Cybersecurity

Competition overview

The explosion of Cybersecurity and the challenges faced by the Government and industry means there is a massive requirement for skilled IT professionals in this sector.

This competition is intended for those competitors who have an interest in Cybersecurity/defence with experience of some of the following disciplines – Infrastructure/Networking/Analysis/Prevention.

Entry criteria

This competition is intended for those competitors with 2 years' experience of this skill in education, training, employment, or who are enrolled in a programme of study or have completed the equivalent to a level 3 qualification.

This is a team competition made up of 2 team members.

Number by location/organisation

Maximum of 2 teams per organisation.

Brief

Competitors will undertake a series of practical tasks which will demonstrate their abilities and skills in configuring and identifying security risks and breaches on the network.

The full competition brief will be provided to each competitor on the morning of the competition heat.

The scope of the competition covers the main features of the job role of a Cybersecurity analyst. These are:

Windows Server configuration
- Setup a correct hostname
- Configure AD-Svr as the root domain controller
- Create usernames and password correctly.
- Configure Windows Network Policy Server (NPS) according to the requirements

Linux Web server configuration
- Configure APACHE server
- Host website files

Windows Client configuration
- Set Hostname: WIN-CLI
- Join the AD domain

Implementing security
- Restrict Users via permissions and policies
- Create group policies for different levels of users
- Identify and configure/add firewall rules

- Shares and NTFS permissions

Network reconnaissance
- IP Addressing Schemes
- Network Ports & Services
- Packet Inspection

Vulnerability testing
- Network security incident analysis
- Finding possible information that shows the PC is vulnerable to attack;
- Finding malware or backdoors;
- Analyzing how the hacker gets the credential.
- Identify malicious files

Infrastructure List

Competition rules

Specific competition rules

Generic Competition rules
- Mobile phones to be switched off during competition activity
- Listening to music via headphones is not permitted during competition activity
- Any questions during competition activity should be addressed to the competition Judge
- Competitors should not communicate with other competitors during competition activity
- It is the responsibility of each competitor to arrive on time for each competition session. No additional time will be allowed if you arrive late.

Technical failure of your equipment should be reported immediately to your judge. Additional time will be allocated if the fault is beyond the control of the competitor

Marking and assessment

All marks are objective and will be awarded by the judges as follows

- A Server configuration – Windows and Linux - 30%

- B Client configuration - 10%

- C Implementing Security - 20%

- D Incident response and forensic analysis - 40%

Total   100%

Each competition test will be assessed and marked independently of the other test. The tests will be assessed and marked in accordance with the general and specific competition rules.

Feedback

Written feedback and advice on next steps will be given by your Trainer and Skills

Coordinator within 10 days of the competition.

Competition Co-ordinator

Lead Contact: worldskills@cityofglasgowcollege.ac.uk