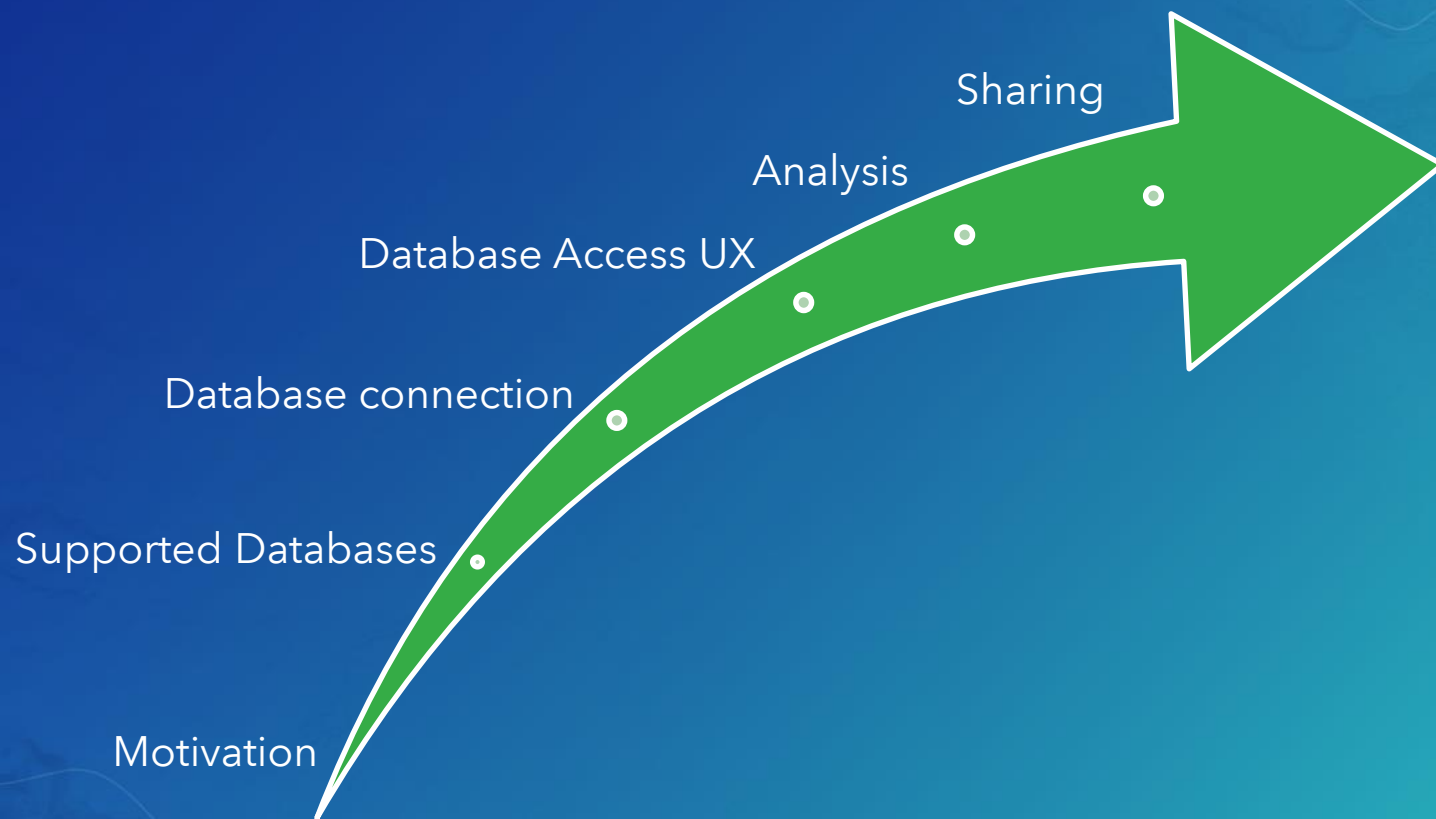


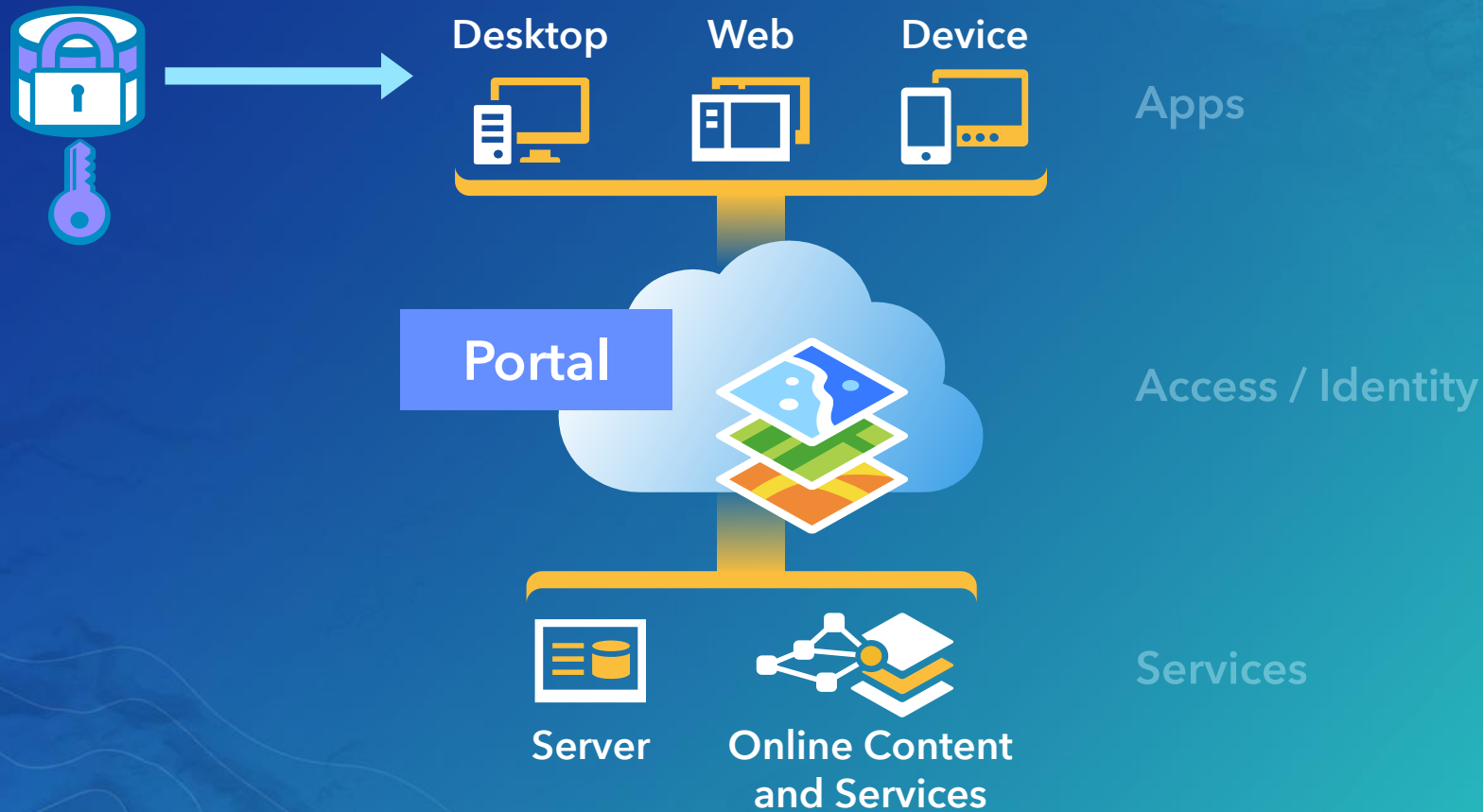
Leveraging Native Spatial Data Types in ArcGIS using Query Layers

Melissa Jarman | Said Parirokh

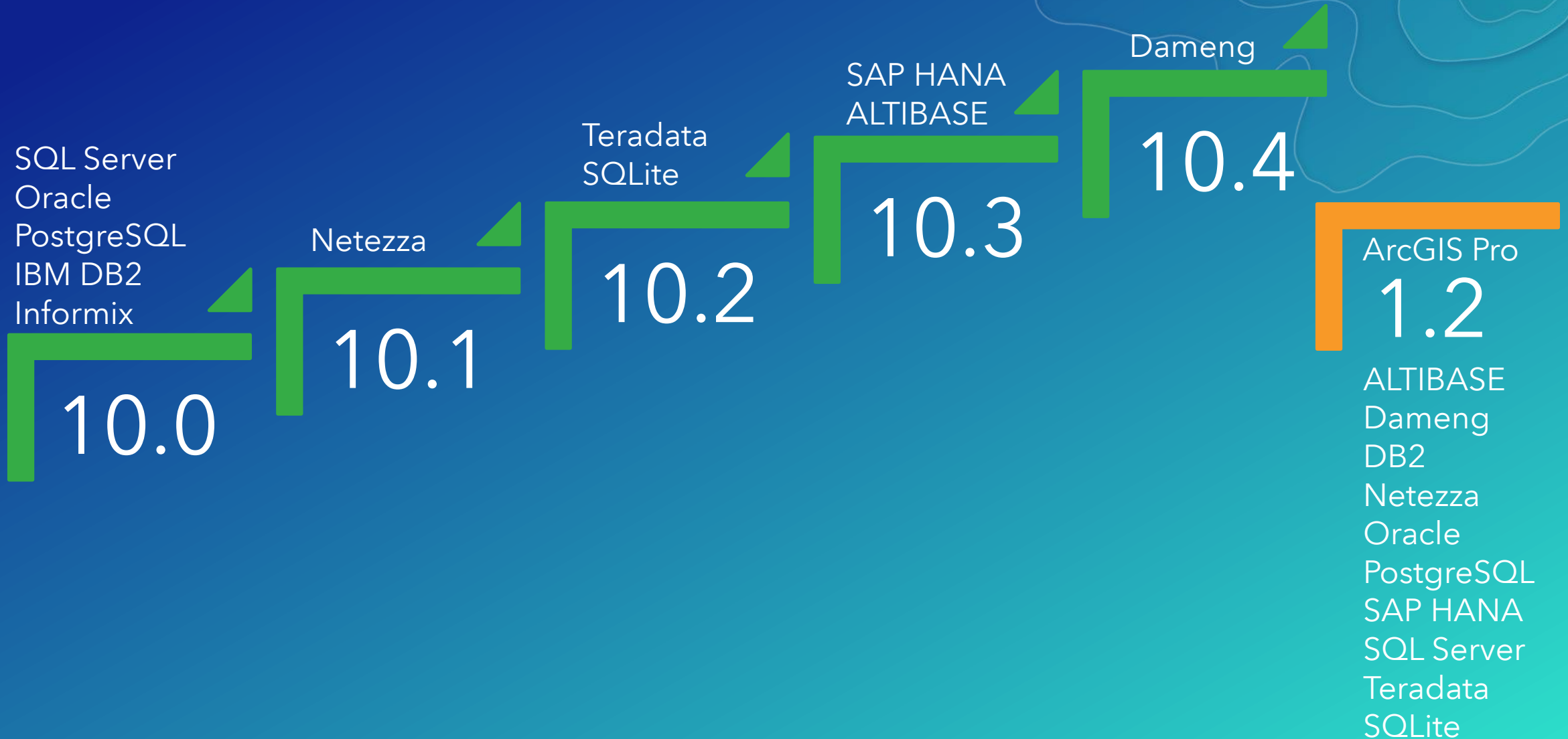
Road Map



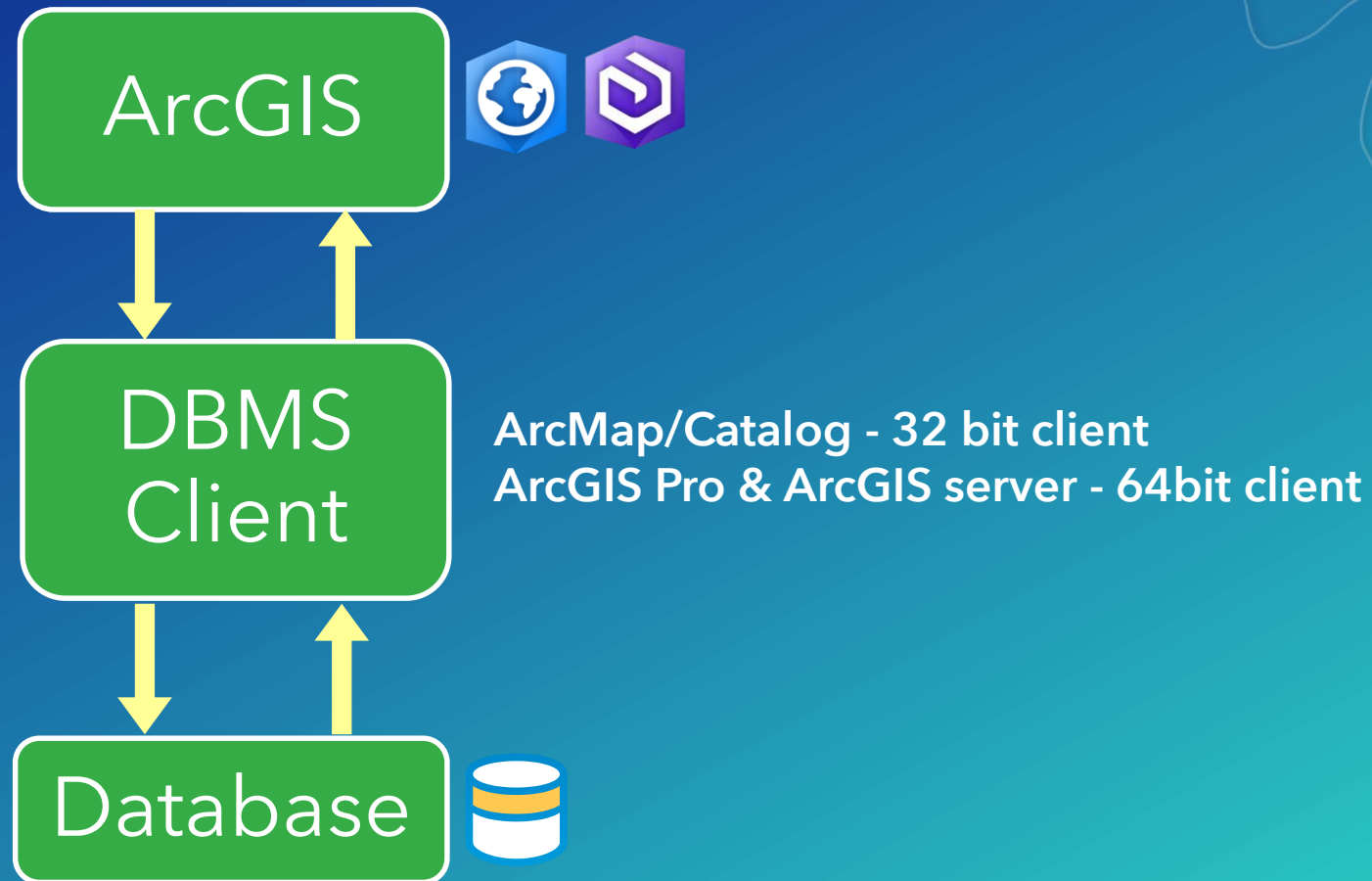
Motivation for Database Access / Query Layers



Database Access - support



How does the database connection work?



Database Access

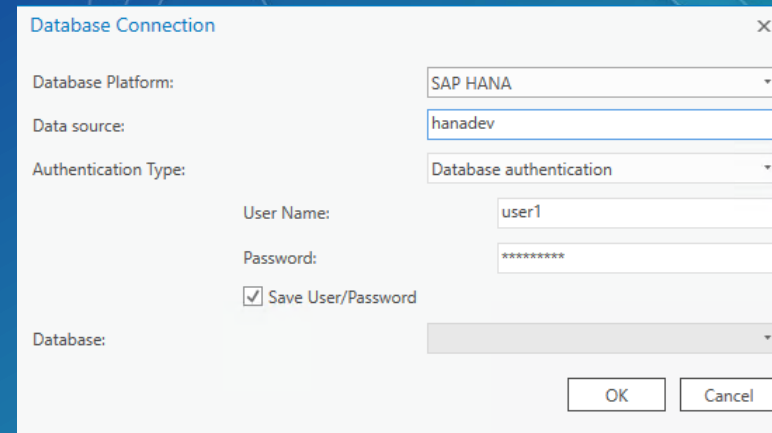
Query layers

1 - Accessed via database connection

- drag/drop onto map

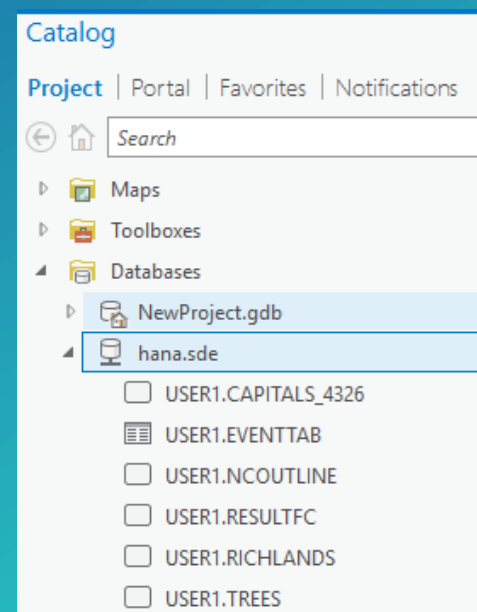
2 - Create New Query Layer

- build your own SQL



The screenshot shows the 'Database Connection' dialog box. It contains the following fields and options:

- Database Platform:** A dropdown menu set to 'SAP HANA'.
- Data source:** A text box containing 'hanadev'.
- Authentication Type:** A dropdown menu set to 'Database authentication'.
- User Name:** A text box containing 'user1'.
- Password:** A text box containing '*****'.
- Save User/Password:** A checked checkbox.
- Database:** A dropdown menu that is currently empty.
- Buttons:** 'OK' and 'Cancel' buttons at the bottom right.



Database Access

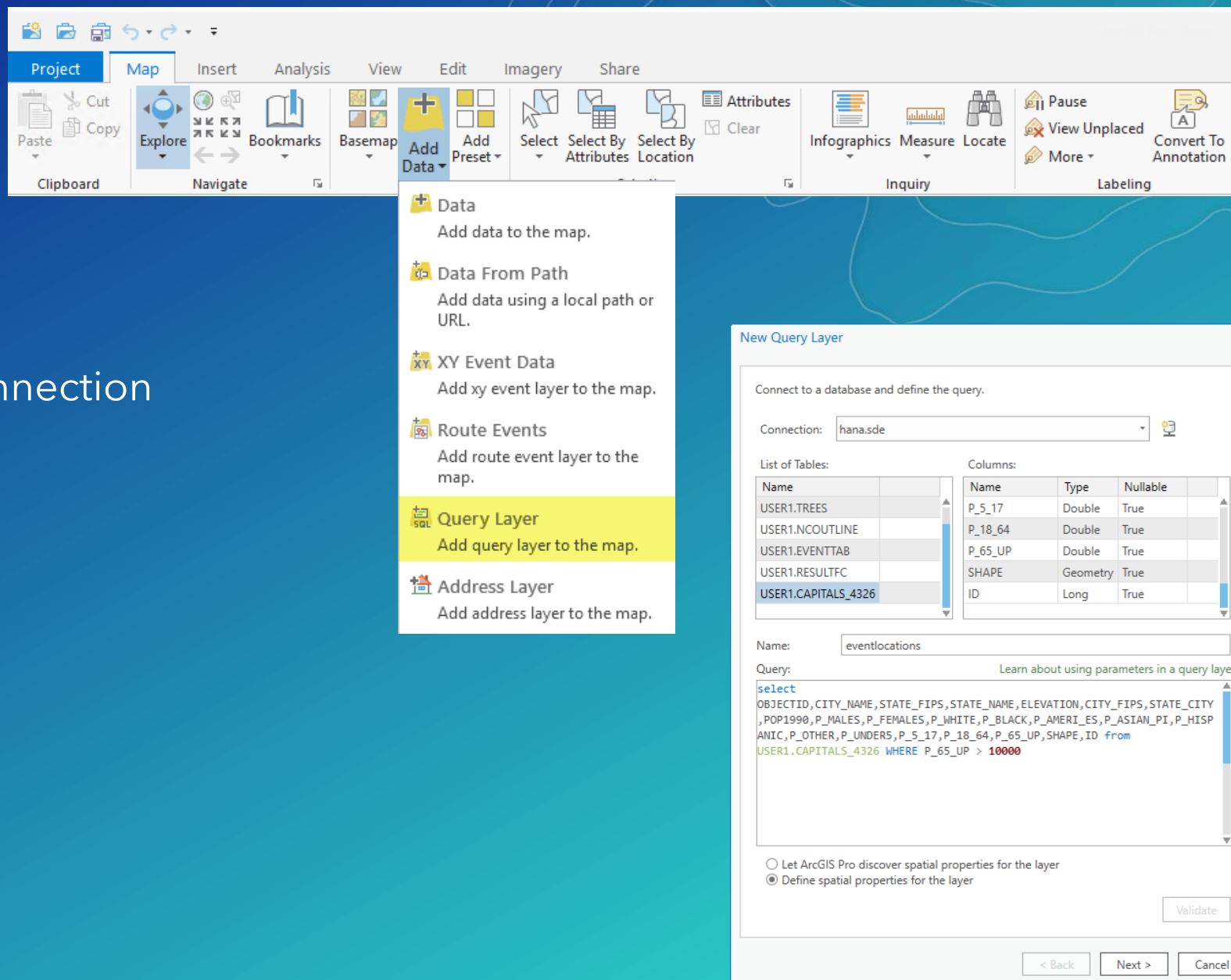
Query layers

1 - Accessed via database connection

- drag/drop onto map

2 - Create New Query Layer

- build your own SQL



User Experience

ArcGIS discovers

- Unique identifier
- Geometry type of spatial field
- Spatial reference and extent

Rules for validation

- Unique Identifier field - not null, contain unique values
 - Datatype: integer, string, GUID, or date
- Single spatial column and single entity type

Feature layer – not a database object

- Stored within .mxd / .aprx

Using query layers

Viewing

- Dynamic information
- Non-spatial / Spatial (native types only)
 - Database tables
 - Unregistered tables within a GDB
- Read only via database connection

Using ArcGIS tools

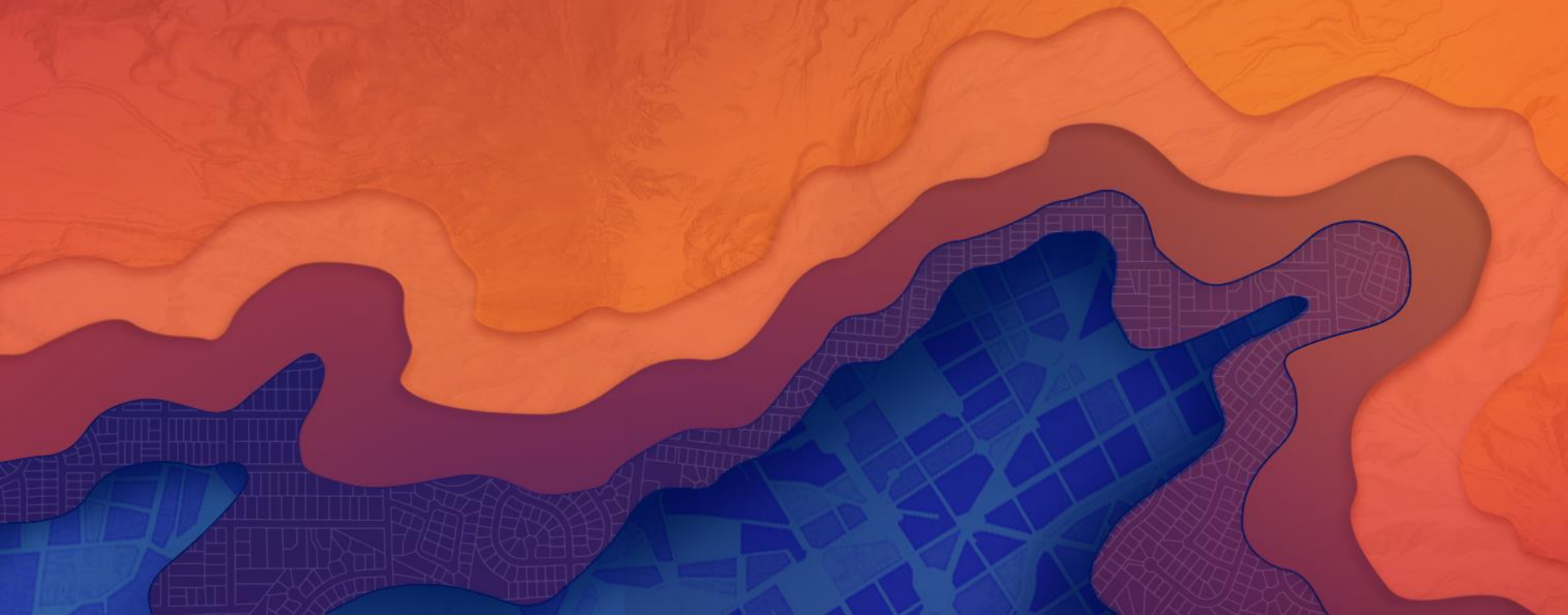
- Tools that perform selections or create outputs
 - Eg: Analysis tools - Buffer

Editing

- Share via feature service

Query layers Custom SQL & Sharing

Said Parirokh



New features

- 10.2 – Feature service support
- 10.3.1 –
 - Map service startup time
 - Added Feature services support for ALTIBSE, SAP HANA, & Teradata
- 10.4 –
 - Feature service publishing of unregistered data from a geodatabase
 - Updated 'New Query Layer' UI to allow for user to define spatial properties
 - Improves performance as only SQL validation is performed
- 10.5/Pro 1.4 – Registering database views with the geodatabase
- Pro 1.4 – Parameterized queries

Resources & Survey

Related Sessions

Visualize Dynamically Aggregated Results from Time Series Data Using ArcGIS Pro and Map Services

Thurs - Drawing Millions of Features in ArcGIS: Advanced Topics

Resources from this session - Geonet

<https://geonet.esri.com/docs/DOC-10253>

- slides
- scripts from demo
- helpful links



Thank you!

Fill out survey in
Esri Events mobile app

A screenshot of a feedback survey displayed on a mobile device. The survey is titled "Leveraging Native Spatial..." and includes a back arrow and a share icon. It contains several sections for rating different aspects of the workshop. Each section has a title, a "Low" label, a 5-point scale with numbered circles (1-5), and a "High" label. The last two sections include "No" and "Yes" buttons instead of a scale.

< Leveraging Native Spatial... >

FEEDBACK

Title and Description Consistent with Content

Low 1 2 3 4 5 High

Well Organized/Clear Presentation

Low 1 2 3 4 5 High

Public Speaking Skills

Low 1 2 3 4 5 High

The content of the workshop was relevant to my work

No Yes

The workshop provided information or techniques I can apply to my work right away

Low 1 2 3 4 5 High

I would recommend this workshop to a colleague

No Yes



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