

CYIENT

SMARTER OUTAGE MANAGEMENT, POWERED BY CYIENT AND CLOUDWORX

Next-gen Digital Twin Platform to Transform your Utility Operations

Business Challenge

Utilities face increasing pressure to modernize outage management while balancing reliability, cost, and customer expectations. Disconnected systems, siloed asset data, and manual processes limit operational visibility and delay restoration efforts.

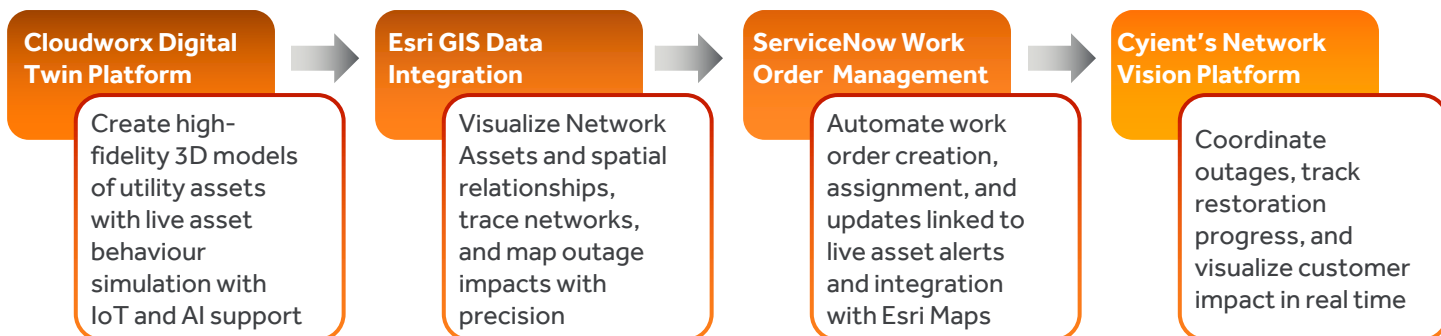
In critical nodes like substations, even a minor failure can escalate into widespread disruption—highlighting the need for an integrated, real-time approach to outage response.

The Cyient Solution

Cyient OMS Framework Powered by Cloudworx

Cyient integrates best-in-class platforms to deliver a unified, intelligent outage management system—engineered for real-time utility operations.

What powers the solution?



This comprehensive solution empowers utilities to shift from reactive response to predictive, coordinated operations—enabling end-to-end visibility, faster restoration, and improved customer experience across the grid.

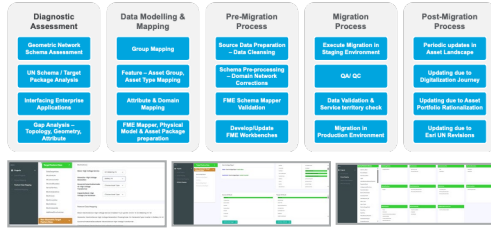
Unlocking Grid Intelligence

The 5 Levels of Digital Twin Maturity for Utilities

Cyient's Digital Twin framework empowers utilities to move from static asset mapping to real-time, predictive grid operations. Each level unlocks deeper visibility, automation, and control—driving faster outage response, smarter maintenance, and enhanced customer satisfaction.

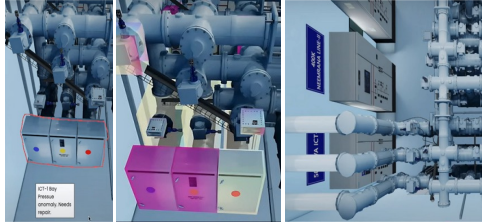
Outage Management & Information Systems

LEVEL-1: DIGITAL DATA TWIN



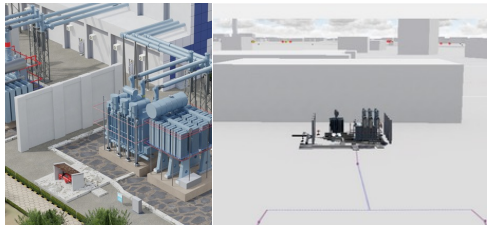
- Creating real world assets in digital format on Esri ArcGIS platform
- Migration of legacy utility network data to Esri UN model
- Process of UN migration using proprietary software **UN Bridge**
 - Pre-Assessment: Clean and authenticated legacy utility data for migration
 - Data Modelling: Esri unified 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 Cloudworx platform
- 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



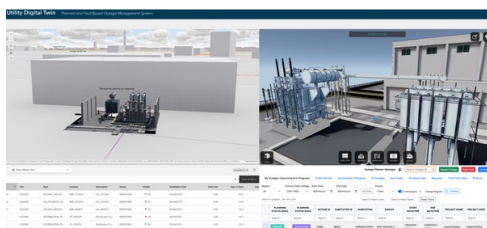
- Export 3D models to ArcGIS Enterprise platform
- Integrations of alerts and component status with Esri ArcGIS enterprise
- Integration of 3D models with Esri Utility Network
- Based on 3D alerts – stimulate actions like impact on outage, location and customer impacts
- Visual analysis on map for outage 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 Cloudworx, Esri, and ServiceNow into a cohesive, outcome-driven solution. Our robust OMS Framework doesn't just visualize the grid—it empowers smarter, faster, and predictive operations across it.

Smarter outage management starts here!

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