

BELGIAN
Training Opportunity for Luxembourgish Trainees

Reference	Title	Duty Station
BE-2021-HIF-IH	Network Security Automation Trainee	ESTEC

Overview of the mission:

ESA's IT department is responsible for the network and related security services across ESA. Within the Security and Shared Infrastructure Services Division, the Platforms and Automation Team is a team collaborating with the IT Infrastructure Team, the IT Security team and ESACERT - ESA's internal Computer Emergency Response Team – in order to define and work out self-service platforms and tools aimed at technical users across ESA.

Those platforms and tools allow people to provision and orchestrate IT Infrastructure resources such as cloud services (Virtual Machines, Networks and Containers) and network services (LAN, WAN and remote access services). The team is often testing, piloting and implementing automated services, through strong interaction with development teams across ESA and based on real use-cases and related needs. Once successful, those services are industrialised and become part of the overall services of the IT Department.

Overview of the field of activity proposed:

ESA has a wide range of services and applications, and in line with security best practices those are deployed in different network security zones. Traffic between those zones is being regulated through traffic matrices implemented on screening firewalls, in order to limit the impact in case of cybersecurity incidents and to guarantee business continuity. The definition and the maintenance of these traffic matrices is cumbersome and at the same time ESA's network is continuously evolving and expanding as more and more external (cloud-based) services are being used.

ESA's intention is to further implement the Zero-Trust Network and Security principles across all of ESA's services and applications (regardless of their location: physical, virtual, on-prem, public cloud, ...), according to SASE (Secure Access Service Edge) Architecture.

As part of the Platforms and Automation team, you will be able to define, implement and test new solutions aimed at automated provisioning of security across various infrastructures.

Your contributions will focus on extending ESA's existing IT Infrastructure self-service and orchestration tools which today already 'program' ESA's internal cloud such that they can also 'program' ESA's networks (software defined networking) and security services such as firewalls, application layer gateways and cloud access security brokers, automatically ensuring compliance with ESA's Network Security Policy.

Ideally you will also be able to implement/apply DevOps practices to Networks (NetDevOps), which would be very useful for ESACERT, but also for our network service providers in case of troubleshooting.

You will be able to interact with Service Managers and gain an understanding of the processes involved in delivering newly built services and products, making them enterprise-ready and transferring them to operations. If successful, you will also work with our IT service-providers and helping to ensure stability of delivered services will provide a unique perspective on the interlock between development and service delivery.

Required education and skills:

- Master degree in a technical or scientific discipline.
- Good interpersonal and communication skills
- Ability to work in a multi-cultural environment, both independently and as part of a team
- Fluency in English and/or French, the working languages of the Agency