



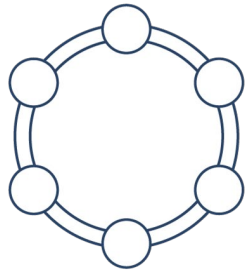
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# **Establishing Community Data Utilities for Resilient and Equitable Decision-Making**

Ryan Witten - University of Alaska, Anchorage  
College of Business and Public Policy

# *Theory into practice*



Community  
Data Utility

Your help, feedback, and constructive criticism are encouraged.



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or department  
or your laptop

# Community Data Utility (CDU)

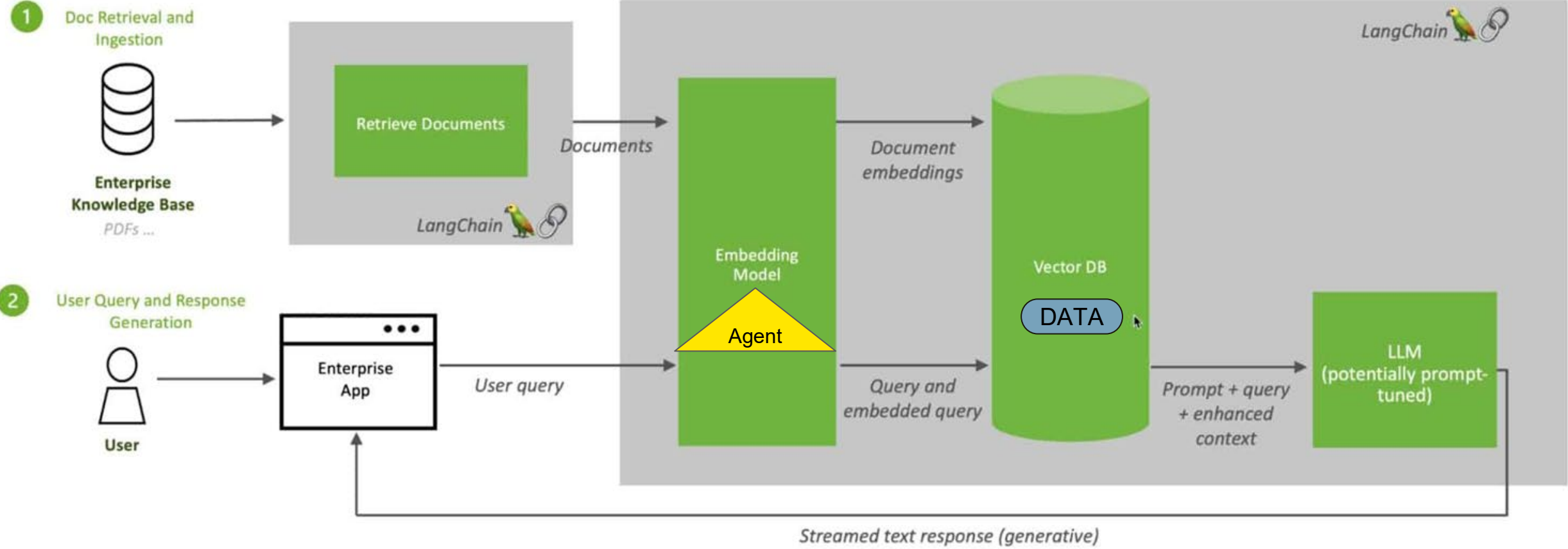
Community Data Utility (CDU) - A municipal organizational body with a mandate to maximize the usefulness of community information and computational capacity for the community they serve.



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# Retrieval Augmented Generation (RAG) Sequence Diagram



<https://blogs.nvidia.com/blog/what-is-retrieval-augmented-generation/>



User Groups

Use Case

Critical Infrastructure

Relevant Data

- Community Members
- Private Industry
- State Partners
- Federal Partners

- Staff
- Elected Officials
- Community Administrators

- Policy / Governance
- Economic Development
- Community Resilience

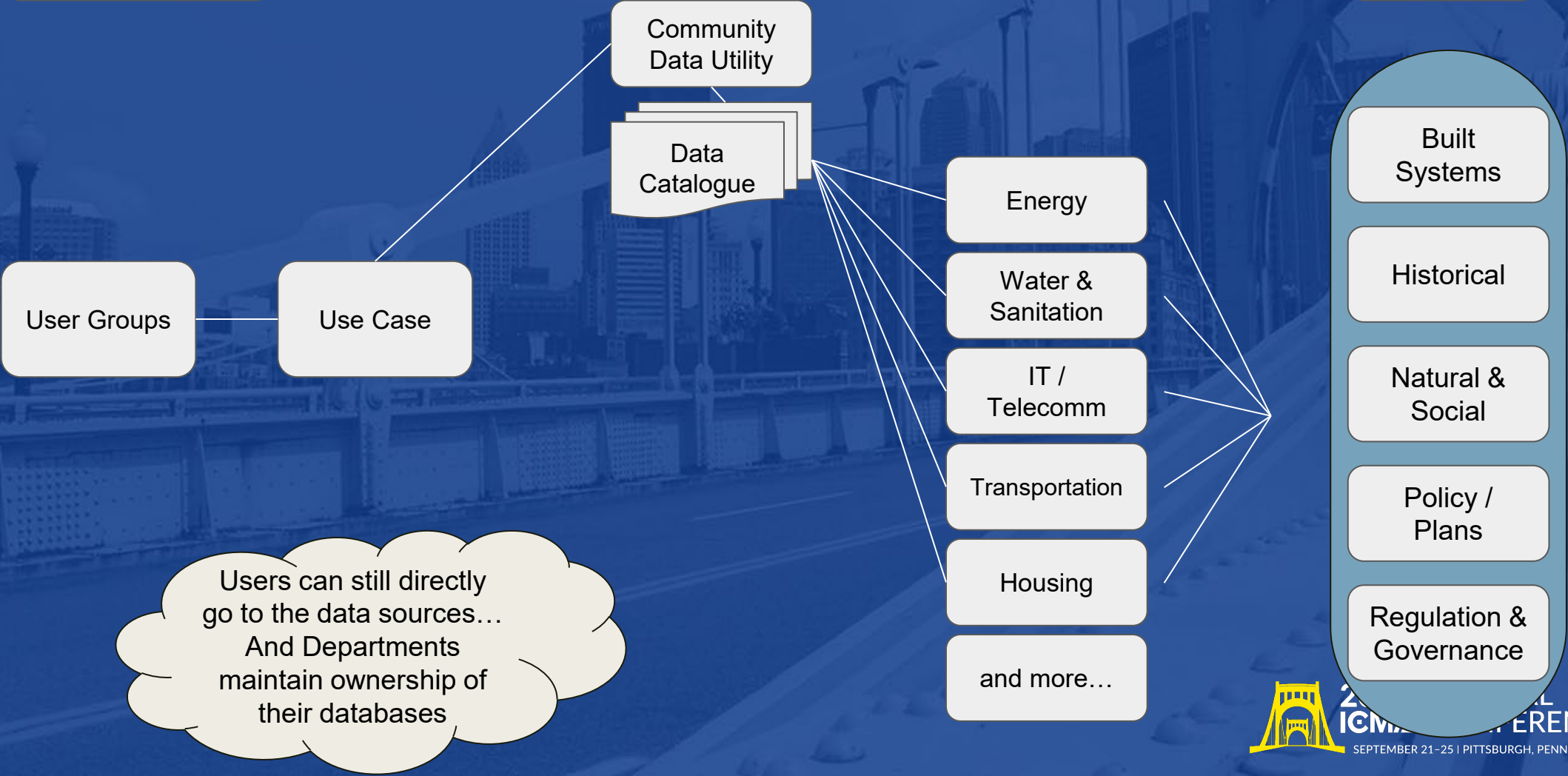
- Community Data Utility
- Energy
- Water & Sanitation
- IT / Telecomm
- Transportation
- Housing
- and more...

- Built Systems
- Historical
- Natural & Social
- Policy / Plans
- Regulation & Governance

Utility, department, your laptop used interchangeably

CDU Agent & Utility  
Data Collaboration

Relevant  
Utility  
Specific Data

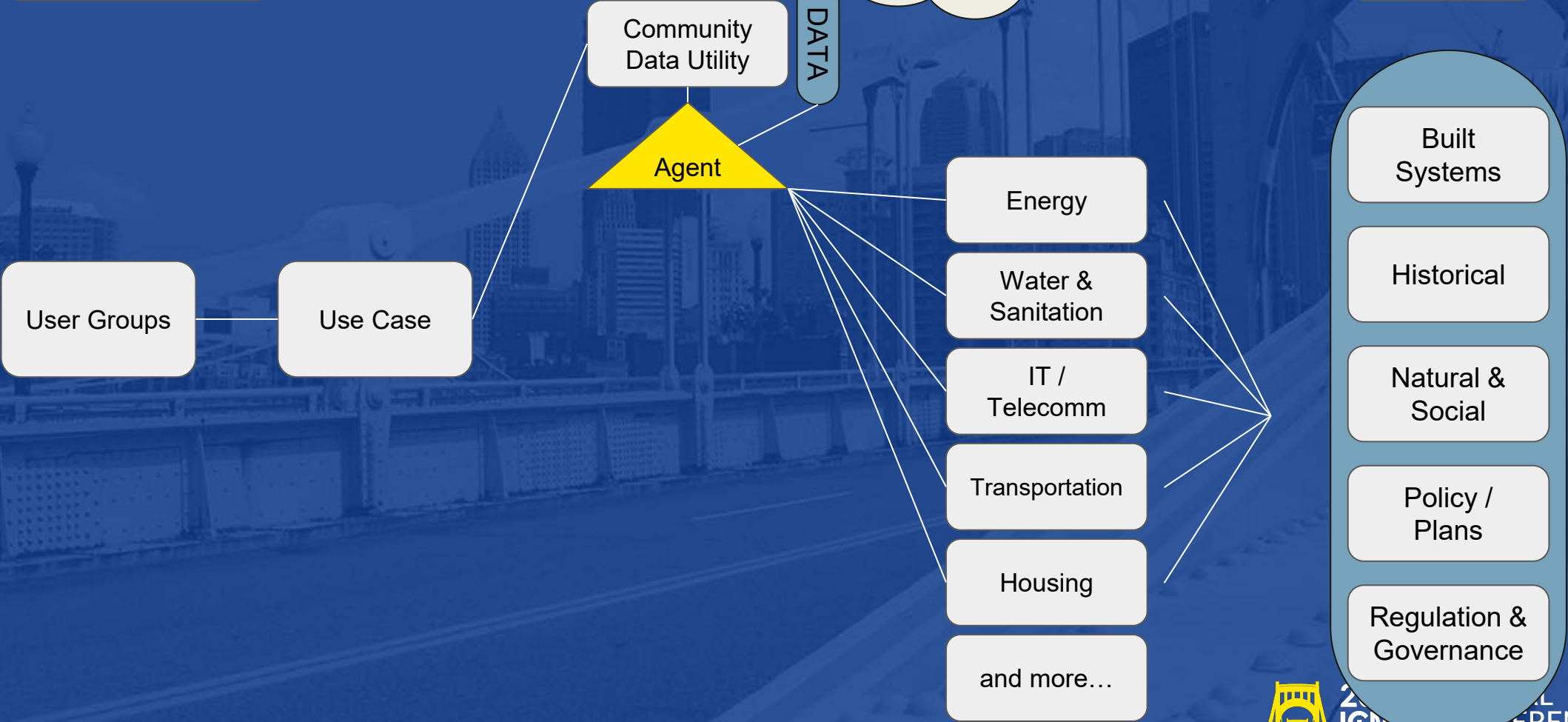


Users can still directly  
go to the data sources...  
And Departments  
maintain ownership of  
their databases

CDU Agent & Utility  
Data Collaboration

FYI—think of an  
Agent as an  
App

Operating  
Environment



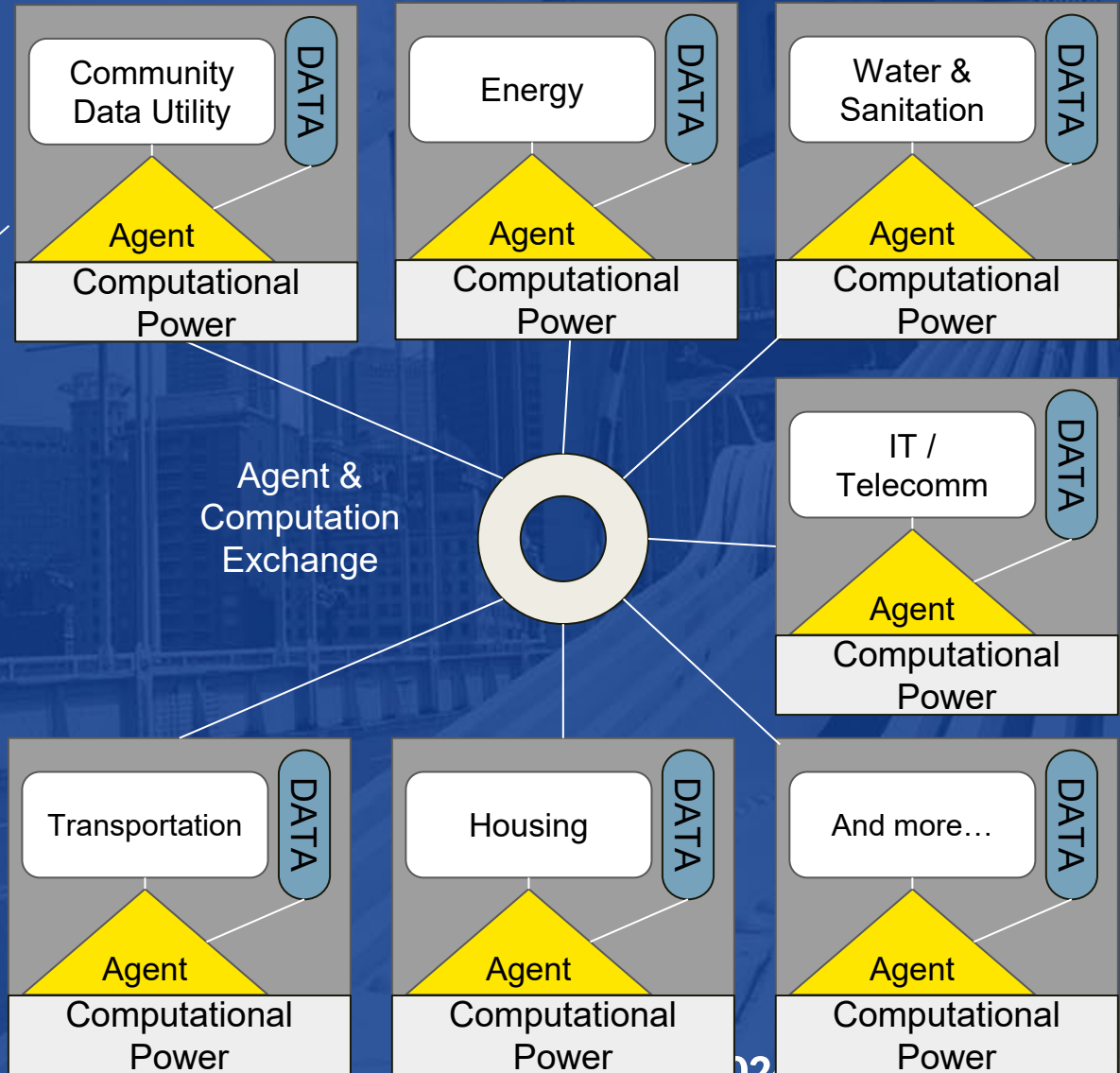
The End Product:  
Agent to Agent Communication  
& Computational Arbitration

User Groups

Use Case

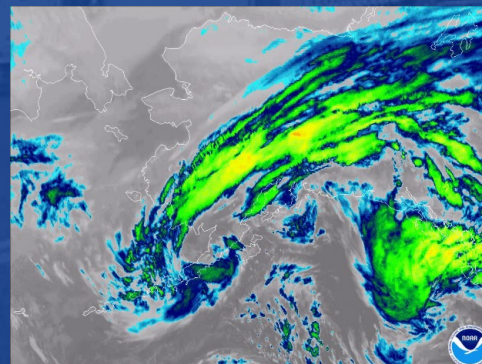
App / Platform

Direct Communication

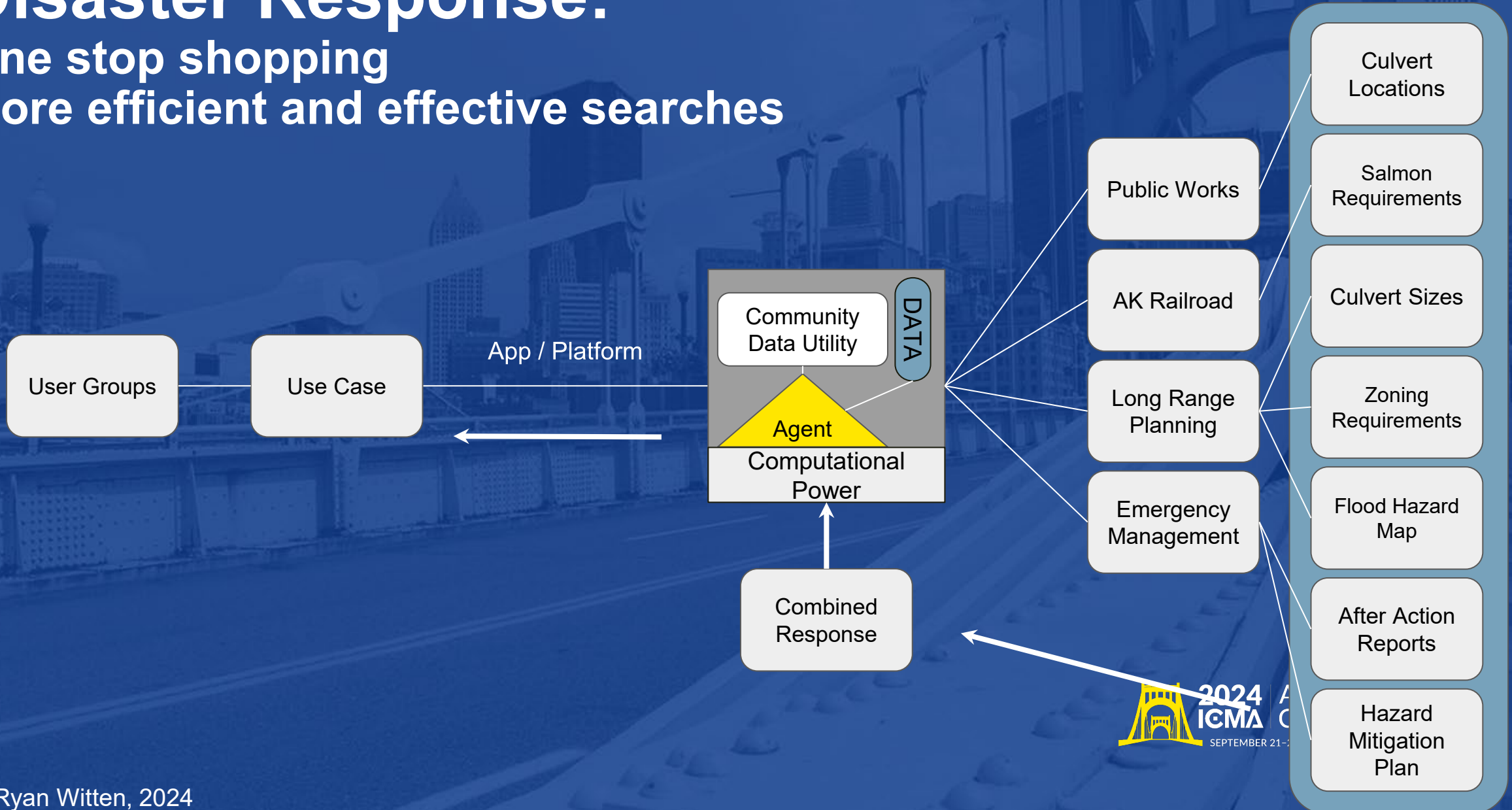




# Juneau, Alaska - August 2024

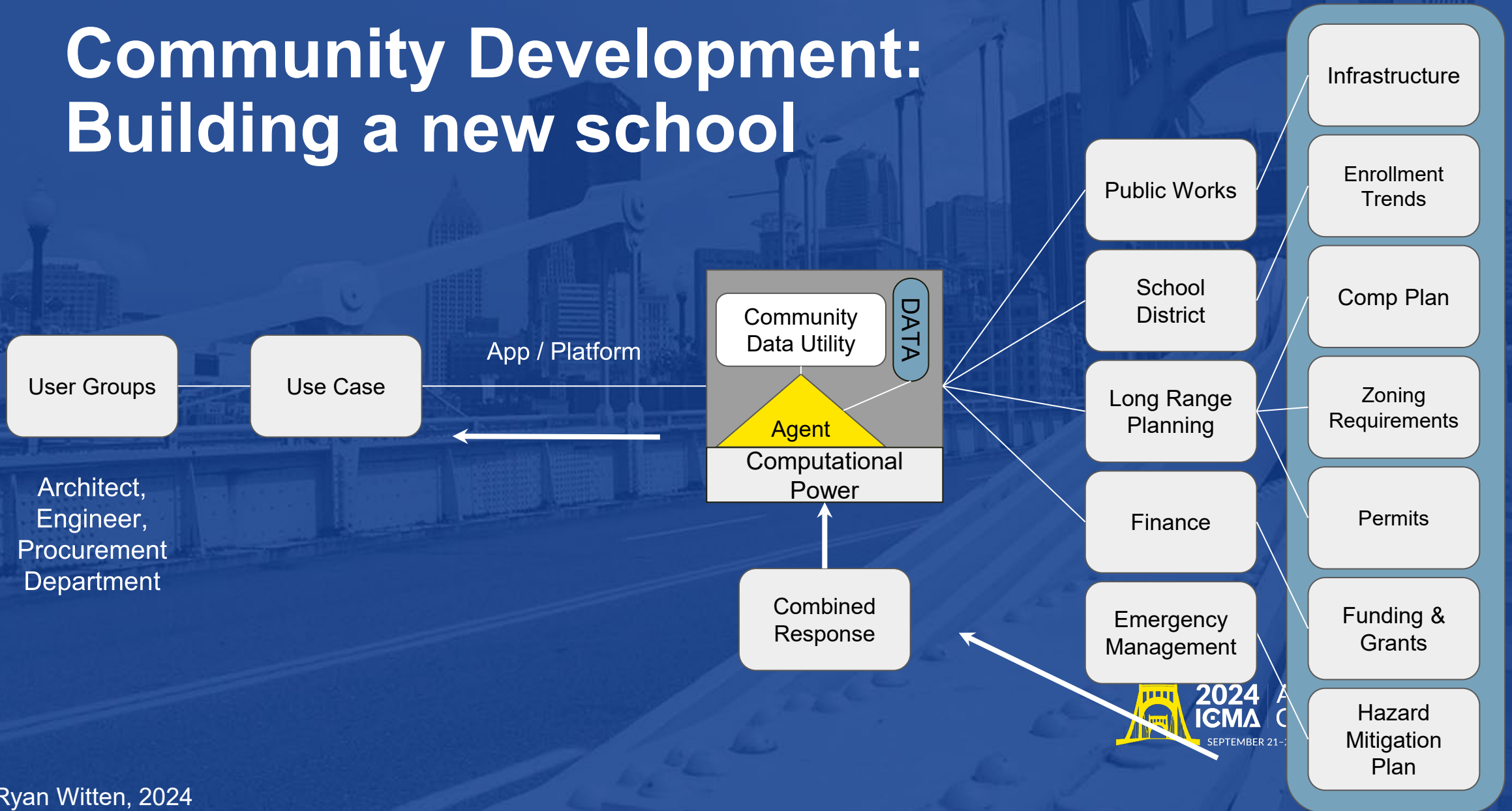


# Disaster Response: One stop shopping More efficient and effective searches





# Community Development: Building a new school



# Climate Adaptation Efforts: Pay small now, or big later

\$1 vs. \$6 - 15



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***Thank you!***  
***You are invited!***

- A. Support local development efforts of a Community Data Utility
- B. Support the development of a Community Data Utility Association



# Community Data Utilities: *Under Construction*

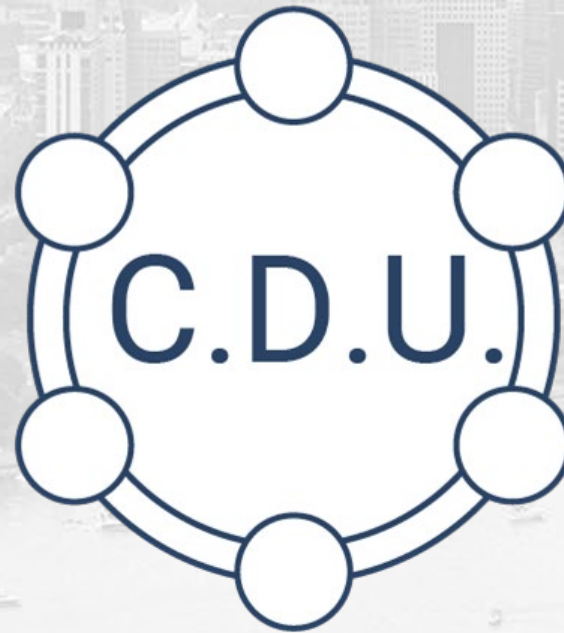
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[www.communitydatautility.com](http://www.communitydatautility.com)