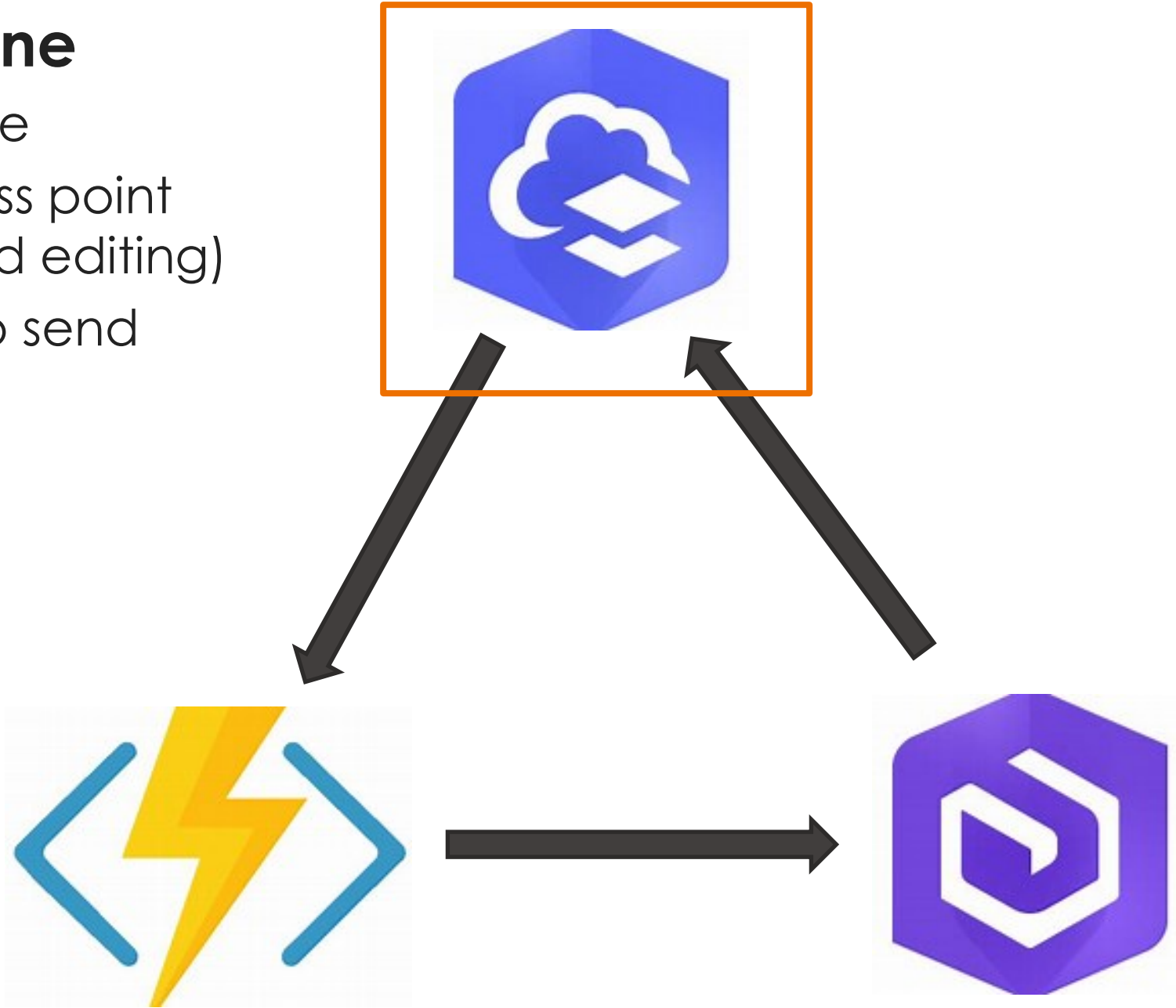


Design Pattern



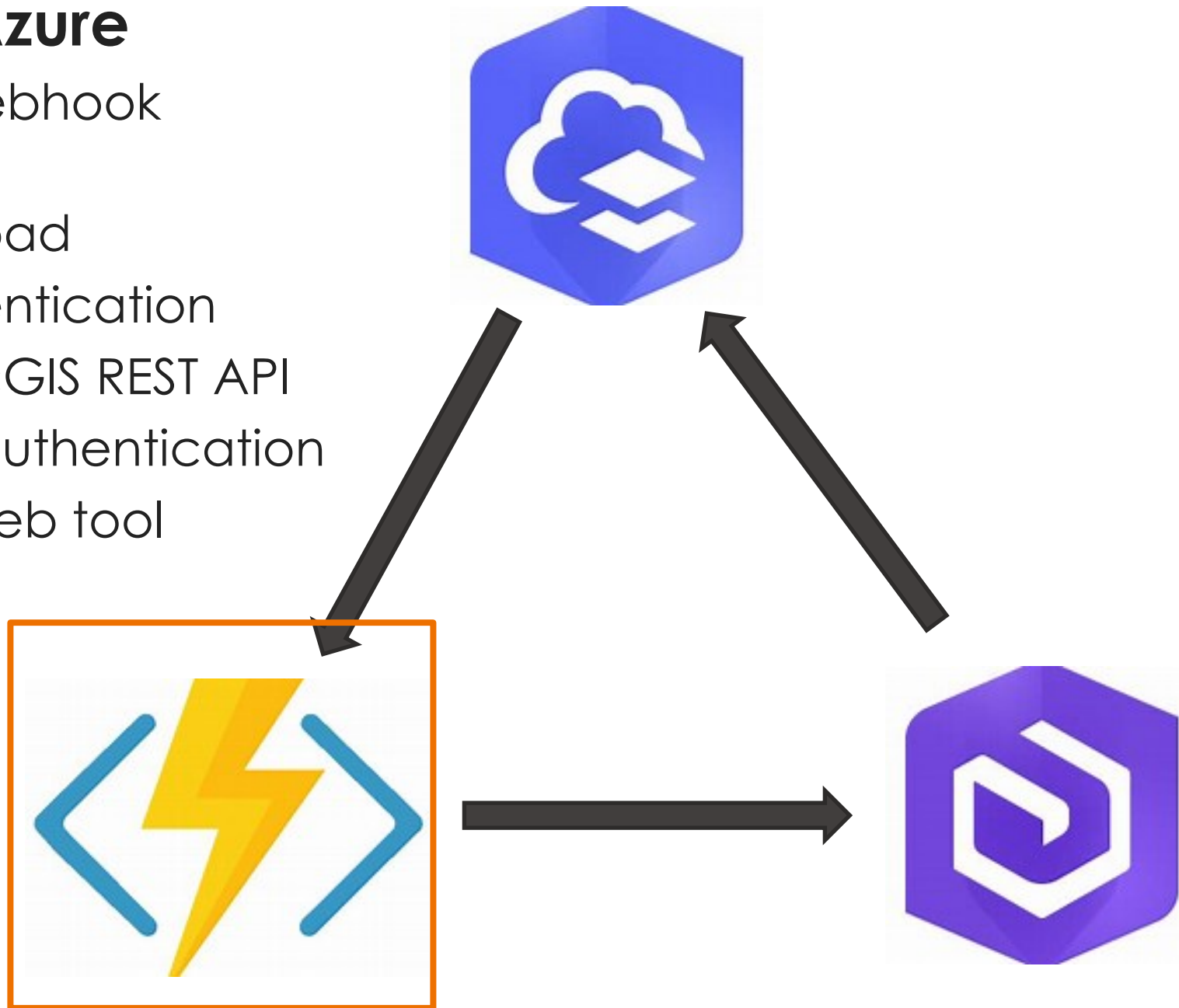
ArcGIS Online

- Data storage
- Client access point (viewing and editing)
- Webhook to send requests



Microsoft Azure

- Receive webhook request
- Parse payload
- AGO authentication
- Queries ArcGIS REST API
- Enterprise authentication
- Executes web tool



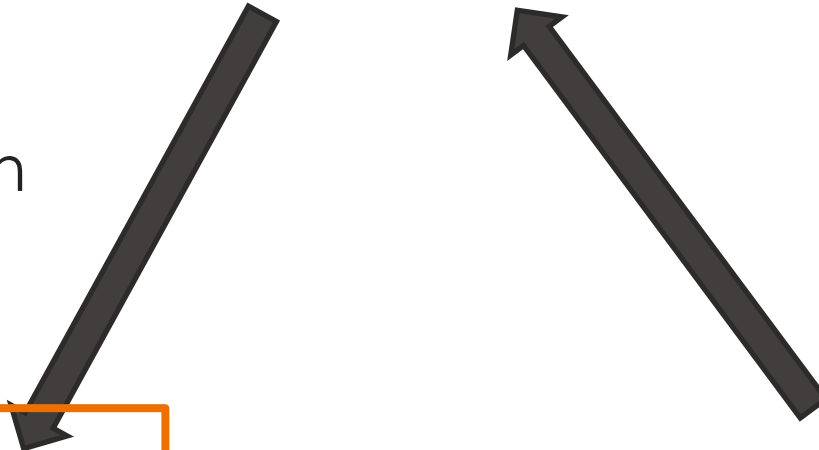
Microsoft Azure

- Receive webhook request
- Payload to identify changes
- AGO authentication
- Enterprise authentication
- Send request with web tool parameters



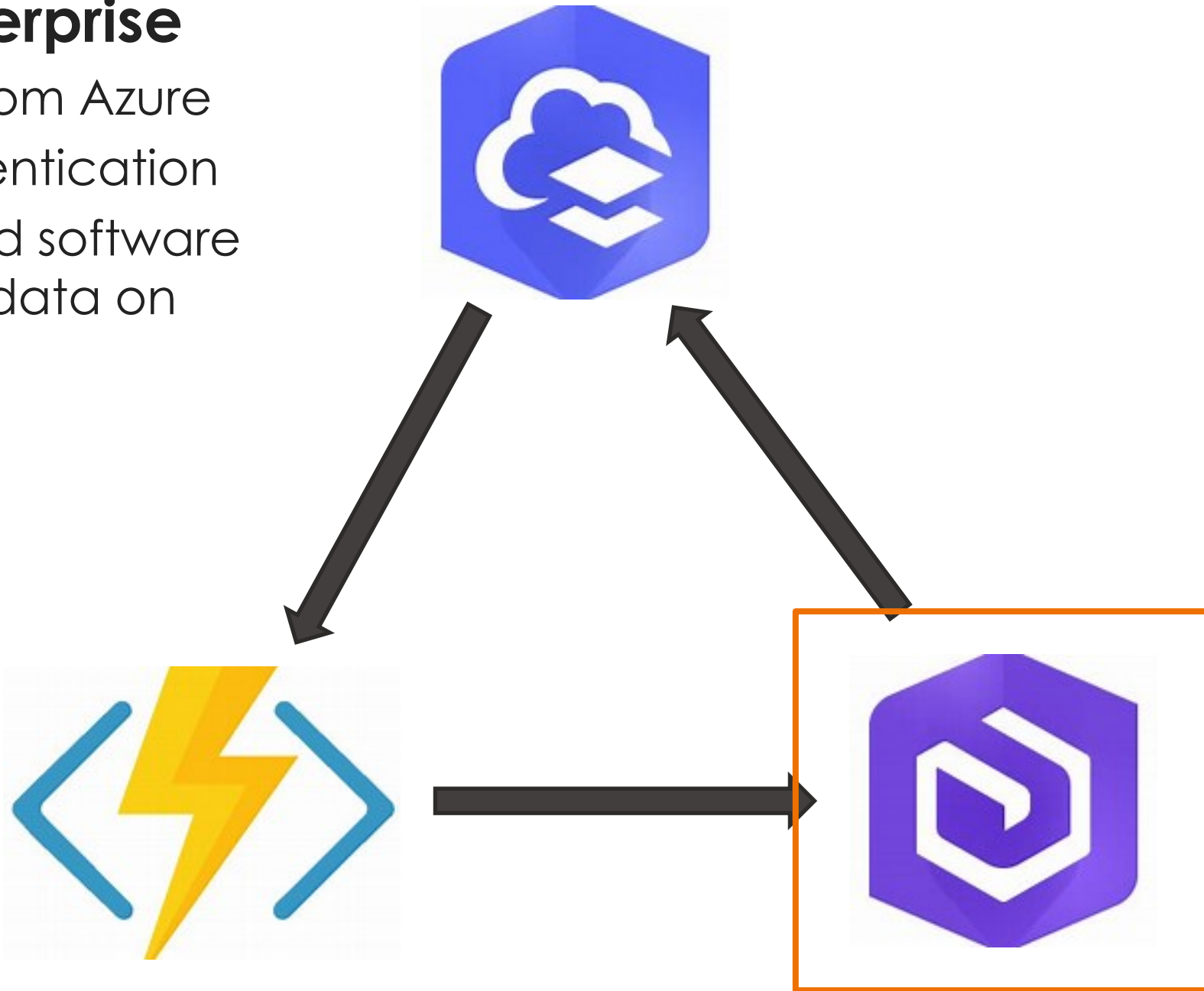
Why Azure?

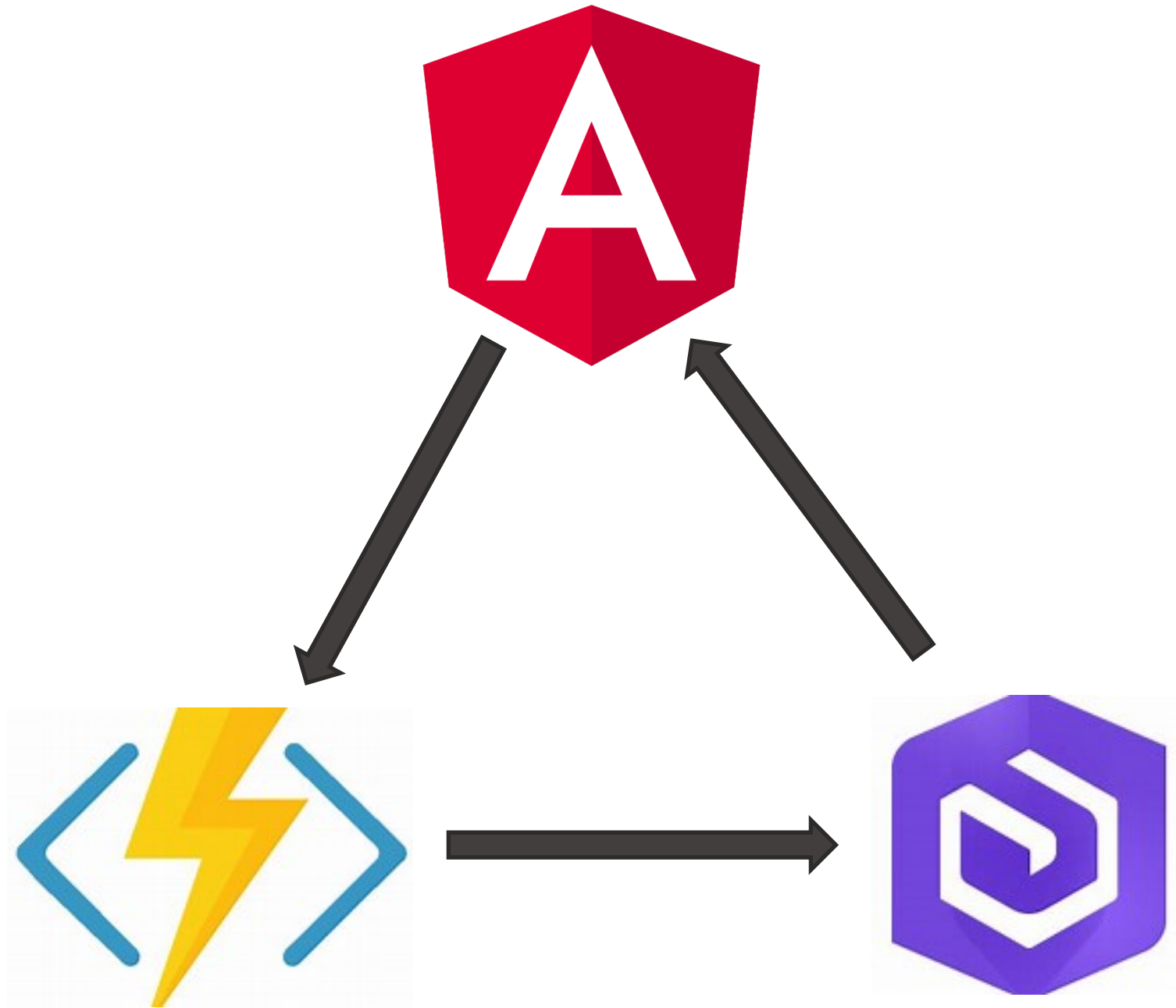
- Flexibility
- Tools that cannot run on ESRI platform



ArcGIS Enterprise

- Use data from Azure
- AGO Authentication
- Use licensed software to update data on AGO





Demo

Lessons Learned



POSTMAN



Tips

- Request receiver (requestcatcher.com)
- Request poster (Postman)
- Nice code editor (VS Code)
- 2 Python environments
 - Azure
 - Web tool
- App-login for AGO, but not Enterprise
- “requests” for ArcGIS REST API
- ArcGIS API for Python for Enterprise

