**Incident report analysis**

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| **Summary** | On Thursday 24th August 2023, an employee from the customer service unit reported to the IT department that she was unable to log in to her internal network account. Access logs indicate that her account has been actively accessing records in the customer database, even though she is locked out of that account. The intern indicated that she received an email this morning asking her to go to an external website to log in with her internal network credentials to retrieve a message. We believe this is the method used by a malicious actor to gain access to our network and customer database. A couple of other employees have noticed that several customer records are either missing or contain incorrect data. It appears that not only was customer data exposed to a malicious actor, but that some data was deleted or manipulated as well. |
| Identify | The incident management team audited the systems, devices, and access policies involved in the attack to identify the gaps in security. The team found that the employee’s username and password were obtained by a malicious attacker and used to access data from our customer database. Upon initial review, it appears that some customer data was deleted from the database. |
| Protect | The team has implemented new authentication policies to prevent future attacks: multi-factor authentication (MFA), login attempts limited to three tries, and training for all employees on how to protect login credentials and the dangers of password compromise. Additionally, we will implement a new protective firewall configuration and invest in an intrusion prevention system (IPS). |
| Detect | To detect new unauthorized access attacks in the future, the team will use a firewall logging tool and an intrusion detection system (IDS) to monitor all incoming traffic from the internet. |
| Respond | The team disabled the employee’s account. We provided training to employees on how to protect login credentials in the future. We informed upper management of this event and they will contact our customers by mail to inform them about the data breach. Management will also need to inform law enforcement and other organizations as required by local laws. |
| Recover | The team will recover the deleted data by restoring the database from last night’s full backup. We have informed staff that any customer information entered or changed this morning would not be recorded on the backup. So, they will need to re-enter that information into the database once it has been restored from last night’s backup. |

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| Reflections/Notes: This attack proved that Users are the weakest link of any information system and hence the need for user awareness and training security best practices from time to time. |