



**RIPE NCC**

RIPE NETWORK COORDINATION CENTRE

# Open House

Academic Cooperation  
And E-Learning

30 June 2020 | RIPE NCC Open House

# Welcome to our first Open House!



**RIPE NCC Open House**  
Join us online!

A close-up, shallow depth-of-field photograph of a professional condenser microphone. The microphone is black with a silver mesh grille and is mounted on a black boom arm. The background is blurred, showing a computer monitor and other studio equipment. A white text box is overlaid at the bottom of the image.

**This session is being recorded.**

# In this session



**Moderator**  
**Gergana Petrova**  
External Relations Officer



**Presenter**  
**Romy Spratley Kanis**  
Head of Learning and Development



**Presenter**  
**Chafic Chaya**  
Regional Communication Manager  
(Middle East Region)

# Agenda



- Introduction to the RIPE NCC
- Our Learning and Development services
- The RIPE NCC Academy
- Introducing RIPE NCC Certified Professionals
- Opportunities for Blended Learning
- Open Discussion



# About the RIPE NCC

# Who we are



- The Regional Internet Registry for Europe, Middle East and parts of Central Asia
- Not-for-profit membership organisation, established in 1992
- Maintain a registry of IP addresses and Autonomous System numbers
- Our technical services:
  - RIPE Database and Routing Registry
  - K-root server, reverse DNS and secondary DNS
  - Internet measurement tools (RIPE Atlas, RIPEstat and others)
  - RPKI Trust anchor and RPKI validator



**RACI**

The RIPE Academic  
Cooperation Initiative



# What is RACI?

- Started in 2013 to connect the RIPE and research communities
- Allows academics to present and connect to industry, professionals
- Offers academics the chance to receive feedback from industry professionals
- Successful applicants receive meeting tickets, travel and accommodation to attend
- Applicants can publish their work through RIPE Labs ([labs.ripe.net](https://labs.ripe.net))



# Why take part?

- 77.50% made contact with industry professionals (network operators)
- 75.00% received useful feedback on their research
- 62.50% learnt about new ideas/tools/techniques which will be useful for future research
- 57.5% met people they could collaborate with
- 52.5% improved their presentation skills
- 50% made new academic contacts
- 15% made potential employment contacts

# RACI so far



- Roughly 75 applications per round (twice a year)
- 5-10 accepted for RIPE Meetings
- 2-3 accepted for MENOOG, ENOOG, SEE, RIPE NCC Days
- 78 academics from 32 countries funded since 2015



*RACI at RIPE 78 in Reykjavik*

# Find out more



- Presentations, videos and RIPE Labs articles of RACI alumni:

[ripe.net/participate/ripe/raci/alumni](https://ripe.net/participate/ripe/raci/alumni)

- Subscribe to the mailing List:

[ripe.net/raci/mailling-list](https://ripe.net/raci/mailling-list)

## RACI Presentations at ENOG 16

- Oleksandr Tsaruk, École des Ponts Business School, France  
[Hybrid Nature of Modern Threats for Cybersecurity and Information Security](#) | [Video](#)

## RACI Presentations at RIPE 78

- Ali Safari Khatouni, Dalhousie University, Canada  
[Implications of Roaming in Europe](#) | [Video](#)
- Carolina Are, University of London, UK  
[Flaming Isn't Funny: Patterns Towards the Understanding of Online Abusers](#) | [Video](#) | [RIPE Labs article](#)
- Danilo Giordano, Polytechnic University of Turin, Italy  
[Five Years at the Edge: Watching Internet from the ISP Network](#) | [Video](#) | [RIPE Labs article](#)
- Ignacio Castro, Queen Mary University of London, UK  
[10 Years of IXP Growth and its Impact on End-to-End Paths](#) | [Video](#) | [RIPE Labs article](#)
- Katarzyna Wasielewska, State University of Applied Sciences, Poland  
[Available Bandwidth Estimation Problem – Network Calculus in Practice](#) | [Video](#)
- Marijana Cosovic, University of East Sarajevo, Bosnia and Herzegovina  
Performance Evaluation of BGP Anomaly Classifiers
- Mattijs Jonker, University of Twente, Netherlands  
[A First Joint Look at DoS Attacks and BGP Blackholing in the Wild](#) | [Video](#)
- Niels ten Oever, University of Amsterdam, Netherlands  
[Taking the High Route](#) | [Video](#)
- Timmy Schüller, Osnabrück University, Germany  
[Real-world Pitfalls of Segment Routing Traffic Engineering](#) | [Video](#)

## RACI Presentations at RIPE NCC Day Moscow

- Louis Pétoniaud, Institut Français de Géopolitique  
[Geopolitics of Routing](#) | [Video](#) | [RIPE Labs article](#)

## RACI Presentations at MENOG 19

- Louis Pétoniaud, Institut Français de Géopolitique and Loqman Salamatian, Géode, France  
[Geopolitics of Routing](#) | [Video 1](#) | [Video 2](#)
- Ahmed Aleroud, Yarmouk University, Jordan

# Academic Sessions



- Topics: Internet fundamentals, Routing, the RIPE Database, IPv6, RPKI, Internet Governance
- Bachelor/Master students
- Computer science or law
- A different view
- A practical approach
- Current developments and dilemmas



# **Learning and Development**

# Learning and Development



- We have trained thousands of network engineers and system admins around the world
- Trainings are for RIPE NCC members, or provided to governments and law enforcement agencies upon request
- Training courses include:
  - RIPE Database
  - IPv6 and IPv6 Security
  - BGP, RPKI and Routing Security
  - Internet Measurements

# RIPE NCC Academy



- This is our free, open e-learning platform
- Currently has three courses
  - RIPE Database
  - IPv6
  - Introduction for New LIRs
- The courses are aligned with our certifications

# The RIPE NCC Academy



- Virtual learning environment
- Free, open to all to use
- Currently has three courses
  - RIPE Database
  - IPv6
  - Introduction for New LIRs

[academy.ripe.net](https://academy.ripe.net)



**RIPE NCC**

**Certified Professionals**

# Our Certification Programme



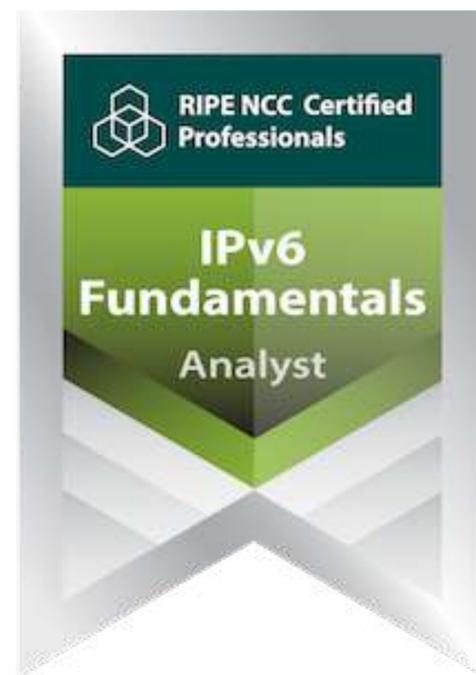
## RIPE NCC Certified Professionals

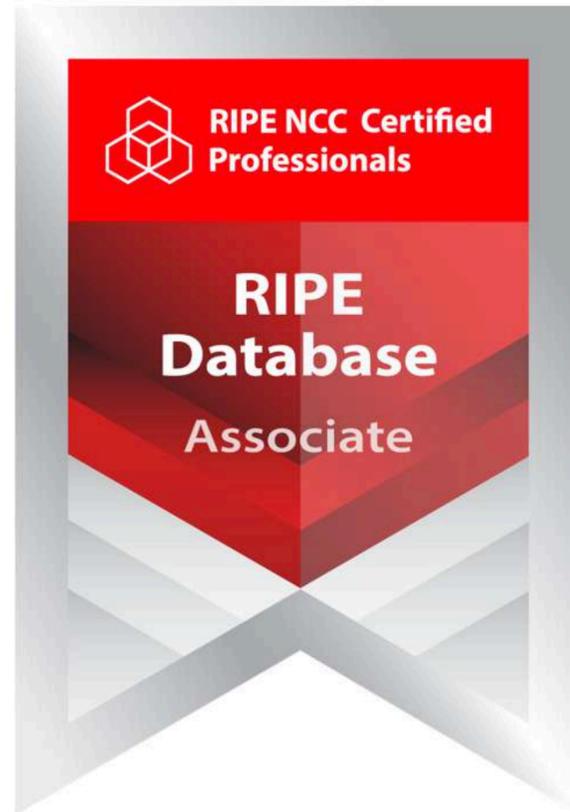
### Verified, online exams

- Online using a secure browser
- Supervised by a “live” proctor
- Instant results!
- Digital badges can be shared
- Employers can verify the certification



# RIPE NCC Certified Professionals





**Type:** Certification

**Level:** Intermediate

**Cost:** Paid

## RIPE Database Associate

Issued by [RIPE NCC](#)

A RIPE Database Associate is proficient in searching for and interpreting data in the RIPE Database. Candidates who hold this certification have demonstrated the ability to update and register data in the RIPE Database. These candidates can use different flags to query IP address space (IPv4 and IPv6), as well as register assignments and sub-allocations by applying authority delegation mechanisms. They can also register routing policies, and set-up reverse delegation.

### Demonstrated Skills

Data Interpretation

Internet Research

IP Address Management

IP Analysis

IPv4 Addressing

IPv6 Addressing

Network Registration

rDNS

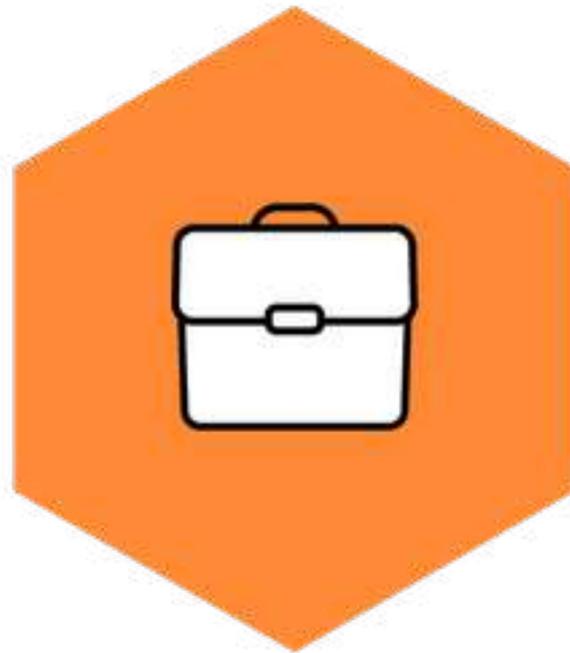
RIPE Database

RPSL

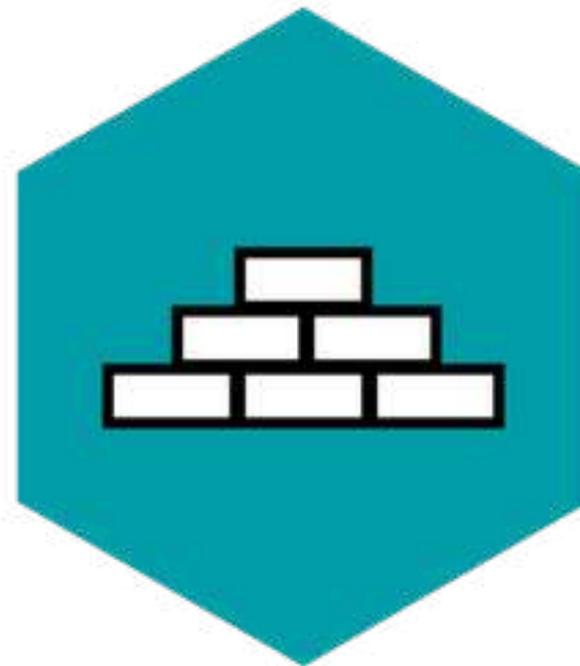
### Earning Criteria

- ☑ [Successfully pass the RIPE Database Associate exam by scoring at least 70%](#)

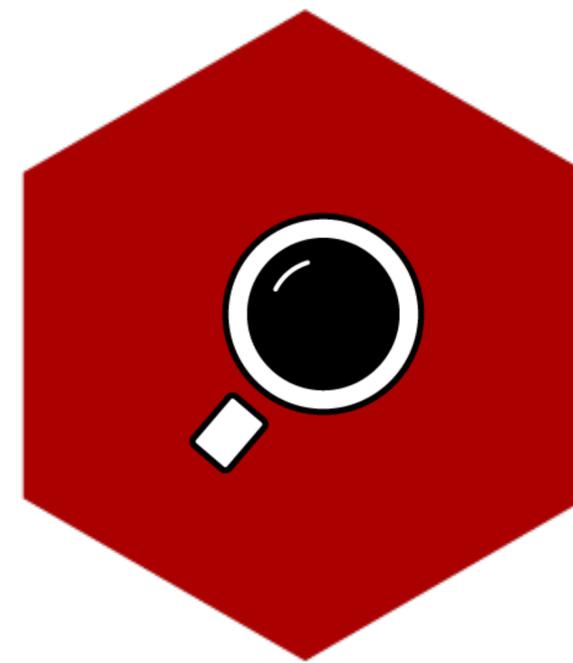
# How we develop exams



**Job Task  
Analysis**



**Modularise  
Online  
Content**



**Online  
Proctored  
Exams**

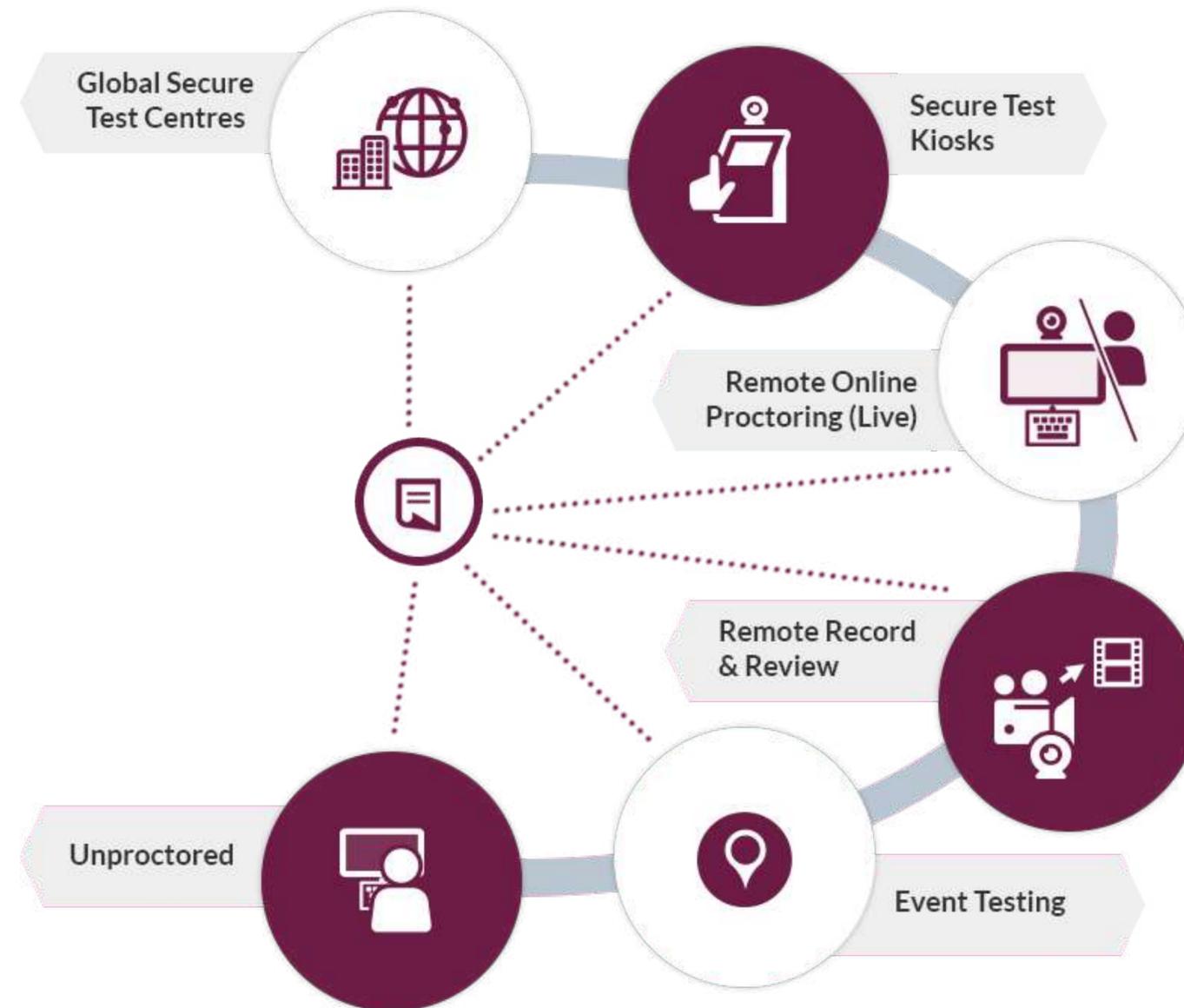


**Digital  
Badges**

# Exam Delivery



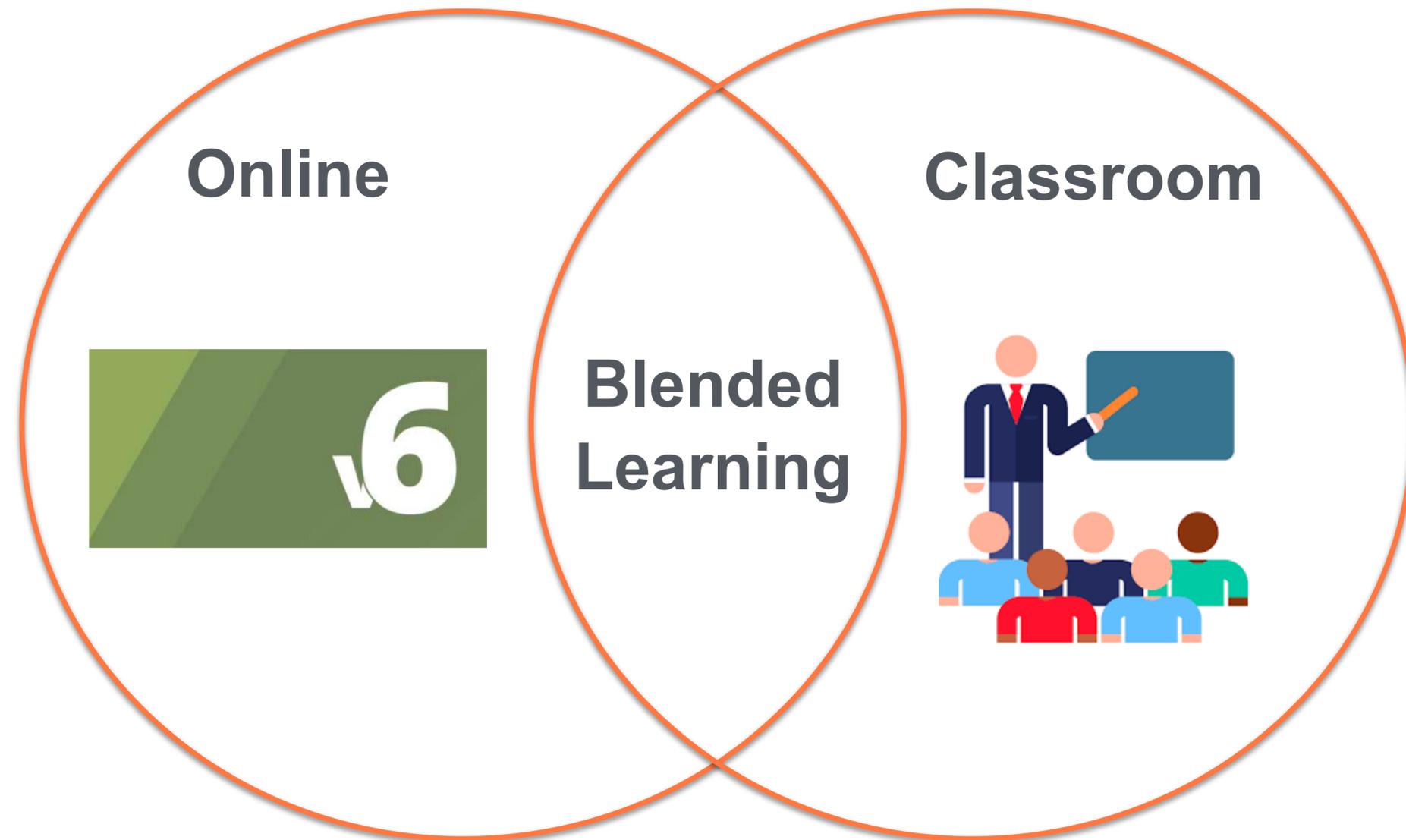
- We work with an exam platform
- Online using a secure browser and under the supervision of a 'live' proctor
- Live testing and supervision in institutions such as universities





**University  
Partnership Pilot**

# Blended Learning Pilot



# Partnership with the AUB

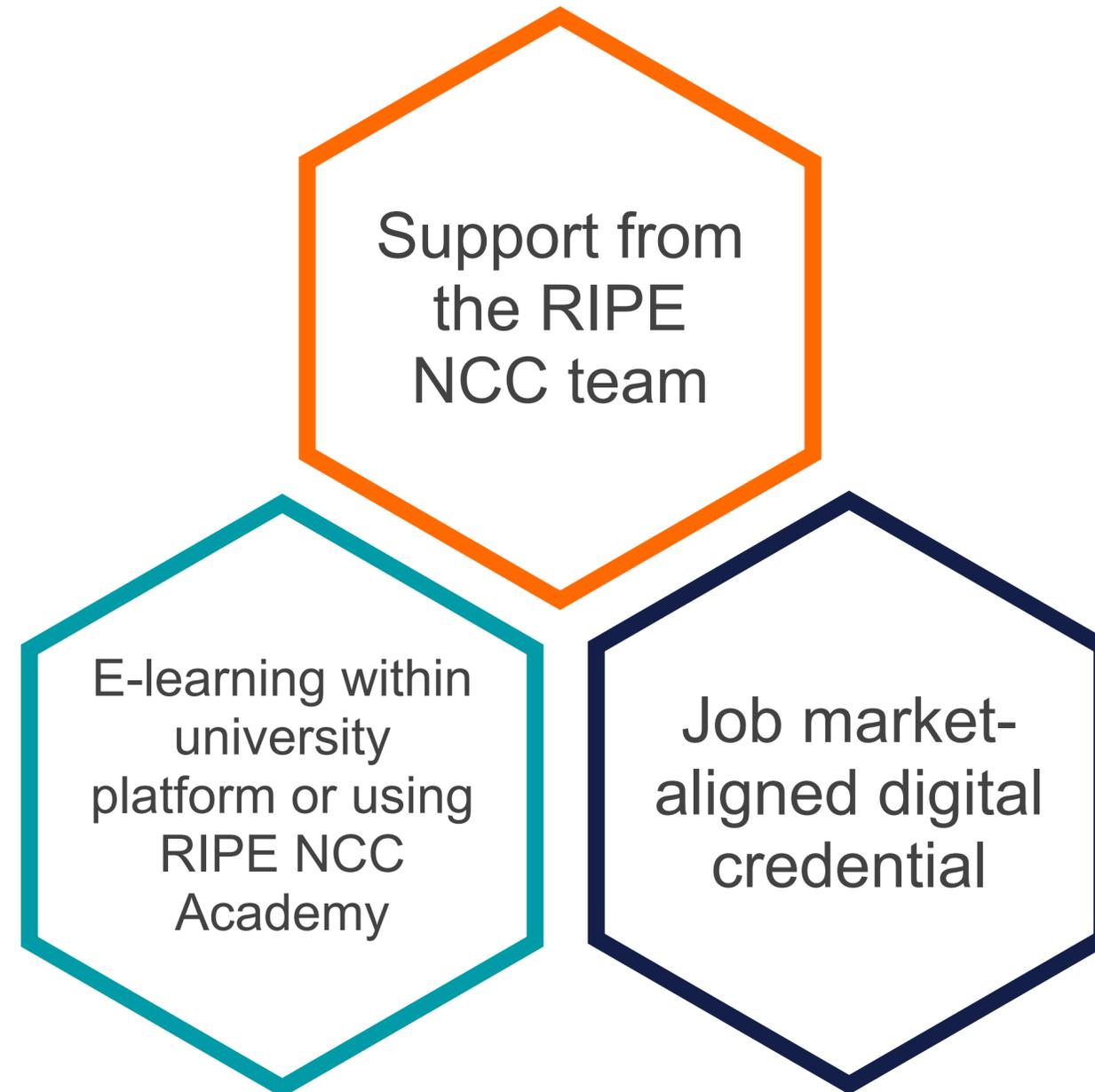


- We partnered with the American University of Beirut
- Our IPv6 e-learning course was incorporated in the AUB's e-learning system
- Students could access high-quality training material, usually given to networking professionals
- The AUB professors could track their students' progress
- Eliminates the need to recreate existing content
- In the future, students can earn a certification aligned to the job-market at the end of their blended learning module

# The AUB and RIPE NCC teams



# Blended Learning Model



# Discussion: The COVID-19 Impact



- What is the impact that you see?
- Are you planning to bring in more e-learning?



# Questions



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