

# Digital Twins built on **NVIDIA** Omniverse



# About UrsaLeo

- SF based startup creating digital twins since 2019, with Unity Web GL
- August 2023, moved to Omniverse
- Now twins are streamed from NVIDIA Graphic Delivery Network (GDN)



# Why Omniverse / GDN?

We wanted to:

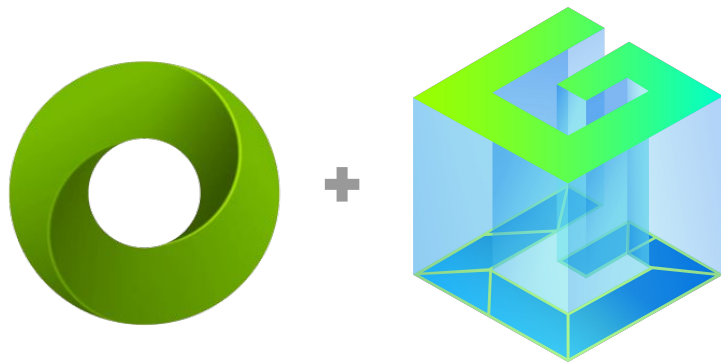
- Use the Universal Scene Descriptor (USD) 3D structure
- Render in the cloud to remove end device hardware requirements
- Deliver the product in a web browser
- Remove any file size limitations so we can render very large scenes
- Secure great graphical ray traced performance



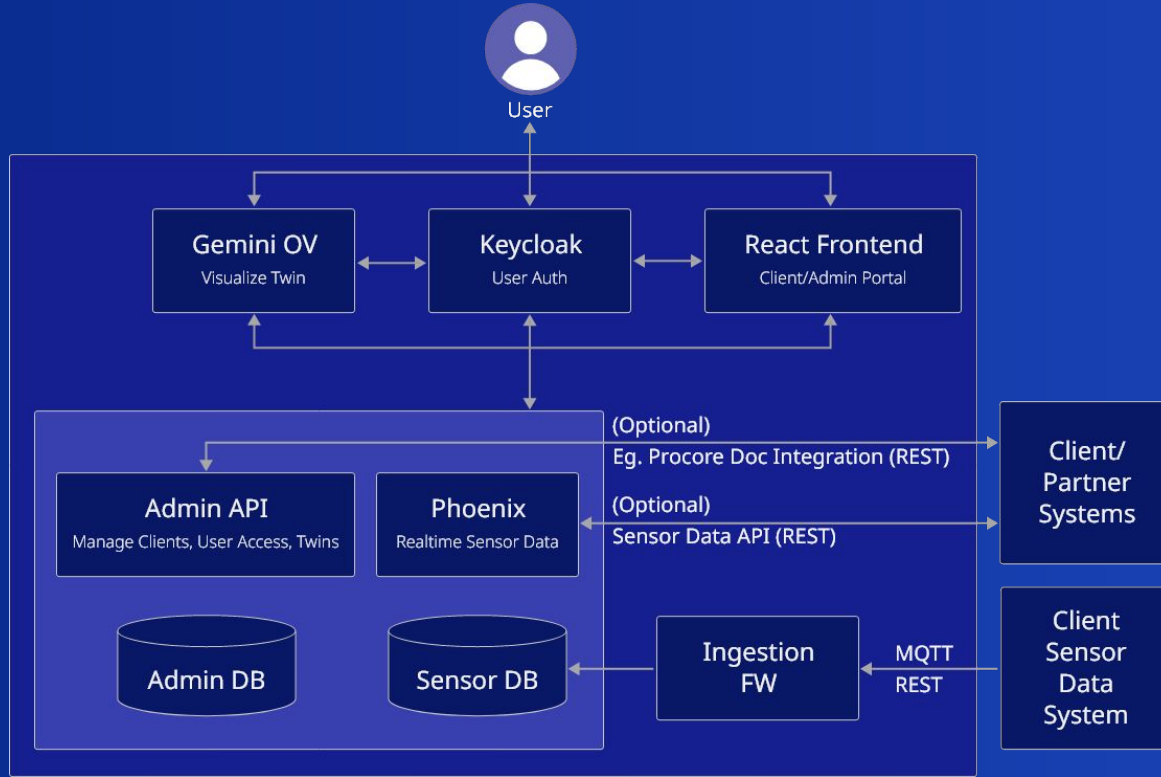
**NVIDIA  
OMNIVERSE™**

# Why Gemini OV Platform?

- Omniverse has steep learning curve
- Our platform make it accessible to everyone
- Once introduced, we have already seen customers use NVIDIA simulation tools as a result



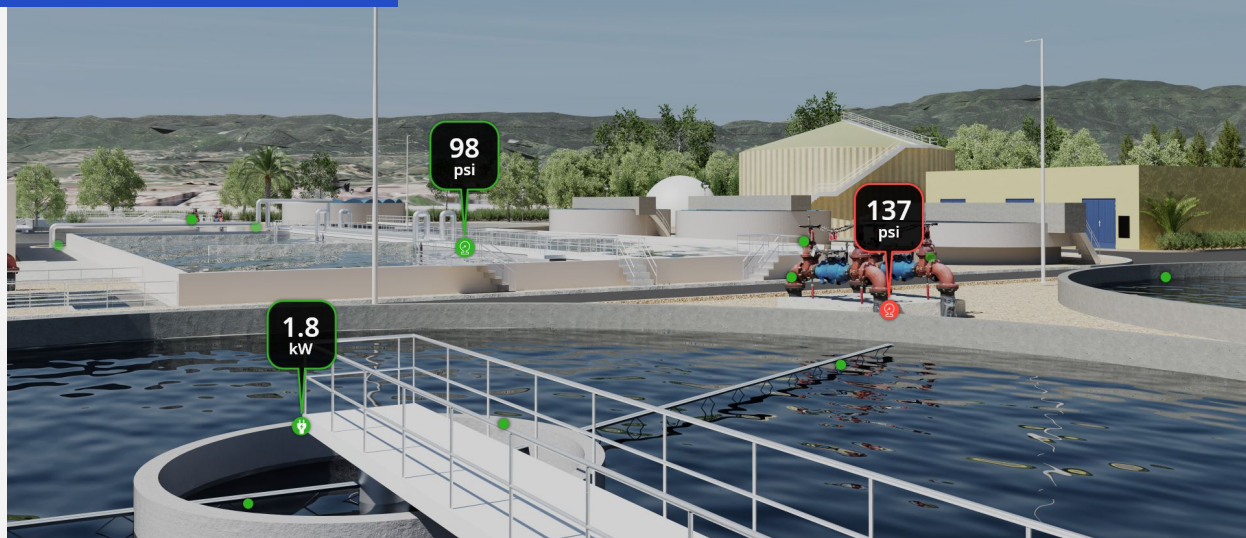
# AWS / Azure / GCP Based Backend



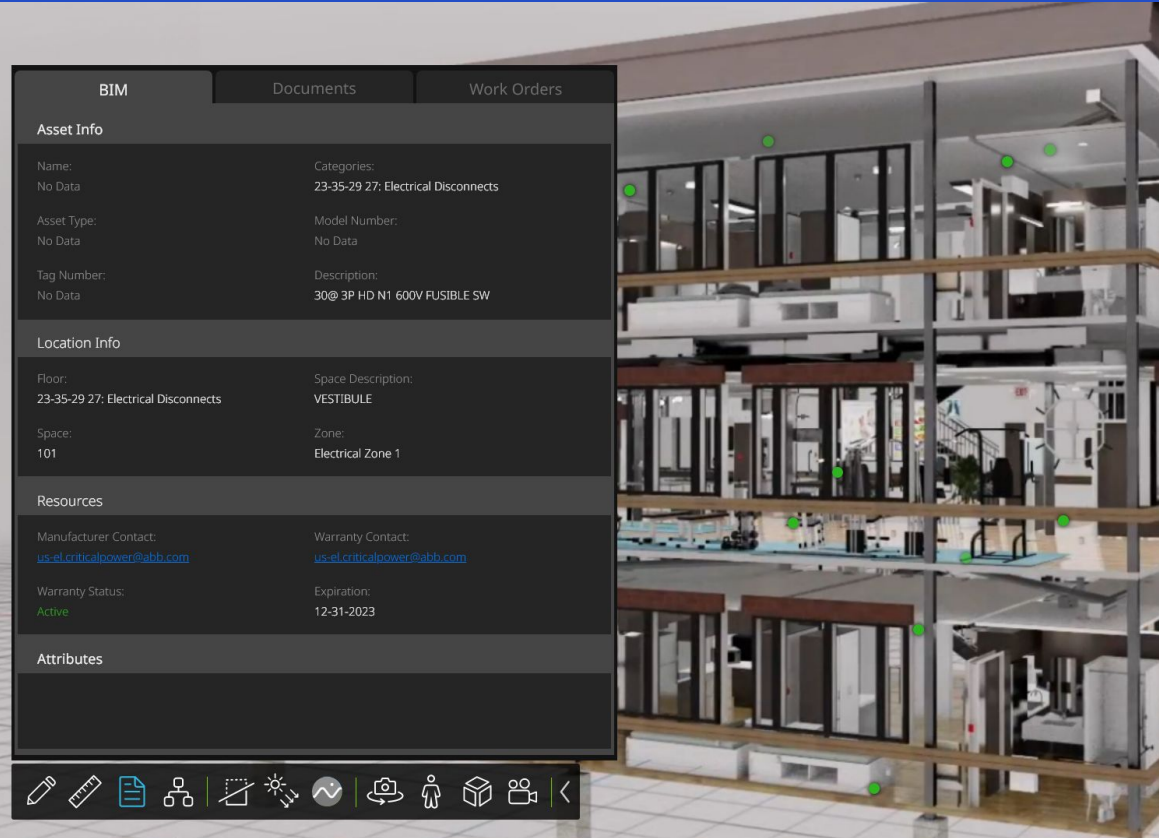
- Customers login to public cloud and select twin
- Cloud authorizes twin with GDN and streams to customer's browser
- Backend has interfaces for incoming sensor data
- Backend has a robust API to communicate with 3rd party systems

# A Complete IoT / BMS Platform

- Data ingestion directly from sensors
- Graphs and charts can be displayed alongside the twin
- Integrate with 3rd party systems
- Use UrsaLeo IoT / BMS or an external IoT / BMS



# Back end Integration with 3rd Party Systems



- Document management
- Asset Management
- Maintenance Systems
- Analytics



# Beta Customer: Volpatt Construction



- Pittsburgh based construction company
- Project is a Veterans housing development
- Evolver created the USD file from 3 Revit CAD files
- Gemini will be used through building construction and beyond



# A short demonstration

# Getting started with Gemini

1. Provide CAD
2. Work with us on integration

That's it!



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FOR MORE INFO OR TO SCHEDULE A FULL DEMO, CONTACT:

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