



How Bit Sentinel co-organized & managed the National Cybersecurity Educational Program in Romania



Industry: cybersecurity education, edtech

Location: Romania

Started: 2020

[UNbreakable Romania](#) is an end-to-end cybersecurity educational program for high schools and university students from Romania. Its mission is to bring together students who are passionate about cybersecurity, so that they have all the resources required to develop the necessary skills to become good cybersecurity specialists. UNbreakable is actively participating in bridging the cybersecurity workforce gap.



The Challenge

In 2020, (ISC)², one of the world's leading cybersecurity professional organizations, estimated in its report, "[Cybersecurity Workforce Study](#)", that there is a need for approximately 3.12 million cybersecurity professionals globally. One year later, the figure dropped to 2.72 million.

However, digitization will continue to deepen considerably. In this context, [new easily exploitable vulnerabilities](#) and highly complex cyber-attacks will soon emerge.

[Even as the number of people choosing a career in cybersecurity grows in many of the world's major economies, the global cybersecurity workforce still needs to grow by 65% to effectively meet all these challenges.](#)



The Solution

To be able to combat frequent and sophisticated cyber-attacks, the new generations of ethical hackers need [a proper environment to develop, test and deepen the specific required knowledge - guidance and lots of practice](#). UNbreakable Romania was designed to offer such an environment.

UNbreakable Romania started in 2020 as a Capture the Flag (CTF) competition for high school and university students.

[Starting 2021, UNbreakable levelled-up into a much more comprehensive program](#) with multiple stages. The first was an intense bootcamp where attendees had the opportunity to join a series of webinars with industry experts, they received theoretical resources as well as a hands-on practice space with labs on the [CyberEDU](#) platform. After this stage, they had the opportunity to prove their technical skills in the individual competition followed by the team competition where the focus shifted on the team work, collaboration and communication.

[UNbreakable Romania proved to be a successful initiative](#): from over 850 high school and university students who participated in the spring-summer edition, 30% returned for the 2021 fall-winter season. Alongside them, newcomers competed and achieved outstanding results.





The Results


2020


- ▶ 2 CTF competitions were organized in October and December;
- ▶ Over 500 high school and university students enrolled;
- ▶ 16 universities, 62 high schools and 39 counties were represented.


2021


 Nearly 1500 high school and university students tested and developed their cyber security knowledge during two seasons of UNbreakable 2021.

 Over 850 students registered in the spring-summer season, representing 29 universities, 101 high schools and 41 counties.

 Over 600 students registered up for the fall-winter season, representing 24 universities, 70 high schools and 39 counties.

 The program was most popular among 18-21 year-olds (36% spring-summer vs 39% fall-winter) and 21-25 year-olds (31% in both seasons).

 The initiative was most popular with male students (77% in both seasons), while females made up to 23% of the participants in the spring-summer season and 20% in the fall-winter season.

 The university environment was best represented, registering 54% in the spring-summer season and 56% in the autumn-winter season.

See the complete results in the infographic available [here](#).

The Feedback

“Don't assume that having a chance at a career in cybersecurity implies a level of knowledge that you need to start with. A career starts somewhere. UNbreakable is a vehicle, getting you from point A to point B. Point B can be a career in cybersecurity.

_Ioan Constantin
Cyber Security Expert, Orange Romania

“This is a networking opportunity for you to not only do cyber activities that you enjoy, but to start systematically building your contact network. This type of competition is a fantastic foundation to extremely quickly accumulate knowledge and information that increases your professional value.

_Dan Cimpean
Director of DNSC, The National Directorate for Cyber Security

“This competition uncovers many paths for young people, as they can practice their individual skills, but also their cooperative skills in teams to solve various defensive and offensive tasks.

_Anton Rog
Director of the National Centre CyberInt

“I recommend all students to participate in UNbreakable because it is more fun than stress.

_UNbreakable participant

“For those who want to push their limits every time, I recommend spending a weekend in the UNbreakable competition.

_UNbreakable participant

“A good start for a beginner, a challenge for the advanced.

_UNbreakable participant



Did you know...

... you can host your own UNbreakable?

UNbreakable's main goal is to increase cybersecurity expertise at a national level and provide guidance for young talents interested in pursuing a career in the industry.

Therefore, this model can be replicated at different levels in any other environment, country or continent.



What can Bit Sentinel do for you?



Prepare a step-by-step walkthrough of an already tested process;



Work together with a team that has extensive experience in edtech activities to guide you through the program;



Provide access to existing educational resources on the following topics:

- Cryptography and encryption, encoding or hashing algorithms
- Security and exploitation of vulnerabilities in web, mobile / desktop applications
- Intelligence obtained using OSINT techniques and tools
- Enumeration and exploitation of services and systems
- Electronic logs analysis
- Network traffic analysis
- Data, memory or hard disk captures (forensics) analysis
- Reverse engineering for executable applications, scripts or documents
- Wireless network security



Reveal over 100 cyber security labs backed by their respective educational resources;



Draft partner and media communications templates;



Provide access to a cyber range platform, ready to use & easy to personalize for large scale competitions and tournaments;



Manage the program from A to Z.

Let's guide & train the future generation of ethical hackers together!

About Us_



BSS-CERT Security Operations Center_

One of the very first professional SOC-as-a-Service available for customers who need comprehensive detection, response, and threat intelligence capabilities.



Security Code Review_

Take an important step in the company SDLC and save time and money otherwise spent on fixes.



Penetration Testing_

We assist companies to interpret and act on threat data to ensure business continuity.



Managed Services_

We assess security controls and implement measures to ensure your setup stays resilient and compliant.



Security Compliance_

Get professional help to meet security prerequisites related to NIS, GDPR, PCI DSS.



Cybersecurity Awareness_

We help you promote a culture of security awareness throughout your company and beyond.



Social Engineering Campaigns_

We simulate social engineering attacks to uncover how vulnerable your employees are and educate them to identify attacks.

**ONE-STOP-SHOP
FOR
CYBERSECURITY
SERVICES**

Let's have a talk!

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