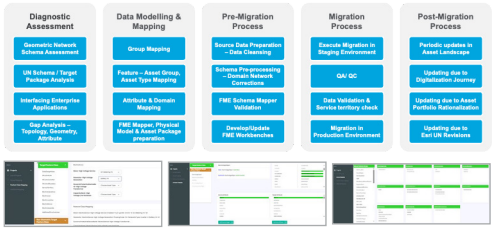
CYIENT | Nothing Less

Digital twin for utilities

Level-1: Digital data twin



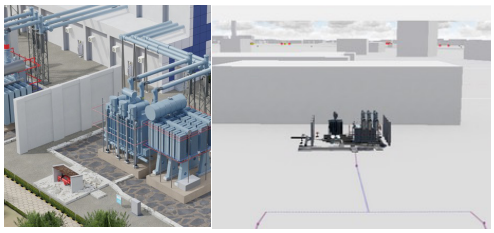
- Creating real world assets in digital format on Esri ArcGIS platform
- Migration of legacy utility network data to Esri UN model
- Process of UN migration using proprietary software **UN Bridge**
  - Pre-Assessment: Clean and authenticated legacy utility data for migration
  - Data modelling: Esri unified UN model and modifications as per need
  - Pre-migration: mapping of legacy utility data with Esri UN model
  - Migration: migration of legacy utility data to Esri UN environment
  - Post-migration: post migration check on rules, associations and topologies

Level-2: Component twin



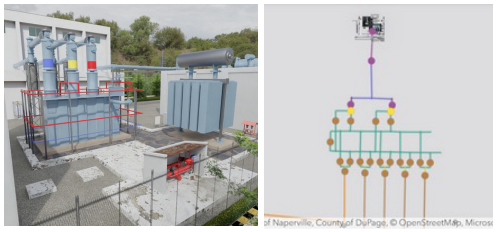
- Development of 3D model of components using cloudworxplatform
- Linking components with larger critical assets
- Linking critical components with sensors / IoTs
- Recording of historical data of components
- AI analysis on historical data for predictions
- Alerts for proactive actions

Level-3: Asset twin



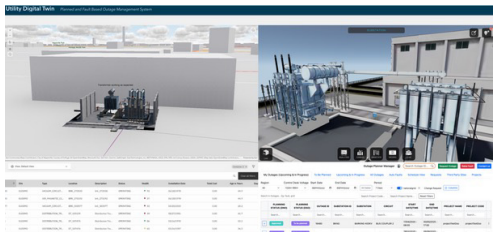
- Export 3D models to ArcGIS Enterprise platform
- Integrations of alerts and component status with Esri ArcGIS enterprise
- Integration of 3D models with Esri utility network
- Based on 3D alerts stimulate actions like impact on outage, location and customer impacts
- Visual analysis on map for outage impacts
- Generate trace networks and reports on ArcGIS UN platform
- Collect information of faulty assets / planned shutdown

Level-4: System twin



- Esri Integration with servicenow work order management
  - Provide location and asset information to work order management platform
  - generate work order
  - Update workorder information to Esri ArcGIS platform
- Esri Integration with network vision outage management system
  - Outage due to planned maintenance vs faulty assets
  - Record all related information on outage like asset location, impacted area, customers, traces
  - Disseminate the information/reports with 3rd parties including customers, contractors, dependent divisions

Level-5: Operational twin



- Enhanced network visibility
  Esri arcgis platform
- 3D and real-time monitoring and detection
  cloudworx cognitive digital twin platform
- Reduced downtime and improved reliability
  servicenow asset & work order management system
- Data analytics and reporting
  network vision outage planning & information system

= **Enhanced customer satisfaction**

Why cyient?

With decades of engineering experience and deep utility domain expertise, Cyient brings together proven platforms like Esri, Cloudworx, and ServiceNow into a cohesive, outcome-driven solution. Our robust Digital twin framework doesn't just visualize the grid—it empowers smarter, faster, and predictive operations across it.

Digital twin intelligence starts here!

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Souvik Bhattacharya
Sr. Director –
geospatial services & strategic partnerships
M: +1 678-429-8264
E: souvik.bhattacharya@cyient.com
linkedin.com/in/souvik3



Sanjiv Dhupkar
Sr. Director –
gis enterprise applications
M: +91 9818159088
E: sanjivmadhukar.dhupkar@cyient.com
linkedin.com/in/sanjiv-dhupkar

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