

## Case study

### Summary

OKKO GROUP is an all-Ukrainian holding of the companies, with Concern Galnaftogaz fleet-leader (the network of filling stations OKKO). The Holding unites more than 10 businesses of different profiles - manufacturing, trade, construction, insurance, services and other.

The European Bank for Reconstruction and Development is a shareholder and institutional investor in the Holding's companies.

Concern Galnaftogaz (OKKO filling stations network) is one of the largest filling stations in Ukraine. The company includes more than 400 filling stations under the OKKO brand. The company also has the largest network in Ukraine of restaurants on the road, which operates under the brands Hot café, A la minute, Pasta Mia and Meiwei.

OKKO GROUP also includes OKKO Agrottrade (providing fuels, fertilizers, and financial resources for agro sector), Concern Khliprom (producing 160 bakery products daily), Vash Dim (one of the TOP-20 Ukrainian real estate developers, housing and construction, residential projects), "Technopark" development company (business city center in Lviv), construction company Progretekhbud (residential property, offices, fuel stations), Lynks Laboratories (automotive, household and industrial chemical products, chemicals for the oil and gas industry), Efort security agency (security and fire alarm systems), and others. OKKO GROUP is one of the most well-known Ukrainian brands aiming to provide the world-class services and increase citizens' level of well-being.

### Challenge

Based on threat's testing and modeling approach, applied to different segments of the customer's infrastructure, weak points in event detection within the network perimeter were identified. These events were classified as those that are related to the stages of network exploration by the attackers and attempts to exploit the obtained network services in the local network segments. It was also determined that an additional layer of protection was required at the workstation level, in the form of file honeypots for attackers who had already gained access to the station, for example, through a phishing attack.

To improve the quality of incident investigation, it was essential to reduce the amount of response time, while diverting the attackers' attention as much as possible from real IT assets.

### Client's Infrastructure

Installation covers up to 100 VLANs



### Realization

The Labyrinth system was deployed in a configuration with multiple Worker VMs, because there was a need to cover several distributed network segments: offices and data centers.

During the deployment process, all available types of network honeypots (Points) were used and two-way integration with SIEM was performed.

For the majority of internal Web services, our team created web honeypots based on UniversalWebPoint.

### Solution

Deployment of the Labyrinth system and coverage of the Client's infrastructure was provided in few directions:

1. Critical for business processes, internal Web applications were identified, and several network honeypots for each of them were created on the basis of UniversalWebPoint aiming to increase the likelihood of detecting an attacker who is focused specifically on finding and exploiting internal Web resources.
2. All available types of network decoys (Points) were deployed to create the largest possible attack surface.
3. The majority of the client's network segments were covered with decoy networks.
4. SIEM and Labyrinth dual sided integration is configured. Based on this integration, additional procedures have been deployed and formalized to be used in the investigation and response to incidents. Labyrinth incidents handling process was integrated into common Security Incident Management process within Organization.
5. On actual hosts, many different types of decoy files are distributed to detect an attacker at the post-exploitation stage (if the intruder anyways gains access on an actual host by using phishing, physical access, etc.).

LABYRINTH DEVELOPMENT

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### Results

With the Labyrinth system's functionality, it was possible to increase visibility within the network perimeter, to identify any possible attempts to conduct unauthorized access and research within the structure and composition of hosts in network segments.

Due to the use of the Web-deception functionality, attackers' sequence of actions on internal Web applications were spot-on detected and carefully classified.

Based on the data gathered by the Labyrinth system, informational value of detected incidents has been significantly increased, which has led to faster decision making for each of the investigated cases.

# Labyrinth

Better detection. Less complexity. More confidence.

### About us

*Labyrinth is a Ukrainian team of experienced cybersecurity engineers and penetration testers, which specializes in the development of solutions for early cyber threat detection and prevention.*

*Deception techniques provide adversaries with an essential advantage over defenders, who cannot predict attackers' next move.*

*OUR VISION is to shift the balance of power in favor of defenders.*

*OUR MISSION is to provide all kinds of organizations with a simple and efficient tool for the earliest possible detection of attackers inside the corporate network.*

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