



Using Data to Drive Engagement

Nick O'Day
Chief Data Officer

The Goal... *evolves*

Initially:

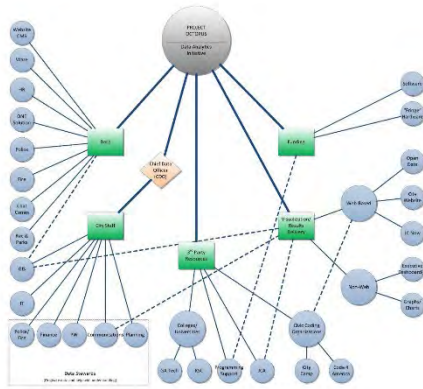
*To be able to answer the questions
we don't know to ask yet.*



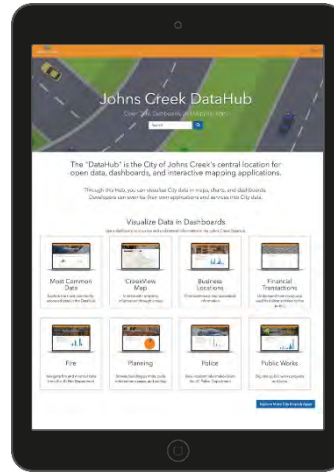
Ultimately:

To have data drive the conversation

The Trifecta



Project Octopus



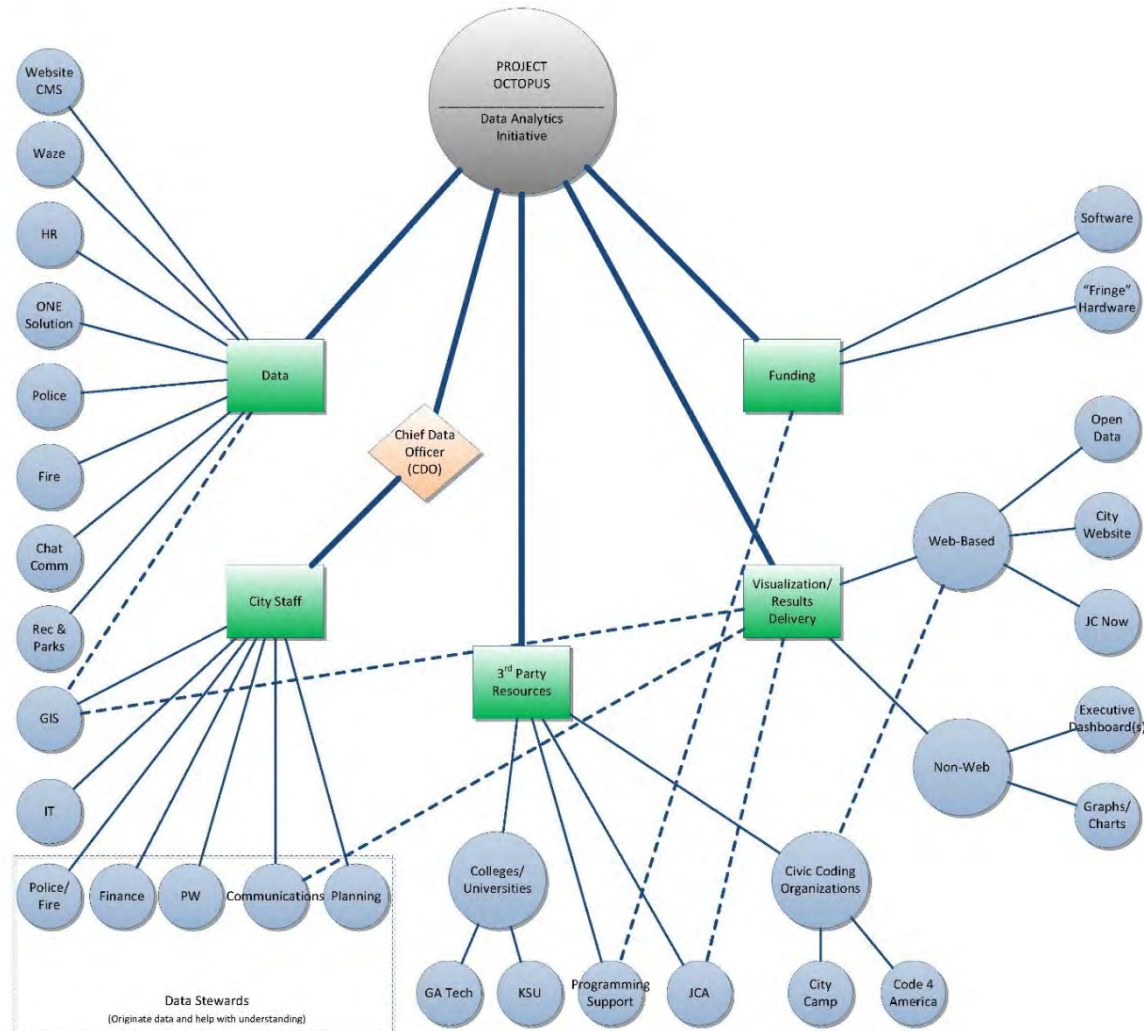
DataHub



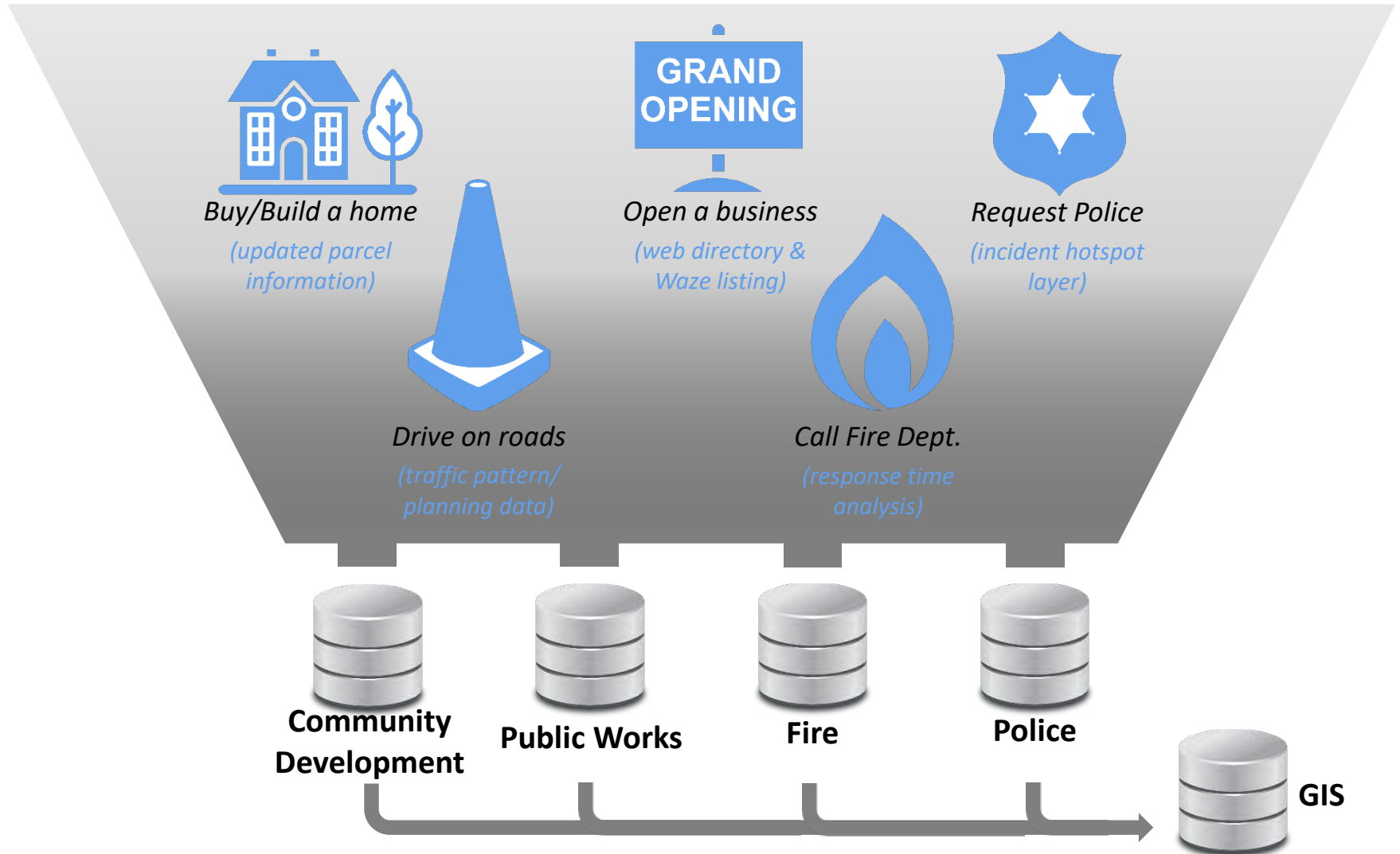
Alexa Skill

**These projects are dynamic and
are continually evolving**

Step 1: *Liberate your data and tap key staff*



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Step 2: *Make data accessible and meaningful*

The screenshot shows the Johns Creek DataHub website. At the top, there is an orange header with the "Johns Creek" logo on the left and a "Sign In" link on the right. Below the header is a large banner image of a road intersection with cars. The text "Johns Creek DataHub" is centered in the banner, with the subtitle "Open Data, Dashboards, and Mapping Apps" underneath. A search bar is located in the center of the banner. Below the banner, there is a white box containing text: "The 'DataHub' is the City of Johns Creek's central location for open data, dashboards, and interactive mapping applications. Through this Hub, you can visualize City data in maps, charts, and dashboards. Developers can even tie their own applications and services into City data." Below this text is a section titled "Visualize Data in Dashboards" with the subtext "Use a dashboard to visualize and understand information in the Johns Creek DataHub." This section contains eight dashboard preview cards arranged in a 2x4 grid. Each card shows a laptop displaying a dashboard and has a title and a brief description. The titles are: "Most Common Data", "CreekView Map", "Business Locations", "Financial Transactions", "Fire", "Planning", "Police", and "Public Works". At the bottom right of the white box is a blue button that says "Explore More City Maps & Apps".

Search

Pages for Hot Topics
(with interactive
Dashboards & Charts)

How-To Videos

Map Gallery

Data Categories

Info for Developers

Step 2: *Make data accessible and meaningful*



Operations
Dashboard

@esri/cedar

The screenshot shows an Esri dashboard interface. On the left, a sidebar titled 'Admin' contains a 'Chart Settings' panel. The 'Chart Settings' panel has a 'Build a chart' section with 'Use custom JSON' selected. Below this, the 'Title' is 'Rezoning Cases in 2018' and the 'Height' is '410'. The 'JSON Chart Specification' section contains the following JSON code:

```
{
  "type": "bar",
  "datasets": [
    {
      "url": "https://services1.arcgis.com/bq1NVPUK3H0nCFmA/arcgis/rest/services/PZ_Rezoning_Cases/FeatureServer/0",
      "query": {
        "where": "FilingDate >= '1/1/2018' AND FilingDate < '1/1/2019'",
        "outFields": "**",
        "groupByFieldsForStatistics": "RequestedUse",
        "outStatistics": [
          {
            "statisticType": "count",
            "onStatisticField": "RequestedUse",
            "url": "https://services1.arcgis.com/bq1NVPUK3H0nCFmA/arcgis/rest/services/PZ_Rezoning_Cases/FeatureServer/0"
          }
        ]
      }
    }
  ]
}
```

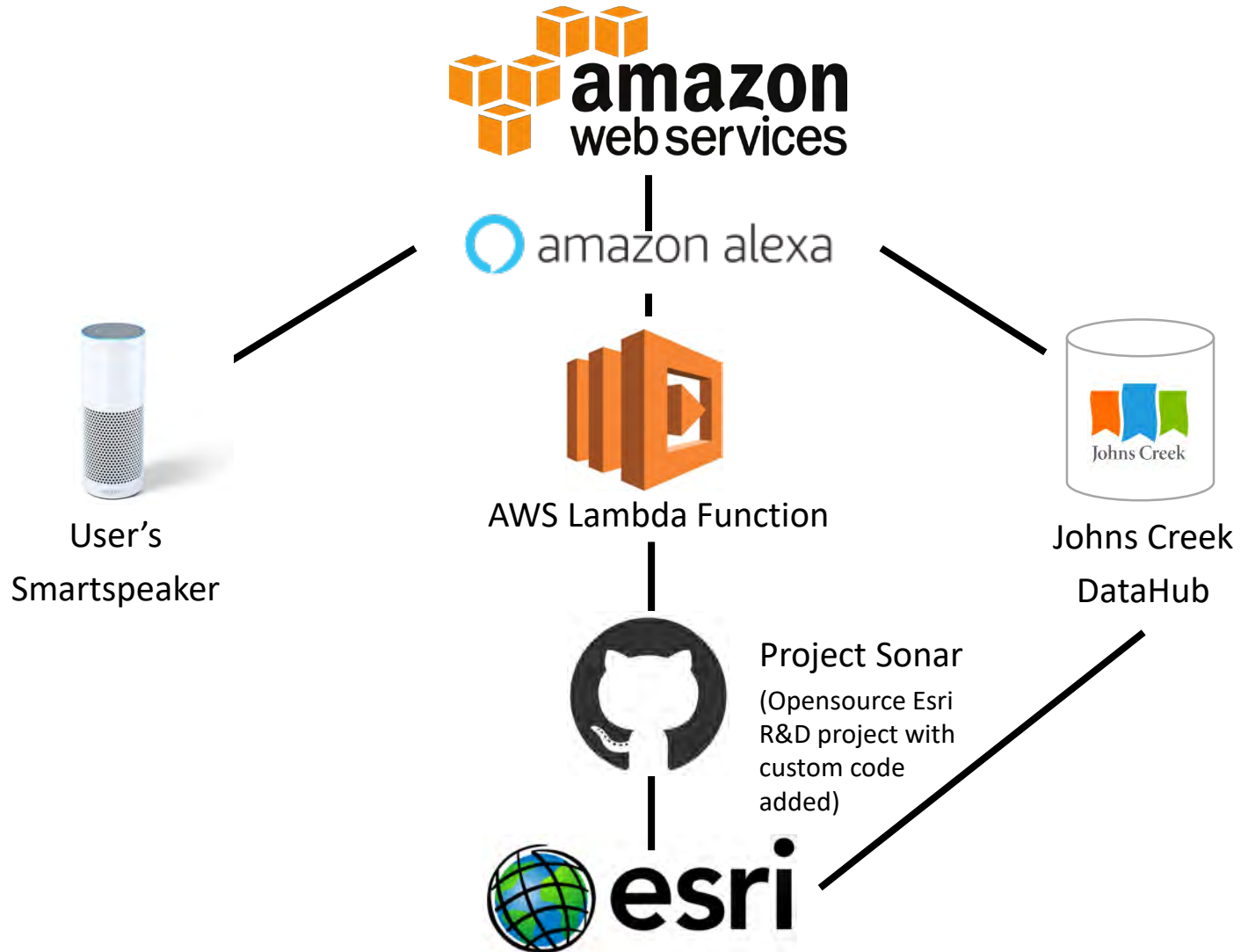
Below the JSON is a link: 'Read about the json specification'. The main dashboard area has a header 'Planning & Development' and 'Exploring the DataHub'. A bar chart titled 'Rezoning Cases in 2018' displays the number of cases requested by zoning class. The y-axis is '# of Cases by Zoning Class Requested' (0.0 to 3.5) and the x-axis is 'Zoning Class Requested'. The data points are: Community Business (2), CU (Community Unit Plan) (2), O-1 (Office - Institutional) (2), R-4A (Single Family Dwelling) (1), R-5A (Single Family Dwelling) (1), and TR (Townhouse Residential) (3).

Below the chart is a section titled 'Special Use Permits' with a paragraph of text: 'Zoning regulations determine the general type of building or business that can be built/operated on a property. Special use permits go a step further and provide landowners with legal permission for a specific building or business. This chart depicts the total number of special use permits grouped by the Mayor and City Council's final decision since the City's founding.'

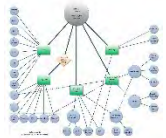
Step 3: *Tie data into tools that people already use*



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How much?



Project Octopus



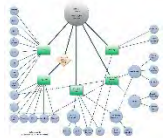
DataHub



Alexa Skill

Software/ Hardware	Custom Dev. Costs	Description
\$ 0	\$ 0	Used existing GIS tools and hardware along with in-house created SQL/python tasks
\$ 0	\$ 0	Software costs and cloud hosting included in yearly Esri licensing fees
\$ 100	\$ 10,000	No software costs, Echo device purchase, free tier for AWS to start, custom developer time to get skeleton of the project off the ground

Level of Effort



Project Octopus



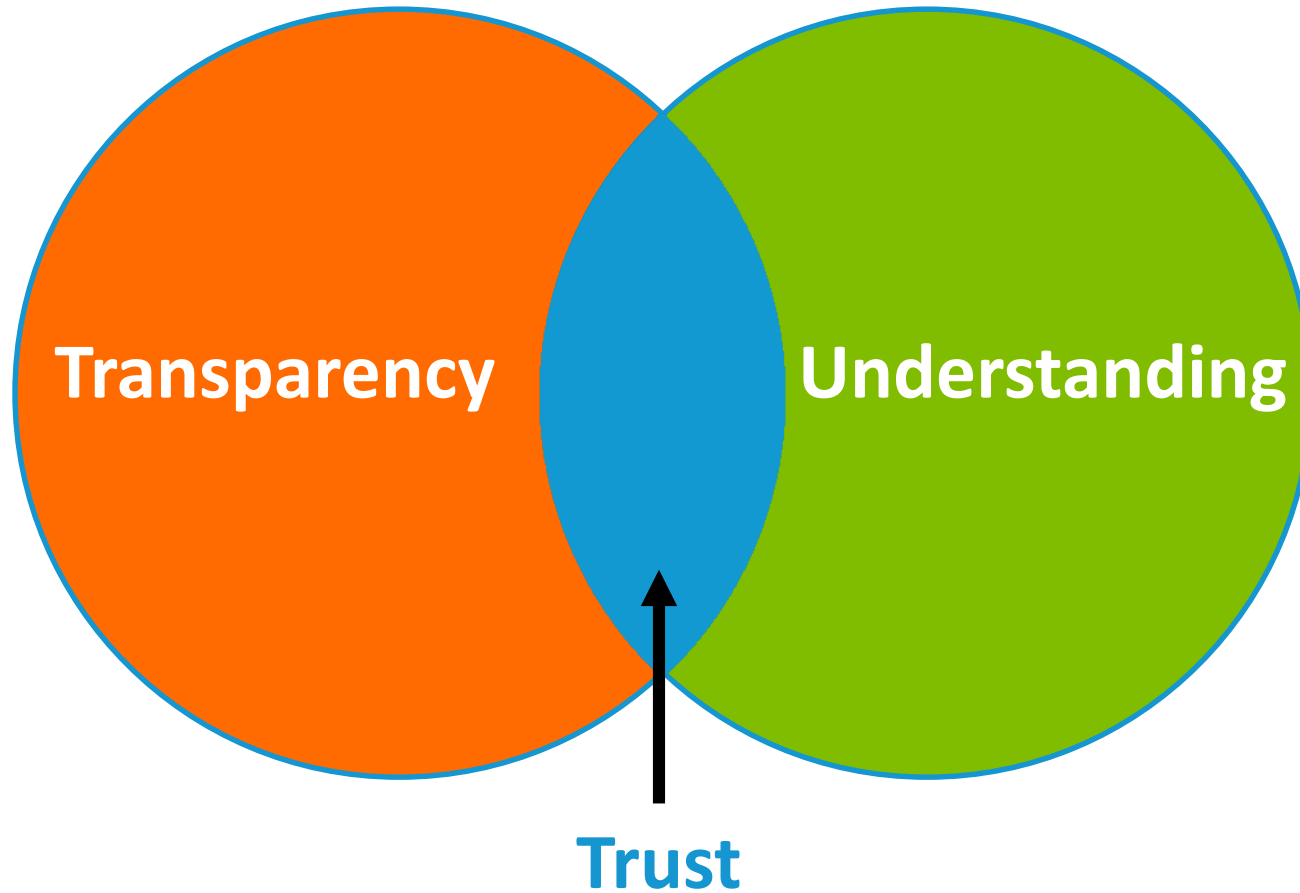
DataHub



Alexa Skill

Staff Time	Custom Dev. Time	Description
80 hours	0 hours	Processes and staff meetings/interaction (aka begging) was all internal
120 hours	0 hours	Creating pages, maps, charts, dashboards, and custom icons/graphics was all done internally
120 hours	80 hours	Engaged Esri developer to build skeleton initially (along with AWS framework) but then used existing skills internally to finish project and build 200+ questions

Why?





Questions?

Nick O'Day

Nick.ODay@JohnsCreekGA.gov