



# Bringing it all Together

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Northshore Utility District

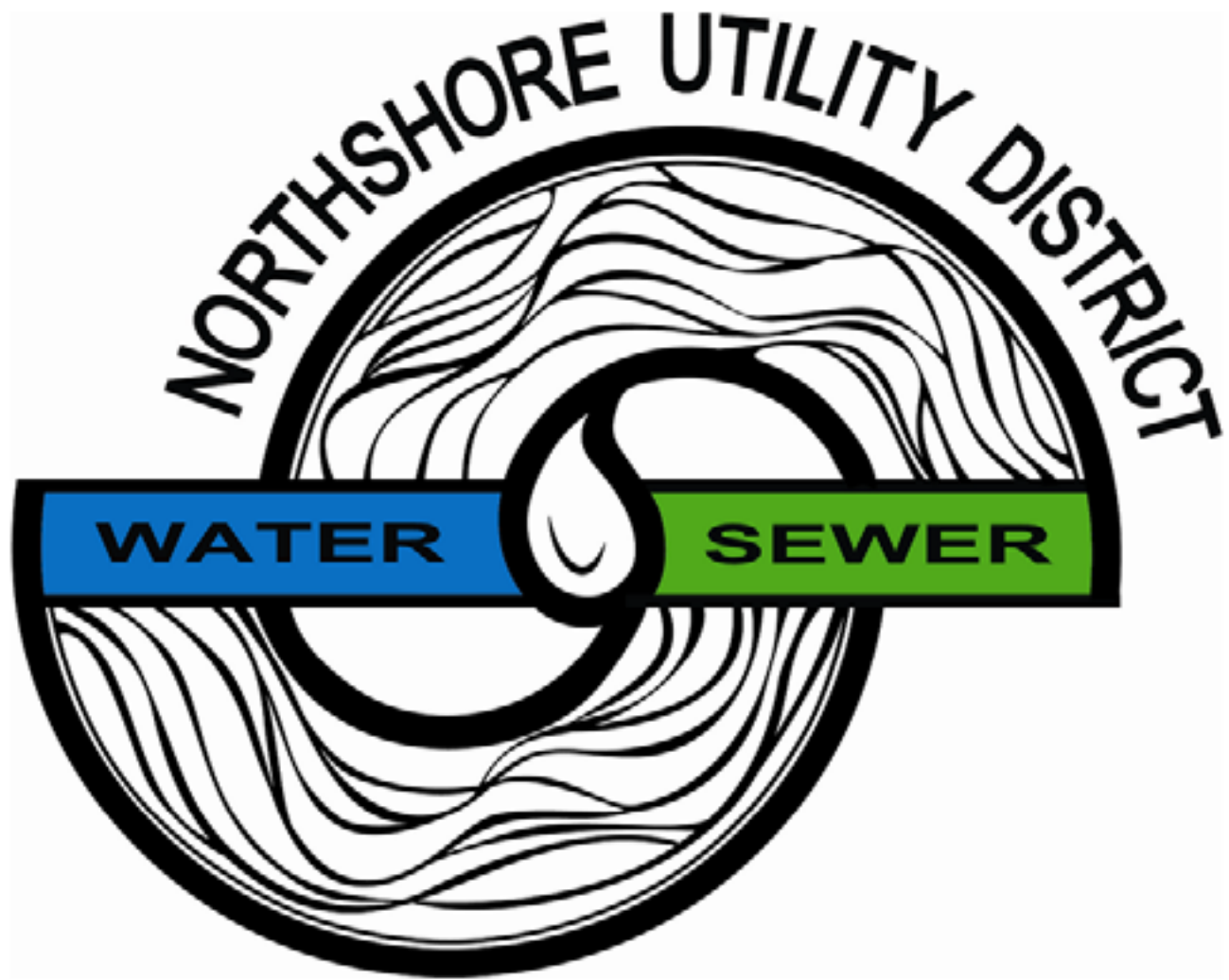
Kenmore WA, USA



# Introductions

Todd P Payne







## Content Area

Keep all text and graphics within this area,  
except for single full-screen images.

*(.75" margin all around)*

**Right-click and select Grid and Guides**  
**Check "Display drawing guides on screen"**

### **Projector Color Guidelines**

Use the **sRGB** video mode on the projector.  
Most projectors have this setting.

## **Our Problem at the Engineering Counter**

- **Data over load.**
- **Drawings, images, printed forms, files, databases.**
- **Finding the information needed required expert knowledge of multiple systems and applications.**

**How can we find the  
information fast?**

**The search for information almost always started with the map...**

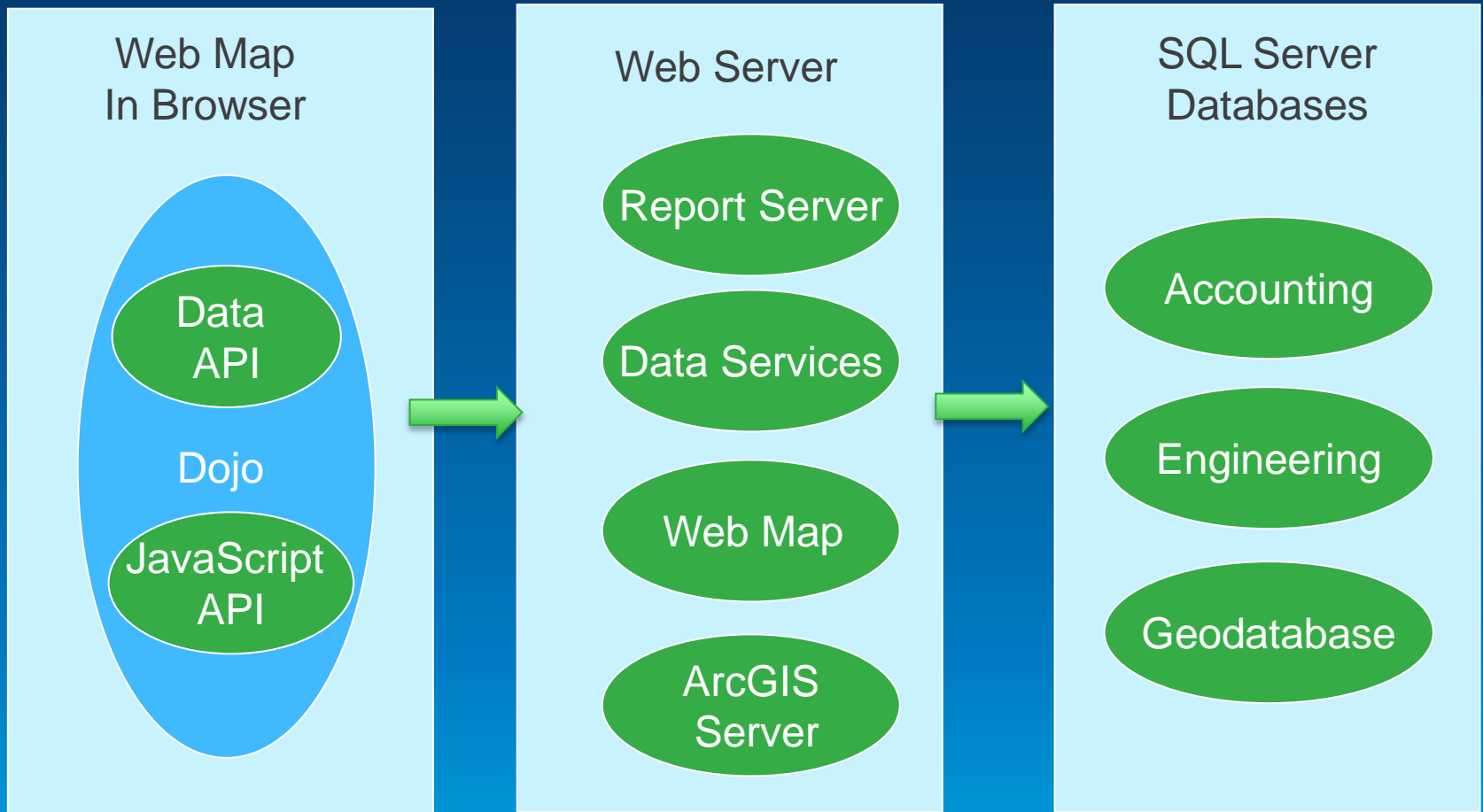
- **We Would :**
  - **Open the paper Map Book**
  - **Find some key piece of data like:**
    - **Parcel ID**
    - **Account Number**
    - **Sub Division or Project Name**
    - **Log book entry**
  - **Use other applications to get the information we were interested in.**
  - **The map book was our launching point we just needed to add a way to access the information from the map.**

## **A web based approach**

- **Uses ArcGIS Server to expose map services**
- **Uses the JavaScript API to develop applications the run in the browser**
- **Uses Web Services and links to add additional information from other systems**

**The map becomes the gateway or portal for information discovery. The web platform allows us to access the application from any workstation with a browser and have not have to deal with multiple installs and version.**

# A web based approach





## Sequence of Events

- **Browser Requests Application**
- **Server Responds with the Application**
- **Application Loads and Requests Maps from ArcGIS Server.**
- **ArcGIS Server Responds with Map tiles and**
- **User Clicks on the Map Over a Feature of Interest.**
- **Query Sent to ArcGIS Server to obtain Feature Data.**
- **ArcGIS Server Responds With Features and graphics are added to the map.**

## **Sequence of Events Continued (mash up data from web services)**

- **Browser Requests additional data from Web Server**
- **Web Service Responds with data in JSON**
- **Feature and Web Service Data is Loaded into a Pop Up Window for display**
- **User Clicks on graphic added to the map display**
- **Browser Displays the Pop Up Window**
- **Pop up window displays information, hyperlinks to other related web pages, scanned pdfs, and reports.**

## **Server Technologies Used**

- **Microsoft SQL Server (Database Repository)**
- **Microsoft Server 2008 with IIS (Web Services)**
- **Active Directory (Authentication / Authorization)**
- **ESRI ArcGIS Server, Desktop (GIS Capabilities)**

## **Application Development Technologies**

- **Microsoft Visual Studio (Development environment)**
- **ASP.NET, ADO.NET, HTML, JavaScript, CSS (components of web sites and services)**
- **JavaScript API and DOJO Framework (client side browser code for dynamic user experience and GIS functionality)**

Bringing it All Together

# Engineering Front Counter Map Demo

By Dave Kaiser

# Questions?

Todd P Payne  
Dave Kaiser