



# ASTRIKOS.AI

## CASE STUDIES





## ABOUT US

Since 2018, Astrikos has built trust in smart infrastructure, partnering with Schneider Electric, Hexagon, TechM, AVEVA, and DELL to drive transformation

Innovative Solutions: We offer cutting-edge Centralized Intelligent Operational platforms like:

- **Omnific Smart City Management**
- **Cognus Data Centre Optimization**
- **Kolaz Smart Campus Solutions**
- **Mazzant I2MIS, Predictive Insights**
- **KIM Industry 4.0 Intelligence**

Proven credentials across PAN-India, ASEAN, MENA and North America in redefining smart infrastructure.



**Chinmay Hegde**



**Suresh Eswar Bulusu**



**Sunil Dutt**



**Chandrashekar SK**



**Sudarshan Simhan**



**Ali Sadhik Shaik**

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## CERTIFICATIONS & COMPLIANCE

ISO 20001-1 : 2018

ISO/IEC 21823-1 : 2019

ISO 22320 : 2018

ISO 37120 : 2018

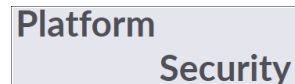
ISO 37122 : 2019

ISO 9001 : 2015

ISO 14001 : 2015

ISO/IEC 27001 : 2013

ISO/IEC 27034-1 : 2011



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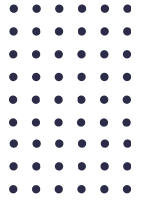
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# ASTRIKOS HELPS YOU IN



INCREASE IN REVENUE  
GROWTH

 **30%**

INCREASE IN PLANNING  
EFFICIENCY

 **20-25%**

REDUCTION IN  
EXPENSES

 **25-30%**

REDUCTION IN ENERGY  
SPEND

 **8-12%**



IMPROVEMENT  
IN OPERATIONS

 **4x**

COLLECTIVE PROCESS  
IMPROVEMENTS

 **70%**

REDUCTION IN TOTAL  
TROUBLED TICKETS

 **40%**

BENCHMARK YOUR  
FORECAST

 **12 Months**

## OUR CREDENTIALS

**5**

PRODUCTS

**35+**

ACCOUNTS  
TILL DATE

**10+**

SMART CITIES

**3**

DATA CENTERS

**4**

GEOGRAPHIES

**13**

CHANNEL  
PARTNERS



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# Agentic AI Platform for Intelligent Operations

## One Platform. Infinite Possibilities.

AI-powered insights and actions across key industries.

**SIAP (Smart Inter-op Analytical Platform)** is the AI-powered foundation for real-time data integration, analytics, and predictive intelligence.

**SIA (Agentic AI)** is the conversational, intelligent layer that turns insights into decisions and actions.



### SIA Agentic AI Layer

Conversational AI · Predictive Insights · Recommendations · Autonomous Actions

- Natural Language Interaction
- Real-time Analytics & Predictions
- Intelligent Insights & Recommendations
- Automated Actions & Workflows

Floor	Room	Room Name	Occupancy	Temperature	Humidity
Floor 1	01	101	10	22	60
Floor 1	02	201	15	23	65
Floor 2	01	301	20	24	70
Floor 2	02	401	25	25	75



### SIAP Data + Intelligence Foundation

Secure | Scalable | Interoperable | Cloud / On-Prem

- Data Integration Layer:** Connect. Ingest. Normalize. (IoT Sensors, APIs & Systems, SCADA / Video, Enterprise Apps)
- Analytics & AI Engine:** Analyze. Predict. Optimize. (25+ Prebuilt ML Models, Real-time Stream Processing, AI/ML Training, Anomaly Detection & Forecasting)
- Visualization & Digital Twin:** Visualize. Simulate. Act. (KPI Dashboards, Digital 3D Views, Reports & Alerts, What-if Analysis & Simulation)

### Outcomes That Matter

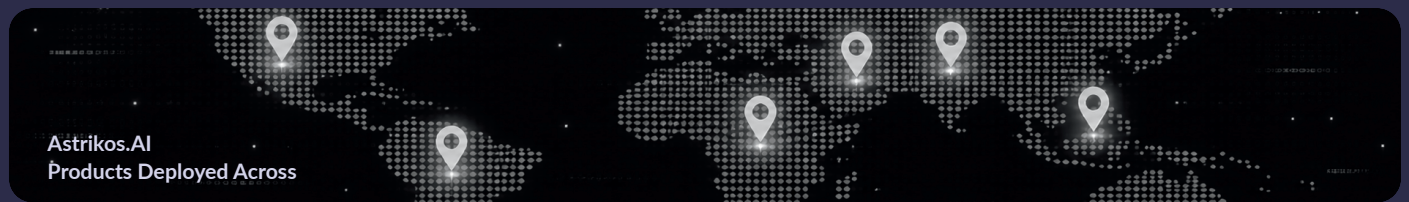
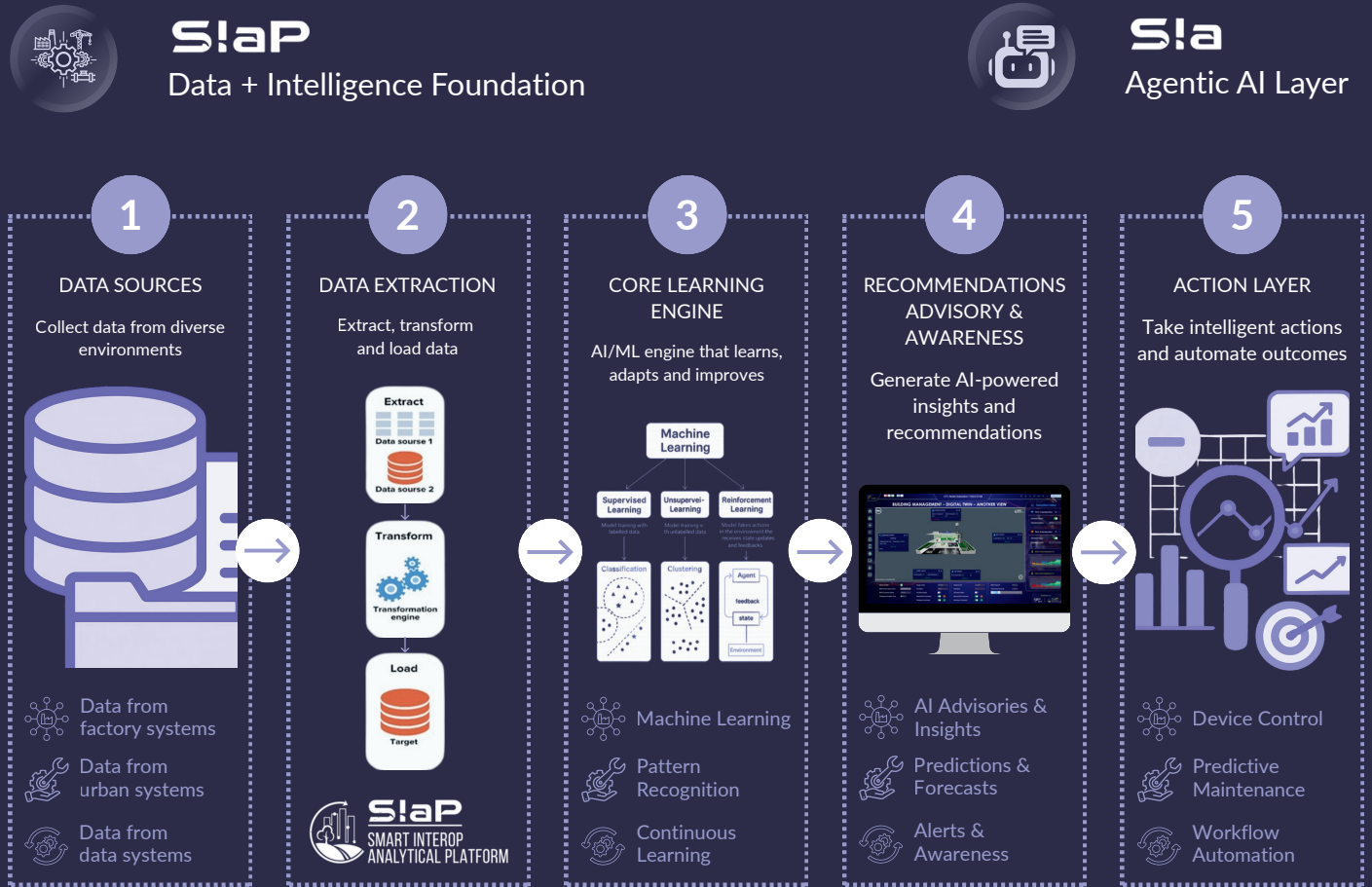
- Faster Decisions:** Act in real-time
- Operational Excellence:** Improve efficiency & uptime
- Cost Optimization:** Reduce waste & OPEX
- Risk Mitigation:** Proactive alerts & compliance
- Sustainability:** Energy & resource efficiency

INTELLIGENT SYSTEMS. SUSTAINABLE IMPACT.

# ASTRIKOS.AI PLATFORM HOW IT WORKS



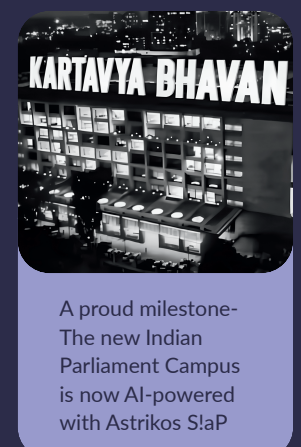
An end-to-end AI platform that connects data, intelligence and actions to drive real-world impact.



## TRUSTED BY LEADING CLIENTS



## AWARDS & RECOGNITION



# SCHNEIDER NEST DUBAI - AGENTIC ARTIFICIAL INTELLIGENCE PLATFORM FOR BUILDING AND CAMPUS MANAGEMENT



Enabling Autonomous Building Operations with Agentic AI

Case Study







## PROBLEM STATEMENT

Modern enterprise facilities like Schneider Electric's NEST operate across multiple interconnected building systems, requiring intelligent coordination, real-time decision-making and improved operational efficiency.

1. Fragmented building systems (BMS, HVAC, EMS, security) limiting unified visibility and control
2. Heavy reliance on manual monitoring and reactive maintenance approaches
3. Inefficient energy usage due to lack of real-time, context-aware optimisation
4. Limited ability to predict equipment failures and proactively address issues
5. Need for improved occupant comfort and seamless interaction with building systems
6. Increasing pressure to meet ESG and Net Zero goals through smarter operations
7. Lack of intelligent coordination across systems during incidents and emergency scenarios

## SOLUTION

Astrikos deployed Agentic AI-powered Sia, a conversational and autonomous intelligence layer integrated within the SIAp platform to enable smart, self-optimising building operations.

-  Conversational AI Interface (chat + voice) for facility interaction
-  Integration with BMS, HVAC, EMS, CMMS and security systems
-  Real-time diagnostics, anomaly detection and predictive analytics
-  Autonomous decision-making and corrective action execution
-  Cross-system coordination for energy, safety and operations
-  Explainable AI-driven insights and recommendations

## KEY VALUES DELIVERED (IMPACT)

Foundation for AI-driven building operations

Unified operations across building systems

Natural language interaction with building systems

Real-time insights and predictive decision-making

Optimised energy use and sustainability performance

Improved efficiency and system reliability

Improved comfort through intelligent controls

Scalable infrastructure for autonomous operations

### Overall Outcomes

Efficient and integrated airport operations across all systems

Improved safety, security and incident response capabilities

Enhanced passenger experience with reduced delays and congestion

Data-driven, real-time decision-making across stakeholders

Scalable digital infrastructure supporting long-term expansion

A blueprint for next-generation smart airport management



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# LONG THANH INTERNATIONAL AIRPORT VIETNAM - UNIFIED TERMINAL OPERATIONS PLATFORM



Designing a Smart, Integrated Terminal Ecosystem

Case Study







## PROBLEM STATEMENT

As a large-scale international airport designed to handle up to 100 million passengers annually, the project required a unified, scalable and intelligent system to manage highly complex airport operations across multiple subsystems and stakeholders.

1. Need to integrate multiple airport subsystems (security, baggage, HVAC, airside, passenger systems) into a single operational framework
2. Fragmented systems leading to inefficiencies and lack of real-time visibility
3. Reactive maintenance causing downtime and operational disruptions
4. Increasing pressure to enhance passenger experience and reduce wait times
5. Requirement for real-time monitoring, KPI tracking and data-driven decision-making
6. Ensuring safety, security and emergency responsiveness across all terminal operations
7. Need for scalability to support future expansion phases and higher passenger volumes

## SOLUTION

Astrikos delivered a High-Level Building Management System (HBMS) powered by the SlaP platform, enabling unified airport operations through an intelligent, AI-driven command center.

-  Unified Airport Operations Platform (Single Pane of Glass)
-  IT/OT/IoT Integration across 25+ subsystems
-  AI/ML-driven Predictive Analytics & Automation
-  Real-time KPI Dashboards and Operational Insights
-  Digital Twin-enabled Passenger Flow & System Simulation
-  SOP Automation for Incident & Emergency Management

## KEY VALUES DELIVERED (IMPACT)

Scalable foundation for smart airport operations

Unified operations across all airport systems

Real-time insights for better decision-making

Improved safety and operational performance

Optimised and reliable passenger journeys

Scalable infrastructure for future expansion

### Overall Outcomes

Efficient and integrated airport operations across all systems

Improved safety, security and incident response capabilities

Enhanced passenger experience with reduced delays and congestion

Data-driven, real-time decision-making across stakeholders

Scalable digital infrastructure supporting long-term expansion

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# HCMC METRO RAIL - RAILWAY ASSET PROTECTION AND MONITORING SYSTEM



AI-Powered Unified Command, Control & Protection Platform for Urban Rail Operations



Case Study

## PROBLEM STATEMENT

Urban metro systems operate within complex, high-risk environments involving distributed infrastructure, real-time operations, and safety-critical assets. The current challenges include:

- 1. Fragmented monitoring of critical assets across stations, tracks, and depots
- 2. Limited real-time visibility into train movement, signalling inputs, and infrastructure health
- 3. Lack of unified integration across key subsystems (signalling, traction power, AFC, PIS, security)
- 4. Reactive maintenance approaches leading to unexpected failures and downtime
- 5. Delayed incident detection and response impacting safety and service continuity
- 6. Absence of centralized situational awareness across OCC and station operations
- 7. Limited capabilities for simulation, training, and operational preparedness

## SOLUTION

Astrikos delivers an AI-powered Railway Asset Protection & Monitoring System (APS) built on the S/aP platform, enabling seamless integration, intelligent monitoring, and predictive decision-making across the metro network.

- Unified System Integration
- Centralized Command & Control
- AI-Driven Asset Protection
- Railway-Grade Visualization Interface (CCIP / VDU)
- Predictive Maintenance & Analytics
- Simulation & Training Module
- Energy Monitoring & Optimization

## KEY VALUES DELIVERED (IMPACT)

Enhanced Safety & Asset Protection	Real-Time Operational Visibility
Integrated Operations Ecosystem	Improved Incident Response
Operational Efficiency & Reliability	Scalable & Future-Ready Platform

### Overall Outcomes

- Centralized and intelligent metro operations management
- Improved passenger safety and service reliability
- Enhanced operational control and responsiveness
- Reduced operational risks and lifecycle costs
- Digital backbone for future metro expansion and smart city integration



# KARNATAKA STATE (KMDS / K5)

Enabling State-Wide Urban Intelligence with an Integrated Operations Platform

Case Study

## PROBLEM STATEMENT

As part of the Karnataka 5 Smart Cities program, there was a need to unify data and operations across multiple cities and urban systems to enable centralized governance and real-time decision-making.

1. Fragmented data across city-level ICCCs, GIS systems and urban subsystems
2. Lack of centralized visibility across multiple cities and departments
3. Limited ability to benchmark performance across cities
4. Inefficient incident tracking and governance workflows
5. Absence of standardized dashboards for state-level monitoring
6. Need for real-time analytics to support decision-making and policy execution
7. Requirement for scalable architecture to support multi-city expansion

## SOLUTION

Astrikos implemented an Integrated City Operations Platform (ICOP) to unify, analyse and visualise multi-city urban data for state-level governance and decision-making.

- Platform-agnostic integration of ICCCs, GIS systems and urban subsystems
- Centralized dashboards for KMDS and state authorities
- Real-time KPI tracking and domain-wise operational visibility
- Advanced analytics for anomaly detection, trend identification and benchmarking
- Workflow-enabled incident tracking and governance monitoring
- Scalable architecture supporting multi-city data aggregation and expansion

## KEY VALUES DELIVERED (IMPACT)



### Overall Outcomes

- Unified view of urban operations across multiple cities under one platform
- Improved governance efficiency through centralized monitoring and workflows
- Enhanced decision-making with real-time, data-driven insights
- Standardized performance tracking and benchmarking across cities
- Scalable digital infrastructure supporting future smart city expansion
- A blueprint for state-level smart governance and integrated urban operations



# UP 112 ERSS- INDIA

Revolutionizing Emergency Response with AI-Powered Intelligence

Case Study






## PROBLEM STATEMENT

Uttar Pradesh faced significant challenges in managing large-scale emergency response operations across the state:

1. Absence of a fully integrated emergency response system
2. Delays in dispatching police, medical and fire services
3. Limited real-time visibility into incidents and field resources
4. Inefficient coordination among multiple emergency departments
5. Lack of predictive insights for proactive emergency management

## SOLUTION

Astrikos deployed a Collaborative Decision Intelligence Platform to strengthen the UP-112 Emergency Response Support System (ERSS) with AI-driven capabilities.

-  Integrated Emergency Command Platform
-  AI-Powered Analytics & Insights
-  Real-Time Incident Monitoring
-  Smart Dispatch & Resource Optimization
-  Executive-Level Dashboards

## KEY VALUES DELIVERED (IMPACT)

### Faster Emergency Response

- Reduced response time through intelligent dispatch and real-time tracking
- Improved on-ground coordination between response teams

### Data-Driven Decision Making

- Enhanced situational awareness with AI-powered predictive insights
- Better planning and resource allocation during high-demand situations

### Seamless Multi-Agency Coordination

- Unified communication across police, medical, and fire departments
- Improved operational efficiency during critical incidents

### Performance Monitoring & Optimization

- Executive dashboards enabled continuous performance tracking
- Identification of bottlenecks and service improvements

### Overall Outcomes

- Quicker incident response and resolution
- Improved public safety & trust
- Optimized use of emergency resources
- Scalable and future-ready emergency infrastructure



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# CENTRAL VISTA NEW PARLIAMENT ICCC, INDIA

Enabling Intelligent Governance through  
a Unified Command & Control Ecosystem

Case Study



## PROBLEM STATEMENT

The redevelopment of Central Vista in New Delhi, including the new Parliament complex and administrative offices, required a highly secure, intelligent and centralized monitoring system.

1. Managing complex, high-security infrastructure across multiple government facilities
2. Lack of a unified platform to monitor operations, security and services
3. Difficulty in enabling real-time coordination across multiple agencies
4. Limited visibility into campus-wide activities and incidents
5. Need for a scalable and future-ready digital backbone for governance

## SOLUTION

Astrikos implemented an advanced Integrated Command & Control Center (ICCC) platform to unify operations across the Central Vista ecosystem.



Centralized Command & Control Platform



Unified Data Integration



Real-Time Monitoring & Visualization



Operational Workflow Automation



Enhanced Situational Awareness

## KEY VALUES DELIVERED (IMPACT)

### Advanced Security & Surveillance

- Comprehensive monitoring through CCTV, intrusion detection, and access control systems
- Strengthened security posture for a high-priority national asset

### Centralized Visibility & Control

- Single-pane view across the entire Parliament ecosystem
- Real-time insights enabled faster and more accurate decision-making

### Seamless Multi-Agency Coordination

- Improved collaboration between security, facilities, and administrative teams
- Efficient handling of incidents and day-to-day operations

### Operational Efficiency at Scale

- Automated workflows reduced manual intervention
- Optimized performance across services and infrastructure

### Overall Outcomes

Secure and intelligent infrastructure management

Real-time operational control and responsiveness

Enhanced coordination across critical functions

A scalable model for future smart governance initiatives



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# NAMCHI SMART CITY

Enhancing Urban Living with Smart, Connected City Operations

Case Study

## PROBLEM STATEMENT

Namchi faced growing challenges in managing essential urban services while ensuring safety, efficiency and citizen satisfaction.

1. Difficulty in managing public safety and surveillance systems
2. Inefficiencies in transportation and traffic control
3. Limited visibility into water quality and waste management operations
4. Need for better emergency response and incident management
5. Gaps in citizen communication and grievance handling

## SOLUTION

Astrikos implemented a comprehensive ICMS and ICC framework to bring together all critical city operations into a single, intelligent system.



Smart City Command & Control Platform



KPI Framework & Operational Readiness



Integrated Incident & Emergency Management



Smart Mobility & Surveillance Systems

## KEY VALUES DELIVERED (IMPACT)

### Smart Traffic & Surveillance

- Real-time public transport tracking and improved road safety
- Enhanced surveillance at key locations for better security

### Efficient Waste Management (SWM)

- GPS-enabled tracking of waste collection vehicles
- Improved route efficiency and faster issue resolution

### Smart Water Management

- Continuous monitoring of water quality
- Better resource management and service reliability

### Adaptive Traffic Management

- Reduced congestion through intelligent traffic systems
- Improved enforcement and smoother traffic flow

### Overall Outcomes

Improved public safety and service delivery

Faster response to incidents and citizen needs

Better coordination across city departments

Strong foundation for future urban growth



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# SINDALAH- NEOM

Powering Next-Generation Luxury Living with Intelligent Digital Infrastructure

Case Study





## PROBLEM STATEMENT

Sindalah, a flagship luxury island destination under NEOM, required a seamless and future-ready digital ecosystem to deliver world-class experiences.

1. Need for a unified ICT backbone to support diverse smart services
2. Ensuring exceptional guest experiences across hospitality, retail and leisure
3. Managing complex operations across a high-end island environment
4. Lack of integrated visibility across services, assets and infrastructure
5. Requirement for a scalable system aligned with NEOM's Vision 2030 goals

## SOLUTION

Astrikos partnered in designing and enabling a unified, intelligent operations ecosystem, tailored for a luxury destination like Sindalah.

-  **ICT Subsystems & Unified Operations Center (UOC)**
-  **Integrated Data & Service Layer**
-  **Smart Infrastructure Planning**
-  **End-to-End Operational Framework**

## KEY VALUES DELIVERED (IMPACT)

### Seamless Luxury Experience

- Enabled smooth, high-quality guest experiences across all services
- Ensured comfort, convenience, and premium service delivery

### Connected & Coordinated Operations

- Unified monitoring improved coordination across all island operations
- Enabled efficient management of facilities, services, and infrastructure

### Real-Time Visibility & Control

- Provided clear insights into operations, assets, and service performance
- Supported faster and more informed decision-making

### Future-Ready Digital Foundation

- Built a scalable system aligned with NEOM's long-term vision
- Enabled continuous innovation and smart service expansion

### Overall Outcomes

- Seamless and elevated guest experiences
- Efficient and well-coordinated operations
- Real-time, data-driven management
- A future-ready model for smart luxury destinations



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# AI-DRIVEN UNIFIED DC OPERATIONS- ICICI BANK



Simplifying Data Center Operations with  
Intelligence & Control

Case Study

## PROBLEM STATEMENT

As ICICI Bank scaled its data center operations, managing multiple facilities became increasingly complex. The team faced challenges in maintaining consistency, efficiency and reliability across systems.

1. Lack of standardization across multiple data centers
2. Time-consuming and inefficient maintenance processes
3. Limited ability to predict and prevent system failures
4. Difficulty in managing vendor performance and service contracts
5. Gaps in visibility across critical infrastructure and operations

## SOLUTION

Astrikos partnered with ICICI Bank to bring clarity and control to their data center ecosystem through a modern, AI-driven management platform.



Unified Data Center Management Platform



Smart DC Health & KPI Dashboards



Predictive Monitoring & Intelligence



Collaborative Implementation Approach

## KEY VALUES DELIVERED (IMPACT)

### More Efficient Operations

- Simplified workflows and reduced manual effort
- Better utilization of resources across data centers

### Improved Visibility & Control

- Real-time view of infrastructure, performance, and risks
- Faster and more confident decision-making

### Stronger Sustainability Outcomes

- Better tracking of energy usage and environmental impact
- Reduced operational waste and improved efficiency

### Reliable Performance

- Early detection of issues reduced downtime risks
- Improved overall data center health and stability

### Better Vendor & Service Management

- Clear tracking of service contracts and vendor performance
- More accountability and streamlined coordination

## Overall Outcomes

Greater operational simplicity

Improved system reliability and uptime

Data-driven decision-making

A scalable foundation for future growth



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# NAVA RAIPUR (NRANVP) PHASE 2- INDIA



Building a Future-Ready, Safe &  
Intelligent Urban Ecosystem

Case Study

## PROBLEM STATEMENT

Nava Raipur aimed to establish a secure, efficient and citizen-centric urban environment, but faced several critical challenges:

1. Ensuring public safety and security across a growing urban landscape
2. Managing traffic flow and transportation systems efficiently
3. Delivering consistent and high-quality public services
4. Enhancing urban livability and citizen experience
5. Driving sustainable economic growth and infrastructure development

## SOLUTION

Astrikos played a strategic role by providing consulting expertise and deploying an AI-driven ICCC platform, enabling integrated urban management.



Infrastructure Assessment & Comparative Analysis



AI-Driven Integrated Command & Control Center (ICCC)



Environmental Intelligence & Advisory Systems



Smart City Analytics Suite

## KEY VALUES DELIVERED (IMPACT)

### Enhanced Safety & Security

- Strengthened surveillance and faster incident response
- Improved protection for citizens and infrastructure

### Efficient Mobility & Transportation

- Optimized traffic flow and reduced congestion
- Better planning and management of transportation systems

### Sustainable Growth & Development

- Enabled long-term economic growth through smart infrastructure
- Built a scalable and future-ready city ecosystem

### Improved Public Service Delivery

- Streamlined operations across urban services
- Faster and more reliable citizen services

### Elevated Quality of Life

- Data-driven governance improved overall urban experience
- Increased citizen satisfaction and engagement

### Overall Outcomes

Integrated urban governance

Enhanced livability and safety

Efficient resource utilization

A strong foundation for future expansion



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# AI-DRIVEN DCP OPTIMIZATION & EMS- YITI CITY, OMAN

Building a Sustainable, Energy-Efficient  
Future with Intelligent Cooling



Case Study

## PROBLEM STATEMENT

Yiti City aimed to create a world-class, sustainable urban development, but managing energy and cooling efficiently at scale was a key challenge.

1. Need to optimize district cooling and energy consumption across the city
2. Limited visibility into real-time energy usage and system performance
3. Difficulty in balancing efficiency, cost, and sustainability goals
4. Lack of predictive capabilities for maintenance and operational planning
5. Ensuring long-term sustainability without compromising performance

## SOLUTION

Astrikos designed and implemented an AI-driven District Cooling Plant (DCP) Optimization and Energy Management System (EMS) to bring intelligence and efficiency into city operations.



AI-Powered DCP Optimization Platform



Integrated SCADA Connectivity



Predictive Analytics & Smart Workflows



Energy Intelligence Dashboards

## KEY VALUES DELIVERED (IMPACT)

### Enhanced Sustainability

- Reduced energy consumption and carbon footprint
- Supported long-term environmental goals

### Optimized Energy & Cooling Efficiency

- Intelligent optimization aligned cooling output with actual demand
- Lowered operational costs while maintaining performance

### Real-Time Visibility & Control

- Clear insights into energy usage, cost allocation, and system performance
- Improved decision-making through data transparency

### Predictive & Proactive Operations

- Early detection of issues reduced downtime risks
- Enabled smarter planning and maintenance

### Overall Outcomes

Efficient and optimized cooling operations

Reduced operational costs and environmental impact

Data-driven energy management

A scalable model for next-generation smart cities



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# DANFOSS SMART FACTORY – INDIA

Transforming Manufacturing with  
Industry 4.0 Intelligence

Case Study



## PROBLEM STATEMENT

Danfoss aimed to evolve its existing manufacturing facility into a smart, connected factory, but needed a clear direction to get there.

1. Lack of a structured roadmap for smart factory transformation
2. Limited visibility across shop floor machines and processes
3. Challenges in aligning operations with Industry 4.0 standards
4. Need to improve efficiency, performance monitoring and decision-making
5. Absence of a unified system for knowledge and KPI management

## SOLUTION

Astrikos partnered with Danfoss to define and enable their smart factory journey, combining strategic planning with digital execution.



Smart Factory Feasibility & Site Assessment



Industry 4.0 & WCM-Aligned Roadmap



Factory Knowledge Management & KPI Framework



Digital Dashboards & Visualization Layer

## KEY VALUES DELIVERED (IMPACT)

### Clear Transformation Roadmap

- Established a well-defined path for smart factory implementation
- Enabled structured and phased transformation

### Improved Performance Visibility

- Real-time insights into operations, KPIs and machine performance
- Better tracking and control across the shop floor

### Enhanced Operational Efficiency

- Streamlined processes and reduced inefficiencies
- Enabled continuous improvement through data-driven insights

### Stronger Integration Across Operations

- Improved alignment between machines, systems, and workflows
- Reduced silos across manufacturing processes

### Overall Outcomes

Greater operational clarity and control

Improved efficiency and productivity

Strong alignment with industry 4.0 principles

A scalable foundation for future factory innovation



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# DANGOTE OIL REFINERY – NIGERIA

Powering Reliable & Intelligent Refinery Operations at Scale

Case Study



## PROBLEM STATEMENT

Dangote Oil Refinery required a robust and scalable system to manage its complex refinery operations efficiently. With multiple systems in place, ensuring seamless coordination and visibility was a major challenge.

1. Need for a reliable and scalable SCADA/DCS infrastructure
2. Lack of centralized visibility across refinery operations
3. Difficulty in integrating multiple industrial systems and data sources
4. Limited ability to leverage real-time analytics for decision-making
5. Ensuring operational continuity and system resilience

## SOLUTION

Astrikos enabled a more connected and intelligent refinery ecosystem by delivering a modern, integrated operations platform.

-  SCADA/DCS Infrastructure Enablement
-  Centralized DCS Integration
-  Industrial Analytics Layer
-  Unified Workflows & IWMS Integration
-  End-to-End Deployment & Lifecycle Support

## KEY VALUES DELIVERED (IMPACT)

### Improved Operational Visibility

- Centralized view across refinery systems and processes
- Real-time monitoring enabled quicker and more informed decisions

### Stronger Coordination & Efficiency

- Seamless integration improved collaboration across operational teams
- Reduced silos and streamlined workflows

### Enhanced Reliability & Resilience

- High-availability infrastructure ensured uninterrupted operations
- Improved system stability and reduced operational risks

### Data-Driven Operations

- Real-time analytics enabled proactive monitoring and optimization
- Better control over performance and resource utilization

### Overall Outcomes

Improved system reliability and uptime

Enhanced operational control and efficiency

Smarter, data-driven decision-making

A scalable foundation for future industrial expansion



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# DATA CENTER ANALYTICS- COGNIZANT

Driving Intelligent, Efficient & Sustainable Data Center Operations

Case Study



Data center analytics - Cognizant  
Driving Intelligent, Efficient & Sustainable Data Center Operations

## PROBLEM STATEMENT

Cognizant faced challenges in optimizing the performance and efficiency of its data center operations:

1. Lack of unified monitoring and control across facility and IT systems
2. Limited visibility into data center performance, health and utilization
3. Difficulty in tracking energy efficiency and sustainability metrics
4. Inefficiencies in resource utilization and operational planning
5. Absence of actionable insights for proactive decision-making

## SOLUTION

Astrikos partnered with Cognizant to deliver a modern, intelligent data center management and analytics solution, combining consulting expertise with advanced visualization tools.



Modern Data Center Management & Monitoring Platform



DC Health & KPI Dashboard



Advanced Data Visualization & Analytics



Collaborative Solution Design

## KEY VALUES DELIVERED (IMPACT)

### Enhanced Operational Efficiency

- Streamlined monitoring and management across systems
- Improved resource utilization and reduced operational overhead

### Improved Data Center Performance

- Real-time visibility into system health and performance metrics
- Faster identification and resolution of issues

### Sustainability & Energy Optimization

- Better tracking of energy usage and environmental impact
- Reduced carbon footprint through optimized operations

### Data-Driven Decision Making

- Actionable insights enabled proactive planning and optimization
- Strengthened overall IT infrastructure performance

### Overall Outcomes

Increased operational transparency

Optimized performance and efficiency

Improved sustainability outcomes

A scalable foundation for future data center innovation



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# BRITANNIA SMART FOOD PARK

Reimagining Food Manufacturing with  
Smart, Connected Infrastructure

Case Study



## PROBLEM STATEMENT

Britannia aimed to build a large-scale Smart Food Park to modernize food manufacturing and supply chain operations. However, ensuring efficiency, visibility and scalability across such a vast ecosystem was a key challenge.

1. Need for a digitally enabled manufacturing and supply chain ecosystem
2. Limited visibility into production, operations and logistics
3. Challenges in ensuring operational efficiency across a large industrial park
4. Requirement for integrated infrastructure to support end-to-end operations
5. Need for a scalable system to support future growth and expansion

## SOLUTION

Astrikos supported Britannia by designing a smart, connected digital backbone for the food park, combining infrastructure planning with advanced analytics.



Smart Infrastructure & ICT Network Design



Feasibility Planning & Operational Framework



Digital Manufacturing & Supply Chain Enablement



Integrated Monitoring & Analytics Platform

## KEY VALUES DELIVERED (IMPACT)

### Improved Operational Efficiency

- Streamlined manufacturing and supply chain processes
- Reduced inefficiencies across the food park ecosystem

### Real-Time Visibility & Control

- End-to-end monitoring of production and logistics
- Better decision-making through data-driven insights

### Future-Ready Manufacturing Ecosystem

- Established scalable and flexible infrastructure
- Enabled adoption of advanced digital manufacturing practices

### Optimized Supply Chain Performance

- Improved coordination across production, storage and distribution
- Enhanced overall operational reliability

### Overall Outcomes

Greater operational transparency and control

Improved manufacturing and supply chain efficiency

Scalable infrastructure for long-term growth

Strong foundation for digital transformation in food manufacturing



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# PIMPRI-CHINCHWAD SMART CITY

Enabling Scalable, Data-Driven  
Urban Governance

Case Study

## PROBLEM STATEMENT

Pimpri-Chinchwad, a rapidly growing city with a population of over 3 million, needed a more coordinated and efficient approach to manage its urban services.

1. Lack of unified data flow across city departments
2. Fragmented systems for service monitoring and operations
3. Limited visibility into real-time city performance
4. Need for standardized KPIs to track and improve service delivery
5. Challenges in managing utilities, safety and large-scale city operations

## SOLUTION

Astrikos enabled Pimpri-Chinchwad with a comprehensive ICCC and smart city ICT framework, bringing together data, systems, and operations into a single platform.



Integrated Command & Control Centre (ICCC)



Unified Data & Dashboarding System



KPI Framework & Performance Tracking



Smart City ICT Planning & Enablement

## KEY VALUES DELIVERED (IMPACT)

### Centralized Visibility & Coordination

- Unified view of city operations improved inter-department collaboration
- Faster and more efficient decision-making

### Data-Driven Governance

- Enabled performance tracking through well-defined KPIs
- Improved accountability and service quality

### Improved Operational Efficiency

- Streamlined monitoring and management of utilities and services
- Reduced inefficiencies across city systems

### Foundation for Future Growth

- Built a scalable platform to support future smart city initiatives
- Enabled expansion across traffic, waste, water and safety systems

### Overall Outcomes

Better coordination across departments

Improved service delivery and public safety

Real-time operational visibility

A strong foundation for scalable urban growth



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# GANGTOK SMART CITY- INDIA



Enabling Smarter Governance through  
Data-Driven City Intelligence

Case Study

## PROBLEM STATEMENT

Gangtok needed a structured and future-ready approach to plan and implement its Smart City vision. However, several gaps made it challenging:

1. Lack of a centralized system to monitor and manage city operations
2. Limited ability to leverage data for decision-making and planning
3. Absence of insights into citizen sentiment and public feedback
4. Difficulty in ensuring efficient coordination across departments
5. Need for a scalable foundation to support long-term smart city growth

## SOLUTION

Astrikos supported Gangtok by combining strategic consulting with advanced analytics, laying the foundation for a data-driven smart city ecosystem.



KCC DPR Preparation & Feasibility Study



Smart City Collaborative Analytics Platform



Citizen Sentiment & Social Media Analytics



Integrated Data & Insights Framework

## KEY VALUES DELIVERED (IMPACT)

### Clear Strategic Direction

- Established a strong foundation for Smart City ICCC implementation
- Enabled structured planning and execution

### Improved Governance & Coordination

- Enhanced collaboration across departments through shared insights
- Streamlined city operations and decision-making

### Data-Driven Decision Making

- Enabled authorities to act based on real-time insights and analytics
- Improved responsiveness to city-level challenges

### Stronger Citizen Engagement

- Gained visibility into citizen sentiment and public concerns
- Enabled more responsive and citizen-centric governance

### Overall Outcomes

Better planning and execution of smart city initiatives

Improved governance through data and collaboration

Increased citizen trust and engagement

A scalable roadmap for future smart city development



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# AMARAVATI SMART CITY

Designing a Scalable, Future-Ready  
Capital City Ecosystem

Case Study

## PROBLEM STATEMENT

As a planned greenfield capital city, Amaravati needed a long-term, scalable strategy to manage urban infrastructure and services efficiently from the ground up.

1. Need to design integrated and future-ready city infrastructure
2. Managing multiple urban systems like transportation, water, safety and ICT
3. Lack of a unified framework for smart city operations and governance
4. Requirement for scalable solutions to support long-term growth
5. Ensuring efficient service delivery across a rapidly developing urban landscape

## SOLUTION

Astrikos supported Amaravati in building a strong foundation for smart city development through strategic planning and digital architecture design.



Smart City Infrastructure & ICT Master Planning



ICCC & Command Center Strategy



Detailed Project Reports (DPRs) & SOP Frameworks



Future-Ready Smart Solutions Architecture

## KEY VALUES DELIVERED (IMPACT)

### Strong Strategic Foundation

- Established a clear roadmap for smart city implementation
- Enabled structured planning and phased execution

### Integrated City-Wide Operations

- Created a unified approach to manage multiple urban services
- Improved coordination across departments and systems

### Data-Driven Governance

- Enabled performance tracking through defined KPIs and metrics
- Supported better decision-making with structured insights

### Future-Ready Infrastructure

- Designed scalable systems to support long-term growth
- Built a flexible foundation for evolving smart city needs

### Overall Outcomes

Strong foundation for smart governance

Efficient and integrated urban operations

Long-term scalability and sustainability

A blueprint for next-generation city development



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# BELAGAVI SMART CITY

Transforming Urban Operations with Intelligent Digital Infrastructure

Case Study

## PROBLEM STATEMENT

Belagavi faced increasing pressure on its urban systems due to rapid growth and limited infrastructure visibility. Key challenges included:

1. Fragmented management of transportation, water quality and waste systems
2. Lack of real-time monitoring and centralized control
3. Inefficient grievance handling and delayed response times
4. Limited data-driven decision-making for city operations
5. Public safety concerns due to inadequate surveillance and coordination

## SOLUTION

Astrikos enabled a smart city transformation by implementing an integrated IoT + AI-powered command center through the KCC (Command & Control Center).

- Unified Smart City Platform
- Real-Time Data Intelligence
- Custom KPIs & Digital Dashboards
- AI-Driven Insights & Alerts
- Citizen-Centric Operations

## KEY VALUES DELIVERED (IMPACT)

### Smart Transport

- Real-time tracking of public transport improved route efficiency and commuter experience
- Enhanced city surveillance through integrated CCTV systems

### Smart Solid Waste Management (SWM)

- Automated tracking of waste collection operations
- GPS-enabled monitoring improved coverage and reduced inefficiencies

### Smart Water Management

- Continuous water quality monitoring ensured safer supply
- Optimized resource usage through data-driven insights

### Adaptive Traffic Management

- AI-enabled traffic control reduced congestion and accidents
- Improved road safety through intelligent signal systems

### Overall Outcomes

- Improved operational efficiency
- Enhanced public safety
- Faster decision-making
- Better citizen satisfaction



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