

**NATIONAL AUTHORITY ON** ELECTRONIC CERTIFICATION AND CYBER SECURITY

# ANNUAL REPORT 2022

St."Papa Gjon Pali II", No. 3, I Floor, Tirana, Albania

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## 1. Directorate of Electronic Certification and Control

## 1.1 Accrediation and Policy Sector

#### During 2022 the accreditation and policy sector has accomplished the following tasks:

 In the framework of the country's integration into the European Union work has continued to update the current legal basis, including Law no. 9880/2008 "On Electronic Signature", Law no. 107/2015 "On Electronic Identification and Trusted Services", as well as Law No.2/2017 "On Cyber Security" in full harmonization with European Regulation EIDA no. 910/2014 "On Electronic Identification and Trusted Services for Electronic Transactions in the Internal Market", as well as in full harmonization with the 2016/1148 Directive of the European Parliament and the Council "concerning measures for a high common level of the security of networks and information systems across the Union "(NIS Directive).

Regarding the performance of two draft laws, the draft law "On electronic identification and trusted services" and the accompanying package was issued for public consultation on 07.12.2022, a process which was completed on 10.01.2023. The draft law is being reviewed on the basis of comments brought by interested institutions and entities. The deadline for submission of this draft law is planned on the first quarter of 2023.

For the draft law "On Cyber Security" the final proposal of the draft law was adopted, but with the approval and changes that derive from the NIS2 Directive in December 2022, in order to include some elements of this directive, this draft law was reviewed. Regarding the progress of this draft, NAECCS is preparing the full package to continue with the relevant public consultation procedures. The planned deadline for submitting this draft law is the first quarter of 2023.

- 2. In the context of the obligations set forth in the legislation on the declaration of assets and the prevention of conflict of interest, it has been periodically and annually reported to The High Inspectorate for the Declaration and Audit of Assets and Conflicts of Interest ("HIDAACI").
- 3. During 2022 has been approved:
- "Regulation on the content and manner of documenting cyber security measures" approved by order of the General Director no. 10, dated 14.02.2022.
- "Methodology for identifying and classifying critical infrastructures and important information infrastructures ", approved by order of General Director No.9, dated 14.02.2022.
- Decision of Council of Ministers ("DCM") no. 553, dated 15.7.2020 "On the approval of the list of critical information infrastructures and the list of important information infrastructures", amended by DCM no. 761, dated 12.12.2022.
- Contribution to the process of identifying critical information infrastructures and important information infrastructures (part of the working group).

- 4. Contributing with continuous information and reporting on the progress of the implementation of the measures and activities provided for in the Action Plan 2021-2023 of the "Inter-Sector Strategy of the Fight against Terrorism 2021-2025".
- 5. Contribution to the drafting of the strategic document in the field of prevention and opposition of violent extremism of the "New Strategy for the Prevention and Opposition of violent extremism 2022-2026."
- 6. In the context of integration into the European Union a contribution was made to these areas:
- Reporting on Chapters 3, 10, 24 within GNPIE;
- Participation in meetings in the context of GNPIE;
- Completion and reporting on PPAP and PKIE 2022-2024; PKIE 2023-2025;
- 7. Participation in training for enhancing technical and professional capacity in the field of trusted services and cyber security organized by FESA, ENISA, etj.
- 8. Participation in the Conference "Speakers at Montenegro", CCB Conference, 9 May 2022 (part of the panel as a speaker and reporter).
- Participation in the workshop "CRDF Global Cross Cyber Drill" 7 July and 8 July 2022 "; TAIEX Expert Mission on Request for Transposition of Regulatory Framework In Cyber Security with NIS directive, 20.07.2022, Workshop "The Implementation of EU CyberseCurity Law" 14-15 December, EGAG.
- 10. Drafting legal reports as well as various written correspondence with institutions as needed.

#### 1.2 Communication and Information Distribution Sector

#### 1.2.1 Monitoring of "National Cyber Security Strategy 2020-2025"

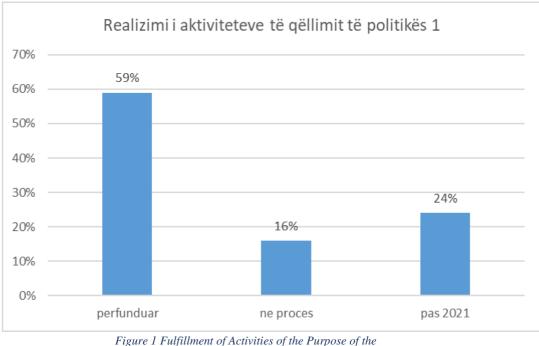
The National Cyber Security Strategy 2020-2025 was adopted by Decision no. 1034 dated 24.12.2020, of the Council of Ministers and constitutes a key instrument for enhancing the safety of networks and information systems at national level and priority of the Albanian government.

With the contribution of the involved actors the first strategy monitoring report was drafted, which aims to evaluate the progress of implementing this strategy according to the four goals of the respective policies and objectives for the period January - December 2021.

The action plan of the National Strategy for Cyber Security 2020-2025 includes a total of 125 basic activities to be implemented during the years of adpotion of the strategy. Out of these 52% (65 activities) were fully fullfiled during the first year of 2021, while 42% (52 activities) are expected to start implementing along 2022 and onwards.

In particular, there is progress in fulfilling the purpose of the first policy on "guaranteeing cyber security at the national level, through the protection of information infrastructures, by strengthening technological and legal means" considering the fulfiled activities that are in process.

In achieving the objectives of this policy 49 Activities (39%) are foreseen, 29 of which are fully accomplished and 8 are in the process of completion as seen in the graph below:



ure I Fulfillment of Activities of the Purpose of Policy 1

In meeting the objectives of the goal of the second policy, there are 19 activities (15%), 8 of which are fully achieved and 11 not yet started as seen in the graph.



Figure 2 Fulfillment of Activities of the Purpose of the Policy 2

In meeting the objectives of the goal of the third policy, 42 activities (34%) are foreseen, 17 of which are fully realized and 25 unfented as seen in the graph.



Figure 3 Fulfillment of Activities of the Purpose of the Policy 3

In meeting the objectives of the goal of the fourth policy, 15 activities (12%) are foreseen, 11 of which are fully realized and 4 unfented as seen in the graph.

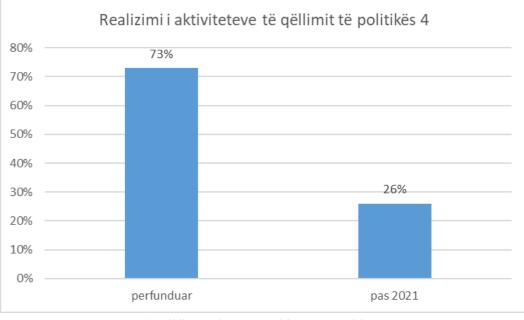


Figure 4 Fulfillment of Activities of the Purpose of the Policy 4

The full monitoring Report is found on the NAECCS official Website: https://cesk.gov.al/Publikime/2022/Monitorimi i strategjise sigurise kibernetike 2021.pdf The communication and information distribution sector has participated in the coordination of work for the fullfilment of activities within the joint project with UNICEF Albania "Development of the mechanisms needed for online saftey of children and young people in Albania" during February - September 2022.

## The results of this project are:

- ✓ Drafting of 6 documents, in the form of inter-institutional protocol, guide, analyzing report.
- ✓ 518 trained parents and teachers in 12 units / cities of Albania: Babrru, Vorë, Kavajë, Dibër, Klos, Kukës, Has, Laknas, Burrel, Bulqizë, Fushe Arrëz, Pukë, Vau Dejës, Shkodër, Tropojë, Kamëz dhe Paskuqan.
- ✓ 1 Awareness Manual drafted for parents and educators, with children's protection tips online, focusing on online trafficking.

## **Drafted documents are:**

- Report on analyzing and identifying illegal content reporting mechanisms.
- Inter -institutional protocol for cooperation between law enforcement agencies, internet service providers and NAECCS.
- Report on analyzing and identifying the legal gap of protection of children online from sexual abuse, including the necessary recommendations.
- Report on analyzing the technical functionalities of the portal for blocking pages with illegal content, along with recommendations for improving functionalities in order to increase efficiency.
- Report on analyzing existing initiatives of Internet service providers for online child protection.
- Instruction for Internet Watching Foundation Hash List on the services of Internet Service providers.

In addition, the sector of communication and information distribution has participated in the coordination and implementation of the work for the realization of activities in the framework of piloting of the global project with the International Telecommunication Union "Creating a safe and empowering digital environment for children" for the period January-December 2022.

## The results of this project are:

- ✓ Drafting of 2 awareness manuals:
  - Child-friendly manual dedicated to the protection of children on the Internet
  - $\circ~$  Train of Trainers (ToT) Manual dedicated to parents, to increase the safety of children on the Internet
- ✓ 37 trainings for children and young people, parents and educators, industry representatives
  - 12 trainings for children and young people
  - 15 trainings for parents and educators
  - o 10 trainings for industry representatives

- ✓ 750 trainings participants
  - 190 children and young people
  - 460 parents and educators
  - 100 industry representatives
- ✓ 1 unified message published in physical stores and social media of Internet Service Providers.
- $\checkmark$  1 poster with advice from the ITU Guidelines.

## **Capacity building activities**

## **Regional Cyber Camp 19-21 Aprill 2021**

The National Authority on Electronic Certification and Cyber Security in cooperation with Geneva Center for Security Council (DCAF), OSCE, Regional Cooperation Council (RCC), American Chamber of Commerce in Albania, Albanian Microfinance Association, One Telecommunications organized the innovative event on April 19-21 "Regional Cyber Camp Albania" in the premises of the Movenpick Hotel, Lalzi Bay. The purpose of the event was to develop practical skills for cooperation and information exchange between the CSIRT, the State Police and other regional institutions responsible for cyber security, as well as to raise the capacities of young people on cyber security. During the 3 days of the activity, about 100 young people and 50 professionals from Albania, Kosovo, Serbia, Bosnia Herzegovina, North Macedonia and Montenegro deepened their knowledge and exchanged the best national practices in the field of cyber security.



CyberSec 3.0 22-23

December

2022



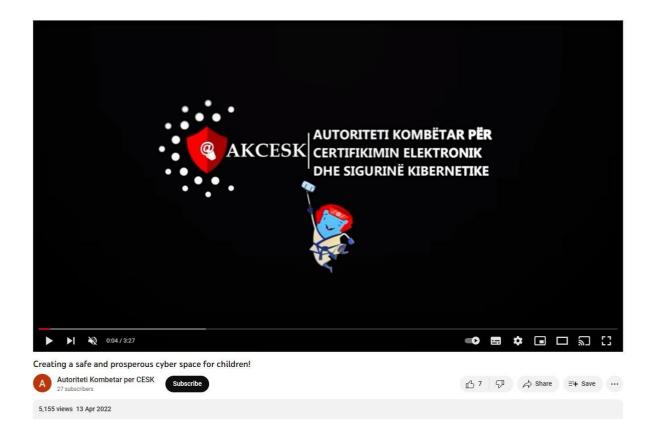
The National Authority on Electronic Certification and Cyber Security organized two days in a row, with all Critical Information Infrastructures divided by sector, in-depth training on "Cyber Incident Management", in fulfillment of the objectives of the "National Cyber Security Strategy 2020-2025 ". The purpose of the training is in the wake of increasing the professional capacities needed for operators of critical infrastructures in Albania, as one of the main objectives of the Authority. Also, cyber training was organized with scenarios based on best practices.



## 1.2.2 Promotional materials

During the year 2022, in implementation of the communication plan of the sector, the realization and publication on the social networks of the National Authority on Electronic Certification and Cyber Security of 3 promotional videos for the awareness of the community for increasing the level of cyber security, which have achieved more than 6000 views on social media.

"Creating a safe and prosperous cyber space for children"



- Video "Children's safety on the Internet"
- Video "Tips for parents and educators about children's online safety"
- Video "Guidelines for the Child Protection Industry on the Internet"

Also, blogs, news and articles, based on the analysis of the current situation of ICT and cyber security, are periodically drawn up on the official social media communication channels of the Authority.

#### 1.2.3 Cyber Security Bulletins







#### 1.3 Control Sector

In fulfillment of functional tasks, the Control Sector during the period January-December 2022, has audited the operators of critical and important information infrastructures in relation to the implementation of minimum security, technical and organizational measures, with the (onsite) method, in accordance with the legal framework in force and international standards.

Specifically, during the year 2022, the Control Sector has audited:

- ⇒ 6 Operators of Critical Information Infrastructures, including Health, Financial (Banking, Microfinance), Energy sectors
- $\Rightarrow$  5 Operators of Important Information Infrastructures, including the Health and Financial (Insurance Market) sectors

During the audits carried out at operators of critical infrastructures and operators of important information infrastructures, the implementation of the following organizational and technical measures was checked:

#### **Organizational Measures**

- Security policy
- o Risk Management
- Organisational Security
- Security requirements for third parties
- Security of human resources and access of persons
- Asset Management
- Security events and cyber security incident management
- Work continuity management
- o Information security management
- $\circ \quad \text{Control and Audit} \quad$

#### **Technical Measures**

- o Physical Security
- o Access authorization management
- Cryptographic Devices
- Cyber security event detection
- Cybersecurity event tracking and assessment tools
- Protection of the integrity of communication networks
- User identity verification
- Activity of administrators and users
- Application security
- Security of industrial systems

## 1.3.1 Audit of Qualified Trusted Service Providers

In fulfillment of its functional duties, the Control Sector during 2022 supervised the activity of the Qualified Trusted Service Provider (ALEAT), inspecting the application offices for the device with qualified electronic certificates in accordance with the relevant legal framework.

In total, 12 Districts were inspected, as follows:

- 1. Tiranë
- 2. Berat
- 3. Dibër
- 4. Durrës
- 5. Elbasan
- 6. Korçë
- 7. Fier
- 8. Gjirokastër
- 9. Kukës
- 10. Lezhë
- 11. Shkodër
- 12. Vlorë

Qualified Trusted Service Providers have the legal obligation to periodically report on their activity to NAECCS.

## **OTSP ALEAT**

During the period **January-December** 2022, Aleat has provided qualified electronic certificates to a total of **338,181** citizens in ID cards, as well as canceled about 69,370 qualified electronic certificates.

Since the launch of the service in 2016, until December 2022, approximately 301,330,654 secure electronic transactions have been carried out using electronic identification and signatures.

## **OTSP NAIS**

During the period January-December 2022, QTSP NAIS has issued:

**8499** Electronic certificates with electronic signature for Public Administration

15943 Electronic certificates with electronic signature for Private Entities

3512 Electronic certificates for the e-prescription system

**101 599** Electronic Certificate for the fiscalization project for private production entities

**1173** Electronic certificates for the fiscalization project for state production institutions

120 Electronic seals for public administration

## 1.3.2 Security assessment through emergency cyber security measures

The Control Sector has carried out the security assessment through emergency measures in all critical information infrastructures and important information infrastructures approved in DCM no. 553 date 15.07.2020.

They are evaluated in total:

- $\Rightarrow$  42 operators of critical information infrastructures.
- $\Rightarrow$  29 operators of important information infrastructures.

The security assessment through emergency security measures was based on the following indicators:

- 1. Licensing of critical/important systems, network equipment and end devices
- 2. The use of End of Life systems (EOL)
- 3. Using systems with old firmware
- 4. Use of the licensed central system for managing updates (patches) of the operating system
- 5. Use of the licensed central system for managing Antivirus updates (patches)
- 6. Identifying and defining the full administrator on critical/important systems
- 7. The use of the central system for continuous monitoring of the network (Central heuristic traffic analysis)
- 8. Performing filtering and monitoring of network traffic between applications and the Internet (Web Application Firewall)
- 9. Performing remote access analysis of devices with critical/important systems/networks
- 10. Backup of critical/important systems for business continuity

## 1.3.3 Cyber security risk assessment

Throughout the year 2022, the cyber security risk assessment was carried out for security and defense institutions, namely for:

- 1. Ministry of Defense
- 2. General Directorate of the State Police
- 3. Police Supervision Agency
- 4. Directorate of Classified Information Security
- 5. The High Judicial Council
- 6. The High Prosecutorial Council
- 7. The Parliament
- 8. Institution of the President of the Republic of Albania
- 9. High Inspectorate of Declaration and Control of Assets and Conflict of Interest
- 10. General Prosecutor's Office

## 1.3.4 Drafting of the new legal framework

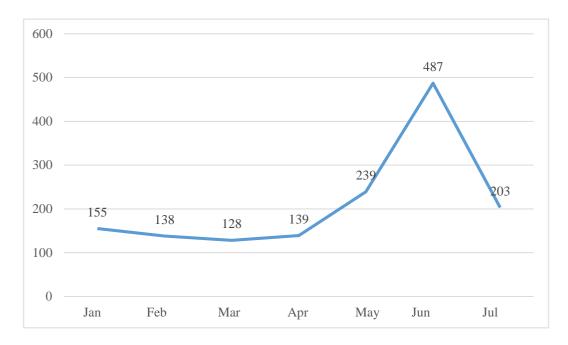
Throughout 2022, the Control Sector has contributed to the drafting of the legal framework "On electronic identification and trusted services", transposed by the EU regulation eIDAS 910/2014, as well as the legal framework "On cyber security" transposed by the EU NIS directive 1 and NIS 2.

## 2. Directorate of AL-CSIRT

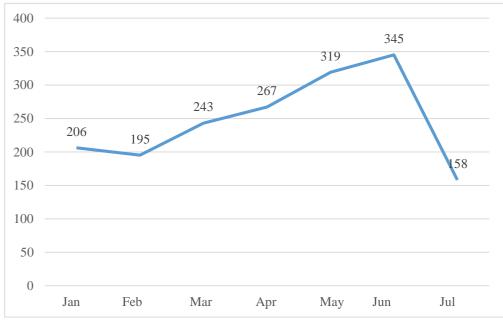
## 2.1 Cyber incident monitoring sector

- Identification and classification of critical and important information infrastructures based on Law 2/2017 "On Cyber Security" Article 6, and the revision of DCM no. 553, dated 20.07.2020. The identification and classification is done based on the following sectors (Cooperation).:
  - Energy Sector: 14 Critical Information Infrastructure and 13 Important Information Infrastructures
  - Transport Sector: 31 Critical Information Infrastructure and 6 Important Information Infrastructures
  - Banking Sector: 20 Critical Information Infrastructure and 52 Important Information Infrastructure
  - Health Sector: 17 Critical Information Infrastructure and 8 Important Information Infrastructures
  - Water supply: 6 Critical Information Infrastructure and 44 Important Information Infrastructure
  - Digital Infrastructure: 54 Critical Information Infrastructure and 25 Important Information Infrastructures
- 2. In accordance and fullfilment of DCM no. 141, dated 22.02.2017, NAECCS administers and maintains the unique online system for the publication of websites with illegal content, has provided support for institutions, for accessing the Online Portal. The State Agency for the Protection of Children's Rights during 2022 has reported on the Online Portal 25 pages with illegal content that have been recorded on social networks and YouTube.
- 3. Monitoring of some state institutions and Internet Service Providers operating in Albania, which generate malware with a source in Albania and destination in different countries, through the information coming from the Shadow Server. The processing of the data extracted from this monitoring as well as the drafting of the report. Below are the corresponding graphs for each institution and ISP expressing them as institution 1 and institution 2, also ISPs with, ISP 1 etc..

## **Institution -1**



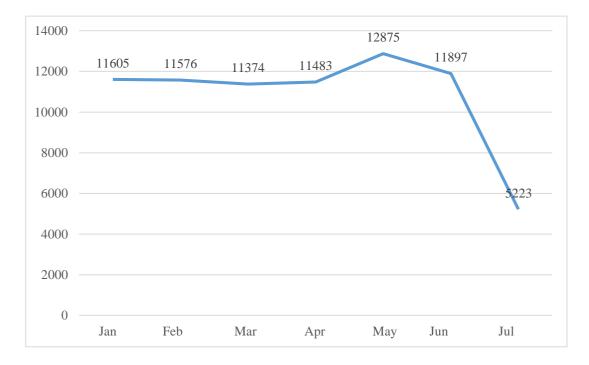
## **Institution -2**







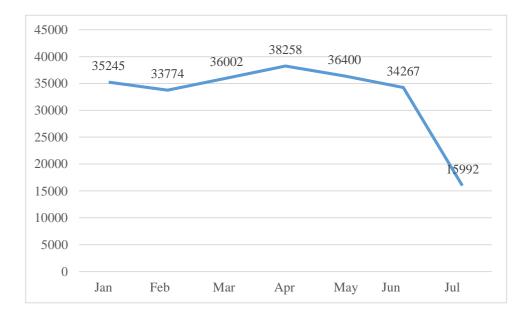
## ISP -2

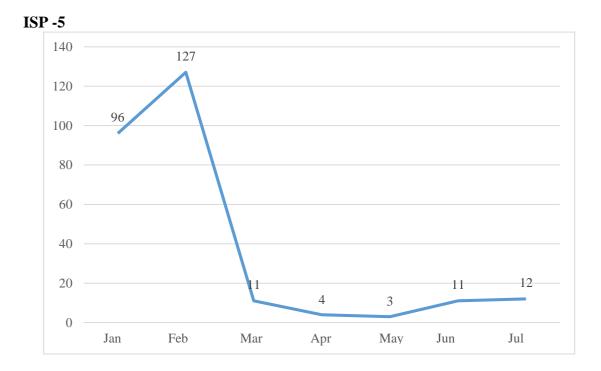




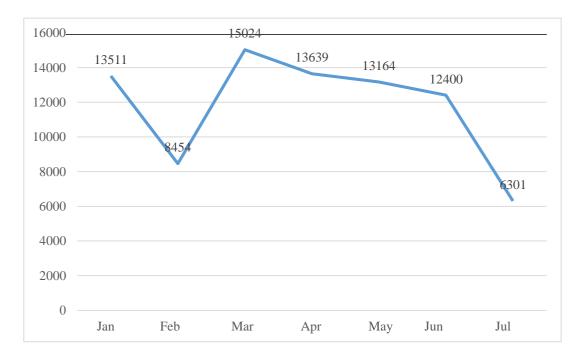


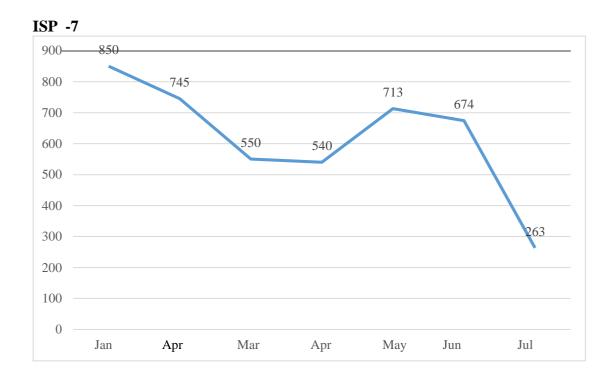












- 4. In collaboration, the drafting of the law "On Cyber Security", based on the NIS Directive (EU 2016/1148) "concerning measures for a high common level of security of network and information systems across the Union".
- 5. Drafting of letters, reports, memos according to the institution's needs and the holder's requirements.

#### 2.2 Cyber incident management sector

- Implementation of system monitoring on reporting and management of cyber incidents, in Critical and Important Information Technology Infrastructures.
- Coordinating work to resolve cyber security incidents with responsible operators in the field of national and international cyber security.
- Conducting ongoing research on developments in the field of cyber security and recommending security updates in case of findings of vulnerabilities.
- Testing of different Malware reported or not by CII/III using the technical capacities of the staff as well as the "Malware Analysis" System. Also, the creation of reports on the activity of these programs together with measures for the prevention and management of these activities Periodic.
- Technical and methodical assistance on the decryption of compromised information State Police, through documents.
- Pentest analysis for OSHEE.AL, FSHU.AL, OSSH.AL, FTL.AL.

- Pentest analysis for UnionBank.
- Report NAIS incident goxml, cl.exe analysis of the attack from the available logs. A detailed report of the attack has been made, regardless of its classification as Cybercrime.
- Support for all Operators of critical and important information infrastructures about approach and access to the Cyber Incident Management System. (VPN and UsbToken, when they had problems, they were all remotely assisted).
- NAIS request for MISP virtual environments (malware sharing platforms).
- NAIS request for ARCTIC SECURITY virtual capacities (threat intelligence platforms).

Reports recently posted in the system From October 2022 - December 14, 2022. The reports are instructions, recommendations and countermeasures for recent incidents in the region and not only:

- Latest updates on ransomware targeting Europe and USA, IcedID IOCs December
  5-8 2022, Trickbot IOCs December 6-11 2022, Cisa 5 new vulnerabilities.
  [14.12.2022]
- NAECCS in cooperation with national agencies has detected malicious activities from some IPs which may affect CII/III systems. IOCs and related recommendations are available attached.
   [13, 12, 2022]

[13.12.2022]

- Report MuddyWater APT Group is back with updated TTP [12.12.2022]
- Latest Ransomware Updates Targeting Europe and USA Ransomware December 5-9, 2022 Broad Impact of Iran-Linked APT MuddyWater Briefing Description of Recent Attacks December 5-9.

[12.12.2022]

- Malicious IPs spreading cyber attacks (28 November 5 December 2022). IcedID known as BokBot malware. Notice about Trickbot modular malware. Ursnif (aka Gozi) Banking Trojan malware. Sorted IPs for placing them in the blacklist. [09.12.2022]
- Malicious IP distributing attacks. November 28 December 5, 2022.[09.12.2022]
- Weekly update 2022-12-02.pdf. Information about attacks that occurred in early December in European countries, from the Ragnar Locker Ransomware group. [05.12.2022]
- TLP\_AMBER Ursnif IOCs November 21-27.zip [05.12.2022]
- NAECCS shares indicators related to network infrastructure Trickbot which is a modular malware that is used to steal information and drop ransomware. [24.11.2022]

- IPs causing the ransomware infection. Tables with each one attached. Guidance including techniques and procedures (TTPs) and indicators of compromise (IOCs) to help organizations protect against ransomware attacks. [18.11.2022]
- Lithuanian defense center's weekly update on ransomware attacks that occurred in the first and second week of November in Ukraine and Bulgaria. Recommendations listed with the aim of preventing such attacks and other malicious activities. (Weekly update 2022-11-18.pdf)

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[18.11.2022]
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- Chinese hackers target government agencies and defense bodies.pdf [16.11.2022]
- Ransomware (Ragnar Locker) affecting aviation pallets.pdf [08.11.2022]
- Weekly update 2022-10-28.pdf. DDoS and ransomware occurred last week in Ukraine and Poland (mainly in the financial sector) and Israel (Knesset Website).
   [31.10.2022]
- The FBI, CISA, HHS have released several Cyber Security Advisory and Guidance Information on Team Daixin, a cybercrime group that actively targets (throwing ransomware and data theft operations) US businesses, the healthcare sector and public health.

[26.10.2022]

↓ Update of the Lithuanian Cyber Defense Center on Ransomware and DdoS attacks. Weekly update 2022-10-21.pdf [26.10.2022]

## 3. Finance and support services sector

For the National Authority on Electronic Certification and Cybersecurity, the budget allocated for 2022 is 57,952 thousand ALL, of which 53,952 thousand ALL Current Expenditures and 4,000 thousand ALL Capital Expenditures with internal financing. In the following, we present in more detail the realization of expenses according to the allocated funds:

Calculation	Total	Fullfilled	%
600	30,122,400	24,382,994	81%
601	4,590,525	4,011,919	87%
602	18,876,000	5,728,198	30%
606	364,000	273,458	75%
231	4,000,000	702,000	18%
Amount	57,952,925	35,098,569	

*Wages and Social Insurance Fund (items 600+601)* The amounts allocated for wages and social insurance for 2022 are respectively 30,122,400 ALL for item 600 and 4,590,525 ALL for item 601. And the realization is respectively 24,382,994 ALL for item 600 and 4,011,919 ALL for article 601.

*Fund for expenditure on goods and services (item 602)* The amount allocated for the year 2022 for operational expenditure is ALL 18,876,000. And the realization for this item is 5,728,198 ALL.

*Special Fund (item 606)* The amount allocated for 2022 for expenses for disaster relief is 364,000 ALL. And the realization for this article is 273,548 ALL.

The Fund for Internal Investments (items 230+231), has been approved in the amount of 4,000,000 ALL in item 231. And the realization for this item is 702,000 ALL.

In October 2022, the employment relationships of the Authority's employees changed from civil servants to relationships according to the Labor Code.

During 2022, new recruitments were made, increasing the number of staff by 4 persons.