



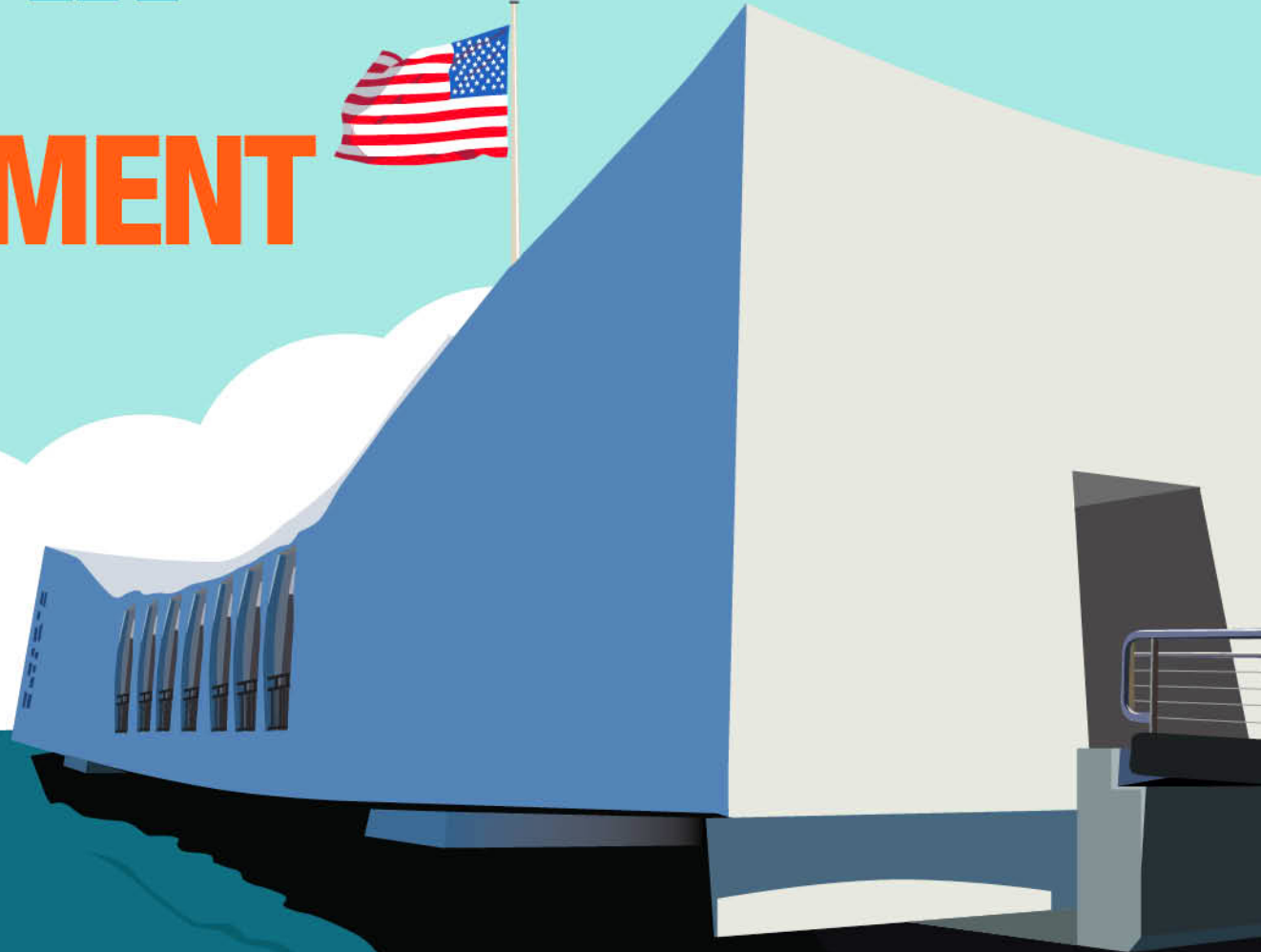
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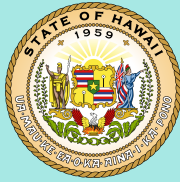
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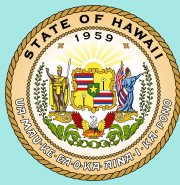


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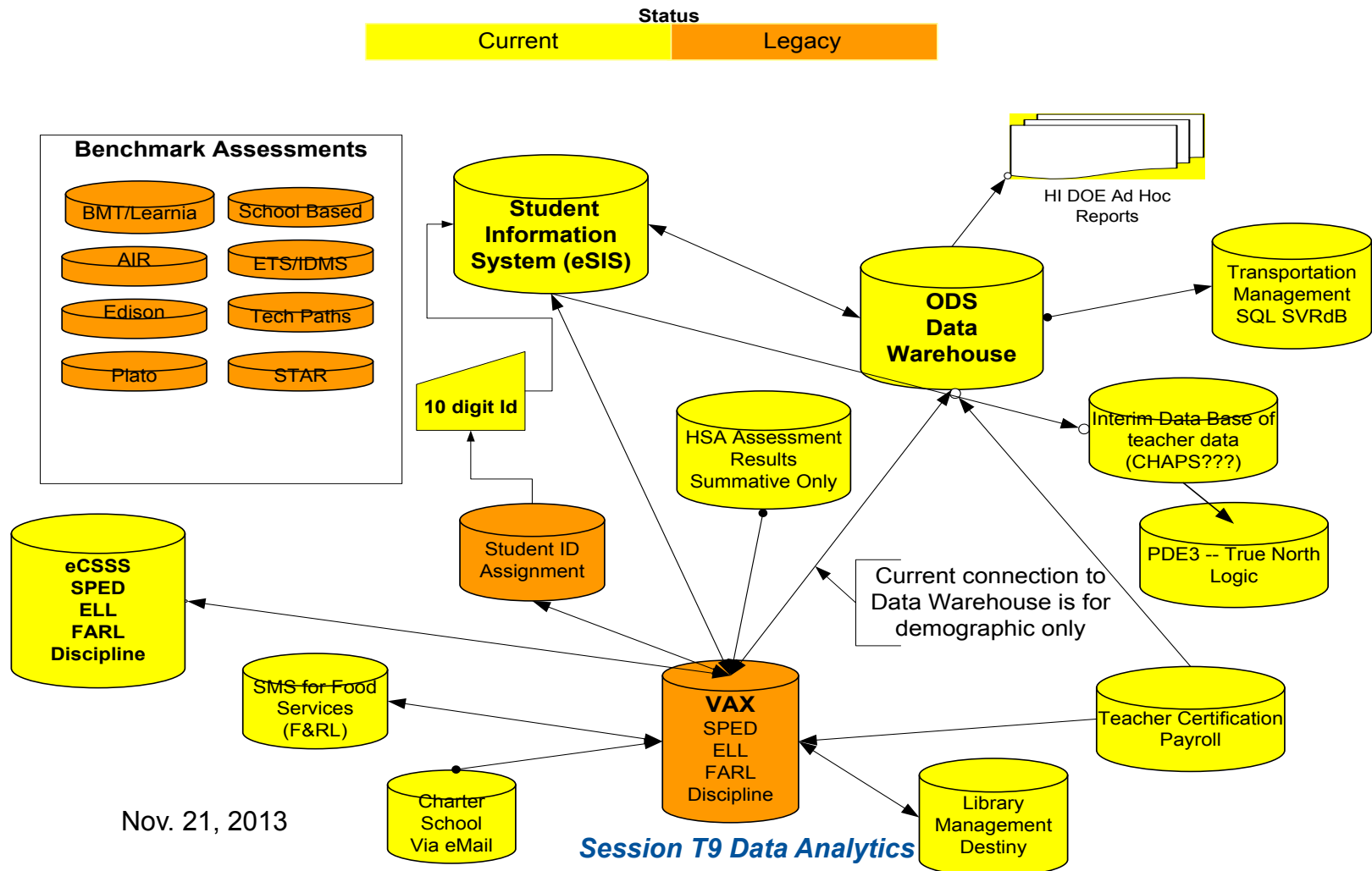




- **Session T9 Data Analytics – Starting Small**
- **State of Hawaii Department of Education**
 - Data strategies and growth

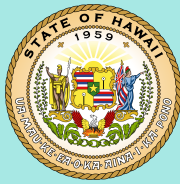


Data Architecture – Before State





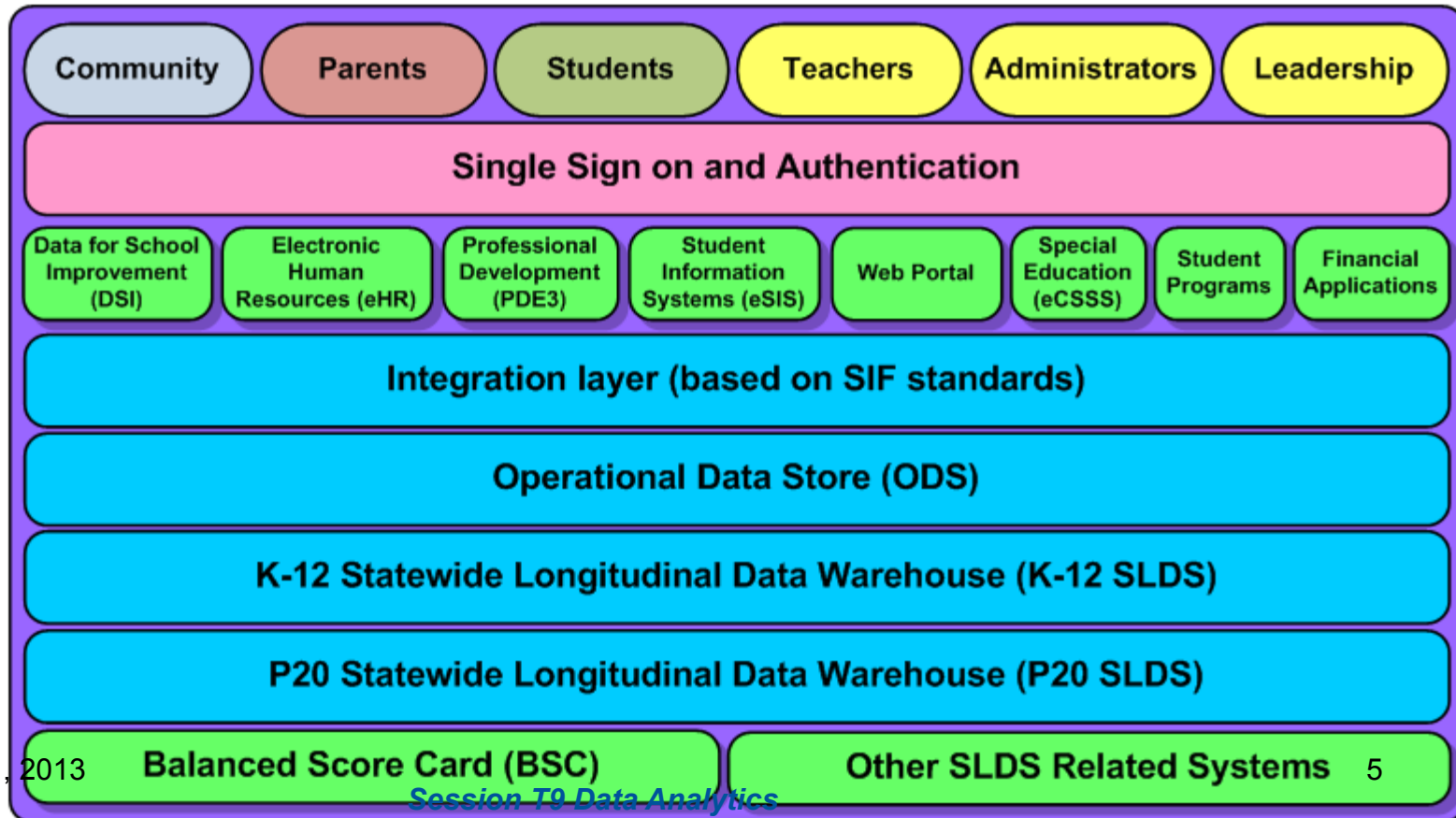
- Problems with this picture
 - Great deal of IT budget spent on interfaces
 - If n =number of databases, then the possible number of interfaces = $(n^2 - n) / 2$, where $n \geq 2$.
- Conclusion:
 - Stop building custom interfaces

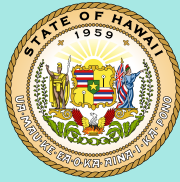


Data Architecture – Future State

HIDOE Reference Architecture (summarized)

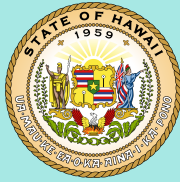
based on the Curriculum Development / Learning Management
(CDLM) conceptual model





- **Key Accomplishments**

- K12 LDS
- P20W LDS
- Financial Reporting System (based on LDS technology)



- **Key points**

- Total data volume in the hundreds of gigabytes range
- Leverage industry standard interfaces where possible
- Expansion options (cloud, hybrid, on-premise)
- Future integration of unstructured data
- Cost containment
- Ease of access / use are critical

Data Analytics - Starting Small

Rick Howard

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Government Information Is a Public Asset

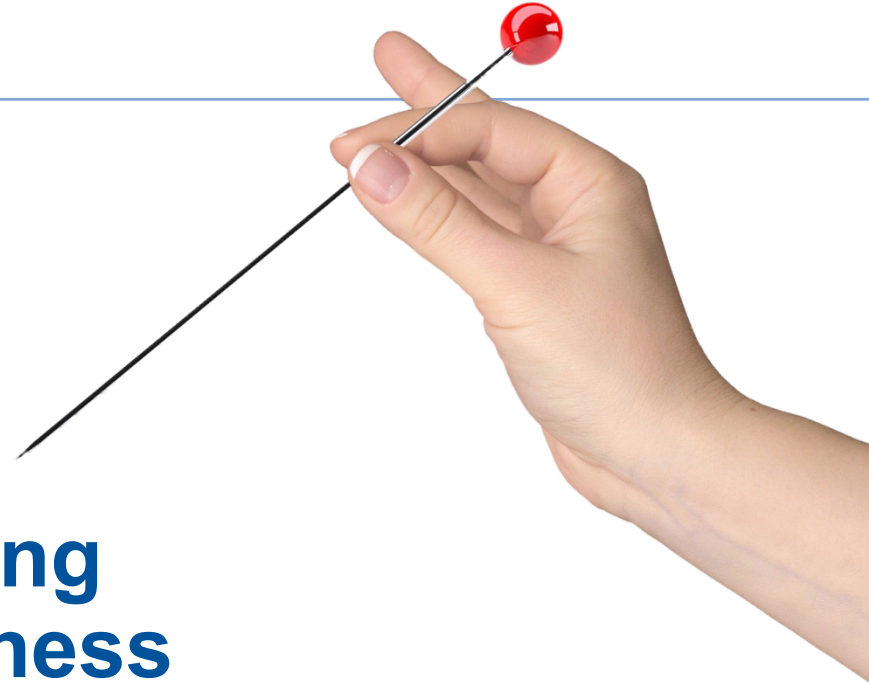


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Government Information Is a Public Asset



**Are you getting
the most business
value from your
data?**



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Key Issues

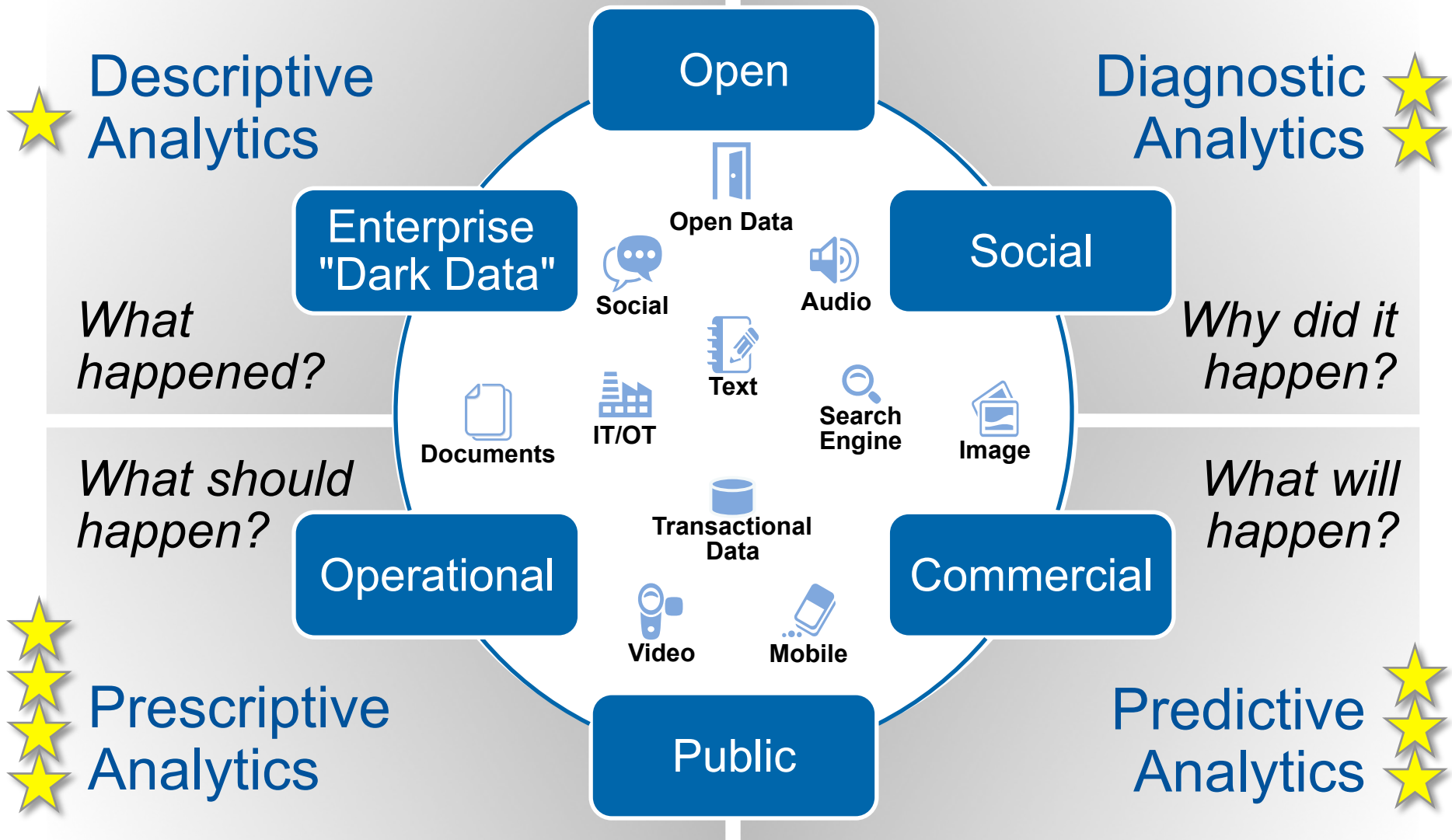
1. How does big data enhance analytic capabilities in government?
2. What decisions and steps are needed to gain value from big data analytics?
3. What are public sector use cases for big data analytics?

Strategic Planning Assumptions

By 2015, more than 30% of analytic projects will deliver insights based on **structured** and **unstructured data**.

Correlating, analyzing, presenting, and embedding insights from structured and unstructured information together enables government agencies to better personalize the constituent experience and identify opportunities for efficiencies, innovation, and even new business models.

Government CIOs Have More Sources of Information to Do More With

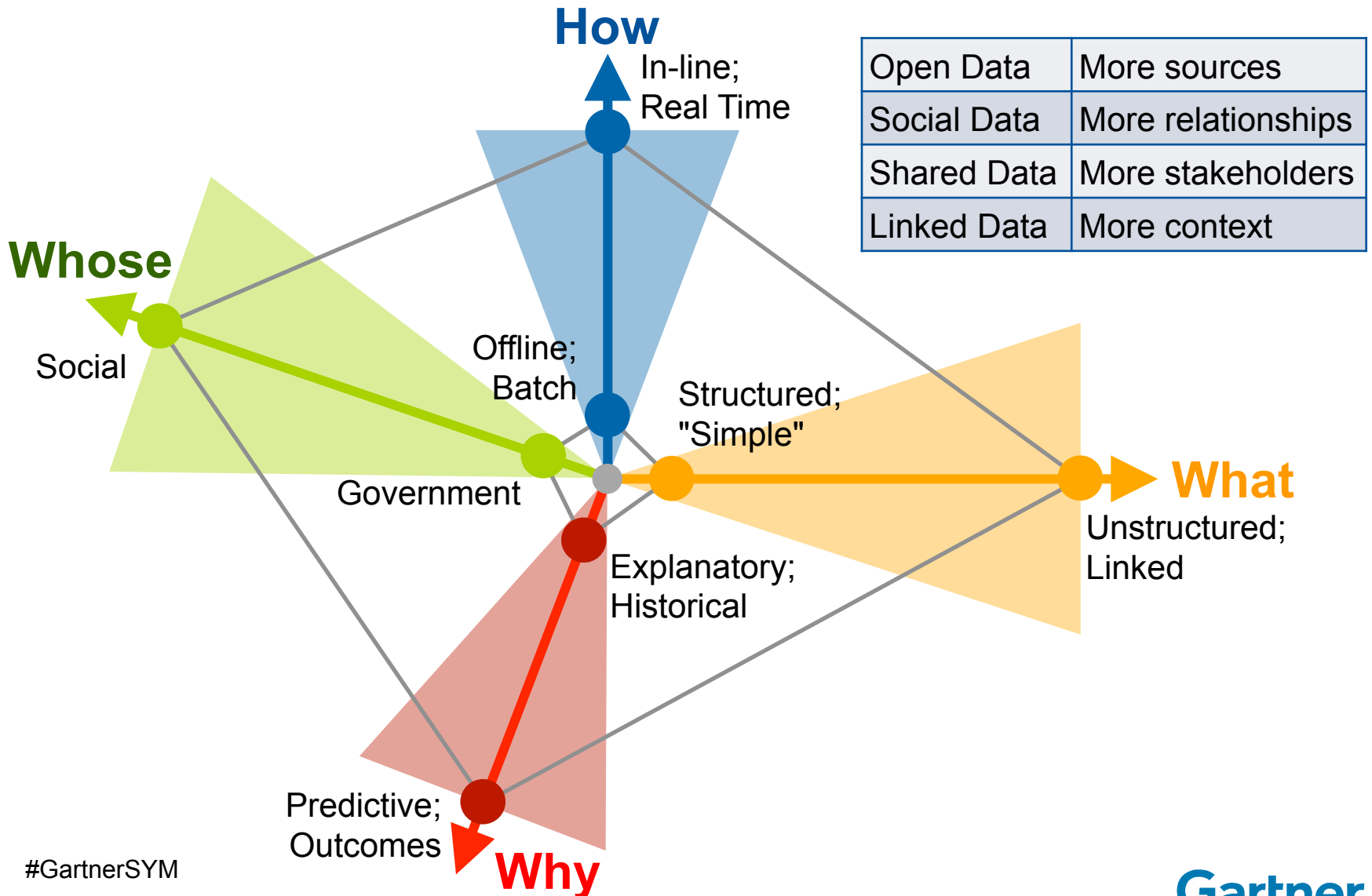


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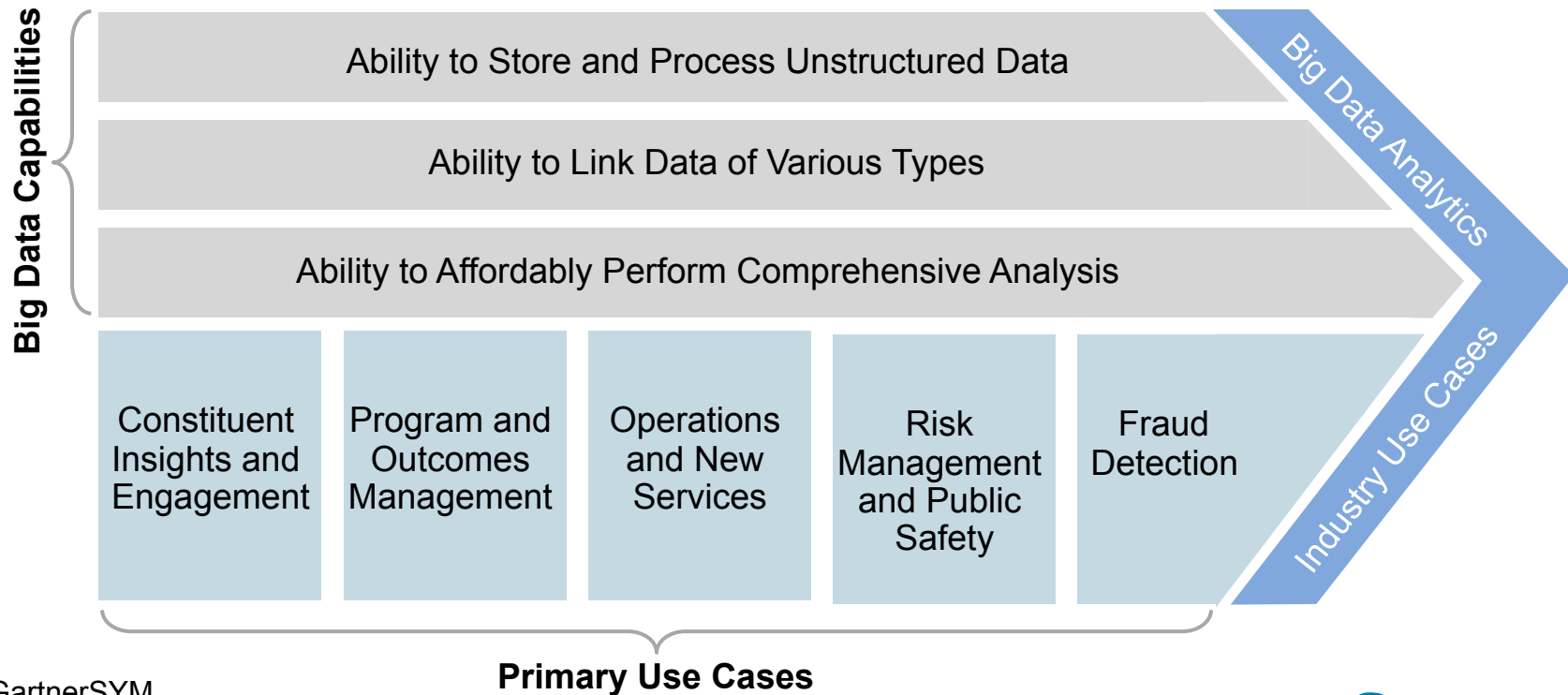
Linking, Mining, and Sharing Data Expand Information Management Practices



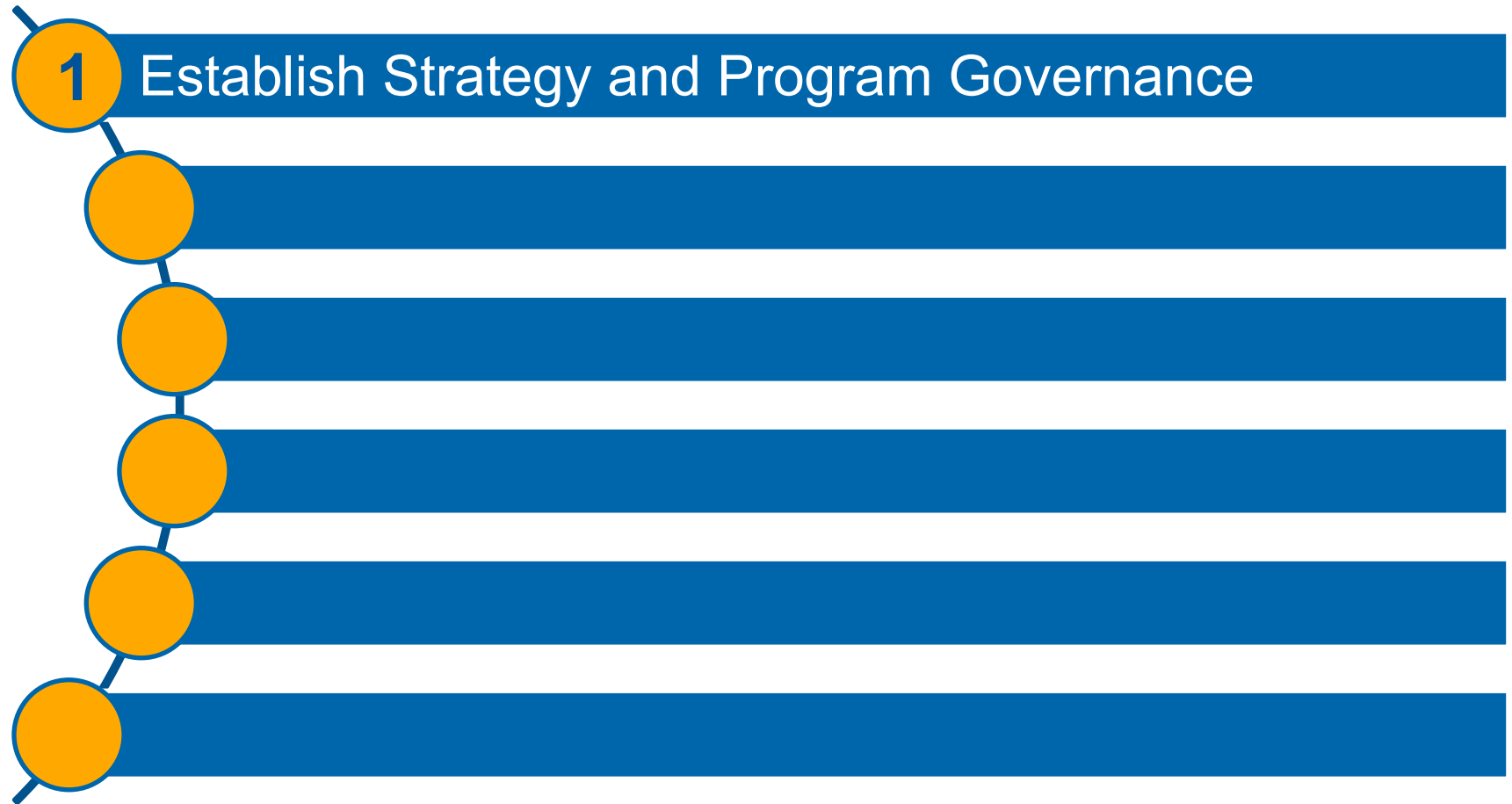
Big Data Capabilities Capture the Business Value

Correlations and patterns from disparate, linked data sources yield the greatest insights and transformative opportunities

Transactions	Geographic	Economic	Contracts	Sentiment	Sensor	Reports
Monitoring	Demographic	Weather	Mobile	Network	Email	Industry



Business: Shared Analytics and Business Intelligence Infrastructure Road Map



Business: Shared Analytics/Business Intelligence User Profiles

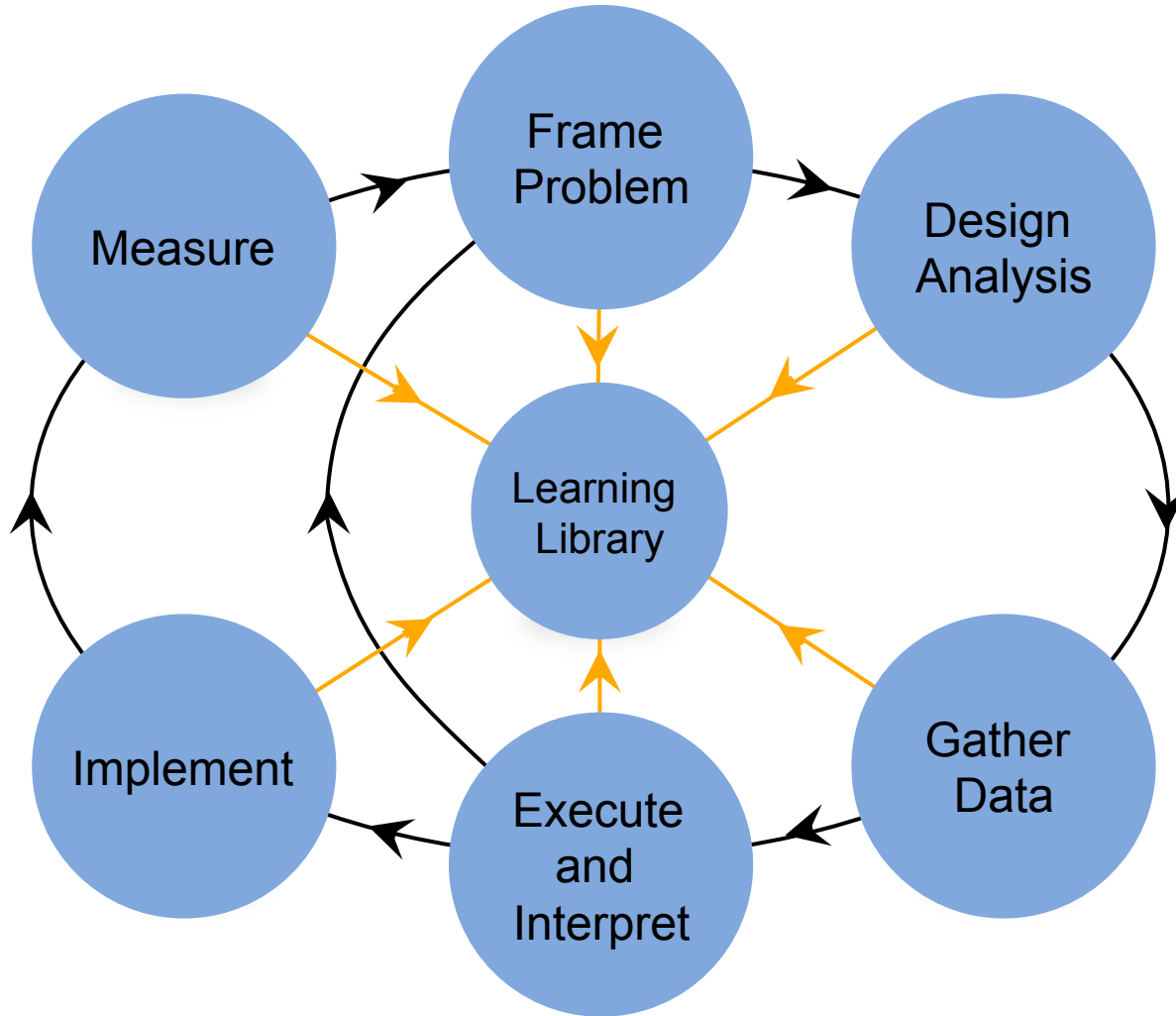
Executive

- Provides senior leadership with BI support for budget, program, and policy planning and responsiveness mandates and reporting requirements
- Enhances capabilities to assess outcome/impact and trend analysis among all programs in the enterprise
- Program and Enterprise Dashboards
- Fixed Reports
- Parameterized Reports
- Results of Multi-dimensional Analysis and Modeling



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IT: A Process Framework for Big Data Analytics



Measure

Objectives

- Create meaningful metrics
- Identify BDA success and failures

Participants

Financial partner, data analyst, business analyst, EA, and so on

Using Predictive Analytics in Foster Care Case Management



Social Services



School



Healthcare



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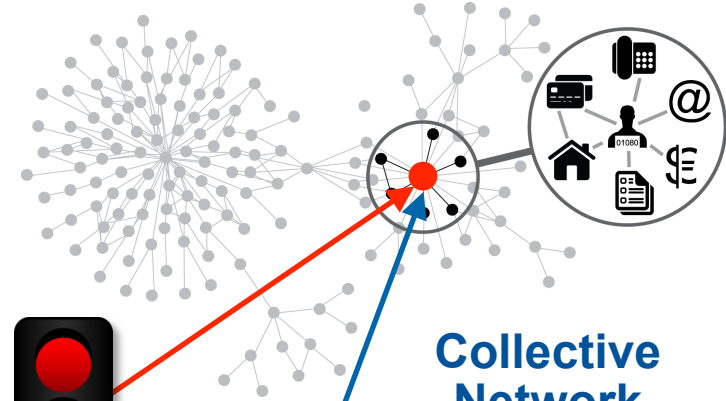
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Protecting Public Services With Context: Enhanced Fraud Detection

Agency and
Government Systems



User and Entity
Profiles



Collective
Network
Analysis



Device
Behavior
Location

Transaction Profile **Gartner**

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Recommendations

- ✓ Do not postpone the implementation of big data analytics, but develop an information management strategy first.
- ✓ Identify big questions relevant to big data.
- ✓ Understand big data technology capabilities and manage organizational impacts.
- ✓ Validate your big data assumptions in a proof of concept.

Recommended Gartner Research

- [Invest in Information and Analytics to Benefit From Big Data](#)
Douglas Laney, Frank Buytendijk (G00250120)
- [Toolkit: Big Data Business Opportunities From Over 100 Use Cases](#)
Frank Buytendijk, Lisa Kart, and others (G00252112)
- [Information Governance in the Age of Big Data](#)
Svetlana Sicular (G00251071)
- [Decision Point for Practical Big Data Use Cases](#)
Svetlana Sicular (G00239633)
- [Predicts 2013: Business Intelligence and Analytics Need to Scale Up to Support Explosive Growth in Data Sources](#)
Daniel Yuen, Bill Gassman, and others (G00227565)

For more information, stop by Gartner Research Zone.

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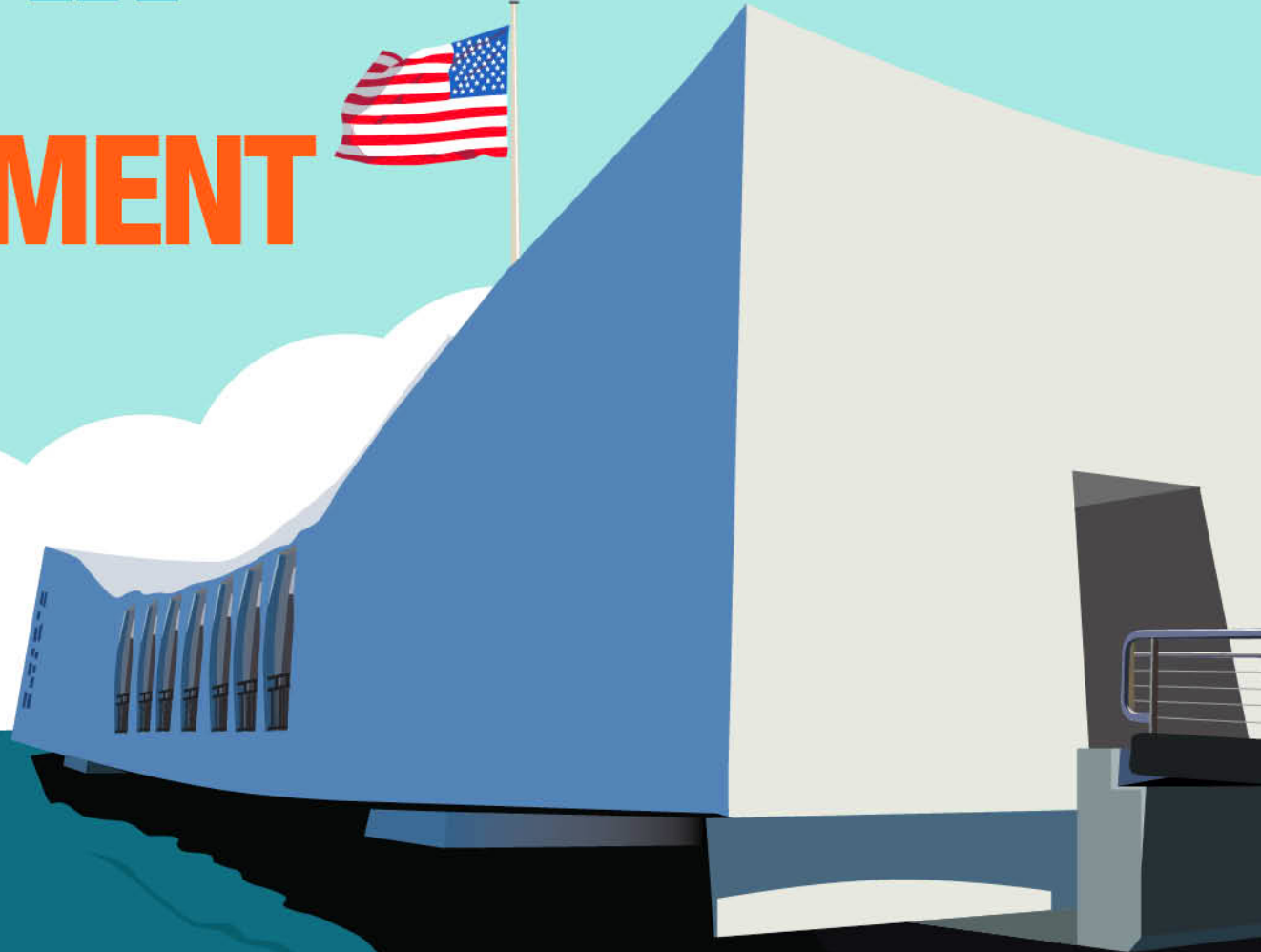
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STATE OF HAWAII - DATAMART

Datamart Login

Enter your username and password

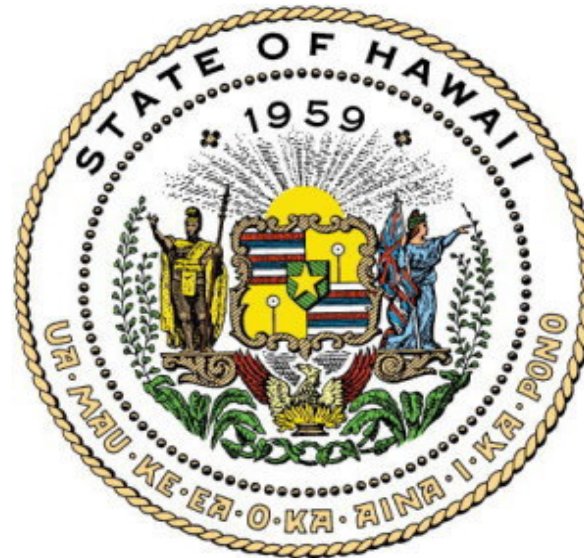
Username:

Password:

Login

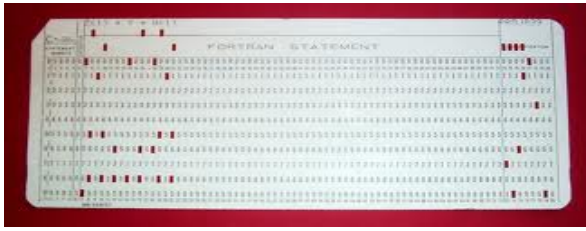
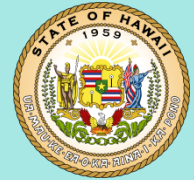
Reset

[Login Help](#)

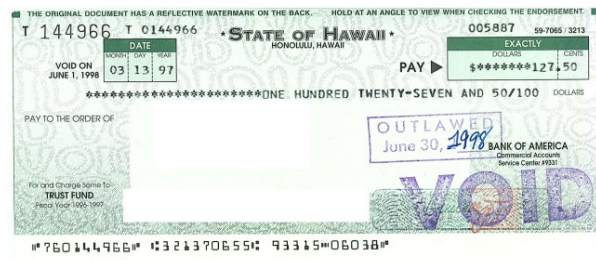


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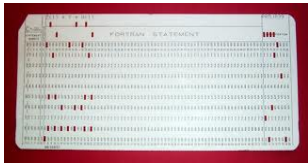


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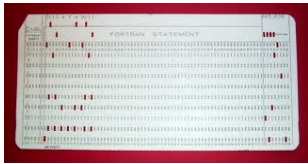


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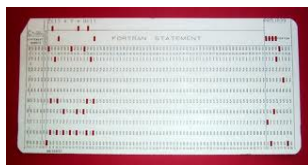
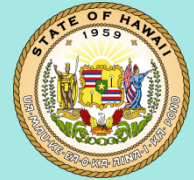


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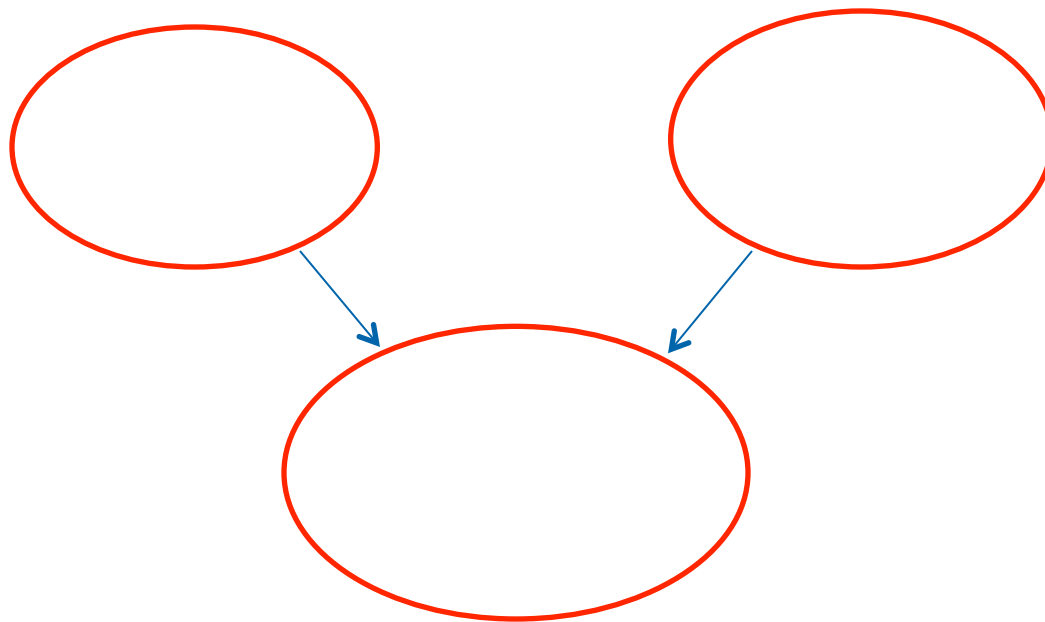
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