



VERINT

INTELLIGENCE POWERED SECURITY

Essential Components of a Safe City



PROTECT WHAT MATTERS MOST

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The Goal: Safeguard the City

Cities face an ever-evolving variety of threats and risk on a daily basis. From severe weather to public unrest, crime and terrorism, officials must be ready for anything that might disrupt and endanger routine city life. City leaders must continuously monitor the environment, analyze and prioritize threats, respond immediately and appropriately, mitigate risk, and limit damage wherever possible. Escalating population growth and sophisticated attack techniques only underscore the importance of ensuring public safety and security.

THREATS TO PUBLIC SAFETY AND SECURITY



Crime and Critical Incidents:

- + Burglary and theft
- + Vandalism
- + Kidnapping
- + Gun violence
- + Drug smuggling
- + Chemical, biologic, radiologic, nuclear and explosive devices
- + Arson



Public Unrest:

- + Protests
- + Crowding & grouping
- + Mob behavior



Natural Disasters:

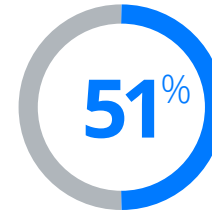
- + Floods, storms, heavy rain
- + Wild fires, earthquakes, tornadoes



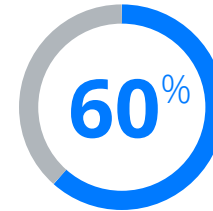
Traffic Safety:

- + Traffic violations
- + Accidents
- + Public transit security

THE URBAN EXPLOSION



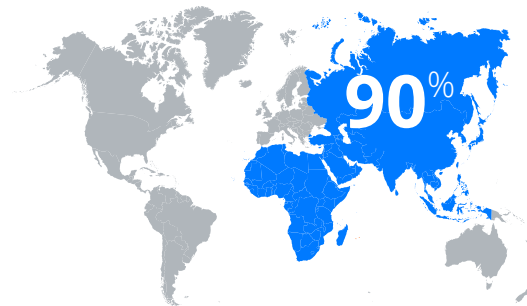
2018



2023

- + More than 50% of the world's population live in urban areas.
- + By 2030, more than 60% of the population will live in cities.

- + Mega-cities with 10+ million people are increasing in number
- + Smaller cities are some of the fastest growing cities in the world



- + Much of the expected urban growth will take place in countries of the developing regions
- + 90 percent of the increase in urban populations will be concentrated in Asia and Africa

"Managing urban areas has become one of the most important development challenges of the 21st century."

- John Wilmoth, Director of United Nations DESA's Population Division.

Source: United Nations <http://www.un.org/en/development/desa/news/population/world-urbanization-prospects-2014.html>

The Challenge: Disparate Intelligence Sources

One of the greatest challenge security officials face is information overload from disparate intelligence sources. Operators must sift through massive amounts of incoming data from hundreds of sensors and siloed systems, such as video surveillance, video analytics and access control, social media, LPR systems, traffic management, weather and environmental sensors. They must then coalesce that data into one system to gain accurate situational awareness and respond in real-time to critical events. And in a crisis, every second counts. The inability to make sense of high volumes of alerts and data without context – often from thousands of security devices – is not only inefficient and cumbersome, it can be catastrophic.



SITUATIONAL AWARENESS

Situational Awareness is gained through the collection, processing and analysis of data to deliver Actionable Intelligence to those responsible for keeping people and property safe in the city. Comprehensive situational awareness enables efficient, appropriate and rapid incident response and enhanced field communications. Security officials can more effectively respond and control factors contributing to the incident and reduce any negative impact to the community.

SAFE CITY INITIATIVES HAVE 3 GOALS:

- 1 Gather actionable intelligence before an event.
- 2 Enable effective action during an event.
- 3 Make video feeds and other sensor data easy to analyze in an investigation after an event.

Source: IHS Research

The Traditional Security Operations Center (SOC)

The traditional security operation center (SOC) assumes that incidents and attacks are the exception to the rule, rather than a continuous state. It is a series of defensive responses instead of strategically proactive, predictive and perpetual calculations and responses. Incoming data is triaged, but it needs to go further. It must be processed and analyzed to identify areas of intersection and correlation that can then help operators predict future threats while addressing and mitigating immediate risk.

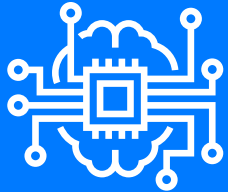
CHALLENGES OF THE TRADITIONAL SOC

| | | | | | |
|--|---|---|--|---|--|
|  <p>ALERT FATIGUE DUE TO POORLY CONFIGURED PARAMETERS AND FALSE-POSITIVES</p> |  <p>LIMITED DATA ANALYSIS, CORRELATION AND MEASUREMENT</p> |  <p>RESTRICTED TYPES OF DATA THAT CAN BE INGESTED</p> |  <p>INSUFFICIENT THREAT AND SECURITY INTELLIGENCE</p> |  <p>LACK OF ADAPTIVE AND PREDICTIVE RESPONSE</p> |  <p>POORLY DEFINED SECURITY RISK SITUATIONS</p> |
|--|---|---|--|---|--|

The Evolution to the Intelligent Security Operations Center (ISOC)

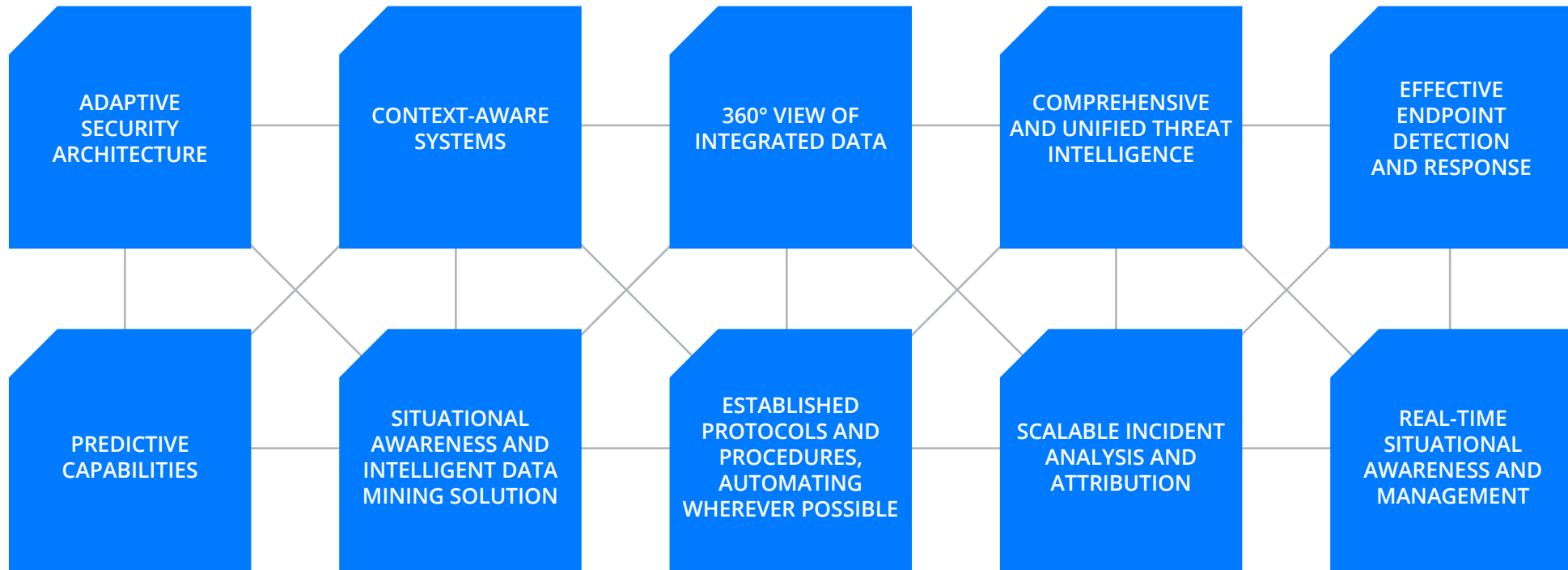
The intelligent SOC (ISOC) has an adaptive and open security architecture with unified and context-aware data systems. Able to react to dynamic security intelligence by leveraging a single interface, the ISOC is positioned to proactively prevent, detect, analyze, predict and respond to threats. The system is pliable and responsive to continuous input from integrated data feeds, thus becoming an intelligence-centric rather than video-centric environment.

Threat intelligence can be operationalized by sophisticated analytics, and standardized protocols and procedures – automated wherever possible – to produce actionable insights. The unification of systems, sensors and people maximize productivity and accuracy, while minimizing inconsequential and distracting “white noise” and false alarms. The ISOC is able to collect and analyze datasets in real time, which is then combined and layered with meta data, and then further refined into actionable intelligence within a single pane of glass. This level of sophistication far outperforms that of the traditional SOC, markedly improving threat detection, risk assessment and response capabilities.



THE ISOC IS POSITIONED TO PROACTIVELY PREVENT, DETECT, ANALYZE, PREDICT AND RESPOND TO THREATS.

Essential Components of the ISOC



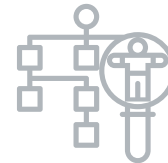
Establish Intelligence-Powered Security

The ISOC enables officials to quickly and effectively identify risk, respond accordingly to manage the situation, and if necessary, investigate an event. This centralized data system provides predictive analytics and early threat detection, and officials can see where events are happening and initiate a timely and appropriate response. Situational awareness is achieved by quickly and accurately correlating data based on sensors, geo-location and level of risk, as well as web and social media activity and intelligence.



SENSORS UTILIZED TO IDENTIFY RISK

- Video surveillance and video analytics
- License Plate Recognition
- Panic alarms
- Mobile phone identification
- Fire detection
- Weather notification
- Facial recognition
- Web intelligence
- Social media analysis
- Citizen Crowdsourcing
- External databases

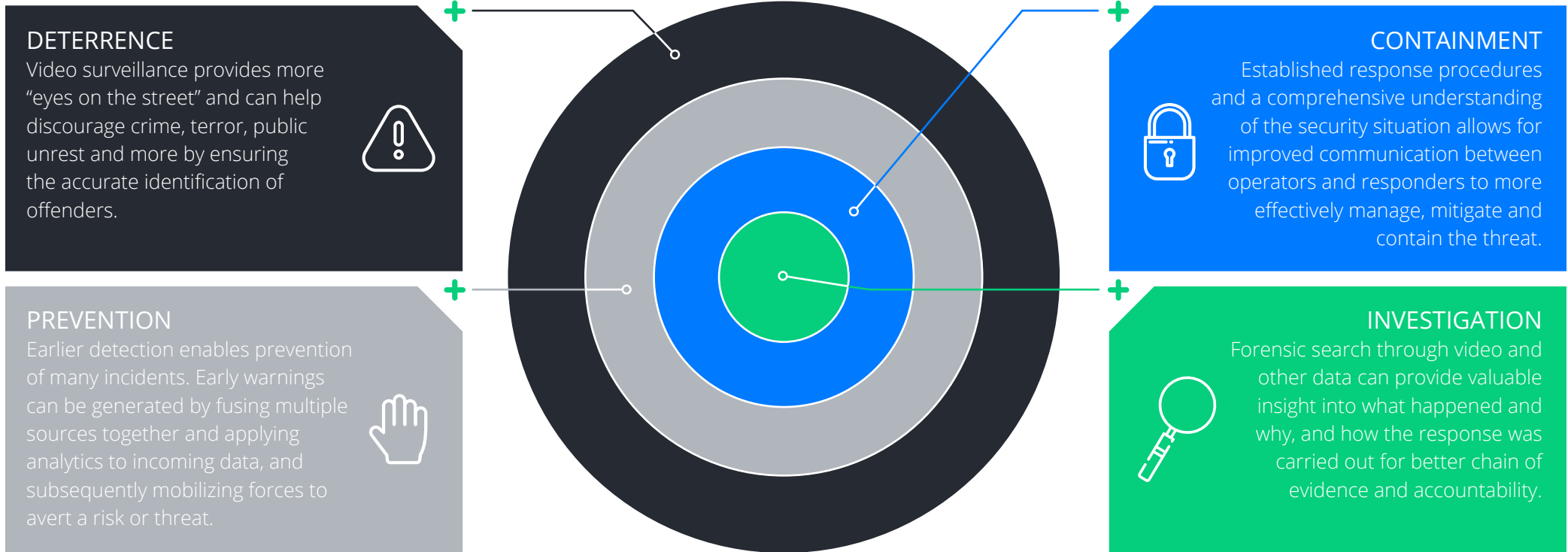


INFORMED SITUATION MANAGEMENT

- Standardized operating procedures and force management
- Maximize collaboration between officials and responders
- Effective dispatch management and response
- Automate protocols to minimize human error
- Accurately monitor the spread of news, photos and videos throughout social networks
- Gather additional video footage from field forces and citizens
- Reduce threat or incident impact
- Analyze forensic and holistic insight post-event

Construct Holistic Solutions

A UNIFIED PLATFORM PROVIDES A HOLISTIC SOLUTION TO ADDRESS A VARIETY OF SECURITY NEEDS.



Identify the Right Solution

EFFECTIVE SAFE CITY SECURITY AND INTELLIGENCE SOLUTIONS ENCOMPASS THE FOLLOWING ELEMENTS:



Open and scalable. Technology that can easily integrate with other systems and sensors, both now and in the future.



Easy and intuitive. A simple user experience will allow officials to operate more effectively, requiring less time to initiate actions and access additional information and improving situation management.



Comprehensive and automated. More informed, more structured information and procedures, relying less on human judgment.



Intelligence-driven. Fully leverage video surveillance and correlate it with other sources for a more accurate and comprehensive situational analysis.



Real-World Potential of Unified Intelligence

SCENARIO 1: TRANSPORTATION SURVEILLANCE

- + Secure and monitor high density passenger traffic areas
- + Support bi-directional control and monitoring of secured area and public area access
- + Utilize facial recognition in key intercept areas
- + Seek out persons of interest with behavioral and predictive analytics
- + Receive crowdsourced situational awareness via mobile reporting



Real-World Potential of Unified Intelligence

SCENARIO 2: PORT SURVEILLANCE

- + Efficiently monitor major public transportation hubs with thousands of sensors and data points
- + Accommodate and secure multiple government entities, airlines, vendors, employees, contractors, and passengers within sprawling facilities
- + Effectively assess, predict and expedite response to situations that could put travelers and personnel at risk
- + Program layers of security to access control systems
- + Detect threats from initial alert to investigation to analysis with an integrated and unified command and control center



Real-World Potential of Unified Intelligence

SCENARIO 3: CITY SURVEILLANCE

- + Ingest wide variety of data in fast moving, 24x7 environment
- + Connect with smart city initiatives to leverage IOT devices and smart systems
- + Keep policing efficient by identifying persons and vehicles of interest
- + Develop high-value visualization and intelligence to improve city life
- + Merge surveillance from neighboring and associated entities

* Solutions depicted where legally allowable.



Assess Your City's Status



ASSESS YOUR RISKS AND VULNERABILITIES

- + What threats are posed to the city, now and in the future?
- + Where are the majority of incidents happening?
- + Where are your strategic and more sensitive assets?
- + Do you have coverage in the right areas to deter events?
- + What are the operational needs to deter these threats or minimize collateral damage if they occur?



CONSIDER YOUR SOURCES OF INFORMATION

- + What sources of information do you have today?
- + What sources of information are missing for a clearer, more comprehensive picture?
- + Do you collect information from field forces and citizens?
- + What sources of information require correlation?
- + What level of detail do you gather today?



ANALYZE AND LEARN FROM PAST INCIDENTS

- + How were you alerted of incidents?
- + At what stage were you alerted of the incident?
- + Do you need to be aware earlier?
- + Could the incident have been resolved more rapidly?
- + What percentage of incidents were false alarms?
How could correlation with additional sensors help reduce this?
- + Who are your key stakeholders for information sharing?



ANALYZE RESOURCE UTILIZATION

- + Are field teams optimized in the more incident-prone areas?
- + Are all stakeholders connected?
- + Do security operations center employees spend a lot of time on manual, time-consuming tasks?
- + What is the workflow where operators handle multiple incidents?



REVIEW STANDARD OPERATING PROCEDURES

- + Are incidents escalated in a timely manner?
- + Are policies and procedures documented?
- + Do you meet compliance?
- + Is there consistency in these procedures?
- + Can all stakeholders be notified effectively and efficiently share a common situational awareness picture?



LEARN AND IMPROVE

- + Do you debrief post-incident, and does this include a new/updated process?

The Verint Intelligent Security Operations Center

INTELLIGENCE & ANALYTICS LAYER

Intelligence • Predictive Security • Analytics
Deep Learning • Artificial Intelligence

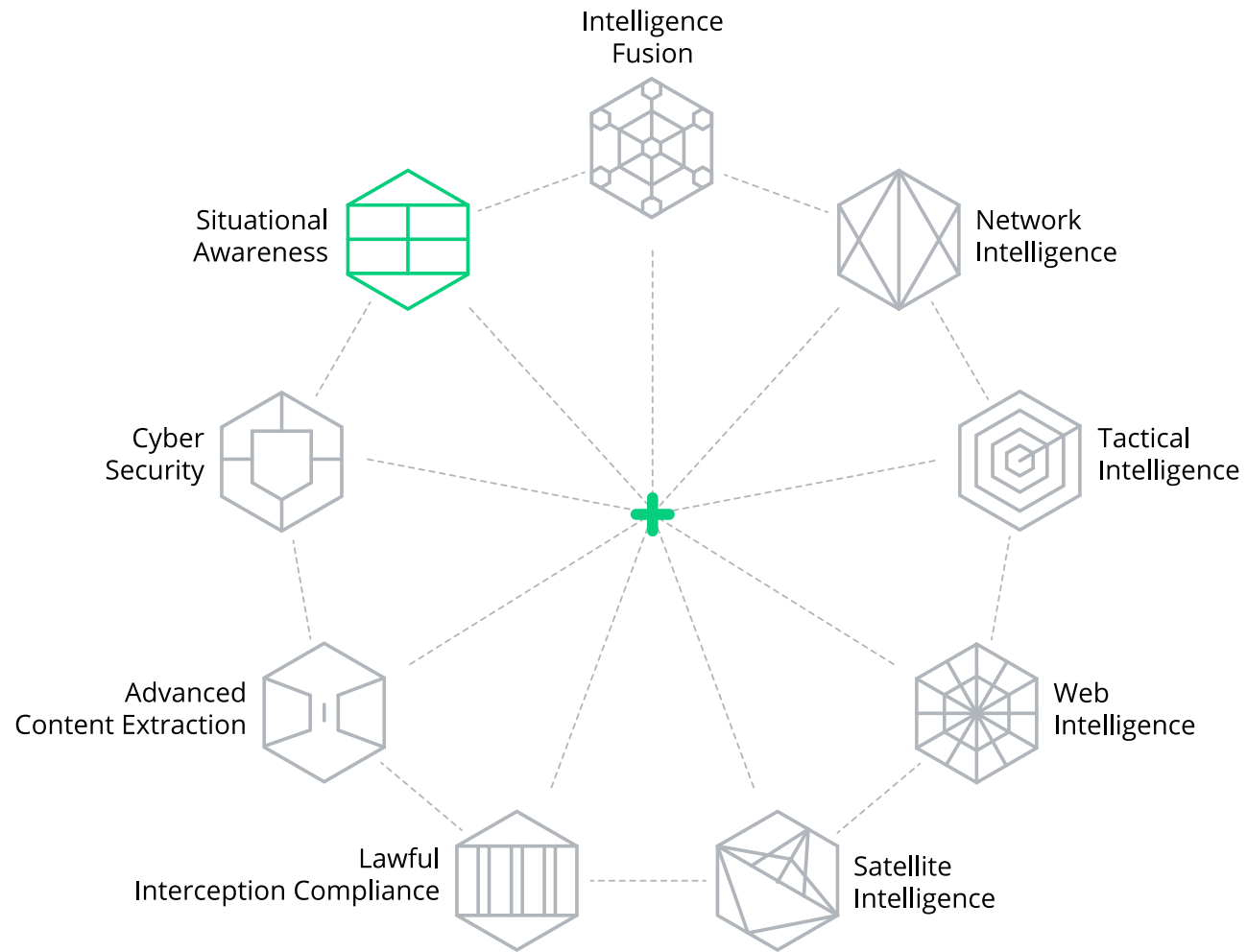
INTELLIGENT SOC LAYER

Command & Control • Visualization • Workflow
Dispatch & Reporting • Incident Management

SUB-SYSTEM LAYER

Video Management Software • Access Control • Call Point/Help Stations
Intrusion • Fire Control • Perimeter Security • Building Management

Verint Unified Portfolio



Verint Safe City Solution

Verint Situational Intelligence Solutions helps provide actionable intelligence to protect people and property in mission-critical environments. As a global leader in Actionable Intelligence solutions for optimized operations and safer, more secure environments, Verint's unified Safe City solutions help empower security operators with crucial insights necessary to detect, correlate and respond to incidents. Today, more than 10,000 organizations in more than 185 countries rely on Verint solutions to enhance the security of people, facilities, and infrastructure.

Contact us today for a site evaluation or demo.

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VERINT

INTELLIGENCE POWERED SECURITY

Protect What Matters Most

VERINT SITUATIONAL INTELLIGENCE SOLUTIONS

Verint Situational Intelligence Solutions, part of the Verint Cyber Intelligence Solutions™ business unit, provides Actionable Intelligence to protect what matters most: people, property and mission critical processes. Our solutions combine video management, situational awareness, facial recognition, emergency response and incident management to deliver real-time, actionable insight necessary to identify potential threats and rapidly respond to active incidents. We serve over 1,500 customers globally across all industry sectors, including transportation, critical infrastructure, safe city initiatives and healthcare. Built on an open architecture, our portfolio of solutions integrate easily with existing systems and software, helping you optimize your existing tools while improving performance and streamlining your security operations.

ABOUT VERINT SYSTEMS INC.

Verint® (NASDAQ: VRNT) is a global leader in Actionable Intelligence® solutions with a focus on customer engagement optimization, security intelligence, and fraud, risk and compliance. Today, more than 10,000 organizations in 180 countries count on intelligence from Verint solutions to make more informed, effective and timely decisions. Use of these products or certain features may be subject to applicable legal regulation. The user should familiarize itself with any applicable restrictions before use. These products are intended only for lawful uses by legally authorized users. Not all features may be available in all jurisdictions.

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