# Technical and Course Update

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14. April 2016

Düsseldorf

# Agenda

- Packet Tracer

- Linux Courses

- Internet of Everything

- Hackathons

- NetRiders  Competition

- Instructor Professional Development

# NetAcad Learning Portfolio

Jan 2015

## Networking & Technology

| OS & IT | Networking | Security | Technology | Packet Tracer |
|---|---|---|---|---|

**OS & IT**
- Get Connected
- IT Essentials — PT
- NDG Linux Essentials
- NDG Introduction to Linux I
- NDG Introduction to Linux II

**Networking**
- CCNA Routing & Switching (1-4) — PT
- CCNP Routing & Switching (1-3)
- Networking Fundamentals — PT

**Security**
- Intro to Cybersecurity
- CCNA Security — PT

**Technology**
- Mobility Fundamentals Series — PT

**Packet Tracer**
- Cisco Packet Tracer (PT)
- Packet Tracer Know How — PT
- PT Mobile Android & iOS

## Internet of Everything
- Intro IoE Summary Podcast
- Introduction to the Internet of Everything — PT
- Smart Grid (German)
- IoE: Connecting Data
- IoE: Connecting People & Process
- IoE: Connecting Things

## Entrepreneurship
- Entrepreneurship
- Be Your Own Boss

**Legend:**
- Cisco Developed
- Community Developed
- Partner Developed
- Cisco Software
- Planned
- EOLing
- Self-Enroll Option
- Podcast
- Certification Alignment
- Linux Certificate
- PT Packet Tracer Activities

# Packet Tracer Updates

# PT 6.3

- The first PT desktop version that enables authentication

- NetAcad user are required to sign in the first time launch the Packet Tracer

- Non-NetAcad user can click "Guest Login" button and wait for 15 seconds and view the "About Cisco Networking Academy" page then start using Packet Tracer

- Only one version – not broken into instructor and students

- Check out the FAQ online
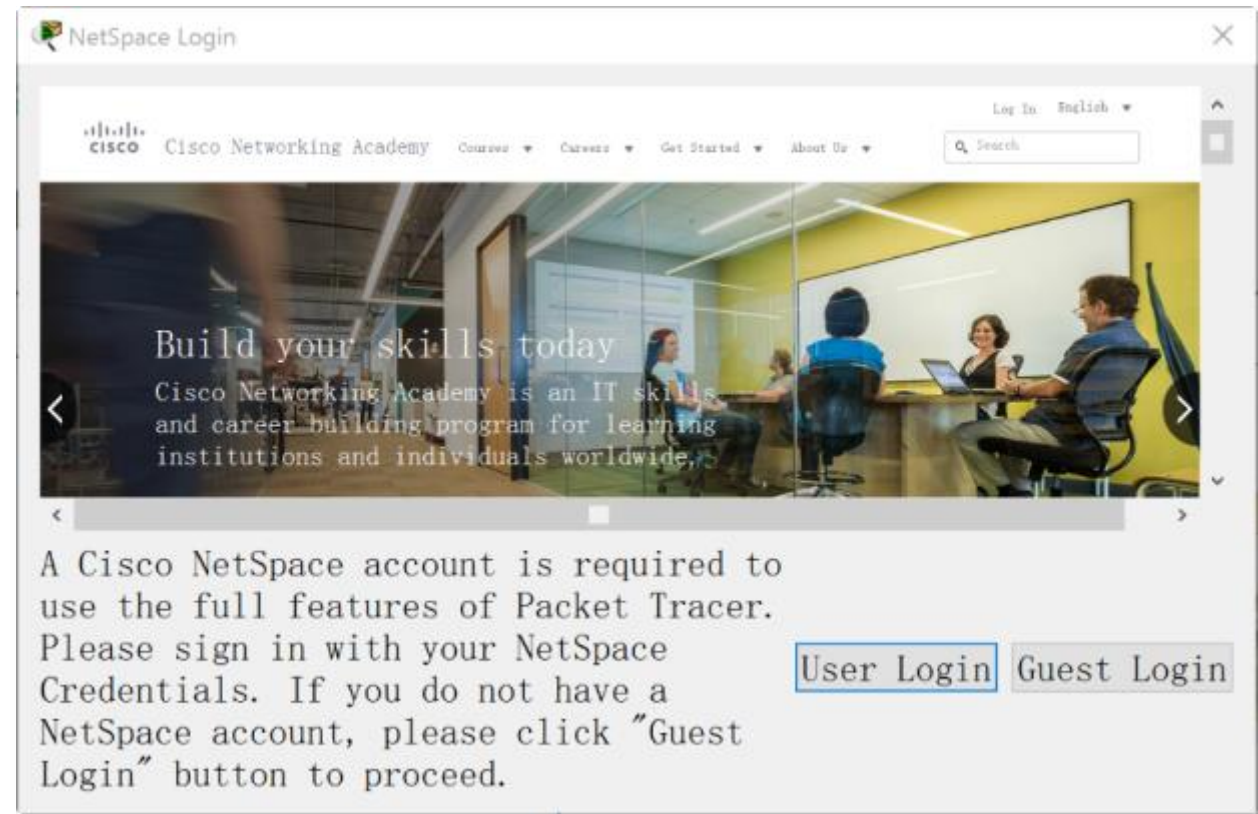
# PT User Profile
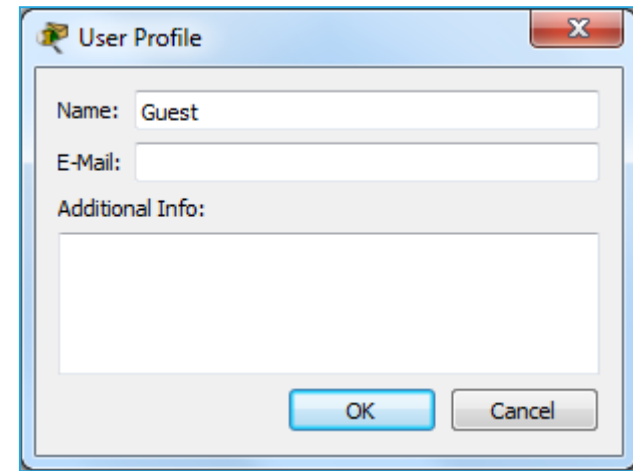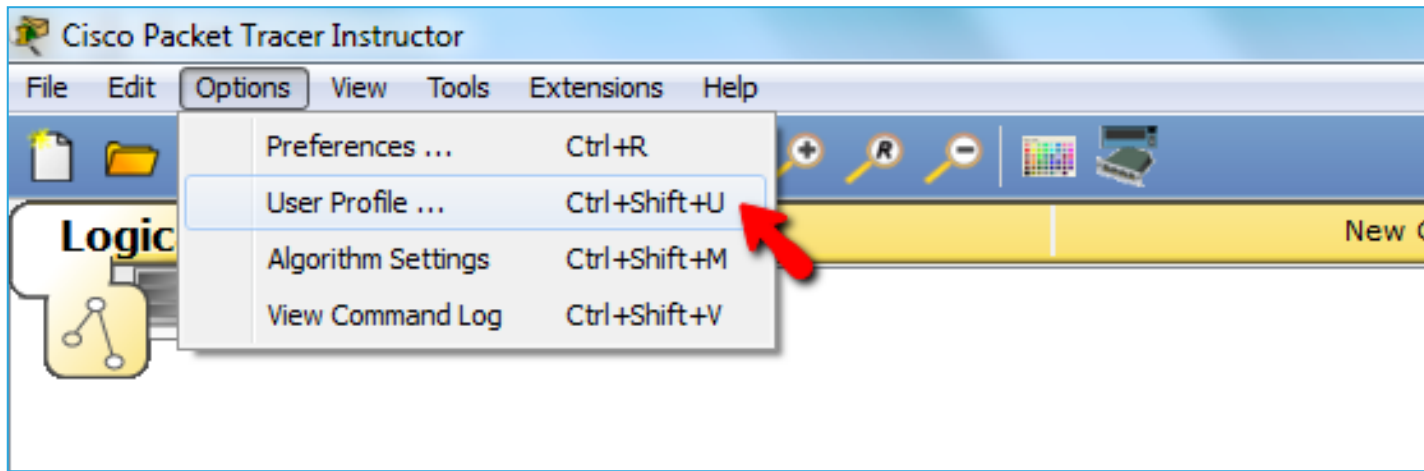




- Students can set Name and Email for PT User Profile per PKA

- Their completed PKAs can be then identified by instructor

- Guest profile is used by default

- Usage of Guest profile can be restricted by instructor in PKA settings

# PKA No Guest Profile



- Guest profile restricted in this PKA

- Student is asked to change their profile name when open PKA
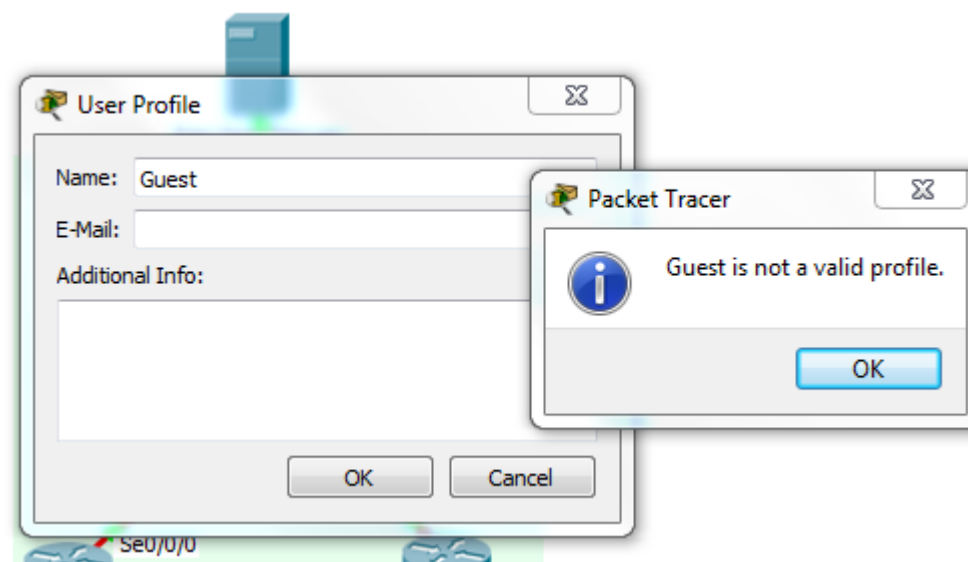
# PKA User Profile Locking



- User profile cannot be changed for completed task

- Students are enforced to change their profile name

- That prevents cheating by copying
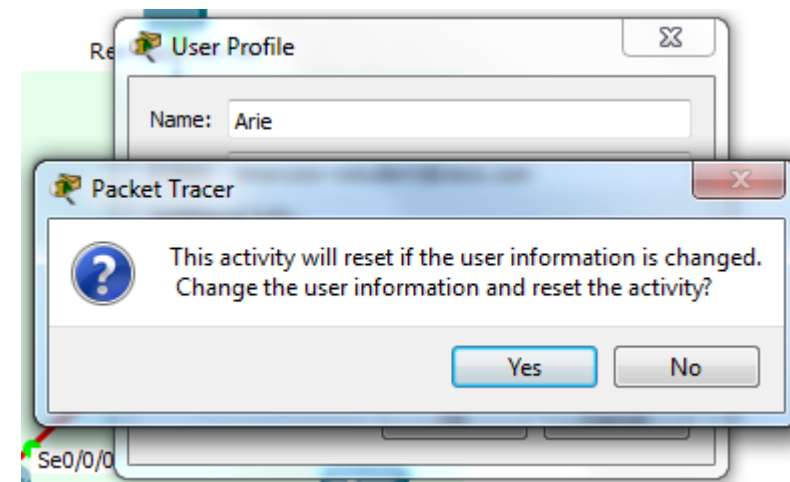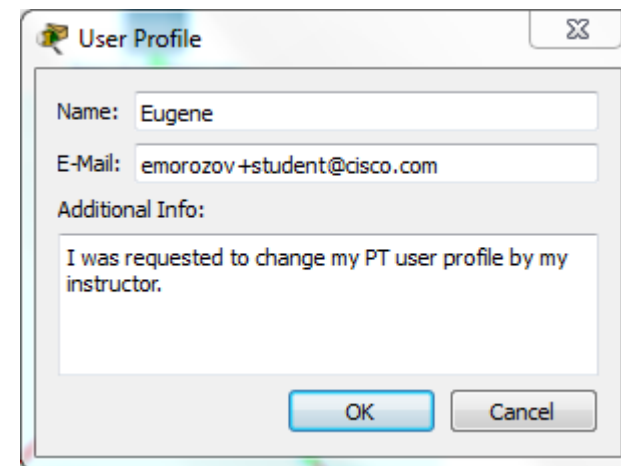
# The password of PKA files in CCNA R&S is
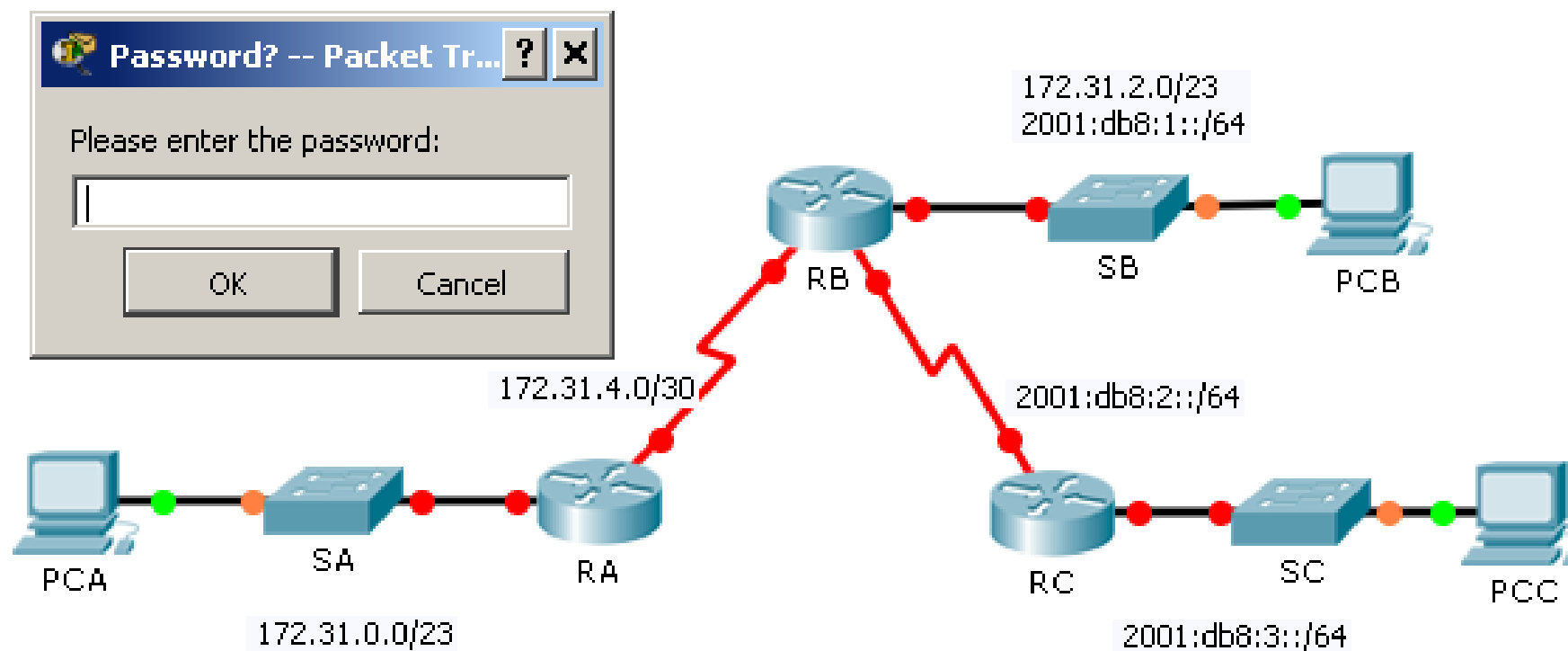
# Install the Packet Tracer mobile now!
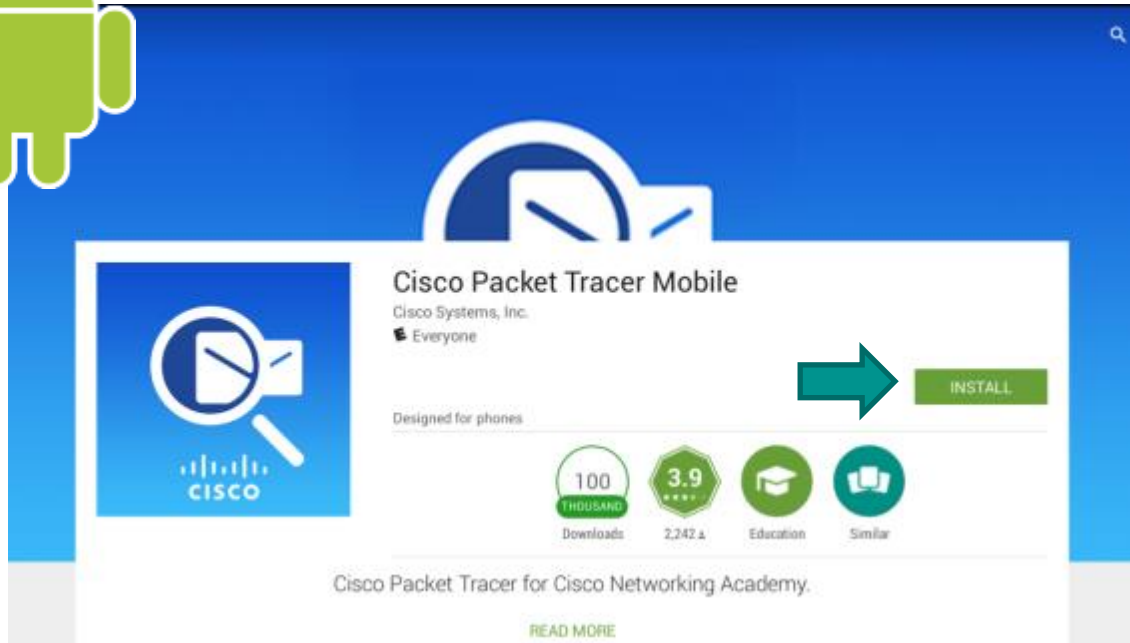


- Support Android 4.2 – 5.0 tablets with 7 inch screen or larger
- Scan the QR code on your Android mobile devices or click the link below to install the Packet Tracer mobile

https://play.google.com/store/apps/details?id=com.netacad.PacketTracerM

- Supporting iPad & iPhone running iOS 8
- Search "Packet Tracer" in "App Store" to install it

https://itunes.apple.com/us/app/id1015041980

# Linux Courses

# Certification alignment



| Linux Essentials | LPIC 1 | LPIC 2 | LPIC 3 | LPIC 3 Electives |
|---|---|---|---|---|
| **LPI LE** | **Intro to Linux I** / **LPI 101** / **LPI 102** / **Intro to Linux II** | **LPI 201** **LPI 202** | **LPI 301** | **LPI 302** **LPI 303** **LPI 304** |

| More info | More info | More info | More info | More info |
|---|---|---|---|---|
| Entry Level (Similar to ITE/CCENT) | Junior Level (Similar to CCNA) | Advanced Level (Similar to CCNP) | Senior Level (Similar to CCIE) | Specialty Areas |
| Certificate Program | Professional Certification | Professional Certification | Professional Certification | Professional Certification |
| 0-12 Months | 1-2 Years | 2-3 Years | 3+ Years | 3+ Years |
| Installed/Desktop | Servers/Small Site | Small/Medium Site | Enterprise-Wide | Enterprise-Wide |

# NDG Linux Essentials

## Course Overview

The Linux Essentials course, developed by NetAcad partner NDG, teaches students the fundamentals of the Linux operating system and command line and open source concepts.

The Linux virtual machine is embedded in the course; allowing students to experiment with Linux commands.

## Career Prep

Upper secondary school and junior college students interested in learning Linux OS, open source programming, and IoE skills to expand IT knowledge beyond networking. Aligns with the Linux Professional Institute (LPI) Linux Essentials Professional Development Certificate.

**Prerequisites:** None

**Language:** English

**Course Delivery:** Instructor led and Self-paced*

**Estimated Time to Complete**: 70 hours

**\*Fee**: $39.95 USD for Self-paced only

**Recommended Next Course**: CCNA R&S Introduction to Networks

NDG
Network Development Group

Overview
Linux Essentials Course

## Learning Components

- 16 chapters
- Built-in virtual machine to experiment with Linux commands
- 13 lab exercises
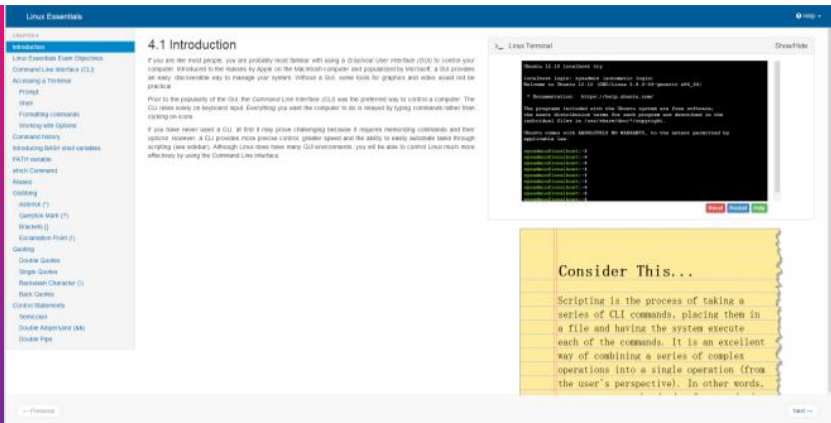- Learner-directed activities
- Chapter exams, mid-term, and final exam

# NDG Introduction to Linux I

## Course Overview

The NDG Introduction to Linux I course, developed by NetAcad partner NDG, teaches students the Linux skills required to prepare for the Linux Professional Institute LPIC-1 first certification exam or the CompTIA Linux+ powered by LPI first certification exam.

**Prerequisites:** None required, but NDG Linux Essentials or equiv. knowledge recommended

**Language:** English

**Course Delivery:** Instructor led* and Self-paced*

**Estimated Time to Complete**: 70 hours

**\*Fee:** $39.95 USD per learner.

**Recommended Next Course**: NDG Intro to Linux II

## Career Prep

Aligns with the Linux Professional Institute LPIC-1 and CompTIA Linux+ powered by LPI first exam.

### NDG Introduction to Linux I



## Learning Components

- 27 chapters
- Built-in virtual machine to experiment with Linux commands
- 24 lab exercises
- Learner-directed activities
- Chapter exams, mid-term, and final exam

# NDG Introduction to Linux II

## Course Overview

The NDG Introduction to Linux II course, developed by NetAcad partner NDG, teaches students the Linux skills required to prepare for the Linux Professional Institute LPIC-1 second certification exam or the CompTIA Linux+ powered by LPI second certification exam.

**Prerequisites:** None

**Language:** English

**Course Delivery:** Instructor led* and Self-paced*

**Estimated Time to Complete**: 70 hours

***Fee:** $39.95 USD per learner

**Recommended Next Course**: CCNA R&S Intro to Networks

## Career Prep

Aligns with the Linux Professional Institute LPIC-1 and CompTIA Linux+ powered by LPI second exam.

NDG Introduction to Linux II

### NDG Introduction to Linux II - Chapter 2 - Shell Scripts

## Learning Components

- 19 chapters
- Built-in virtual machine to experiment with Linux commands
- 19 lab exercises
- Learner-directed activities
- Chapter exams, mid-term, and final exam

# Pricing to Cisco Networking Academies for NDG courses

- **NDG Linux Essentials Instructor Led Training** **Free for ILT**

- **NDG Linux Essentials Self-Paced Learner** **$ 39.95**
  **Course for LPI.org Linux Essentials Professional Development Certificate**

- **NDG Introduction to Linux I aligned to LPIC-1 / Linux+** **$ 39.95**
  **Course for first certification exam**

# Internet of Everything

# The Internet of Everything:
## Networked Connections of People, Process, Data, Things

### People
Connecting people in more relevant, valuable ways

### Process
Delivering the right information to the right person (or machine) at the right time

### Data
Turning data into more useful information for decision making

### Things
Physical devices and objects connected to the Internet and each other for intelligent decision making

# Introduction to the Internet of Everything

## Course Overview

The Introduction to the Internet of Everything (Intro2IoE) course introduces learners to the technologies that support the IoE, and the career and social opportunities created by the growing number of networked connections between people, processes, data, and things.

**Prerequisites:** None

**Languages:** Chinese-Simplified, English, French, Japanese, Portuguese-BR, Russian, Spanish

**Course Delivery:** Instructor led or self paced

**Estimated Time to Complete**: 20 hours

**Recommended Next Course**: IT Essentials or CCNA R&S Introduction to Networks

## Career Prep

Secondary school through university students seeking an overview of trends, technologies, and career opportunities in the Internet of Everything.

## Learning Components

- 5 modules of interactive content featuring IoE experts
- Activities, videos, and simulations to enhance the learning experience
- Pre-test, module quizzes, and a final exam

# Planned

- IoE: Connecting Data

- IoE: Connecting Things

- IoE: Connecting People & Process

# Hackathons

# Was ist ein Hackathon?

**Zielstellung**: Vermittlung des Prozesses der Problemlösung im Team als berufliche Handlungskompetenz

Ablauf des Hackathons in **drei Phasen**: Ideen zu einer neuen Problemstellung finden, eine Idee zur Umsetzung auswählen (**Ideation**), Idee technisch umsetzen und einen Prototyp dazu erstellen (**Prototyping**) und Präsentation zum Projekt erstellen (**Pitch** – 5-7min.).

20-30 TeilnehmerInnen = 4-6 Arbeitsgruppen mit 5-6 Teilnehmern/innen:

- Networker (IPTechnologies) - Netzwerker
- Maker (Electronics) – Techniker mit elektrotechnischen Kenntnissen
- Developer (Software) – Software-Entwickler (Niveau Python)
- Designer (UX) – Gestalter für die Idee, den Prototyp (und das Projekt)
- BusinessExpert – Vermarkungsstratege (Kaufleute mit Marketingideen)

Dauer: 3-5 Tage oder projektorientierter Unterricht

Voraussetzung: Materialien (Rhaspberry PI/Ardunio, Papier und Schere) und ggf. PL Cloud

# IoE Prototyping Workshop

Enabling a baseline for the IoE

2 hours tinkering activity

## Project A – Door monitoring

- Monitor door using a simulation push-button
- If door is closed: LED is green
- If door is opened:
  - Turn LED red
  - Send email to administrator
  - Sound annoying buzzer alarm

Wiring codes:
--------------------
Red: 5V
Black: ground
Orange: input
Green: output

## Connecting and starting your RPi

1. Insert the MicroSD card

2. Insert WiFi adapter or Ethernet cable

3. Power the RPi using MicroUSB cable

4. After 2 minutes device should show Online on Cloud

RaspberryPi    Online
RPi

green

red

to EMAIL_SETUP
Setup GMail
Your e-mail    marckhayat@gmail.com
Password    gotta_be_kidding!

to EMAIL_SEND
Send mail
To    marckhayat@gmail.com
Subject    Door opened
Message    There was a security breach at your premises.
Print on screen    Email sent.

If button connected to digital pin 1 is pressed, light the LED, sound alarm, send email alert

# 3 day Hackathon Berlin at OSZ IMT – 35 students / 30 experts



## Certificate
## NetAcad IoE Hackathon, Berlin
### Digital Living in Urban Areas: Sharing and Caring
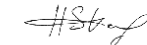
Winner Team
Project 'PiDi – Smart Pill Dispenser'

| | |
|---|---|
| Krister Aavikko, | Mulitmedia BBS Hannover |
| Kevin Engel, | Mulitmedia BBS Hannover |
| Martin Lubian, | Mulitmedia BBS Hannover |
| Simon Stamm, | Mulitmedia BBS Hannover |
| Christian Hävemeyer, | Mulitmedia BBS Hannover |
| Petr Rotkang, | Oberstufenzentrum IMT Berlin |

Congratulations!
You are now a part of the community of global problem solvers. Keep on innovating!

CiscoLive! 2016

Awarded
18. February 2016

Harbrinder S. Kang
Vice President Cisco Networking Academy

# NetRiders Competition

➡️Encourage your students to join a NetRiders competition which helps them gain more confidence in their skills for a real-world working environment.

➡️Visit www.AcademyNetRiders.com and select the Europe, Russian Federation and CIS regional page for details.  Read the FAQ for registration details.
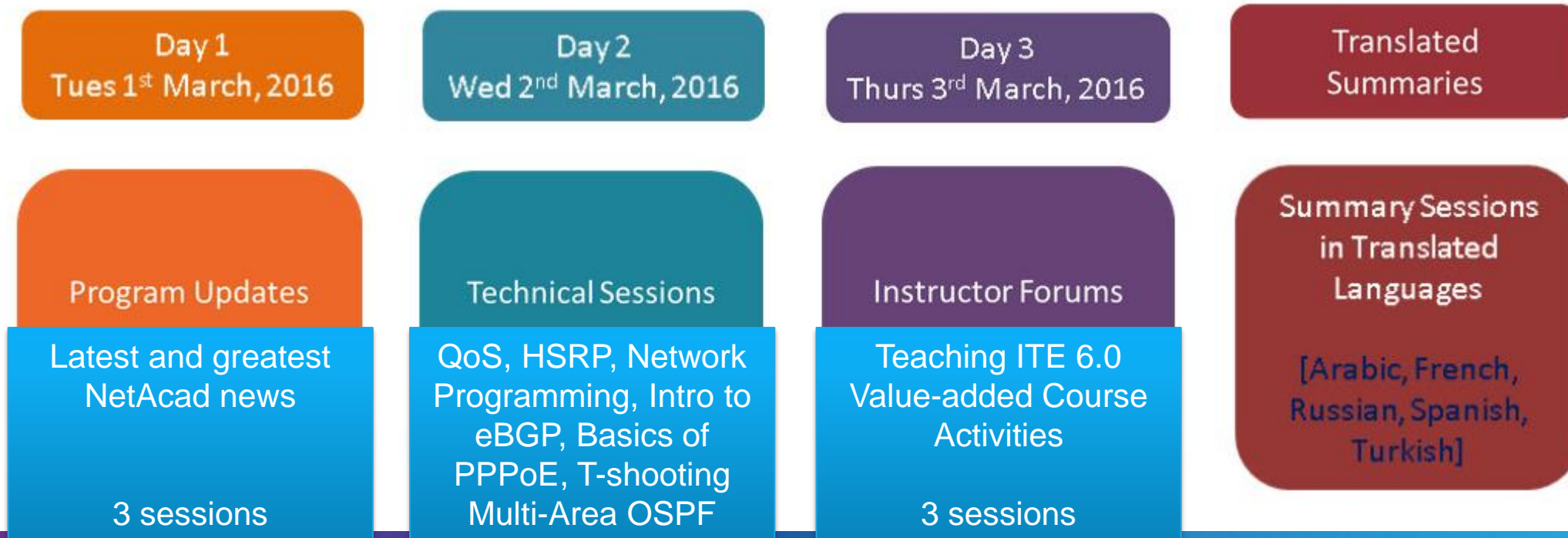
Connect everything, Innovate everywhere, Benefit everyone

# Instructor Professional Development

# Global IPD Week – Materials Posted!

1. Enroll to the course : **https://1040239.netacad.com/enroll/ATAGT3**

2. On your **Learn** tab

3. Take a 1-question survey

4. Access registration and recording links

| Day 1 Tues 1st March, 2016 | Day 2 Wed 2nd March, 2016 | Day 3 Thurs 3rd March, 2016 | Translated Summaries |
|---|---|---|---|
| **Program Updates** Latest and greatest NetAcad news  3 sessions | **Technical Sessions** QoS, HSRP, Network Programming, Intro to eBGP, Basics of PPPoE, T-shooting Multi-Area OSPF | **Instructor Forums** Teaching ITE 6.0 Value-added Course Activities  3 sessions | **Summary Sessions in Translated Languages** [Arabic, French, Russian, Spanish, Turkish] |

# Next Global IPD Week

May 31$^{st}$ – June 3$^{rd}$ 2016