

Esri Developer Summit

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esri.com/events/devsummit



Accessing Geodata through RESTful services

Gary MacDougall, Heather McCracken and Tom Brown

A decorative graphic at the bottom of the slide. It features a curved orange border at the top. Below the border is a semi-transparent image of a satellite map. Overlaid on the map is white text representing JavaScript code. The code includes symbols like 'esri.symbol.SimpleLineSymbol', 'new dojo.Color', and 'feature.setSymbol'.

```
esri.symbol.SimpleLineSymbol
new dojo.Color([0,0,0,0.5])
feature.setSymbol(new esri.symbol.SimpleLineSymbol(
  new dojo.Color([0,0,0,0.5]), 1));
feature.setSymbol(new esri.symbol.SimpleLineSymbol(
  new dojo.Color([0,0,0,0.5]), 2));
feature.setSymbol(new esri.symbol.SimpleLineSymbol(
  new dojo.Color([0,0,0,0.5]), 3));
```

Overview

- **Part 1: Distributing geodata through services**
 - Heather McCracken and Gary MacDougall

- **Part 2: Spatial Data Server**
 - Tom Brown

Agenda: Distributing geodata through services

- **Synchronizing data to the cloud**
- **Editor tracking and ownership based access control**
- **Feature service disconnected editing API**
- **Questions?**

Publishing database data to ArcGIS server

- **Map Services, Feature Services, etc.**
- **Data Store (new in 10.1)**
 - **Defines the data that can be published as a service**
 - **Validation that services are using approved data locations**
 - **Describes how the data will be accessed**
 - **Automatic remapping of paths to data when you publish**

Publishing database data to ArcGIS server

Server managed

- Data is copied to the server automatically during publishing
- Service references the copy
- Data copy is private to the server

Shared

- Publisher and server references the same data
- Data can be in a local database

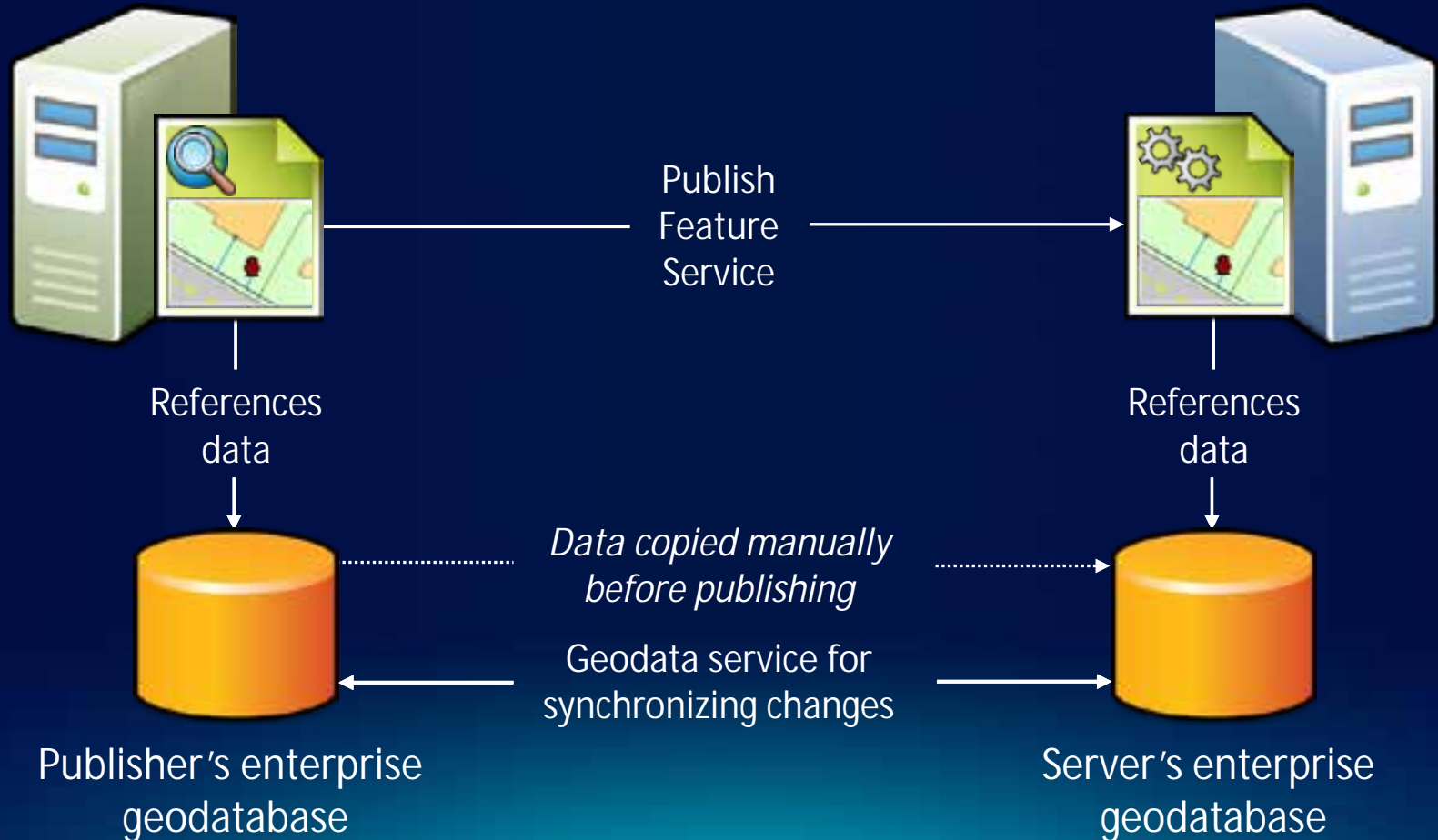
or

- **Data can be in a replicated (copy) database**

DEMO: Publishing feature services using a shared replicated database

Publisher's machine

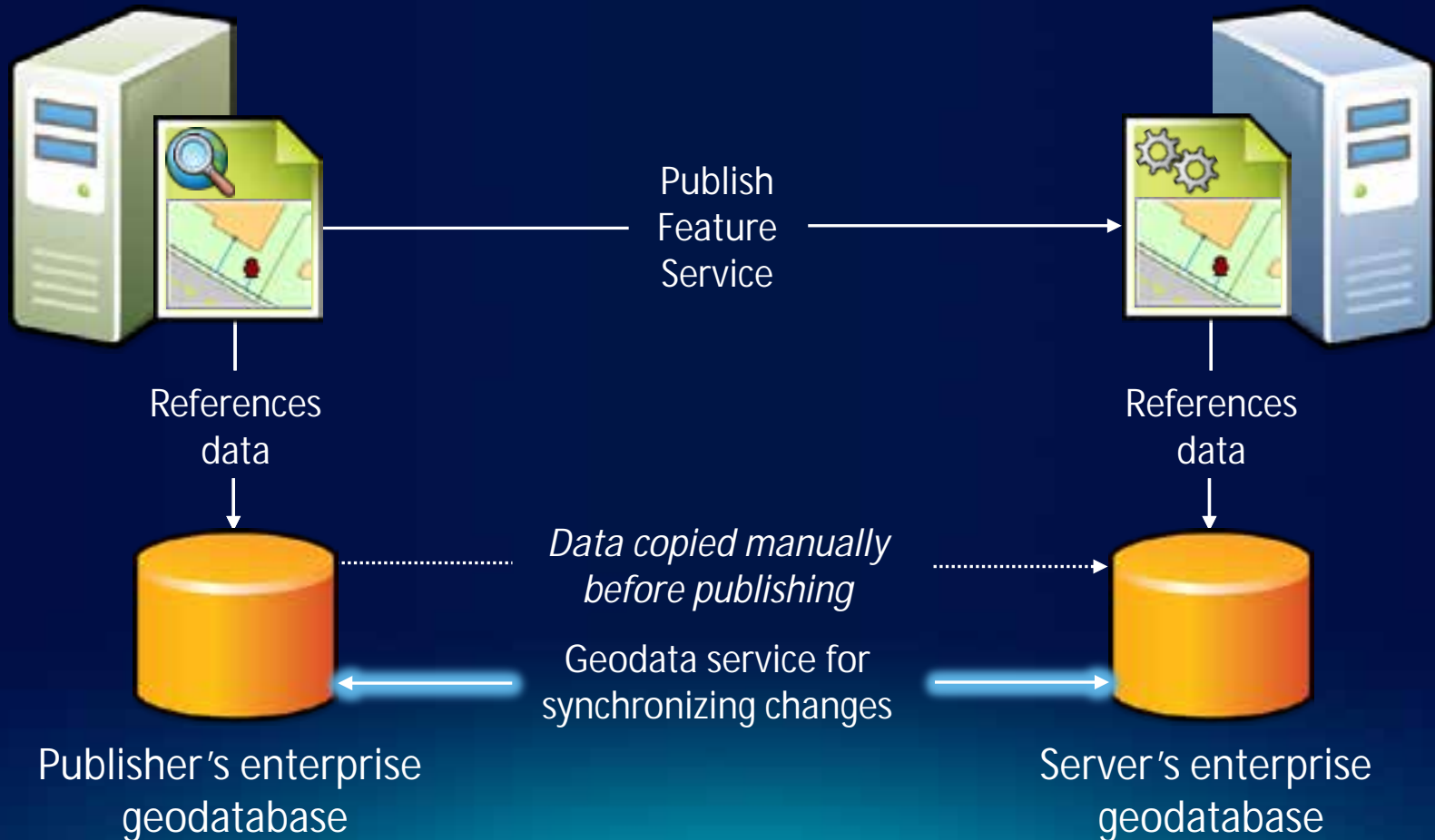
ArcGIS Server



DEMO: Publishing feature services using a shared replicated database

Publisher's machine

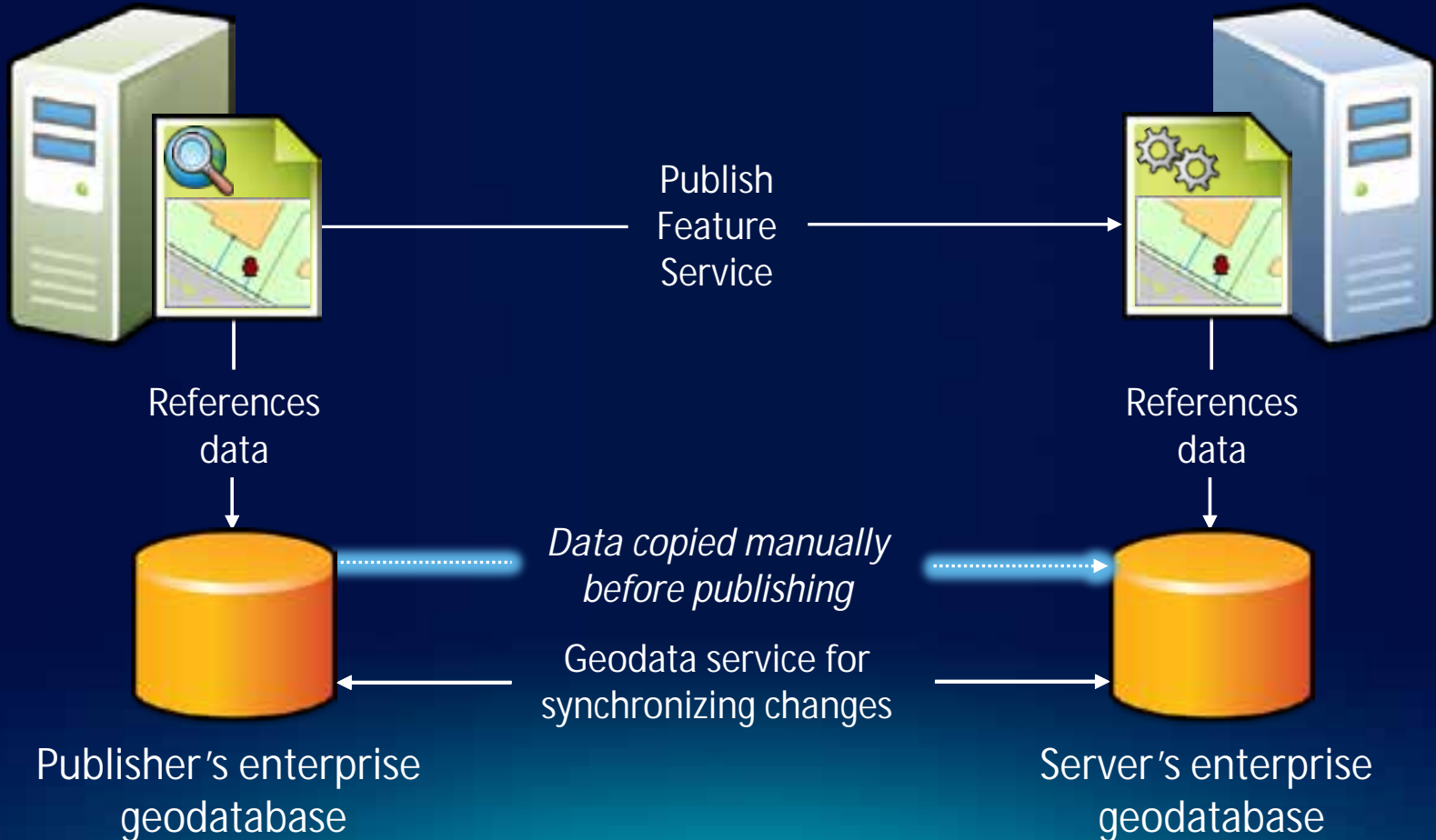
ArcGIS Server



DEMO: Publishing feature services using a shared replicated database

Publisher's machine

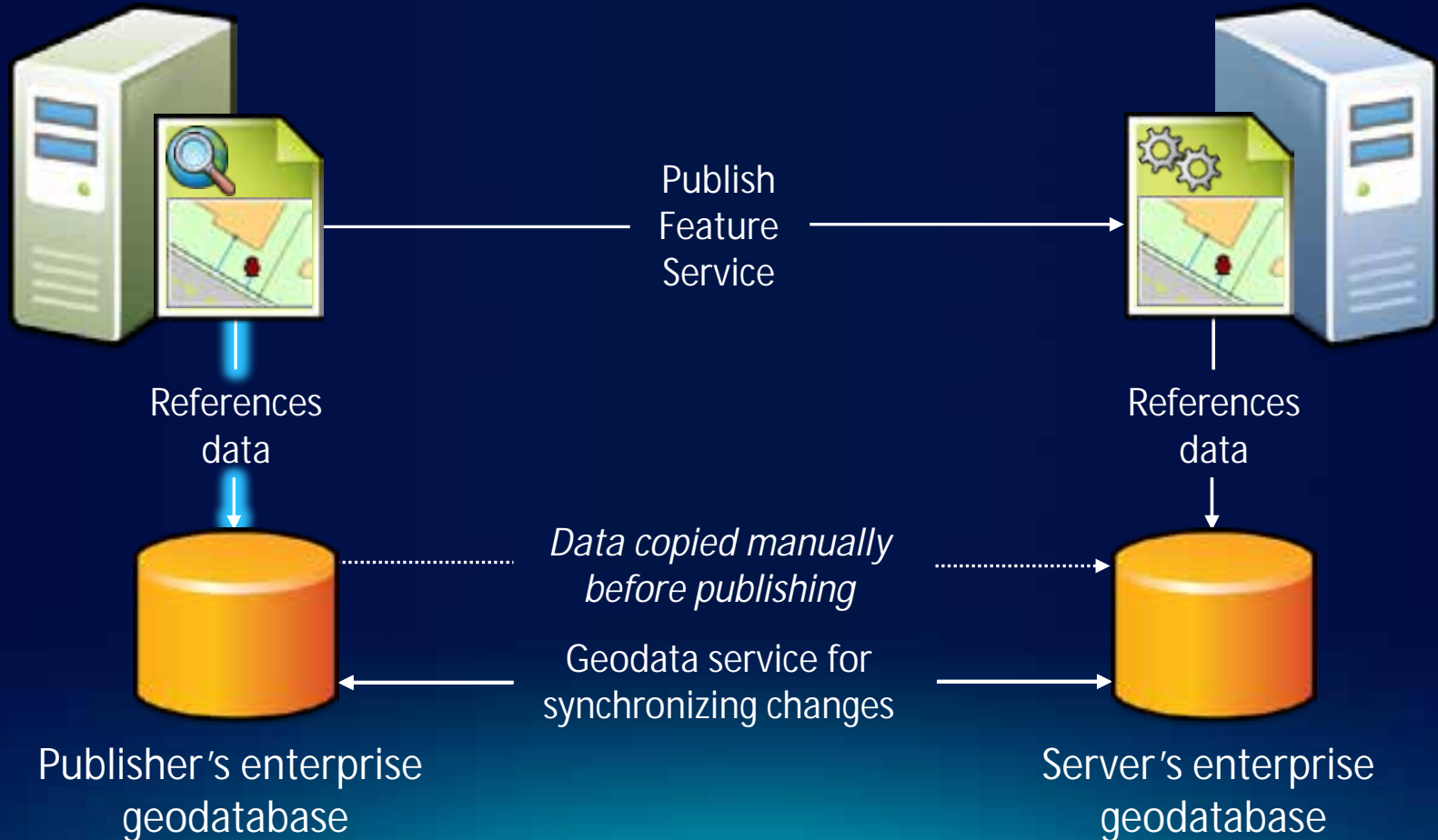
ArcGIS Server



DEMO: Publishing feature services using a shared replicated database

Publisher's machine

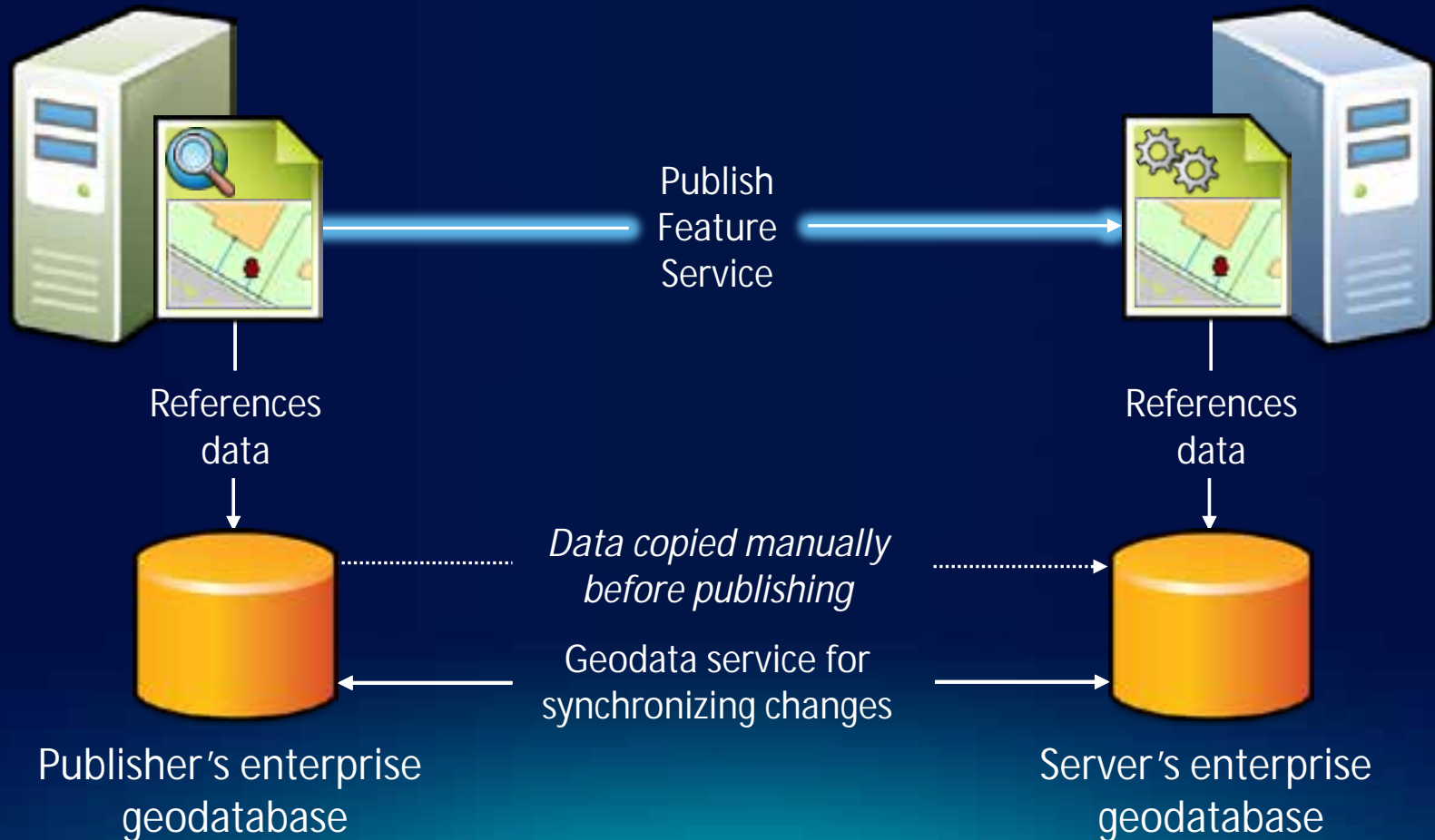
ArcGIS Server



DEMO: Publishing feature services using a shared replicated database

Publisher's machine

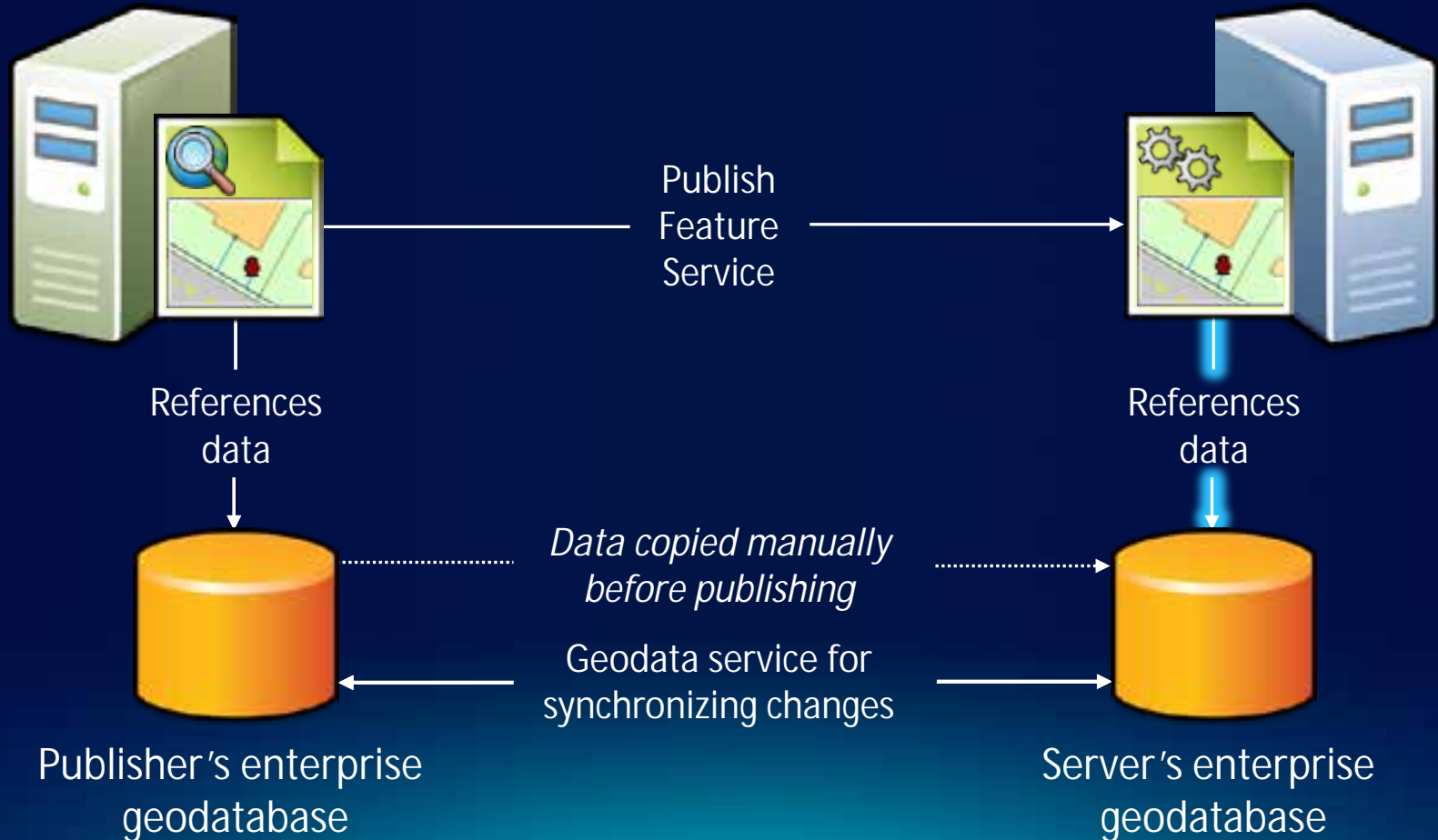
ArcGIS Server



DEMO: Publishing feature services using a shared replicated database

Publisher's machine

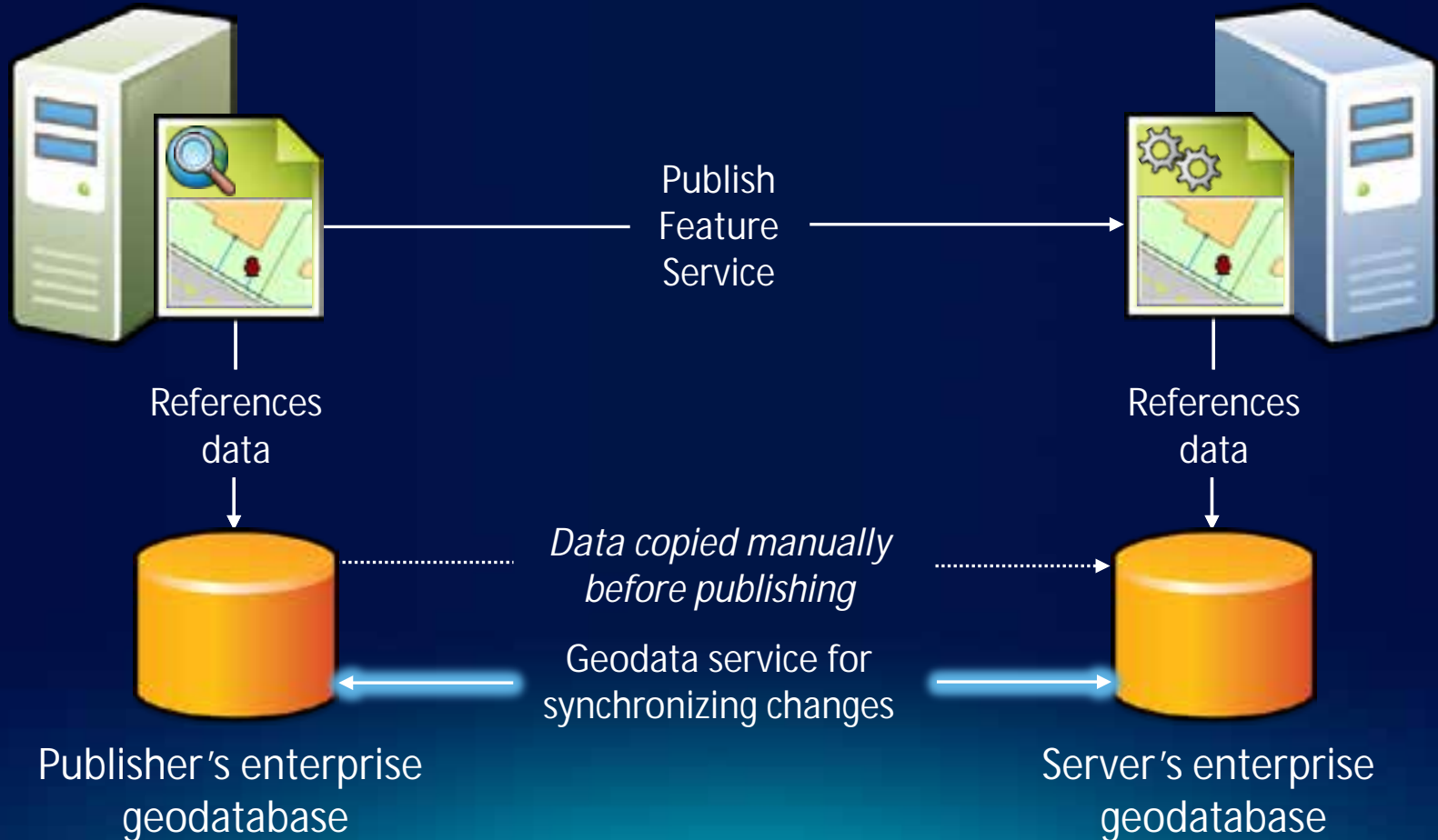
ArcGIS Server



DEMO: Publishing feature services using a shared replicated database

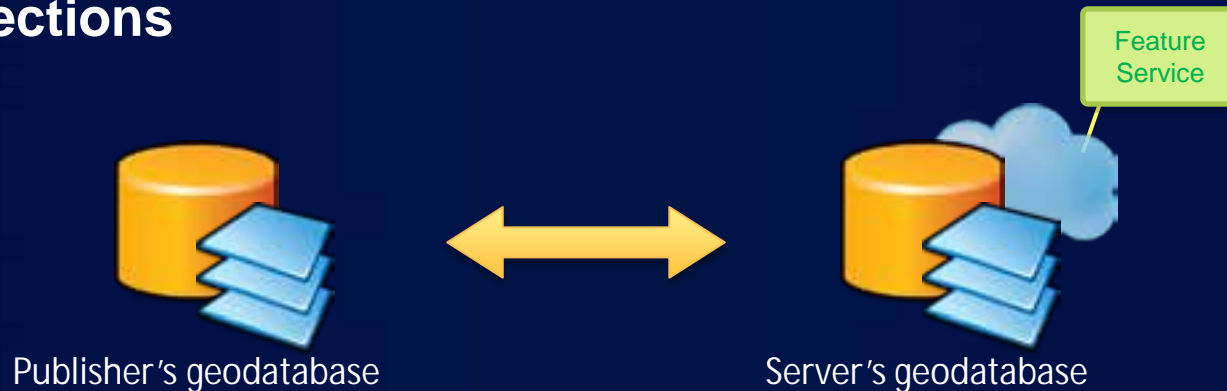
Publisher's machine

ArcGIS Server



Publishing using a shared replicated database

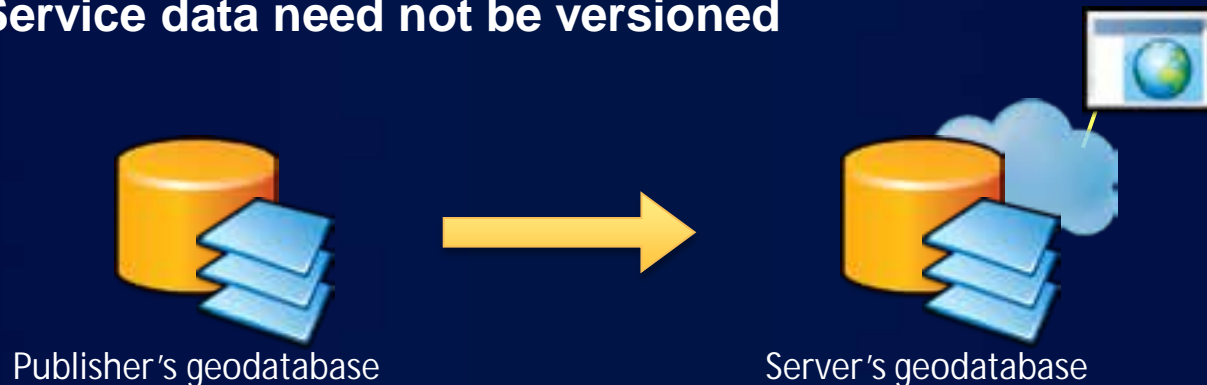
- 2 way replicas allow you to sync edits in both directions



- **Data must be versioned**
 - works well for enterprise solutions with limited numbers of web editors
 - Working on a non-versioned solutions which can support more web editors
 - See [version docs](#)

Publishing using a shared replicated database

- 1 way replicas can be used to support same workflow with map services
 - Service data need not be versioned



- **Tutorial:** [Performing web editing using data from an enterprise geodatabase](#)
- **Video:** [Publishing feature services to arcgis for server with replicated data](#)

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Editor Tracking

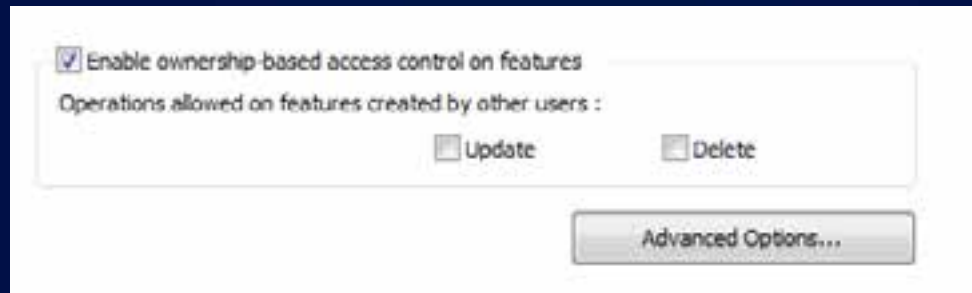
- **Tracks changes to geodatabase data (new at 10.1)**
- **Can track:**
 - **Who created the data, and when**
 - **Who most recently edited, and when**
- **Stored in fields in a dataset**
- **Geodatabase editing, Replication, Feature services**

Editor Tracking

- Dates recorded in **UTC** or database time zone
- **UTC**
 - Recommended
 - Works across time zones
 - Replication and services
- database time zone
 - if working in local time zone and not going to the web
 - if already tracking with arcobjects application

Ownership-based access control

- Feature service specific
- Configure service to restrict users from accessing features they do not own
- Leverages Editor Tracking



Enable ownership-based access control on features

Operations allowed on features created by other users :

Update Delete

Advanced Options...



DEMO: Editor Tracking and Ownership-based Access Control

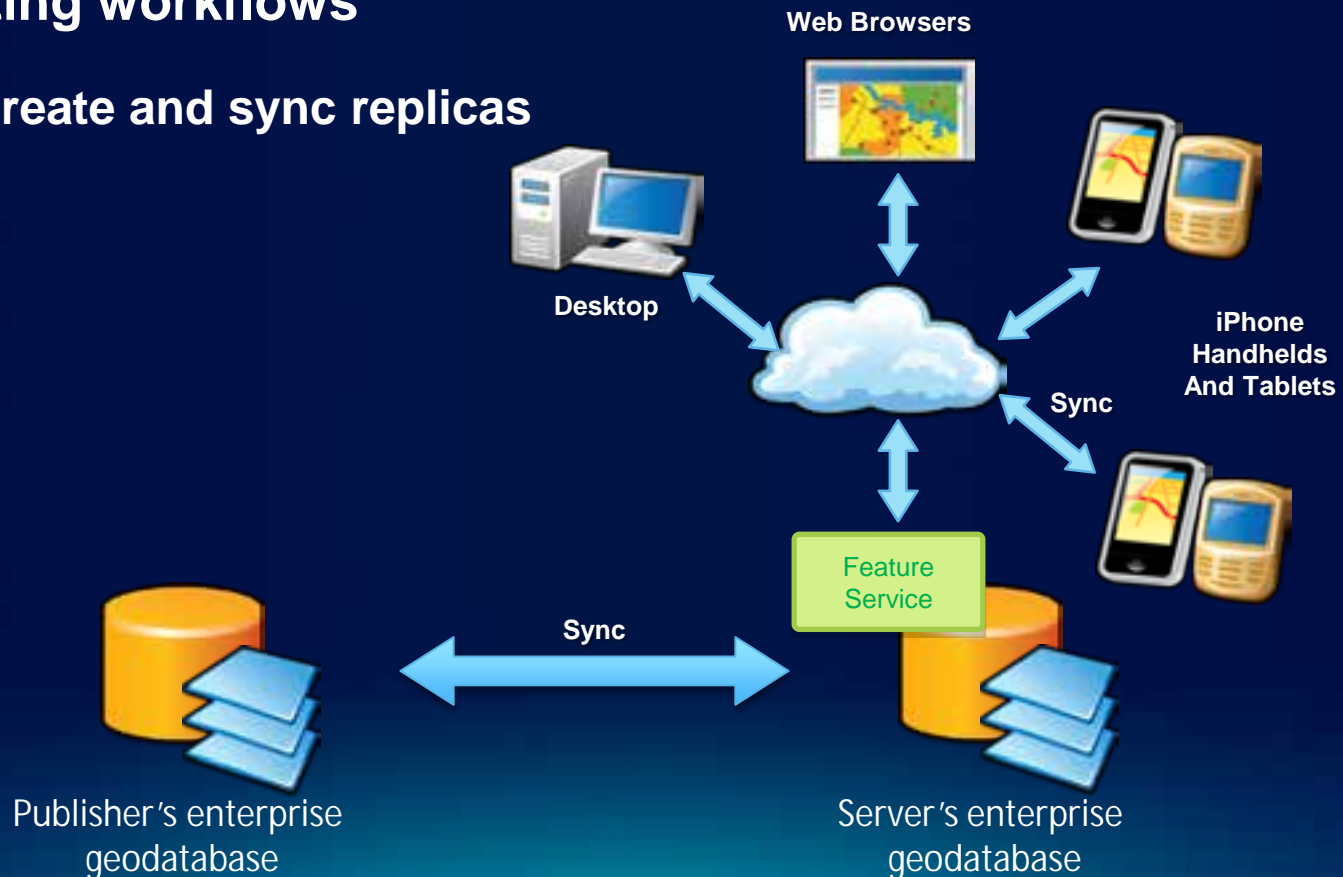


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Disconnected Editing API (REST)

- New operations at 10.1 to support Disconnected editing workflows
 - Create and sync replicas

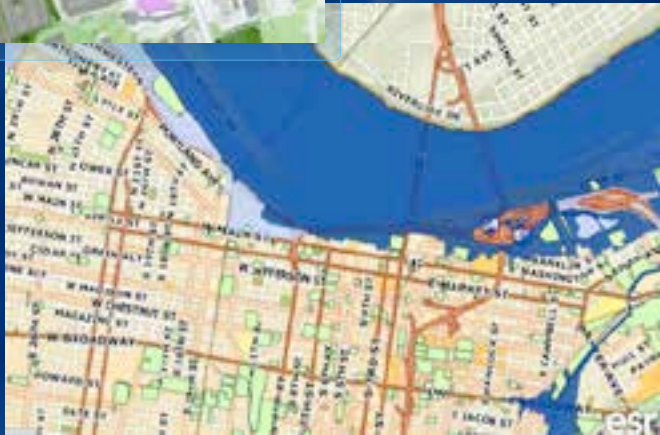


Disconnected Editing API

- **Runtime for desktop and mobile are building an API that consumes the feature services disconnected editing REST operations**
- **Recommended**



DEMO: Feature service disconnected editing API



Additional Resources

- **Technical Sessions:**
 - **Building Web Editing Applications with ArcGIS 10.1 for Server**
 - Wed 10:30 am Primrose C/D
 - Thurs 3:15 pm Primrose C/D
- **Help documentation**
 - [Feature services](#)
 - [Geodata services](#)
 - [Replication](#)
 - [Versioning](#)

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