

# Case Report: Homicide of the TechNova Inc. CEO

Case File: TN-20251015-001

## 1.0 Incident Overview

This report documents the data-driven forensic investigation into the death of the TechNova Inc. Chief Executive Officer. The incident occurred on the evening of October 15, 2025, and was officially ruled a homicide. The investigation leveraged a systematic, SQL-based analysis of the company's internal databases to reconstruct the events of that evening, verify employee statements, and ultimately identify the perpetrator.

The core facts of the case are summarized below:

Field	Details
Case Number	TN-20251015-001
Incident Type	Homicide
Date of Incident	2025-10-15
Time of Discovery	Approximately 21:00 (9:00 PM)
Investigative Method	SQL-based analysis of internal company databases

The following sections detail the step-by-step analytical process, query results, and logical deductions that led to the conclusive identification of the individual responsible for this crime.

## 2.0 Investigative Methodology

A data-centric approach was determined to be the most effective strategy for this investigation. By systematically querying internal databases, investigators were able to bypass subjective accounts and instead rely on an immutable digital record. Each database served a distinct forensic purpose: keycard\_logs provided an objective record of physical presence; alibis provided a baseline of employee claims to be tested for deception; calls logs helped reconstruct communication patterns; and the evidence database linked physical findings to the digital timeline. This methodology allowed for the rapid correlation of disparate data points to uncover inconsistencies and build a verifiable timeline.

The investigative framework was structured around five primary objectives:

- Crime Scene Establishment:** Pinpointing the location and time of the incident based on digital and physical evidence logs.

- 2. **Access Log Analysis:** Identifying all personnel with electronic keycard access to critical areas during the established time of the incident.
- 3. **Alibi Verification:** Cross-referencing employee-stated alibis with electronic keycard records to detect contradictions.
- 4. **Communications Analysis:** Investigating suspicious call records made by persons of interest around the time of the murder.
- 5. **Evidence Correlation:** Synthesizing all data points to conclusively link a single suspect to the crime scene, a falsified alibi, and other suspicious activities.

The investigation proceeded chronologically through these analytical stages, with the findings of each step informing the next query.

3.0 Chronological Investigation and Findings

This section presents the sequential queries executed against the company databases and the corresponding results. Each step in the process systematically narrowed the field of potential suspects, building an evidentiary case grounded in verifiable data.

3.1 Step 1: Establishing the Crime Scene

The first analytical step was to query the evidence database to identify all logged evidence and their associated locations. This query provided the initial focus for the investigation.

The findings are detailed in the table below:

Crime Location	Description	Found Time
CEO Office	Fingerprint on desk	2025-10-15 21:05:00
CEO Office	Keycard swipe logs mismatch	2025-10-15 21:10:00
Server Room	Unusual access pattern	2025-10-15 21:15:00

Based on the nature and location of the initial evidence, particularly the fingerprint and keycard log discrepancy, the **CEO Office** was conclusively identified as the primary crime scene. While the Server Room access pattern was flagged for later review, the convergence of physical and digital evidence made the CEO Office the clear investigative priority. With the location established, the next logical step was to identify who had access to this secure area.

3.2 Step 2: Identifying Persons of Interest via Access Logs

The objective of this step was to query the keycard\_logs database to identify any employee who entered the CEO's office between 20:45:00 and 21:15:00 on the day of the murder, a critical window surrounding the time of death.

The query returned a single, critical result: **David Kumar (employee\_id 4)**, who entered the CEO Office at 2025-10-15 20:50:00 and exited at 2025-10-15 21:00:00.

This finding was highly significant, as it placed David Kumar at the primary crime scene within the precise timeframe of the homicide, making him a primary person of interest. The next investigative step was to verify the alibis provided by key individuals, including Mr. Kumar.

**3.3 Step 3: Alibi Verification and Discrepancy Analysis**

This analytical step was designed to identify contradictions between employee statements and electronic records. It involved joining data from the alibis table with the keycard\_logs to detect inconsistencies between where employees claimed to be and where electronic records proved they were.

The results of this cross-referencing query revealed a major discrepancy:

Employee ID	Employee Name	Claimed Location	Actual Location
1	Alice Johnson	Office	-
4	David Kumar	Server Room	CEO Office
5	Eva Brown	Marketing Office	-
6	Frank Li	Office	-

The data shows a direct contradiction in David Kumar's statement. He claimed to be in the **Server Room** at 20:50:00, but the keycard data irrefutably proves he was in the **CEO Office** at that exact time. This direct and verifiable contradiction between a sworn alibi and immutable keycard data is a critical indicator of deliberate deception, elevating David Kumar from a person of interest to the primary suspect. Further investigation into the suspect's activities during this period was deemed necessary.

**3.4 Step 4: Analysis of Suspicious Communications**

To build a more complete picture of the suspect's actions, the calls database was queried for any communications made between 20:30:00 and 21:00:00.

The query revealed two calls made by David Kumar during this window:

- **Call 1:** Placed to Grace Tan at 20:40:00 (Duration: 90 seconds).
- **Call 2:** Placed to Alice Johnson at 20:55:00 (Duration: 45 seconds).

The second call is particularly noteworthy as it was placed at 20:55:00, while David Kumar was inside the CEO's office and just five minutes before his keycard registered his exit. The recipient of this call, Alice Johnson, is notable as she was another employee whose location was verified during the alibi analysis phase. This call from the

crime scene to a verified employee warrants further investigation into their potential connection.

### 3.5 Step 5: Correlating Evidence to the Primary Suspect

An intermediate query was executed to correlate the physical evidence found at the crime scene with the primary suspect's specific window of presence. The results confirmed that both the fingerprint and the keycard log mismatch directly corresponded to the 10-minute period when David Kumar was the sole individual logged inside the CEO's Office. This finding forges a direct link between the suspect and the physical evidence.

### 4.0 Synthesis of Evidence and Final Identification

The final phase of the investigation constructed a single, comprehensive SQL query to identify an individual who met all three criteria of an evidentiary triangle: opportunity, deception, and anomalous behavior. While any single point might be circumstantial, their intersection in a single individual creates a conclusion with an extremely high degree of certainty.

The three pillars of the case used for the final identification query were:

1. **Opportunity (Presence):** The individual must have accessed the CEO Office between 20:45:00 and 21:15:00.
2. **Deception (Contradiction):** The individual must have provided an alibi that is disproven by keycard log data for the time they were at the crime scene.
3. **Anomalous Behavior (Activity):** The individual must have made or received a phone call between 20:50:00 and 21:00:00, the timeframe they were inside the CEO's office.

The query returned a single, unambiguous result, identifying **David Kumar (killer\_id 4)** as the only employee who met all three conditions.

### 5.0 Conclusion

The SQL-based forensic investigation successfully identified the perpetrator by systematically analyzing and correlating digital records from internal company databases. The evidence trail uncovered a clear sequence of actions and a deliberate attempt to mislead investigators.

The key findings that led to the identification are as follows:

- David Kumar was physically present in the CEO's office from 20:50:00 to 21:00:00 on October 15, 2025.

- He provided a false alibi for this exact timeframe, claiming to be in the Server Room.
- He made a phone call at 20:55:00 from within the CEO's office, five minutes before his departure and during the established timeframe of the homicide.

Based on the immutable digital evidence trail derived from keycard logs, alibi statements, and call records, this investigation concludes with professional certainty that **David Kumar** is the perpetrator in the homicide of the TechNova Inc. CEO.