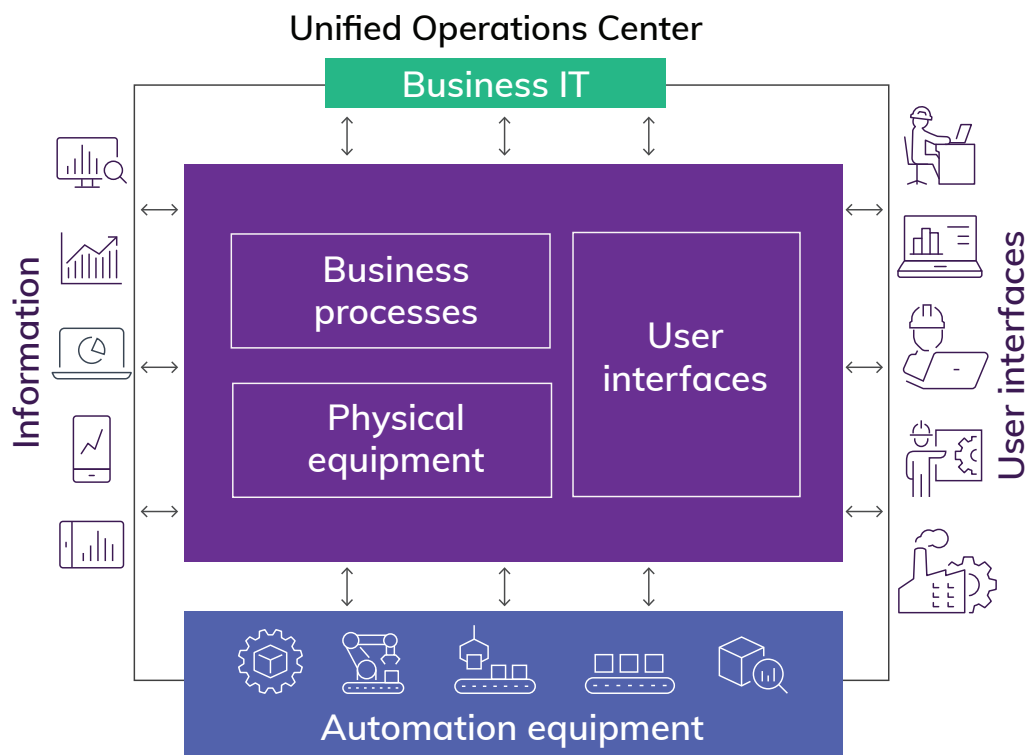


BROCHURE

AVEVA™ Unified Operations Center

AVEVA Unified Operations Center is the foundation for real-time operational performance management for infrastructure and process industry companies providing closed-loop enterprise-wide visibility to optimize assets and operations.



Foundation for real-time operational performance management

Unified Operations Center provides the means to measure, assess and communicate operational performance in near real-time for Process Industries (Oil & Gas) and Smart Cities and Data Center markets.

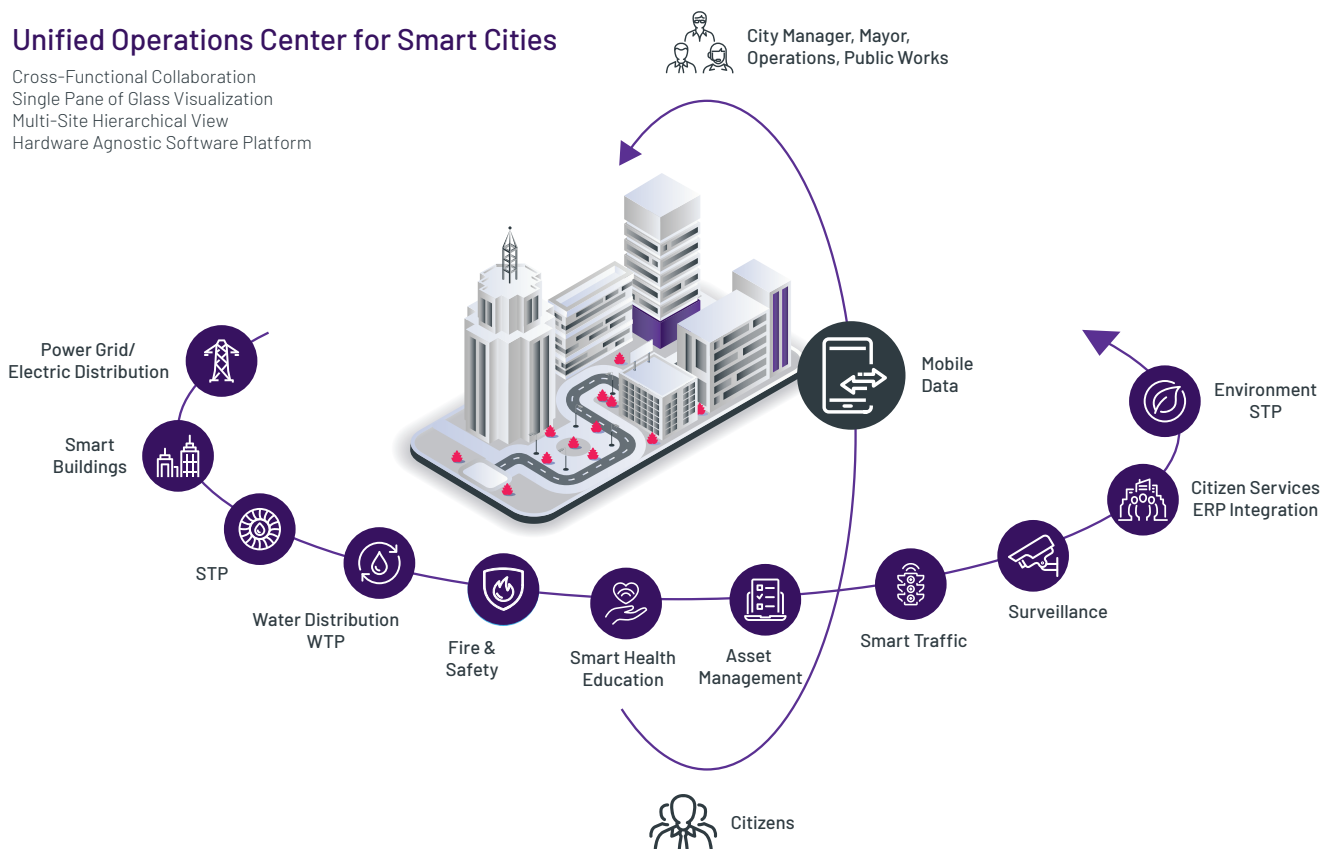
Unified Operations Center provides the measurement and reporting capability by monitoring, communicating and tracking KPIs. Operational measures such as yield, throughput, utilization and energy usage can be calculated from the plant level down to the asset level. It further enables a meaningful comparison of performance across multiple sites and departments, ability define and receive alerts on gap conditions, and the ability generate operator logs and shift reports that explain events as performance deviations.

Key benefits:

- **Increase bottom line profitability** – Operational visibility of non-financial metrics across multiple sites located globally. Monitors the measures that impact the business such as production (plant utilization) to energy consumption.
- **Improved asset performance** – Early identification of complex linkages and inter-dependencies that shape asset performance such as equipment maintenance start and stop times and unplanned downtime.
- **Increase efficiency** – Clear, effective communication of critical plant information through on-demand reporting and dashboards among operators and managers at shift handovers and morning meetings. Eliminates the delay of “spreadsheet based” reporting of non-financial metrics.
- **Fosters continuous improvement initiatives** – Greater insights that drive strategic decisions such as resource planning and better work processes across functional groups such as Safety, Maintenance, and Planning. Alignment of individual and group level goals with business objectives that provides relevant actionable information.

Unified Operations Center for Smart Cities

Cross-Functional Collaboration
Single Pane of Glass Visualization
Multi-Site Hierarchical View
Hardware Agnostic Software Platform



Our customers achieved the following value metrics by implementing Unified Operations Center:



Increase operational efficiency

through improved collaboration and improved decision support by visualizing all available data in context



Increase profitability

through business integration and reduction of energy consumption



Increase availability

in preventative maintenance and technical engineering services costs

A unified platform for your Digital Transformation

Unified Operations Center integrates IT and OT applications with industry-specific capabilities, greatly reducing implementation time.

Built on the scalable, proven AVEVA™ System Platform, formerly Wonderware, the solution provides out of the box industry solution templates, reports, dashboards and operational KPIs unifying all available data from Operations, Process, Engineering, Maintenance and Finance in context, enabling increased situational awareness.

The solution leverages existing data locked in enterprise and operational systems to enable “fact-based” decisions. AVEVA Unified Operations Center is based on a “Systems of Systems” approach. This means you can plug-in and integrate apps, predictive analytics, CCTV video, GIS maps, ERP systems,



Unified Operations Center turns data into actionable information contextualizing 3D Engineering design with real-time Process data

Integrated application modules for enterprise collaboration

Engineering P&ID diagrams and more.

Unified Operations Center provides an enhanced layer of intelligence ensuring that an organization's data works in service to organizational goals. Unified Operations Center consists of industry specific modules.

For reference, here are modules tied to Unified Operations Center for O&G:

Management module

- Enterprise-wide visibility - provide effective operational monitoring at corporate headquarters and subsidiary levels of the organization with target versus actual performance analysis
- Real-time decision support – understand inter-dependencies by unlocking data stored in disparate systems with insights of how operations activities impact on business (demand, capacity, cost)
- Management of Change (MOC) analysis by capex and opex costs and project schedule

Operations & Maintenance (O&M) module

- Respond rapidly to unplanned downtime or crisis situations by leveraging engineering P&ID and 3D design in its real-time, operational context
- Eliminate human error and manual processes with automated workflows, such as automatic work orders, and easily access standardized operating procedures
- Improve collaboration using improved shift handovers and operator log books

Asset management module

- Predictive Asset Maintenance – detect defects, root cause, down-time and deviations
- Optimise plant throughput and asset utilization using what-if analysis scenarios, and modeling of process and equipment parameters
- Improve profit margins and reduce energy with energy consumption analysis by equipment
- Enterprise Visibility (centralized command and control wall monitors)



Integrated collaboration based on Unified Operations Center for O&G



Features

- Executive web-based KPIs/dashboards/charts providing live real time reporting
- Automated Workflow Collaboration across Teams - Reducing response time for crisis/analyzing situation or managing complex standard operating procedures (SOP)
- Automated anomaly detection of historian data using machine learning algorithms
- Enterprise architecture proven to support large scale, multi-sites deployments
- Role-based security built on Microsoft Windows Active Directory
- Integration with SAP ERP system for access to enterprise transactional data and initiating workflows and communications
- Bi-direction integration with leading Historians (PI, PHD, IP.21) for access to “live” process data
- Mobile Operators Monitoring & Control Capability
- Ease of Engineering, Centralized Deployment, and Maintenance without system downtime

Industry use cases

AVEVA's Unified Operations Center addresses several use cases across industries, such as Oil & Gas, Infrastructure and Smart Cities, and Mining.



Oil & Gas:
Edge-to-Enterprise
visibility

Gain real-time visibility of processes, proactively resolve abnormal events, and prevent disruption of production through a single pane of glass.



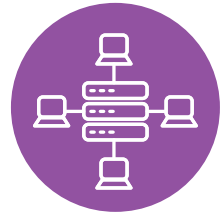
Smart Cities and Infrastructure:
manage complex operating
procedures and resolve
crises quickly

Manage complex Standard Operating Procedures, reduce response times to crises, and troubleshoot problems effectively with integrated command and control of critical infrastructure, buildings, airports, bridges, tunnels and railways.



Mining:
Optimize business
processes

Optimize work processes to reduce energy and production loss, streamline shift handovers and generate automated work orders.



Data Centers:
Drive efficiency and uptime
across complex operations

Manage complexity across multiple sites and systems, maintain uptime supporting service level agreements and managing costs tied to energy, water, workforce efficiency and sustainability.

For more information on Unified Operations Center, please visit:
aveva.com/en/products/unified-operations-center