



Computer Networks Laboratory

www.cnl.tuke.sk

Cisco Networking Academy Program

ASC, ITC, CA, NRP @ Technical University of Košice

Cisco Systems

www.cnl.tuke.sk

- CISCO is worldwide leader in networking technologies



Cisco Systems

www.cnl.tuke.sk

- CISCO is worldwide leader in networking technologies
- Its B&B is selling of networking equipment and services



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Industry requirements

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- Professional certification (external)
- Career path from basic IT skills toward in-depth professional expertise



Certification tracks

www.cnl.tuke.sk

Routing & Switching

Design

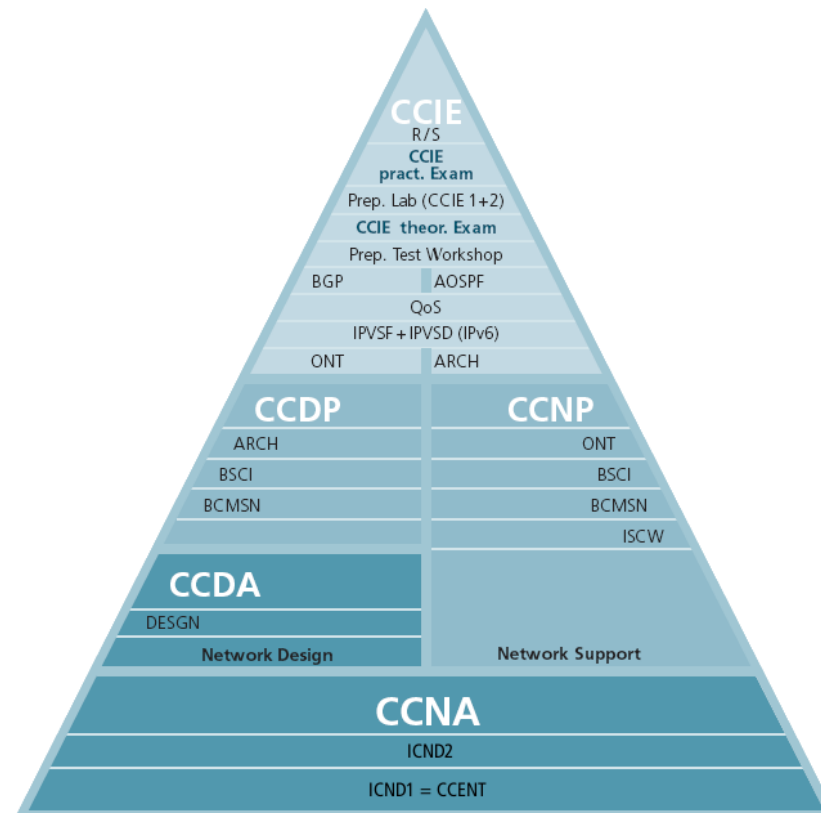
Network Security

Service Provider

Storage Networking

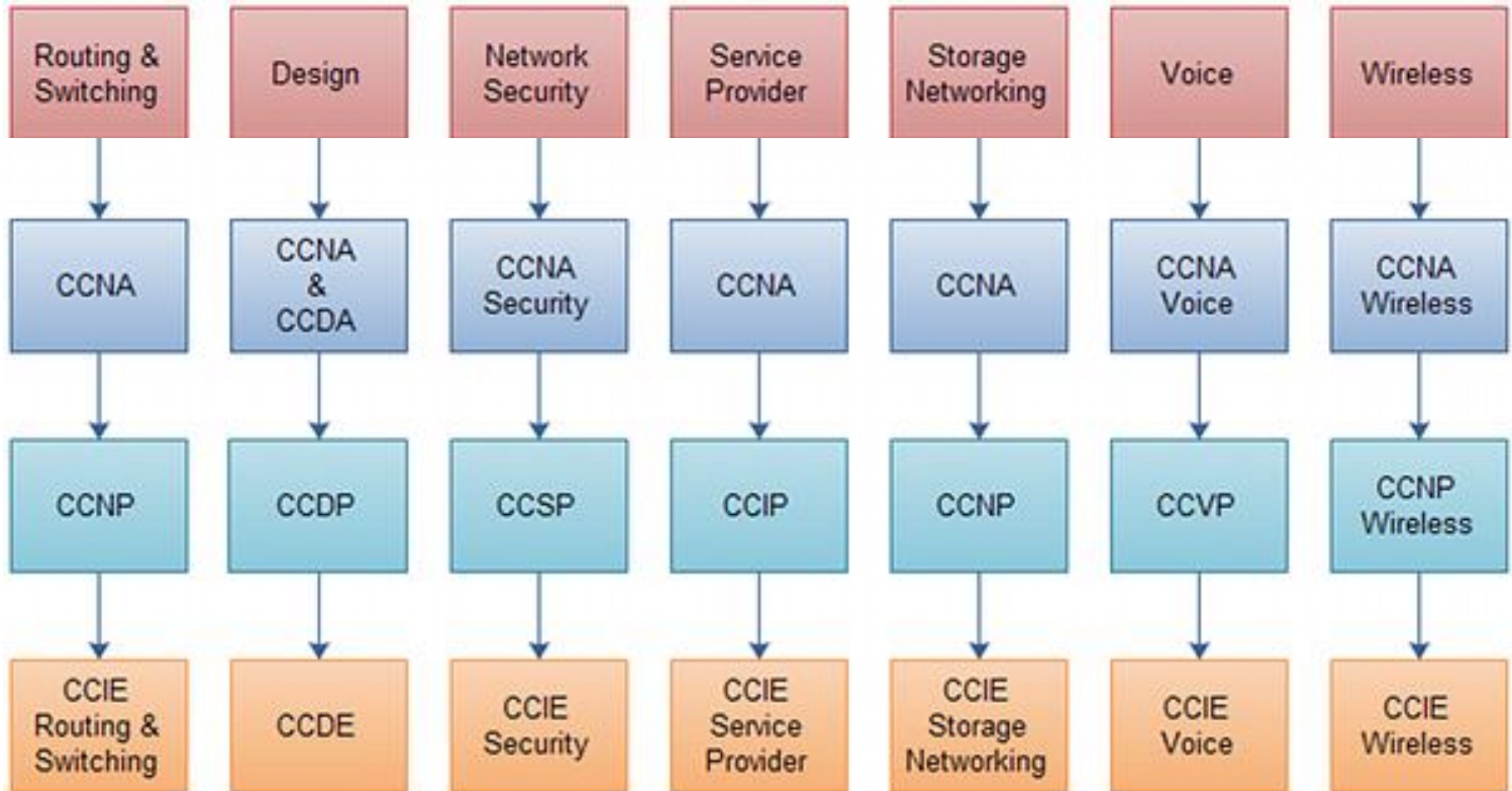
Voice

Wireless



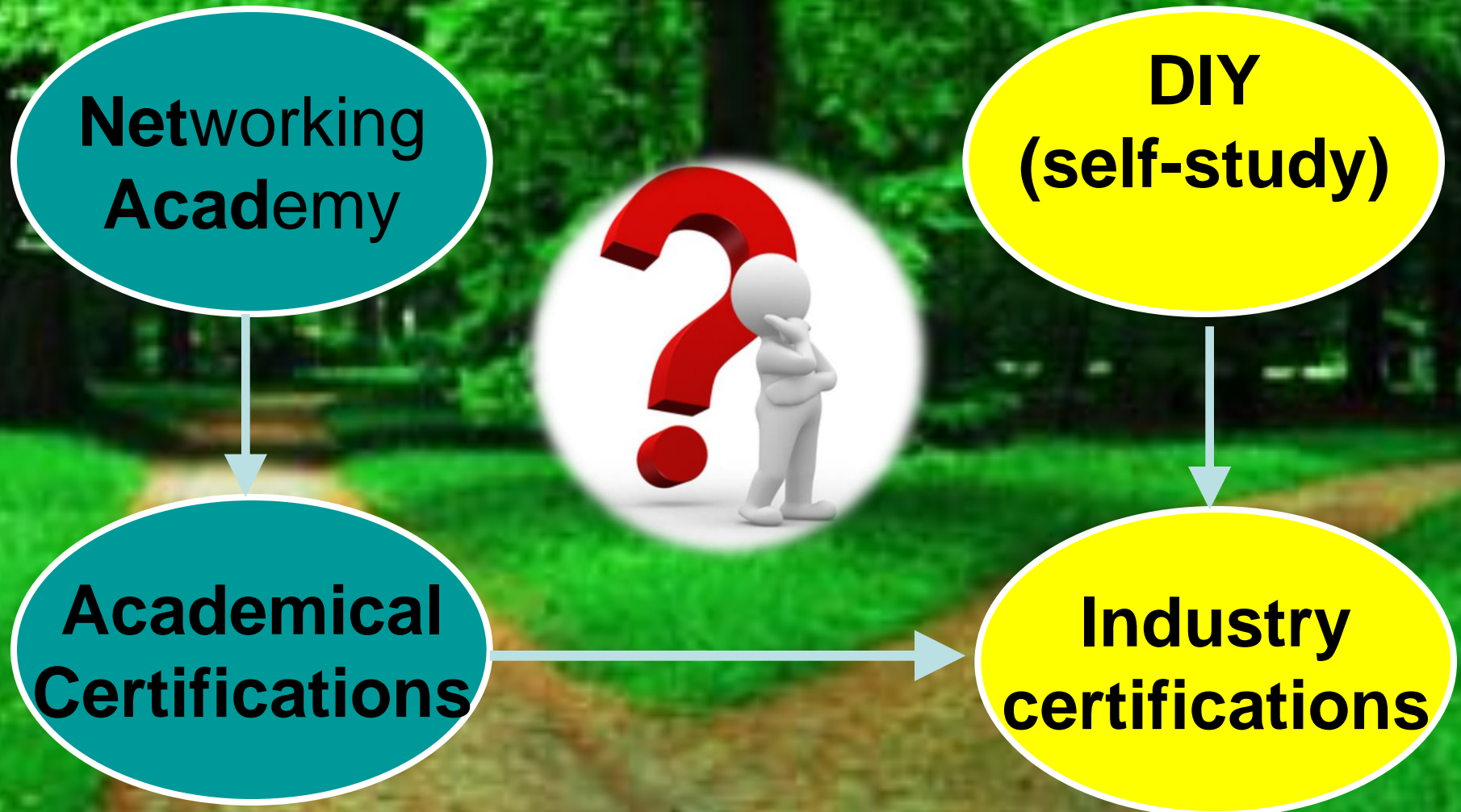
Certification tracks

www.cnl.tuke.sk



How to prepare for industry certs?

www.cnl.tuke.sk



NetAcad

www.cnl.tuke.sk

- **Worldwide initiative**
 - **170 countries**
 - **10 000 of academies**
 - **35 000 instructors**
 - **1 000 000 students over the world**
- 

Networking Academy portfolio

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CAREERS

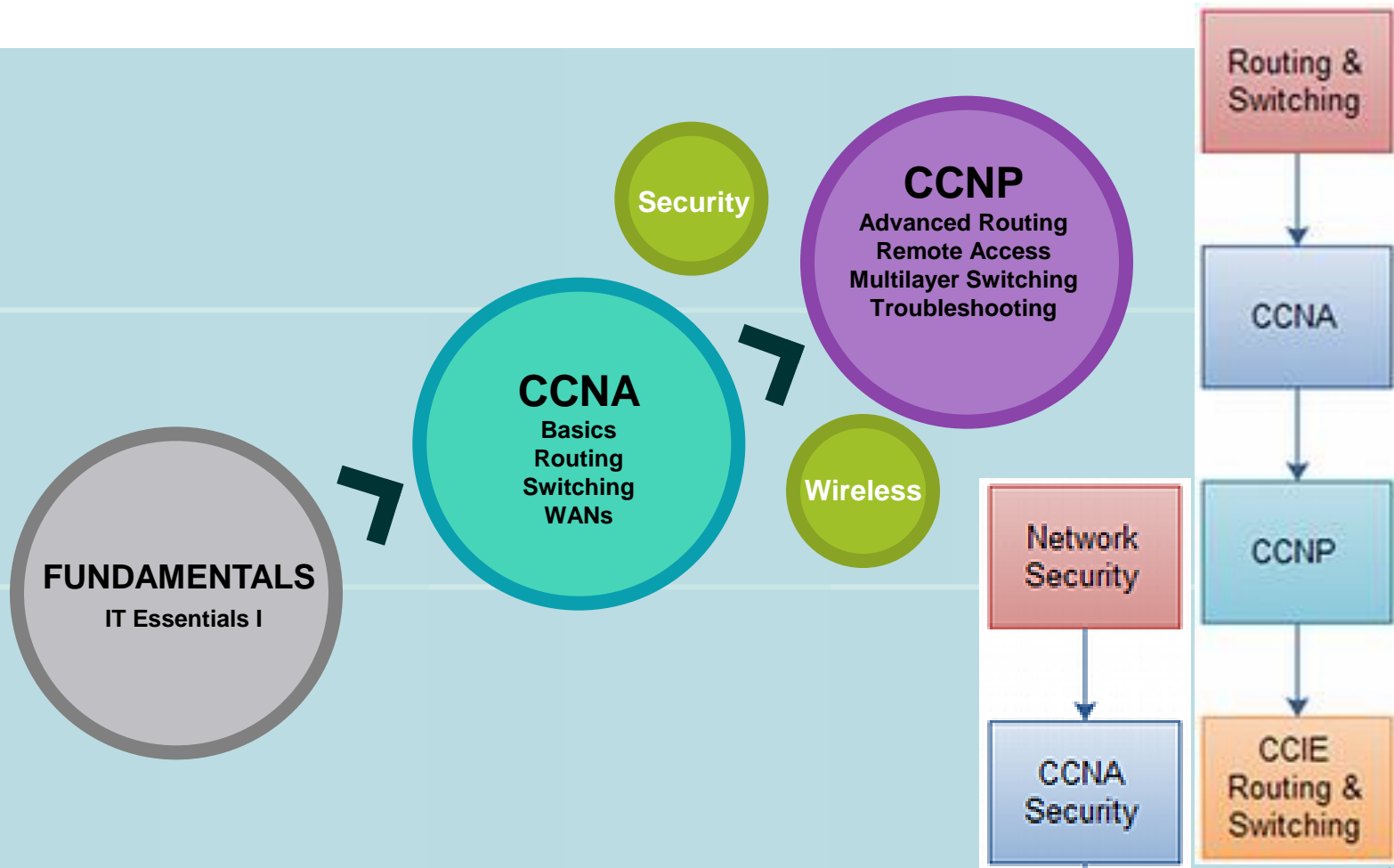
Enterprise
Networking

Small and
Medium
Business
Networking

Network
Installer

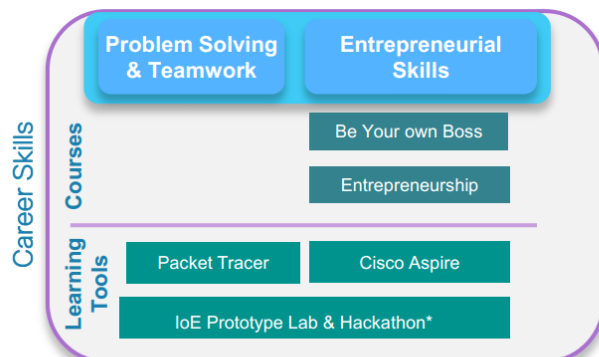
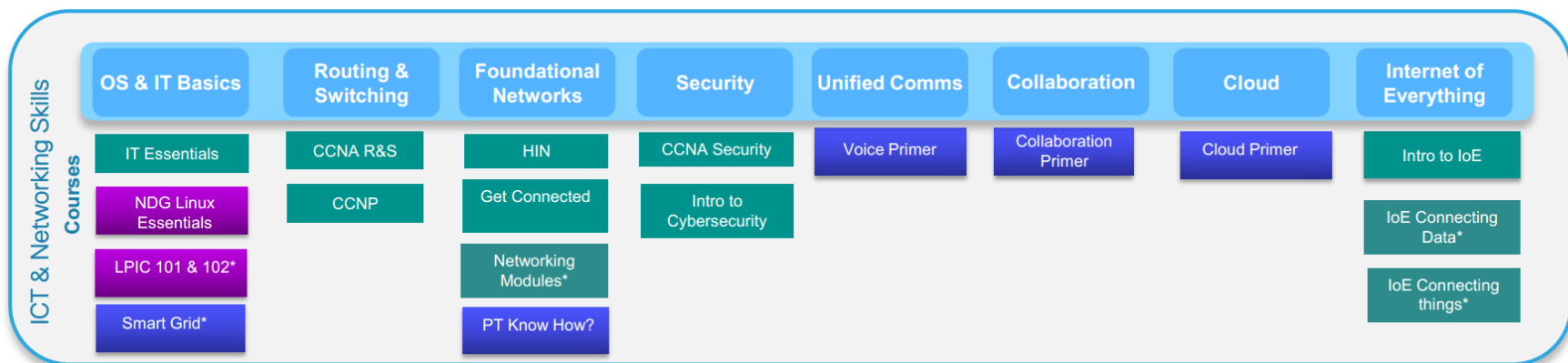
Basic IT
Support

System
Admin



Networking Academy portfolio

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Outcomes

- Drive Employment by improving skills
- Grow beneficiaries

Course	Certification
IT Essentials	CompTIA A+
CCNA R&S (courses 1&2)	Cisco CCENT
CCNA R&S (courses 1-4)	Cisco CCNA R&S
CCNP	Cisco CCNP
CCNA Security	Cisco CCNA Security
NDG Linux Essentials	Linux Essentials Certificate of Achievement
LPIC 1	Linux Professional Institute Certification

Cisco Developed

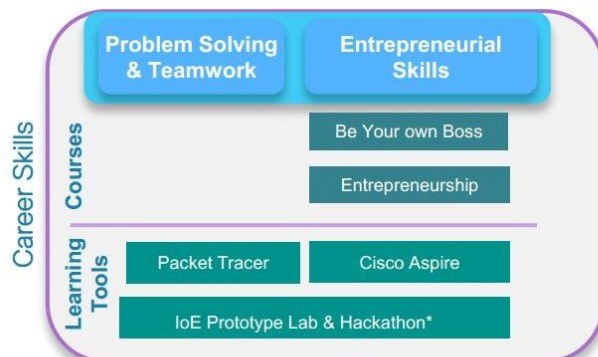
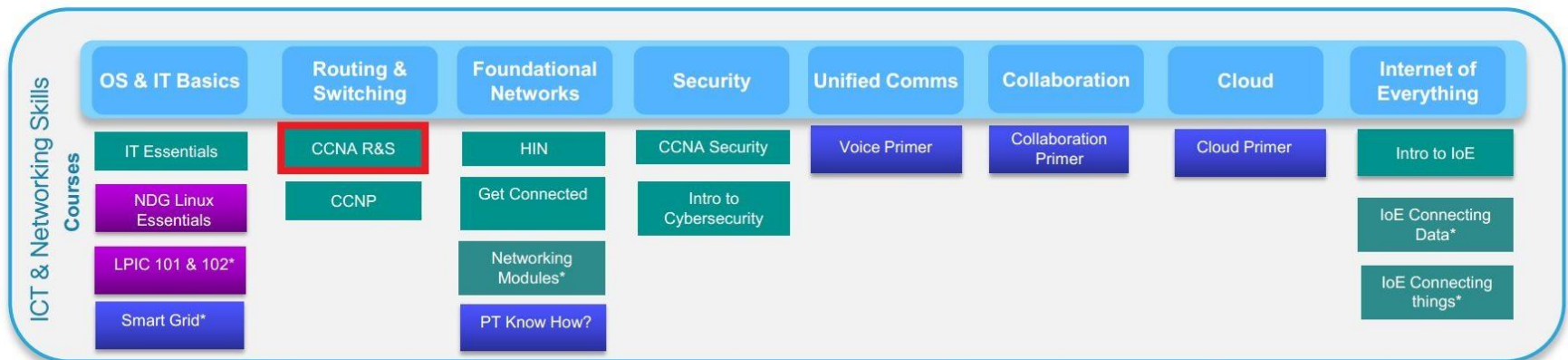
Community Developed

Partner Developed

* Planned

Networking Academy portfolio

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Outcomes

- Drive Employment by improving skills
- Grow beneficiaries

Course	Certification
IT Essentials	CompTIA A+
CCNA R&S (courses 1&2)	Cisco CCENT
CCNA R&S (courses 1-4)	Cisco CCNA R&S
CCNP	Cisco CCNP
CCNA Security	Cisco CCNA Security
NDG Linux Essentials	Linux Essentials Certificate of Achievement
LPIC 1	Linux Professional Institute Certification

Cisco Developed

Community Developed

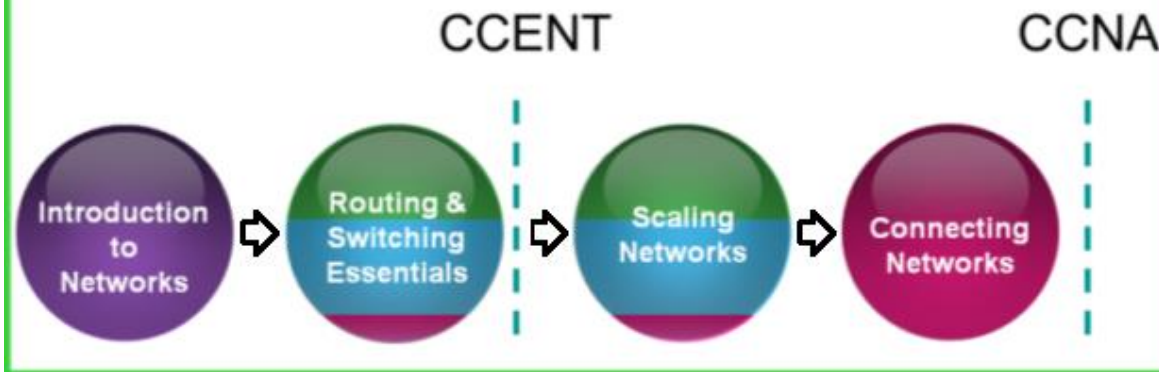
Partner Developed

* Planned

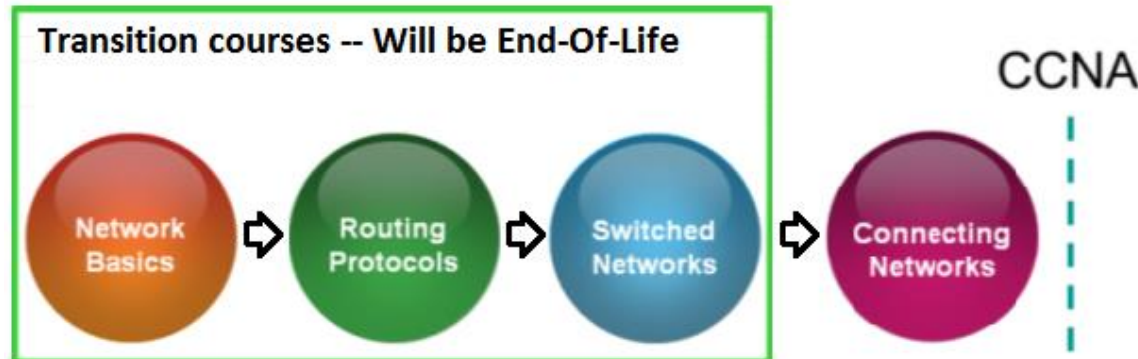
CCNA Routing & Switching

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Recommended path



Transition courses -- Will be End-Of-Life



What NetAcad offers to students

www.cnl.tuke.sk

- Study Materials
(e-curriculum, exercises)

3 Connecting to the Network

3.4 Building the Access Layer of an Ethernet Network

3.4.3 Function of Switches

1 2 3 4

Cisco Networking Academy

Networking for Home and Small Businesses v 0.1

Sometimes, it is necessary to connect another networking device, like a hub, to a switch port. This is done to increase the number of hosts that can be connected to the network. When a hub is connected to a switch port, the switch associates the MAC addresses of all hosts connected to that hub with the single port on the switch. Occasionally, one host on the attached hub sends a message to another host attached to the same hub. In this case, the switch receives the frame and checks the table to see where the destination host is located. If both the source and destination hosts are located on the same port, the switch discards the message.

When a hub is connected to a switch port, collisions can occur on the hub. The hub forwards the garbled messages from a collision out all ports, including the port attached to the switch. The switch receives the garbled message, but, unlike a hub, a switch does not forward the damaged messages caused by collisions. As a result, every switch port creates a separate collision domain. This is a good thing. The fewer hosts contained in a collision domain, the less likely it is that a collision will occur.

To see what happens when a collision occurs in a switched network, click **SEND**.

Diagram illustrating a switched network configuration. Two switches, Switch 1 and Switch 2, are connected. Switch 1 is connected to a Hub, which is connected to Hosts 1 through 6. Switch 2 is connected to Hosts 7 through 14. A 'Send' button is located at the bottom of the diagram.

Enviar

3.4.3.3

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What NetAcad offers to students

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- Study Materials
- Knowledge evaluation (chapter exams, SBA)

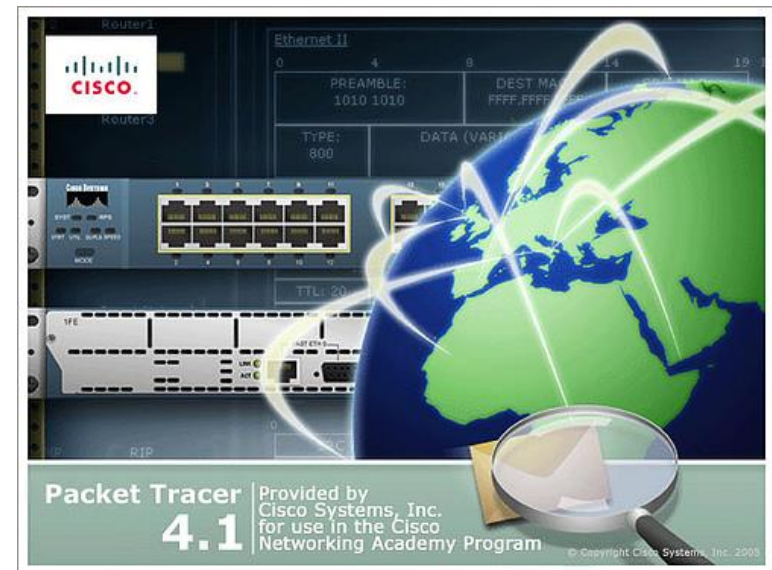
The screenshot displays the NetAcad interface. At the top, there is a banner image of a person. Below it, the title 'Module 1 Quiz' is visible. The quiz question is 'Select the correct answer.' with two options: '1' and '2'. Below the quiz, a 'Report Card' window is open, showing a table of results for 10 questions. The table has columns for a checkbox, a number, and a book icon. The scores are listed on the left side of the table, ranging from 90 to 10. The bottom of the interface features a navigation bar with icons for back, forward, and other controls.

	<input type="checkbox"/>		
90	<input checked="" type="checkbox"/>	1	
80	<input checked="" type="checkbox"/>	2	
70	<input checked="" type="checkbox"/>	3	
60	<input checked="" type="checkbox"/>	4	
50	<input checked="" type="checkbox"/>	5	
40	<input checked="" type="checkbox"/>	6	
30	<input checked="" type="checkbox"/>	7	
20	<input checked="" type="checkbox"/>	8	
10	<input checked="" type="checkbox"/>	9	
	<input checked="" type="checkbox"/>	10	

What NetAcad offers to students

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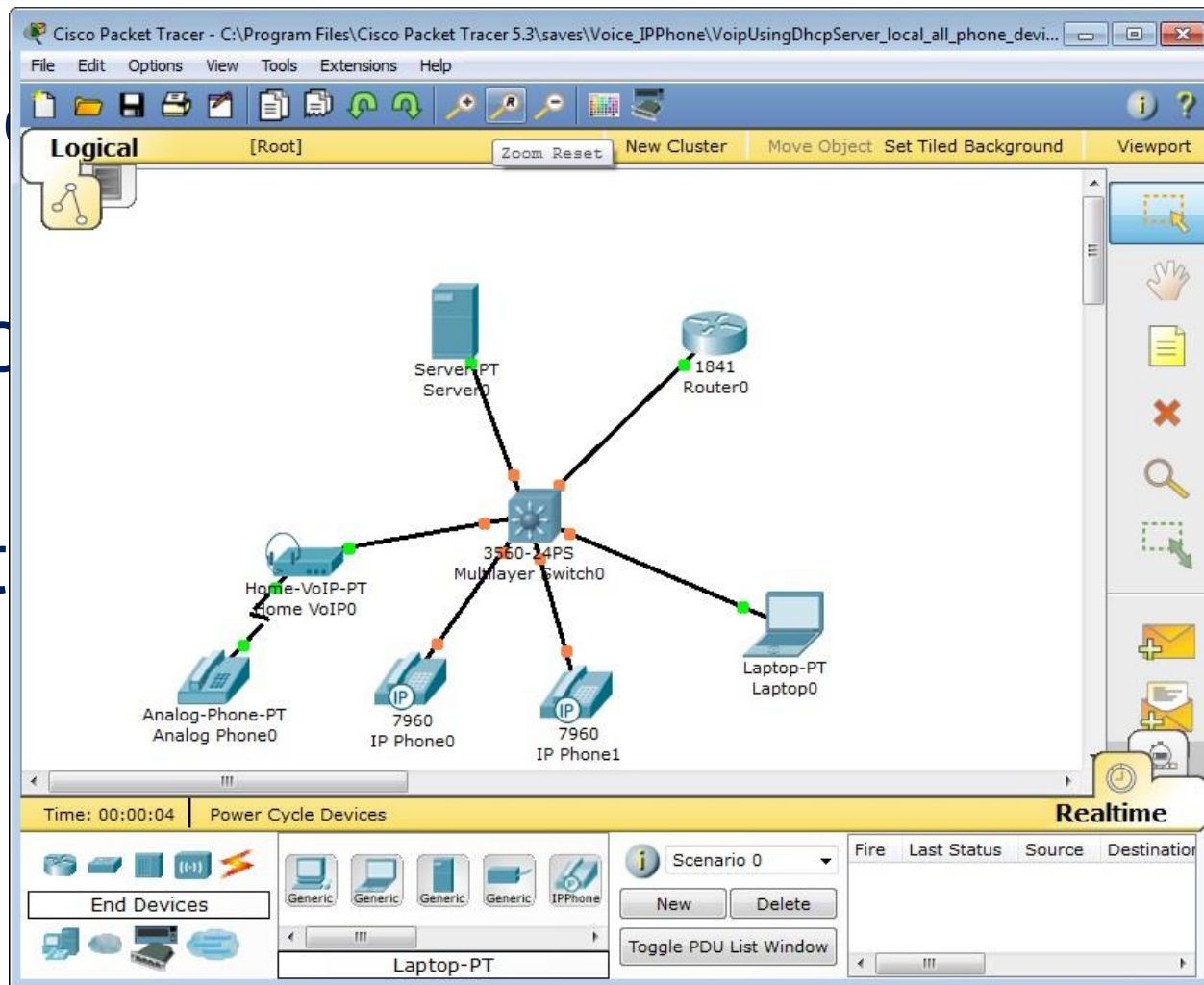
- Study Materials
- Knowledge evaluation
- Network simulators



What NetAcad offers to students

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- Stud
- Kno
- Net



What NetAcad offers to students

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- Study Materials
- Knowledge evaluation
- Network simulators
- Academic certifications

What NetAcad offers to students

www.cnl.tuke.sk



Certificate of Course Completion



Martin Vujcik

Date : October 10, 2006
Instructor : Fecilak, Peter
Location : Kosice
Academy Name : Technical
University of Kosice

During Fundamentals of Wireless LANs, administered by the undersigned instructor, the student demonstrated the following proficiencies:

- Design a logical WLAN architecture for mobile wireless users in compliance with 802.11 IEEE standards;
- Demonstrate knowledge in WLAN applications as they relate to EM spectrum, radio wave propagation, modulation techniques, and frequency and channel usage in wireless technologies;
- Installation of in-building and building-to-building WLANs with Cisco devices that meet mobility and throughput specifications including the site survey and documentation;
- Perform hardware setup and software configuration of Cisco Aironet APs and antennas for Ethernet/Radio ports, and services;
- Perform hardware setup and software configuration of Cisco Aironet equipment for Ethernet/Radio ports and services specific to the WLAN needs for Access Points, Bridges, Repeaters, and Site Survey Client functionality;
- Upgrade and distribute firmware on Cisco wireless products throughout a WLAN;
- Identify, define features of, and install, directional and omnidirectional antennas in both building-to-building and in-building WLANs;
- Design and setup of WLAN security using WEP, Cisco LEAP and 802.1x protocols;
- Troubleshoot WLAN performance issues using event loggings, command line utilities, and diagnostic tools.

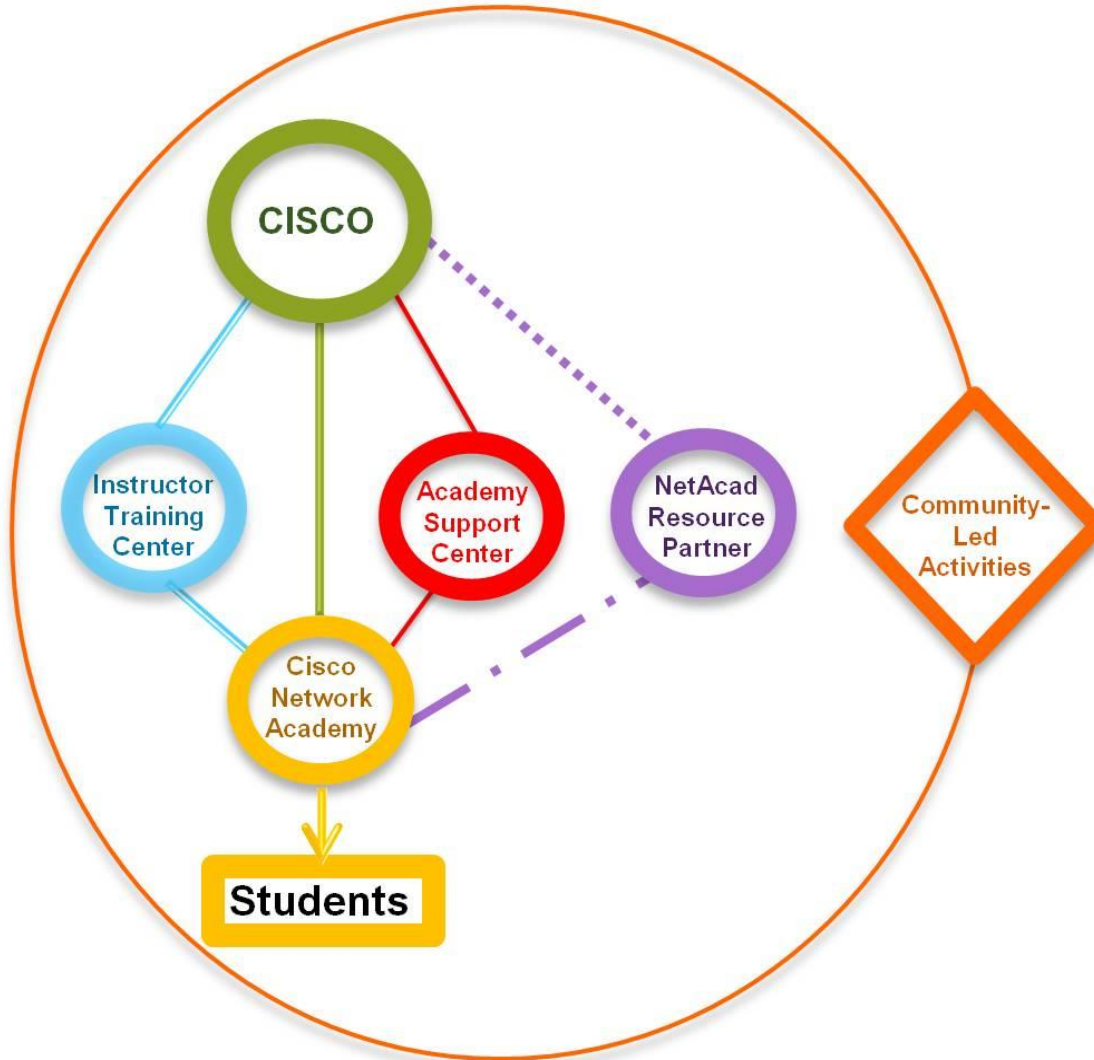
Instructor's Signature

To do...

- Chapter exam
 - >80%
- Final exam
 - >80%
- Practice Final Exam
 - >70%

NetAcad institutions

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A S C
N R P
I T C
C A

NetAcad institutions

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Cisco Academy

- an educational institution
- provides Cisco Networking Academy curricula to students directly

Academy Support Center

- an institution that has qualified to provide baseline support to academies
- helps academies with on-boarding activities and localizing critical communications

Instructor Training Center

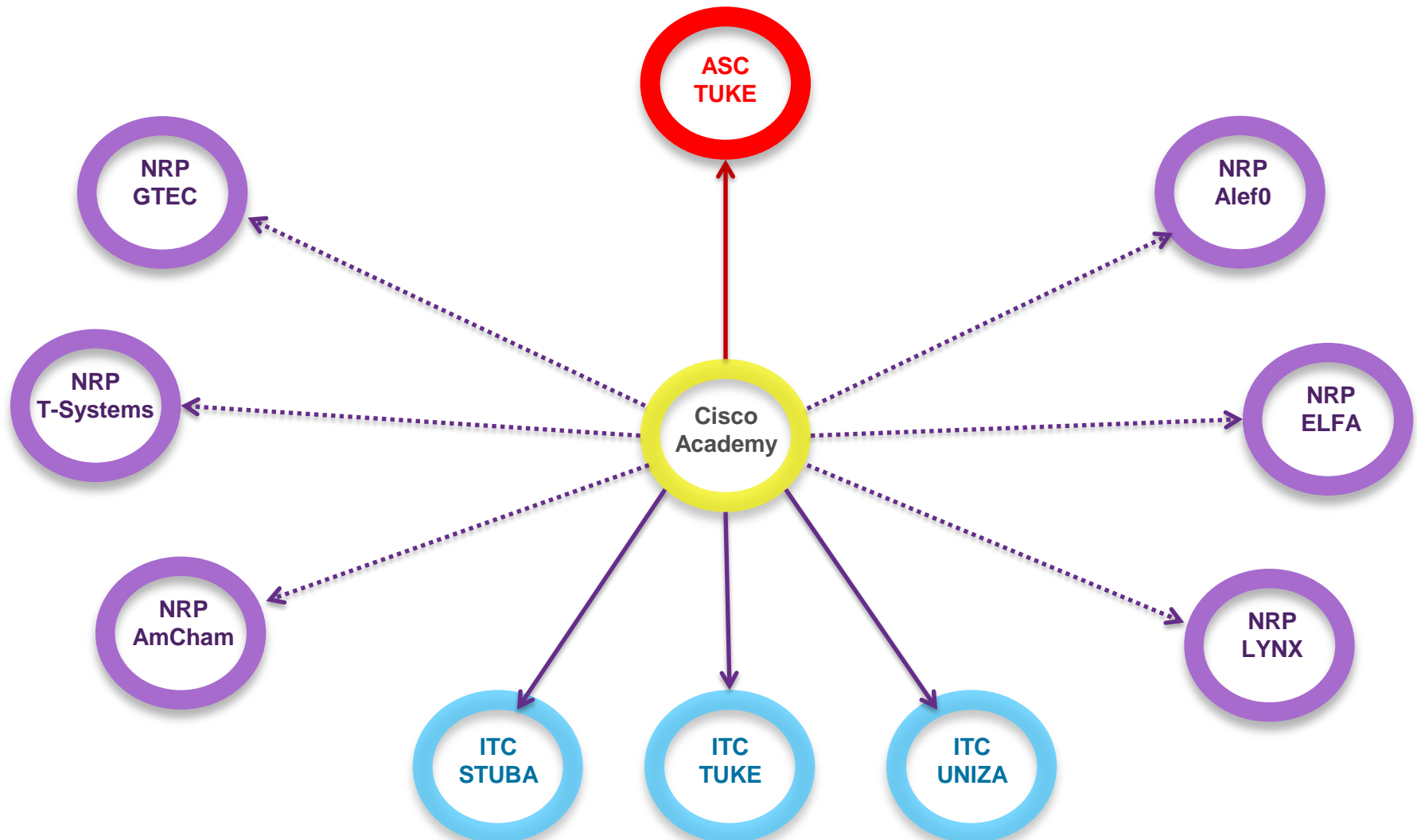
- an institution that has qualified to provide instructor training and technical support to academies
- offers instructor training, and provides technical support for 1st year of academy operation

NetAcad Resource Partner

- an entity approved to provide additional services to academies (beyond training, technical support, and baseline support) and to other institutions in the academy community
- services may include student support, marketing, recruiting, translation of learning resources, council coordination, and more

NetAcad structure in Slovakia

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- over 70 academies
 - Slovakia
 - Belgium
 - USA
 - Egypt
 - Romania
 - Ukraine
 - Azerbaijan

Thank you for your attention...

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Q & A