



CUSTOMER CASE STUDY

AVEVA Unified Operations Center drives 20% higher energy efficiency at the smart city of Namchi, India

Namchi Smart City - <https://smartcities.gov.in/node/136>
 Industry - Infrastructure | Smart Cities

Goals

- Use smart technology for sustainable improvements in municipality services
- Augment and retrofit the existing city infrastructure to conserve energy
- Create a more inclusive city, driving economic growth and local development

Challenges

- Lack of insight into disparate municipality services and applications
- Lack of real-time, consolidated data impacting decision-making
- Slow incident response time for service personnel contributing to costly downtime

Solution

- AVEVA™ Unified Operations Center

Results

- Energy savings of approximately 20% for the city
- Increase in operational efficiency by approximately 40%
- Early deployment and faster time-to-market by three months

Namchi, smart city

Namchi, which means “sky-high” in Sikkimese, is nestled among the hills of Sikkim in northeast India and is the second most populated district of the state. At an elevation of 5500 feet, the city has commanding panoramic views of the snow-capped mountains and vast stretches of rolling hills below. It attracts flocks of visitors who come for the unmatched views of the Rangeet valley and the Kanchenjunga, the third-highest mountain in the world. Namchi is also one of 100 cities recognized in India’s Smart City Mission.

Indian Smart Cities initiative

With US \$13 billion in backing, the Indian Smart Cities Mission was launched by the Indian Government in 2015, focused on supporting investments in technology to drive sustainable, economic, and urban growth for 100 model cities around the country. Successful cities such as Namchi were selected following completion of the country-wide Smart Cities challenge, where entrants are invited to envision how they foresee harnessing the potential of data to increase the quality of life and address complex urban and environmental challenges.

Namchi sets a new standard in digital acceleration and innovation

To foster innovative, sustainable, and resilient development for the city, Namchi worked with AVEVA to develop an Integrated Cross-city Command Centre (ICCC) and technology platform, comprising a range of internet of everything (IoE), artificial intelligence (AI), and internet of things (IoT) solutions to centralize and optimize energy-efficient sustainable management of the city.

AVEVA’s Unified Operations Center smart city template is the digital backbone of the ICCC, helping 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 in a central location leveraging AVEVA’s Unified Operations Center template.

This helps provide end-to-end visibility for the city and optimize critical infrastructure use while mitigating costly system downtime, optimizing energy resources, and reducing maintenance call-outs. Equally important was the enhancement of civic life and wellbeing for the city’s expanding population.

Key to the deployment was the simple to use Graphical User Interface, which helped ensure multiple data sources were consolidated in real time and shared with multi-site teams. It also ensured transparency into critical KPIs, so incidents are identified and tracked to closure. Remote teams are able to monitor data on mobile devices and take timely corrective action.

Greater insight into critical city infrastructure and assets is also instrumental in the project’s success, helping ensure their longevity, reliability, and optimum usage rates. AVEVA also worked with technology partner, Krystal Integrated Systems, and a variety of OEMs on the deployment of the project.

“We are extremely excited to be working with AVEVA to set a new standard in smart city innovation. The Integrated Command Center will allow us to revolutionize our civic management, optimize energy usage and improve the quality of life for our citizens.”

- **Nagaraju Mamillapalli**

Krystal Integrated Systems Pvt Ltd, Namchi Smart City



A System of Systems approach revolutionizes city and civic management

Based on a “Systems of Systems” approach, AVEVA Unified Operations Center brings together 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, enhancing business agility and response times, while ensuring optimum management and efficiency of critical resources.

For Namchi, because the Unified Operations Center installation consolidated a multitude of civic and field application inputs, the team realized new levels of efficiency, including:

- Increase in operational efficiency by approximately 40%, with several critical civic service KPIs and notifications enabling teams to take immediate corrective preventive action
 - By integrating multiple level KPIs, notifications, and incident management within workflows, the solution enables city administrators to mitigate potential risk to the community with timely corrective action.
 - Maintenance and call-out times and costs were also drastically reduced, with teams able to better predict asset issues and maintenance requirements in advance.
- Energy savings of approximately 20%
 - With automated smart street lights, buildings, and other civic sites with integrated set points and thresholds, the team managed and minimized city energy consumption.
- Faster time-to-market by three months
 - The Unified Operations Center template ensured 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

Namchi is now an ecologically responsible and a vibrant community supported by a robust local economy and a cosmopolitan culture, offering an enviable lifestyle and quality of life for its citizens and tourists alike. Alongside ongoing efficient and effective civic governance through the ICCC, the city is focusing on continued innovation and economic regeneration by promoting a tourism-based economy and creating sports- and adventure-tourism assets. Namchi strives to provide enhanced physical infrastructure and civic services, while continuing to protect its ecological significance and optimize the potential of its precious renewable energy sources.

Namchi's Smart City Integrated Command Center solution is now being replicated in similar smart infrastructure projects throughout India, where it is helping to set a new standard in sustainable civic innovation while enhancing the quality of life and well-being of its 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.