



CUSTOMER CASE STUDY

Kohima Smart City reduces civic energy use by 20% with AVEVA's Unified Operations Center

Kohima Smart City - www.kohimasmartcity.com

Industry - Infrastructure | Smart Cities

Goals

- Deliver on Kohima's vision of fostering innovative, sustainable, and resilient community-led development, while becoming a regional hub for tourism and transit
- Centralize and improve the energy efficiency of the city including surveillance, traffic management, e-assets / data hubs, environment monitoring, and street lighting applications
- Improve the quality of life and civic services for the city's 290,000+ residents

Challenges

- Lack of insight and transparency into disparate municipality services and applications
- Lack of consolidated data, impacting response time for service personnel and residents and contributing to costly system downtime and maintenance impacts
- Bolstering city resilience and improving utilization, while ensuring management of the city's physical and environmental resources

Solution

- AVEVA™ Unified Operations Center

Results

- Energy savings of approximately 20% for the city as a result of an integrated technology platform
- An increase in operational efficiency of approximately 40%, with several critical civic service KPIs and notifications enabling teams to take corrective preventive action
- Time to market sped up by 3 months, with the solution helping to ensure the project was designed and deployed ahead of time



Kohima, smart city

Kohima is the capital city of India's north eastern state of Nagaland and, with a growing population of almost 300,000, is the second largest city in the state. The city lies on the foothills of the Japfü mountain range, an area renowned for its raw natural beauty, ethnic diversity, and biodiversity, as well as increasing popularity as a tourism destination. The city was the site of one of the most valiant battles of World War II and, as such, is also a city of rich historical significance and cultural heritage – as well as being one of 100 cities recognized in India's Smart City Mission.

Indian Smart Cities Mission

With a backing of \$13 billion, the Indian Smart Cities Mission was launched by the Indian government in 2015. Its focus is supporting investments in technology to drive sustainable, economic, and urban growth for 100 model cities around the country. Successful cities such as Kohima were selected following completion of the countrywide Smart Cities challenge, in which entrants imagined their ideal future and created a roadmap for harnessing the potential of data to increase quality of life and address complex urban and environmental challenges.

Kohima sets a new standard in digital acceleration and innovation

In fostering innovative, sustainable, and resilient development for the city, Kohima worked with AVEVA to develop an Integrated Cross-city Command Centre (ICCC) and technology platform, comprising a range of IOE (Internet of Everything), AI (artificial intelligence), and IOT (Internet of Things) solutions to centralize and optimize energy-efficient sustainable management of the city, as well as improve the efficiency of its smart solutions.

“We would like to congratulate the entire AVEVA team who worked on the Integrated Command Center platform integration and implementation for Kohima Smart City. The team has done a commendable job on the platform UI and design and we are extremely pleased with the team's expertise and dedication to ensure the project was completed well on time.”

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Chris Tetso

PMP Project Manager, Kohima Smart City

AVEVA's Unified Operations Center smart city template is the digital backbone of the command center. It helps the city realize sustainable improvements in energy efficiency and quality of life, with controlled city traffic, smart street lighting, city pollution monitoring and control, smart surveillance, and a Wi-Fi enabled community notification service.

The city's multiple subsystems are integrated, monitored, and controlled from a central location by leveraging AVEVA's Unified Operations Center template, which provides end-to-end visibility and optimizes operations, all while mitigating costly system downtime, reducing maintenance call outs, and enhancing civic life for the city's expanding population.

Kohima's integrated Unified Operations Center interface

Key to the deployment was the simple-to-use Graphical User Interface (GUI), which helped ensure multiple data sources were consolidated in real time and shared with multi-site teams. The GUI also provided transparency into critical KPIs by identifying incidents and tracking them to closure, giving remote teams the ability to monitor data on mobile devices and take timely corrective action.

A system-of-systems approach revolutionizes city and civic management

Based on a systems-of-systems approach, AVEVA's Unified Operations Center amalgamates both process and non-process information sources including HMI/SCADA, analytics, cameras, GIS maps, and ERP systems. As a result, disparate teams can more easily collaborate in real time, thereby enhancing business agility and response times, while ensuring optimum management and efficiency of critical resources.

For Kohima, as a result of the Unified Operations Center installation consolidating a multitude of civic application inputs, the team realized new levels of efficiency, including:

- Energy savings of approximately 20% for the city as a result of the integrated ICCC technology platform.
 - Automated smart street lights, buildings, and other civic sites with integrated set points and thresholds allowed the team to manage and minimize city energy consumption.
- Operational efficiency increased by approximately 40%, with several critical civic service KPIs and notifications enabling teams to take immediate corrective preventive action.
 - Integration of several city-level KPIs and critical incident management with workflows and notifications enables city administrators to mitigate potential risk to the community with timely corrective action.
 - Maintenance and call out times and costs were reduced, with teams able to better predict asset issues and maintenance requirements in advance.
- Time to market was improved by 3 months, with the solution helping ensure the project was designed and deployed ahead of time.
 - The Unified Operations Center template helped to ensure the solution was designed and deployed quicker than originally forecasted, while avoiding extended implementation and manual interventions.



Leveraging a blueprint in sustainable smart city innovation

Kohima aims to leverage its new ICCC platform and geo-strategic location to foster continued sustainable, resilient community-led smart city innovation, acting as a regional hub for tourism and transit, while preserving its natural and cultural assets.

Further civic developments planned include the rejuvenation of the cityscape and continued transformation of Kohima into a more tourist-friendly city by creating pedestrian walkways, giving a facelift to city façades, upgrading local sports complexes, and building new attractive bazaars, open spaces, and recreational areas.

Kohima also plans to develop a city center in the heart of the city, which will include world-class amenities, including a hotel, state-of-the-art shopping center, sports complex, multi-level car parking, digital library, roof top cafes, and community amphitheater.

Thanks to the overwhelming success of the project, other Indian cities are looking to replicate Kohima's results.

As part of the Indian Smart Cities Mission, other cities, including the southern city of Namchi, will apply the Smart City Integrated Command Center solution to their own Smart City plans and aspirations – where it will similarly help to set a new standard in sustainable civic innovation, while enhancing the quality of life and wellbeing of citizens.

AVEVA Unified Operations Center is the foundation for real-time operational performance management for infrastructure and process industry organizations providing closed-loop enterprise-wide visibility to optimize assets and operations. Empower the whole team with a centralized view to help make informed decisions, fast.

Unified Operations Center provides an enhanced layer of intelligence ensuring that data works in service to organizational goals. Engineering, Operations and Performance measures can be calculated from the site level down to the asset level. This brings end-to-end operational visibility across facilities helping you improve safety, operational efficiency, and ultimately the profit margins of your business.

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