

ARNA

Intelligent Solutions For a Smarter World



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WHO WE ARE

ARNA

ARNA, Innovators in AI, Big Data Analytics and BI Dashboards



As an innovator in AI, Big Data Analytics and BI Expert Company, we deliver transformative solutions across various industries, including smart cities, telecommunications, healthcare and more by offering iVMS and VAS Solutions for Safety, Security and Surveillance as well as Smart Customer Data Platforms (CDP) and Customized Solutions based on Computer-Vision, BI and Data Analytics to empower businesses to unlock new levels of efficiency, innovation and growth.

Advanced BI and Big Data Analytics



Our Intelligent Video Management System (iVMS) and Video Analytics Systems (iVAS) enable the effective implementation of safety, security and surveillance measures through smart object and multi-object text search functionality, AI-powered detection agents and advanced algorithms, including deep vision, computer vision and machine learning.

Our Telecom Operator CDP Platform optimizes profitability by enhancing customer retention, acquisition and revenue, while minimizing operational costs, empowering telecom operators to make data-driven decisions, drive growth and improve performance.



OUR VISION AND MISSION



Vision

Empowering Safety, Security and Data Utilization Through Innovation to Fulfill Aspirations Beyond Imagination.

Mission

Transformative AI-driven Safety, Security and Surveillance, Customer Data Platforms and Customized Machine-Vision and AI based Solutions.

WHAT WE DO



CORE PURPOSE

Decision-Making Empowerment Through Transformative Solutions

EXACTLY WHAT WE DO

Intelligent Video Management Systems- iVMS

Intelligent Video Analytics Systems- iVAS

Customized Solutions Based on Machine-Vision, BI and Data Analytics

Customer Data Platforms-CDP

OUR SOLUTIONS

ARNAVISION
Smart Security Nexus

TELEYSYS
Behaviour Analytics Platform

DeepLine
Smart Railway Solution

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How We Make It Happen

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ARNAVISION

Intelligent Video Management and Analytics System (iVMAS)



ARNAVISION

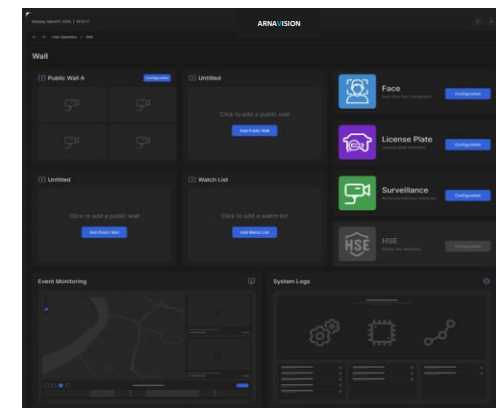
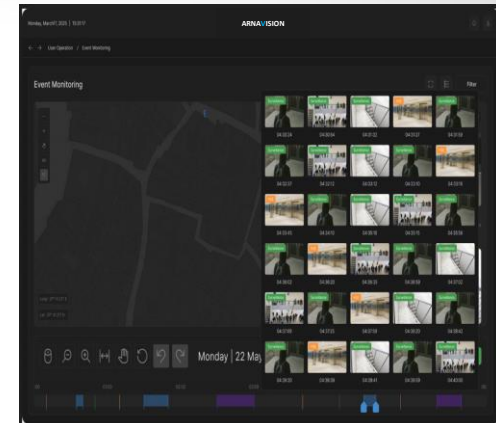
Smart Video Management & Deep Analytics for Game-Changing Insights

ARNA

ARNAVISION is an intelligent video management and video analytics system designed to meet the diverse needs of organizations across various industries. Leveraging sophisticated algorithms, smart object and multi-object text-based footage search functionality, AI-powered detection agents and advanced algorithms, including deep vision, computer vision and machine learning.

For revolutionizing video search, video management and video analytics, transforming raw footage into actionable insights. This is done through detecting patterns, anomalies and predicting potential situations and more.

ARNAVISION enhances situational awareness, improves security, safety and surveillance with a 24hr nexus and reduces alarm nuisances for driving operational efficiency through.



ARNAVISION

Smart Video Management & Deep Analytics for Game-Changing Insights

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Benefits

- ✓ Enhanced Situation Awareness
- ✓ Improved Security
- ✓ 24hr Security Nexus
- ✓ Increased Operational Efficiency
- ✓ Boosted Safety and Productivity
- ✓ Informed Decision Making



Capabilities

- ✓ Video Content Analysis
- ✓ Real-Time Alerting
- ✓ Predictive Detection
- ✓ User Friendly Interface
- ✓ And More



Features

- ✓ Text based Footage Search
- ✓ Smart Detection Agent
- ✓ Predictive Analytics and Reporting
- ✓ And More

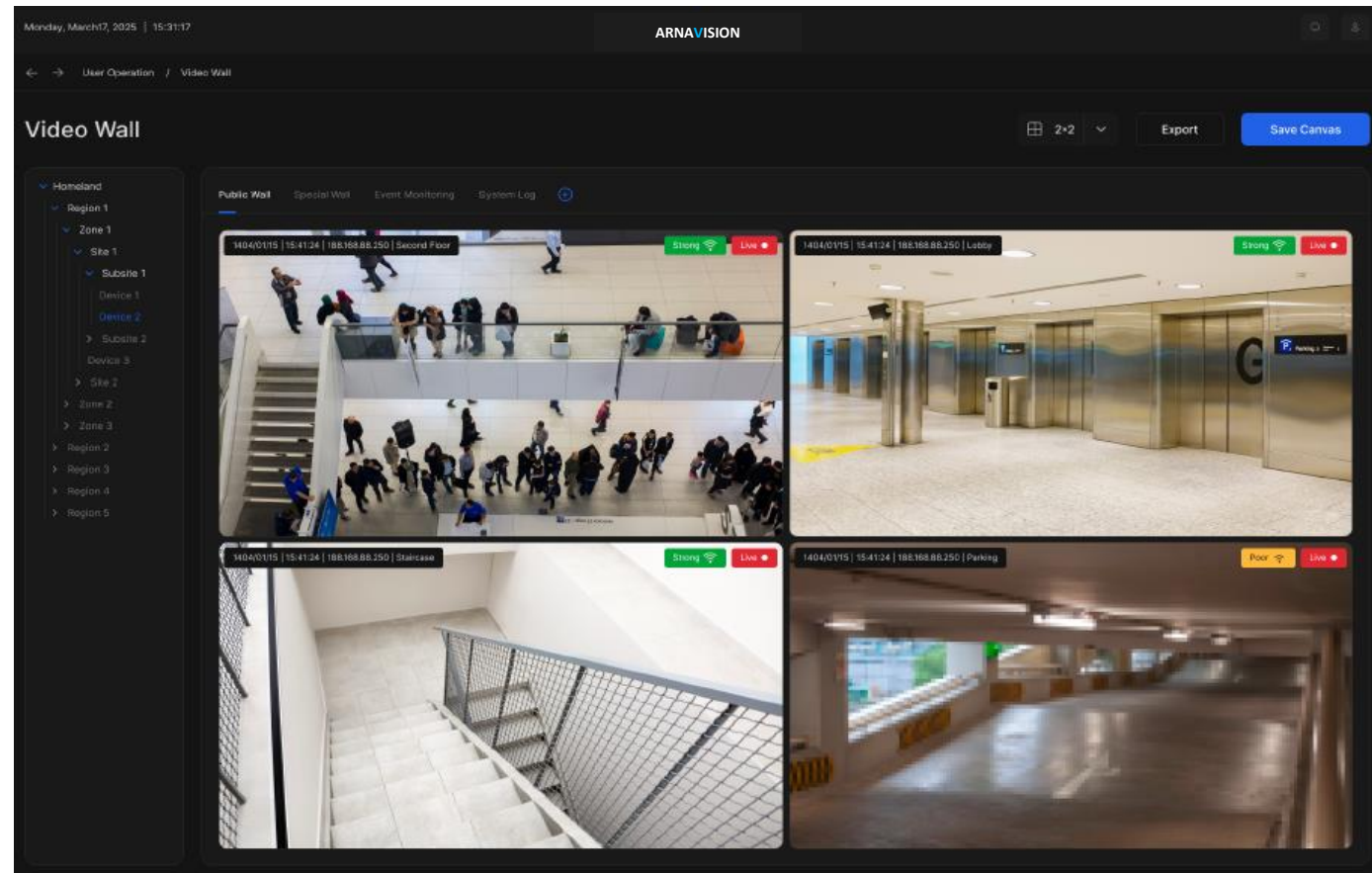
ARNAVISION-iVMS



ARNAVISION

Intelligent Video Management System

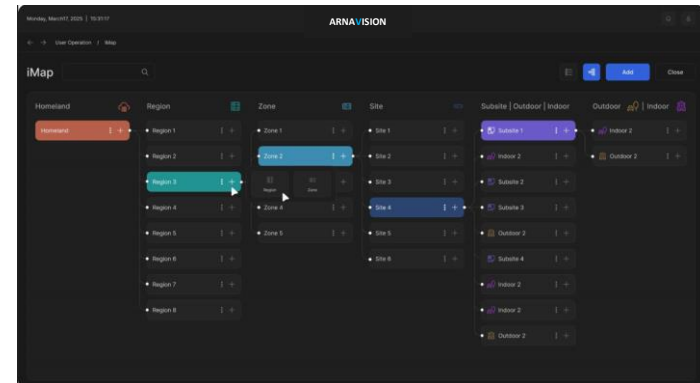
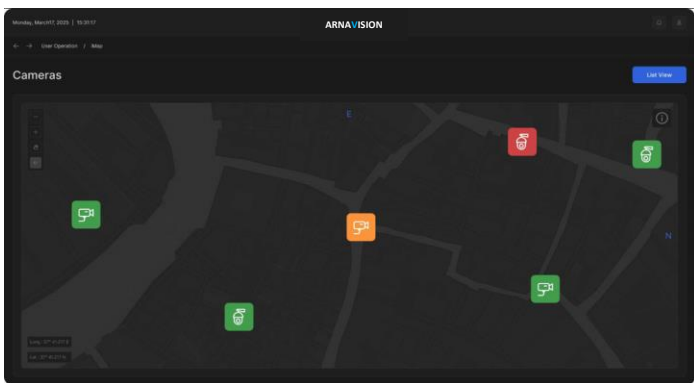
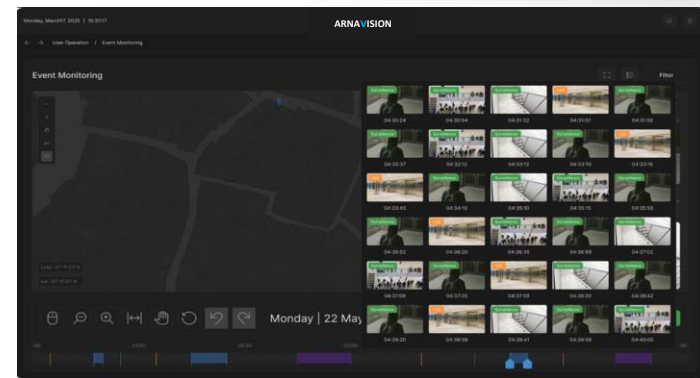
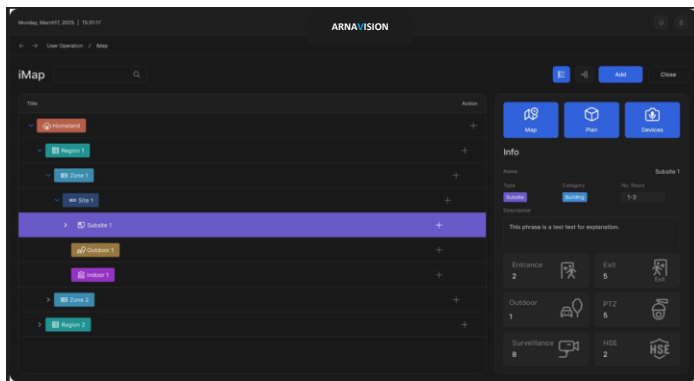
- **Scalable camera management:** capable of handling over 5,000 cameras
- **Real-time intelligent analytics**
- **Smart text-based search and retrieval of footage and streams**
- **Smart scheduling for optimized image capture and storage**
- **Smart Detection Agents**



ARNAVISION

Intelligent Video Management System

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ARNAVISION-iVAS



ARNAVISION

Intelligent Video Analytics



Innovative Auto-Tracking and Analytics for All Camera Types

This solution monitors and captures vital movement across multiple setups, making it particularly suitable for retail spaces and public areas.



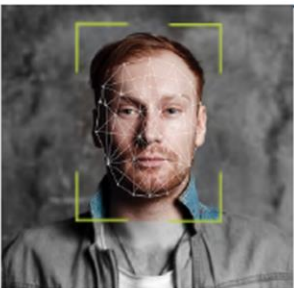
Personal and Industrial Safety Alarms and Analytics

This feature improves safety protocols by activating alerts upon detecting hazards, ensuring prompt action during emergency situations.



Situational Awareness Solution

By integrating data from various sources, this tool provides operators with a holistic view of their surroundings, enabling them to proactively identify threats and make informed decisions.



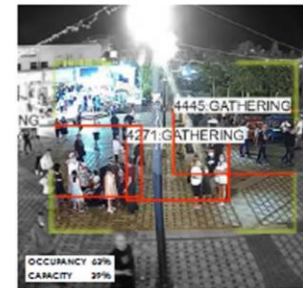
Face Recognition and Analytics

Utilizing cutting-edge technology, this solution enables real-time identification of individuals, making it ideal for access control in sensitive locations.



Visual Inspection and Analytics

This feature automates the detection of defects in products, ensuring strict quality control within manufacturing processes.



Crowd Detection and Analytics

This solution assesses crowd density and behavior, facilitating effective management of large gatherings to prevent overcrowding and enhance safety.

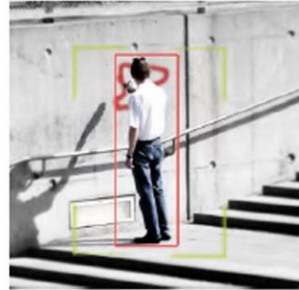
ARNAVISION

Intelligent Video Analytics



People Counting and Analytics

This tool provides retailers with valuable insights into foot traffic patterns, helping to optimize store layouts and marketing strategies.



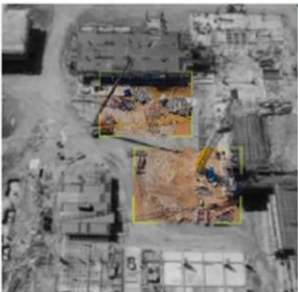
Property Damage Alerts and Analytics

This feature detects early signs of property damage, enabling rapid response and mitigation efforts.



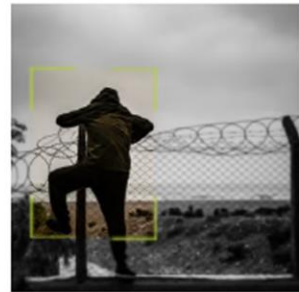
Action Recognition Solution

This capability analyzes critical actions within the monitored environment, allowing for swift interventions as necessary.



Danger Zone Detection and Analytics

This solution alerts personnel to unauthorized access in hazardous areas, enhancing overall workplace safety.



Security & Perimeter Monitoring and Analytics

Continuous monitoring of boundaries strengthens site security, allowing for immediate action when breaches are detected.



Fire and Smoke Recognition and Analytics

This solution aids in the early detection of fire and smoke, playing a crucial role in disaster prevention.

ARNAVISION

Intelligent Video Analytics



Equipment Productivity Monitoring

This feature analyzes and optimizes the usage of machinery, helping organizations improve operational efficiency.



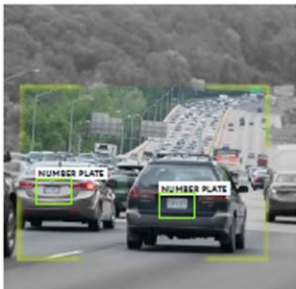
Abandoned Object Detection and Analytics

By identifying unattended items in public areas, this tool enhances safety measures and vigilant monitoring.



Indoor Motion Tracking and Analytics

This solution improves safety and efficiency within indoor spaces by accurately tracking movements.



Automatic License Plate Recognition and Analytics

This feature simplifies the management of vehicle access using advanced recognition technologies.

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Outdoor People and Vehicle Tracking and Analytics

Integrating the tracking of both pedestrians and vehicles provides comprehensive situational awareness for effective traffic management.

ARNAVISION iVMS

Safety , Security and Surveillance Nexus

APPLICATIONS



(1) Scalable Video Management Analytics System

- Scalable smart VMS: Capable of handling over five thousand streams
- Descriptive Search: Smart Metadata (footage and stream) retrieval
- Forensic Search: Smart Time-Based Search, Smart Location-Based Search
- Smart Event Correlation and Attribute-Based Search
- GDPR Compliance
- Cross-Platform Compatibility
- Advanced Detection Agents
- Nuisance alarm management
- Robust role-based access control -RBAC and More



(2) Traffic management

- Automated License Plate Recognition (ALPR) and non-standard/dilapidated plate detection
- Traffic flow management
- Monitoring traffic rule, parking, red light violations, speeding and vehicle restrictions
- Safety compliance monitoring for helmet, seat belt usage and phone use while driving
- Crash detection, response and zone-specific surveillance for incident management
- Real-time vehicle tracking, classification, and counting
- Wrong Direction Detection and for traffic analysis and More



(3) Urban , Public Spaces and Municipal Management

- Efficient garbage management
- Vandalism control
- Environmental protection by detecting polluting vehicles
- Traffic and parking in no-parking zones
- Facial recognition, Fighting, Civil safety
- Theft and pickpocketing detection and tracking
- Suspicious object detection
- Checkpoint Vehical & Person Detection, Identification and Reidentification and More



(4) Manufacturing and Factory Safety, Security and Surveillance

- Automated defect detection
- PPE kit detection
- Inner and outer facility perimeter safeguarding and surveillance
- Hazard detection
- Workplace violence detection
- Incident detection
- Theft and unauthorized access detection
- Behavior and situational safety
- Crowded detection
- Ergonomics monitoring
- Pose detection
- Vehicle-Machine control and More



(5) Transportation Management-RTF

- Smart rail analytics with a twist of digital twin
- On-Demand cabin surveillance and passenger safety
- On-Demand train station onboarding and facility safety and surveillance
- On-Demand railway and station digital twin
- Incident prediction
- Incident detection and violation monitoring
- Crowd monitoring
- Congestion detection
- Vehicle Tracking
- Toll and ticketing monitoring and analytics and More



(6) Mall and Retail Surveillance and Monitoring

- Customer and visitor traffic forecast
- Inner and outer mall perimeter safeguarding and surveillance
- Queue management and optimization
- -facial recognition, people count, behavior tracking , sentiment analysis, tracking and etc
- Detect and prevent refund fraud at the register
- Optimize store layouts with customer movement insights
- Geofence for protecting off-limits areas with smart alerts
- Left object detections
- Inventory and shelving management
- Parking lot capacity and management
- Watchlist and VIP detection and More



(7) Residential and Commercial Apartment and Hotels

- Smart fire and smoke detection
- Watchlist and VIP detection
- Loitering and intrusion detection
- HSE for employee and worker safety and security
- Advanced facial recognition for tenant and guest safety and security
- Smart access control
- Parking lot capacity and VIP management
- Site and property security
- Abandoned Bags and objects detections
- Queue and Restricted area optimization
- Perimeter security and surveillance
- Advanced Search of events
- Checkin-Checkout security and surveillance and More



(8) Parking Management and Optimization

- Occupancy monitoring
- Parking traffic management
- Automatic Number Plate Recognition-ANPR for Automated Access Control
- Intrusion, theft and unauthorized detection and response
- loitering and dwell time detection
- Vehical classification
- Parking frequency and time analysis
- Smart event and incident search
- Perimeter safeguarding and More



(9) Bank Safety, Security and Surveillance

- Physical Security & Threat Detection
- ATM & Self-Service Protection
- Fraud & Insider Threat Analytics
- Customer Experience Optimization
- Compliance & Regulatory Readiness
- Vault & High-Value Asset Security
- Remote & Centralized Monitoring
- Sensitive Zones Security Integration



(10) Construction and Building Sites

- Worker personal protective equipment-PPE kit detection
- Smart fire and smoke detection
- Intrusion, theft and unauthorized access detection
- Material classification detection
- Waste management and illegal dumping detection
- Danger zone entry detection
- Near miss detection
- Workforce heat maps
- Barricade boundary and open edge detection
- Fight and violence detection



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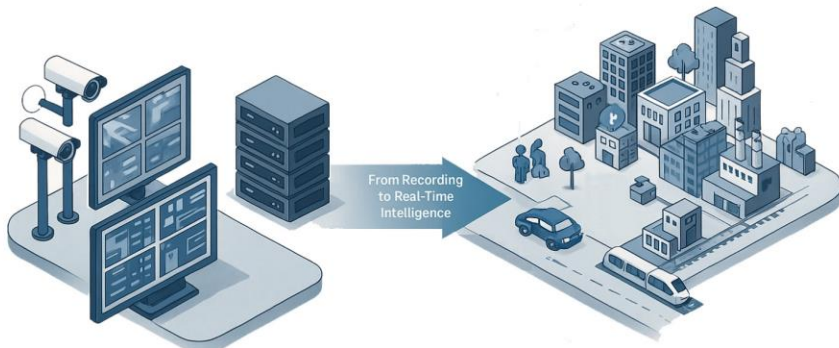
ARNAVISION iVMS



- ARNAVISION is an advanced Intelligent Video Management and Analytics System (iVMS) that goes far beyond traditional surveillance
- By leveraging advanced AI technologies such as machine vision and data analytics, the system converts raw video streams into actionable and measurable intelligence
- Classification of Solutions
 - 1) Scalable Video Management & Analytics
 - 2) Smart AI Detection Agents

Benefits

- Enhanced Situational Awareness**
Provides real-time visibility and contextual understanding across all monitored sites, enabling faster and more precise responses
- Improved Security**
Detects, analyzes, and responds to potential threats proactively through AI-powered video analytics
- 24Hour Security Nexus**
Ensures uninterrupted surveillance and instant alerting via an always-on, centralized monitoring platform
- Optimized Operational Efficiency**
Automates visual monitoring processes, minimizes false alarms, and improves resource utilization across storage and bandwidth
- Improved Safety and Compliance**
Enhances workplace safety and operational continuity through intelligent risk analysis and AI-driven compliance monitoring
- Data-Driven Decision Intelligence**
Converts raw video data into actionable insights that inform strategic and tactical decision-making



Scalable Video Management and Analytics

Smart AI Detection Agents

CAPABILITIES

Scalable Video Management and Analytics

- Scalable Camera Management
Handle, +5,000 cameras with centralized control
- Multi-Stream Recording & Playback
High-resolution storage, synchronized playback, forensic replays
- Smart Scheduling & Storage Optimization
Adaptive recording policies, bandwidth-efficient compression, compliance-ready archiving
- Text-Based & Metadata Search
Instantly retrieve events using keywords, objects or tags
- Unified User Dashboard & Access Control
Role-based permissions, multi-operator command center views
- Cloud & On-Premise Flexibility
Hybrid deployment options for ultimate scalability and security

Smart AI Detection Agents

- Object & Person Detection
Identify individuals, groups or objects in real time
- Vehicle & License Plate Recognition
Automate traffic control, parking and access management
- PPE & Safety Compliance
Detect missing helmets, vests or masks instantly
- Intrusion & Perimeter Monitoring
Geofencing, loitering and restricted zone alerts
- Behavior & Sentiment Analytics
Spot aggression, suspicious activity and unusual crowd behavior
- Abandoned Object Detection
Track left baggage, unattended packages or risky items
- Fire & Smoke Detection
Early AI-based alerts for safety-critical environments
- Predictive Anomaly Detection
Trend analysis and forecasting to prevent incidents

↓
This foundation ensures your video data is never just stored, it is organized, retrievable, secure, and ready for intelligence
↓



↓
With these agents, every camera becomes AI-powered sentinel, delivering 7/24 a proactive intelligence instead of passive video
↓



ARNA

TELESYS

Telecom Operator Customer Data Platform (CDP)



TELEYSIS

Drive Strategic Decisions and Optimize Subscriber Management

ARNA

TELEYSIS is a Smart Telecommunications Customer Data Platform (CDP), powered by cutting-edge big data and customer analytics capabilities tailored specifically for the telecom industry.

Our platform provides comprehensive insights into subscriber behavior, enabling telecom operators to make data-driven decisions that enhance customer satisfaction and drive operational efficiency. Telco-operators can leverage TELEYSIS for uncovering hidden patterns, predict trends, optimize services, elevate their subscriber experience, decrease retention rates and ultimately grow their business.



Benefits

- ✓ Enhanced Customer Satisfaction
- ✓ Improved Operational Efficiency
- ✓ Increased Subscriber Retention
- ✓ Business Growth
- ✓ Proactive Service Management



Capabilities

- ✓ Subscriber Behavior Analysis
- ✓ Real-Time Analytics
- ✓ Predictive BI
- ✓ Subscriber Segmentation and Profiling
- ✓ Operational Optimization
- ✓ And more



Features

- ✓ Advanced CDP Data Ingestion (5 Terabytes)
- ✓ Advanced Machine Learning Engine
- ✓ User Friendly Data Visualization
- ✓ And more

What You Can Expect From TELESYS

Drive Strategic Decisions and Optimize Subscriber Management

ARNA



Improve Subscriber Satisfaction

Enhance subscriber satisfaction through personalized promotions and improved customer profiling



Churn Rate Reduction

Reduce subscriber churn by identifying and addressing key factors that influence customer loyalty and retention



Reduce Operational Costs

Improve operational efficiency by streamlining processes and reducing menu time



Subscriber Acquisition

Acquire new subscribers through data-driven insights and targeted marketing campaigns that resonate with high-value segments

Customer Behavior Analysis

Drive Strategic Decisions and Optimize Subscriber Management

ARNA



- User Profile
- Churn Propensity Prediction and Root Cause
- Revenue Forecasting
- Sim Card Price Estimation
- Smart Credit Scoring
- Smart Ranking
- And More



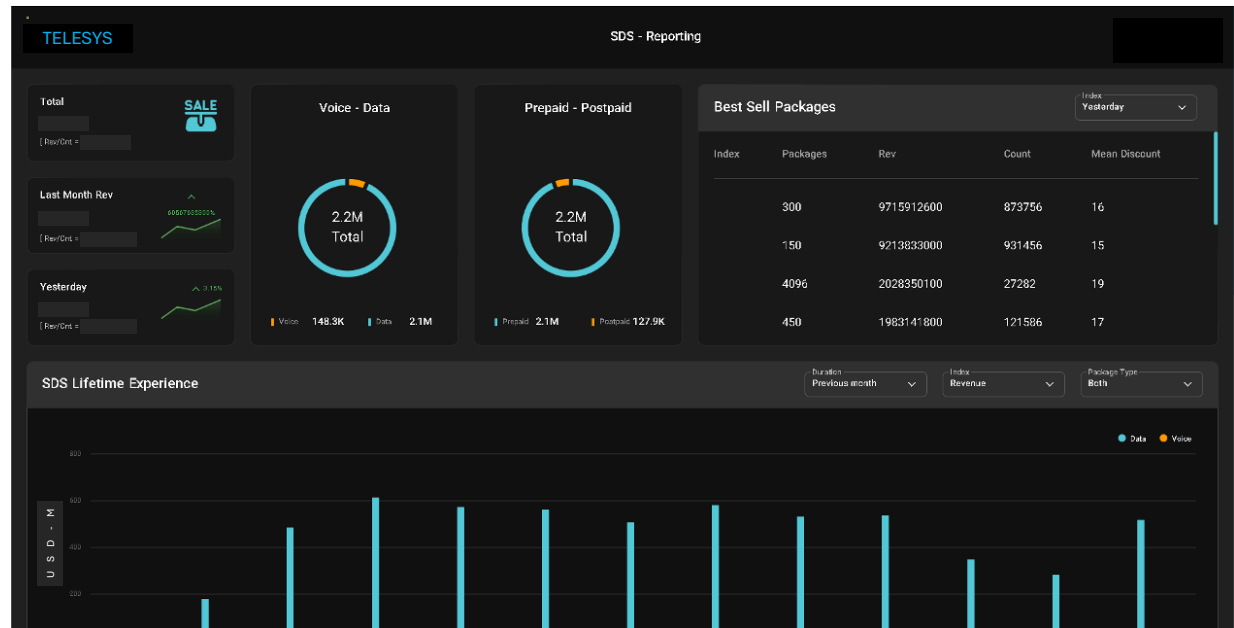
Smart Discounting System (SDS)

Drive Strategic Decisions and Optimize Subscriber Management

ARNA



- Cell Capacity Forecasting
- Cell Utilization Forecasting
- SDS- Policy Manager
- SDS- Packages
- SDS- Reporting
- And More



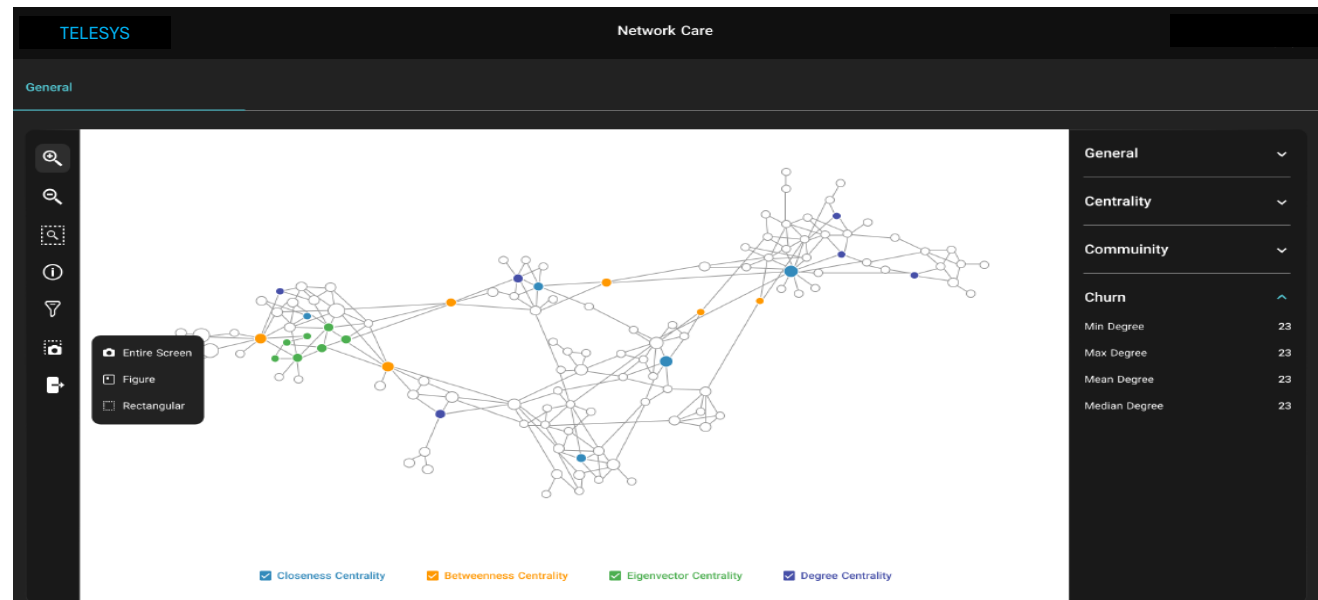
Customer Community Care

Drive Strategic Decisions and Optimize Subscriber Management

ARNA



- Network Impact Assessment
- ARPU (Average Revenue Per User) Optimization
- Communication Value Scoring
- Traffic Pattern Analysis
- Subscriber Segmentation and Prioritization
- And More



Systems Insight

Drive Strategic Decisions and Optimize Subscriber Management

ARNA



- Insights into revenue streams and user engagement through interactive dashboards and graphical Representations, facilitating Real-time analysis
- Insights into provincial consumption patterns



Autonomous Action

Drive Strategic Decisions and Optimize Subscriber Management

ARNA

- Optimized package offer
- Campaign manager



TELESYS Policy Manager

New Policy

Index	Title	Mode	Status	Selection Mode	Profit	Satisfaction	Network	Smart Approach	Details	Edit	Delete
1	Policy 1	Manual	Active	Geographical	Ignore	Low	Ignore	Disable			
2	Policy 2	Time Limit	Deactive	Manual	Very High	Soso	Maximum	Enable			
3	Policy 3	Manual	Active	behavioral	Very Low	Ignore	High	Disable			
4	Policy 4	Time Limit	Deactive	behavioral	Soso	Low	Very Low	Disable			
5	Policy 5	Manual	Active	Geographical	Low	Very Low	Maximum	Enable			
6	Policy 6	Manual	Deactive	behavioral	High	Maximum	Ignore	Disable			
7	Policy 7	Manual	Active	Manual	Low	Soso	Very Low	Enable			
8	Policy 8	Time Limit	Active	behavioral	Very High	Ignore	Very High	Enable			
9	Policy 9	Manual	Deactive	Geographical	Ignore	High	Maximum	Disable			

Smart Rail, Train and Facility Safety, Security and Surveillance



ARNA Railways and Train Station Facilities Solutions

Protecting Every Mile and Inch with Cutting Edge Analytics

ARNA

ARNA RTF (Rail, Train, and Facility) Solutions leverages cutting-edge AIoT (Artificial Intelligence of Things) and Satellite Communications technologies to enhance railway safety, security, surveillance, operations and performance. Our solutions integrate advanced imaging sensors (e.g., high-resolution cameras, LiDAR and etc.), AI-driven computer vision and deep learning algorithms



SAFETY

Advanced threat detection and alert systems to prevent and respond to potential security breaches, protecting passengers, staff, and infrastructure.



SURVEILLANCE

Continuous monitoring of railway infrastructure, trains and facilities to deter and detect potential security threats, ensuring the integrity of operations.



PERFORMANCE

Improved train performance, reduced energy consumption and enhanced overall efficiency through data-driven insights and advanced analytics



SECURITY

Real-time monitoring and anomaly detection for improved situational awareness, enabling proactive measures to prevent accidents and ensure passenger safety.



OPERATIONS

Real-time insights, predictive analytics and optimized scheduling, enabling efficient use of resources and minimizing congestion.



DIGITAL TWIN

A virtual replica of trains and rail infrastructure, enabling real-time simulation, prediction and optimization of railway operations.

DeepLine

Smart Rail Analytics with a Twist of Digital Twin

ARNA



Deep Line

- This is an advanced machine vision system and intelligent image processing designed to enhance safety and surveillance along railway routes.
- Utilizes multiple electro-optical sensors, advanced day-and-night cameras, deep learning algorithms, and secure communication modules.
- Provides early detection of obstacles and hazards up to 2km in advance, allowing for timely intervention and prevention
- Sends timely warnings to the driver or control center.
- Creates a digital twin of the trip.

DeepLine

Smart Rail Analytics with a Twist of Digital Twin

ARNA



- Remote Obstacle Detection
- Rail Structure Recognition
- Operation in All Lighting Conditions
- Multi-Level Intelligent Warnings
- Real-Time Image Processing
- Automatic Obstacle Classification
- Event Recording and Archiving
- Integration Capability
- Advanced Alarming System



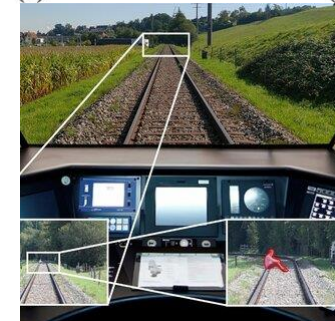
(a)

(b)



(c)

(d)



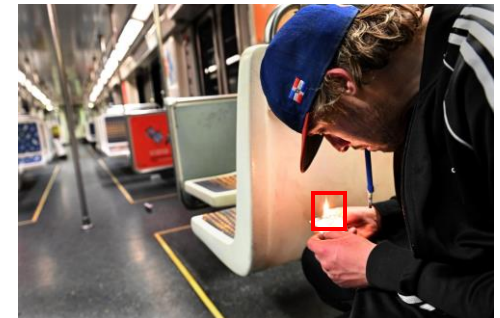
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On-Demand Cabin Surveillance and Passenger Safety

ARNA



- Smart Sentiment Analysis of Passenger
- Fighting and Threatening Behavior
- Behavioral Pattern Detection and Recognition
- Left and Abandoned Objects on Board
- Fire and Smoke Detection and Prevention
- Cabin Damaging and Zone Classifications
- Advanced Alarming System

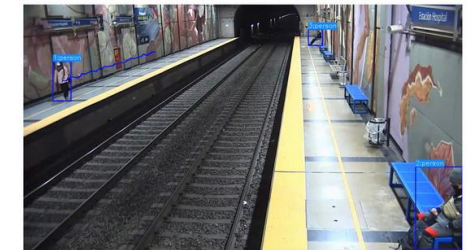


On-Demand Train Station Onboarding and Facility Safety and Surveillance

ARNA



- Identification of Ledge Threats
- Crown Detection and Incident Reporting
- Smart Facility Vehicle Detection and Analytics
- Smart Fire and Smoke Detection and Alerting
- Left and Abandoned Objects and Reporting
- Smart Sentiment and Behavior Analysis
- Smart Facial Recognition
- Smart Searching and VOD (video on demand) of events
- Danger and Restricted Zone Clustering and Geofencing



On-Demand Railway and Station Digital Twin

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- Railway Surveillance and Safety Control Digital Twin
- Train Station Onboarding and Facility Safety and Surveillance



NEXT STEPS

Contact Us With Any Questions and Requests



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