

**Page: General Information**

Provide information about the company to be considered for the award. If you will be nominating an individual, specify the nominee's employer.

**Name of Organization/Company**

General Directorate of Public Security

[REDACTED]

**Additional Contacts**

I do not wish to list additional contacts

**Page: Entry Information**

**Entry Title**

Security Analytics Platform - General Directorate of Public Security - Saudi Arabia

**Category**

N03. Technical Innovation of the Year - Government Technology

**Technical Innovation of the Year Submission Format**

Written Answers

**a. Briefly describe the organization that achieved the nominated technical innovation: its history and past performance (up to 200 words). Required**

The General Directorate of Public Security (GDPS) is the Kingdom of Saudi Arabia's national law-enforcement arm, operating under the Ministry of Interior. It commands police, traffic, emergency-call and criminal-investigation services across all 13 administrative regions and hundreds of cities, towns and pilgrimage routes. In recent years GDPS has aligned its modernization agenda with Saudi Vision 2030, replacing fragmented legacy systems with digital platforms that raise transparency and speed. Before launching the Security Analytics Platform, GDPS officers answered emergencies with an average response time of 31 minutes 12 seconds and required 5–15 days to collate data for major investigations. Case-completion rates hovered between 20 % and 35 %, and one-fifth of all files were opened against "unknown" perpetrators. These baseline figures, documented in the attached presentation, became the catalyst for an organization-wide transformation. Today the same agency resolves priority incidents in 4 minutes 30 seconds, concludes more than 65 % of investigations and classifies only 5 % of cases as "unknown," demonstrating a step-change in operational performance while maintaining its nationwide mandate to protect citizens, residents and the millions of annual visitors.

**b. Outline the nominated technical innovation. Be sure to describe it in terms that someone with limited knowledge of the technology can understand and appreciate (up to 250 words). Required**

The Security Analytics Platform is a single digital nervous system that turns live public-safety data into instant, predictive insight. Every second, thousands of CCTV streams, 911 calls, patrol GPS pings and historical incident logs are funneled through a secure ingestion layer and into a big-data processing engine built on distributed computing frameworks. An artificial-intelligence core then performs three tasks:

- Predictive analytics spots emerging "hotspots" by studying historical incidents, weather and temporal patterns, letting commanders place patrols where crime is statistically most likely to occur.
- AI-powered computer vision scans real-time video to flag wanted persons, suspicious objects or crowd anomalies the instant they appear.
- Link-analysis algorithms sift millions of records to uncover hidden connections between vehicles, phone numbers and prior offences, giving investigators leads that once took weeks to develop.

All outputs feed a bilingual web-and-mobile dashboard that unifies maps, alerts, video tiles and investigative graphs into a single view. Front-line officers receive the same intelligence on their handsets, enabling coordinated field action without new hardware or extensive retraining. This unification turns what were once five to seven isolated systems into one coherent workflow: forecast-->detect-->dispatch-->investigate. After nationwide rollout the platform cut average response time from 31 min 12 s to 7 min 29 s, shrank analytical turnaround from up to 15 days to 1–3 days and doubled case-resolution to 90 %

**c. Explain why the technical innovation you have highlighted is unique or significant (up to 250 words). Required**

What distinguishes this innovation is the way it fuses prediction, real-time detection and investigation into one production-grade system:

1. End-to-end intelligence cycle. Many solutions offer either CCTV analytics or crime-mapping. GDPS's platform covers the entire security workflow—from forecasting a hotspot, through instant on-scene alerting, to data-driven case building—inside a single micro-services architecture.
2. Real-time scale. The system ingests "hundreds of diverse, high-volume data streams simultaneously" and processes them fast enough to deliver patrol alerts in under two seconds (slide 7). Few public-safety deployments match that velocity across a national footprint.
3. Documented impact. Verified metrics show an 85 % faster response, a two-minute analytical turnaround (down from up to 15 days) and a jump in case-completion to 65 %, while crimes filed against unknown offenders fell from 20 % to 5 % (slide 9).

Those outcomes translate directly into safer streets and higher public confidence.

4. Future-proof engineering. A modular, micro-services design allows individual models or data connectors to be swapped without system downtime, ensuring long-term technological sustainability (slide 11).

5. Inclusive, low-friction adoption. Because the interface is WCAG-compliant and bilingual, 20 000 + officers accessed advanced AI without new hardware or lengthy retraining.

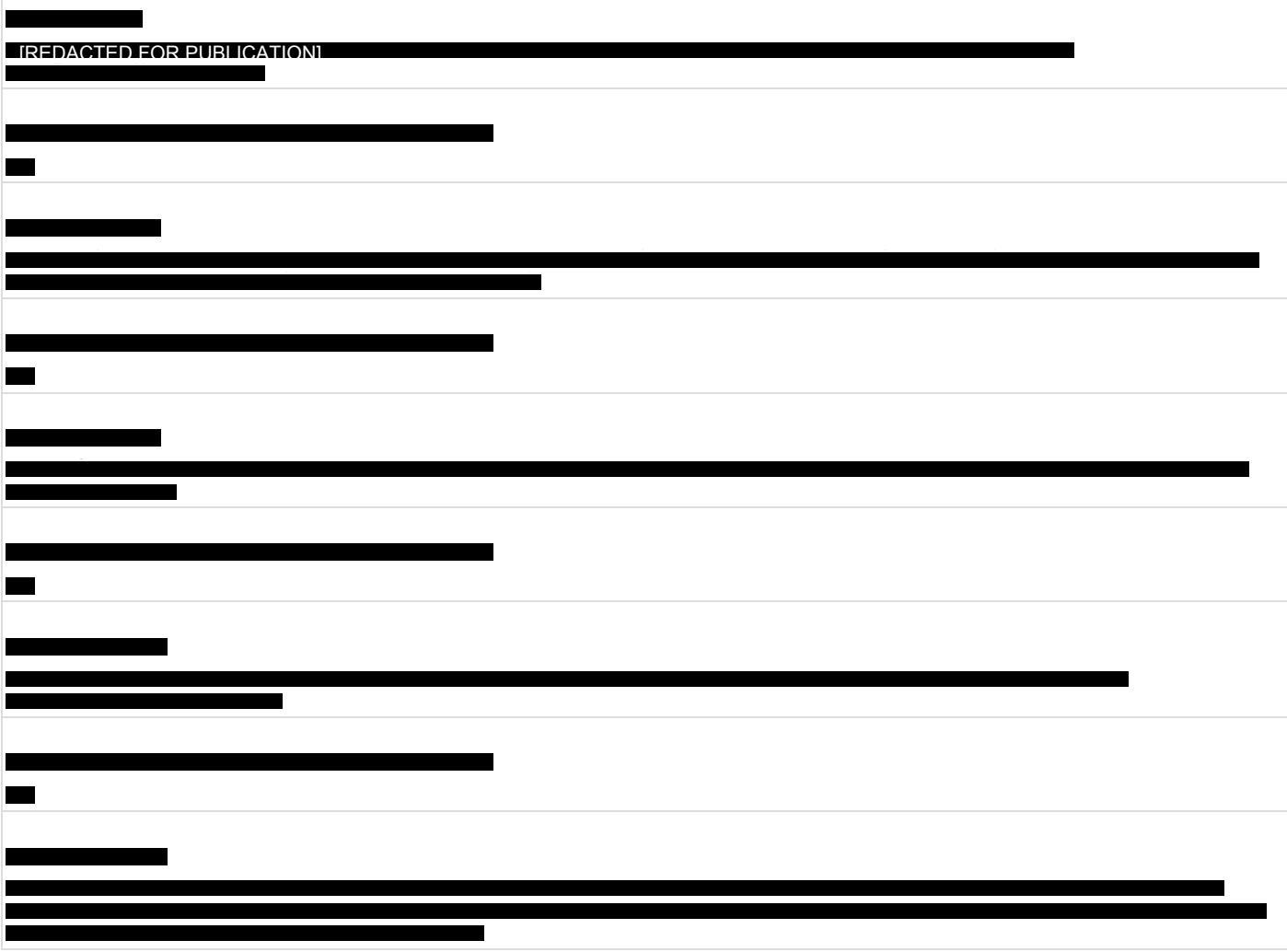
6. Alignment with national and global goals. By making urban areas demonstrably safer, the platform advances two Vision 2030 pillars—"Vibrant Society" and "Ambitious Nation"—and directly supports UN SDG 11 (safe cities) and SDG 16 (peaceful societies) as documented on slides 15 and 16.

Together these factors make the Security Analytics Platform not just another policing tool but a transformative public-service infrastructure.

**d. Reference any attachments of supporting materials throughout this nomination and how they provide evidence of the claims you have made in this nomination (up to 250 words). Optional**

- Slides 4–5 of "PublicSecurity\_Award.pdf" document the baseline challenges and the architecture of the new platform.
- Slides 6–7 illustrate the four core AI capabilities and the micro-services stack that enables real-time throughput.
- Slide 9 supplies the "before-and-after" metrics—85 % faster response, ≤ 2-minute analytics, 65 % case-closure and 30 % incident reduction—that underpin claims made in sections b and c.
- Slides 11–13 outline the sustainability strategy and road-map, providing evidence that the solution is engineered for long-term impact rather than a time-boxed pilot.
- Slides 15–16 map the project to Saudi Vision 2030 and UN SDGs, corroborating assertions about strategic alignment.

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**Would you like to add an additional webpage link?**

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For more information, contact the Office of the Vice President for Research and Economic Development at 319-335-1111 or [research@uiowa.edu](mailto:research@uiowa.edu).

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**Would you like to add an additional supporting document?**

By your submission of the  
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