



Cisco Networking Academy
Mind Wide Open

Technical and Course Update

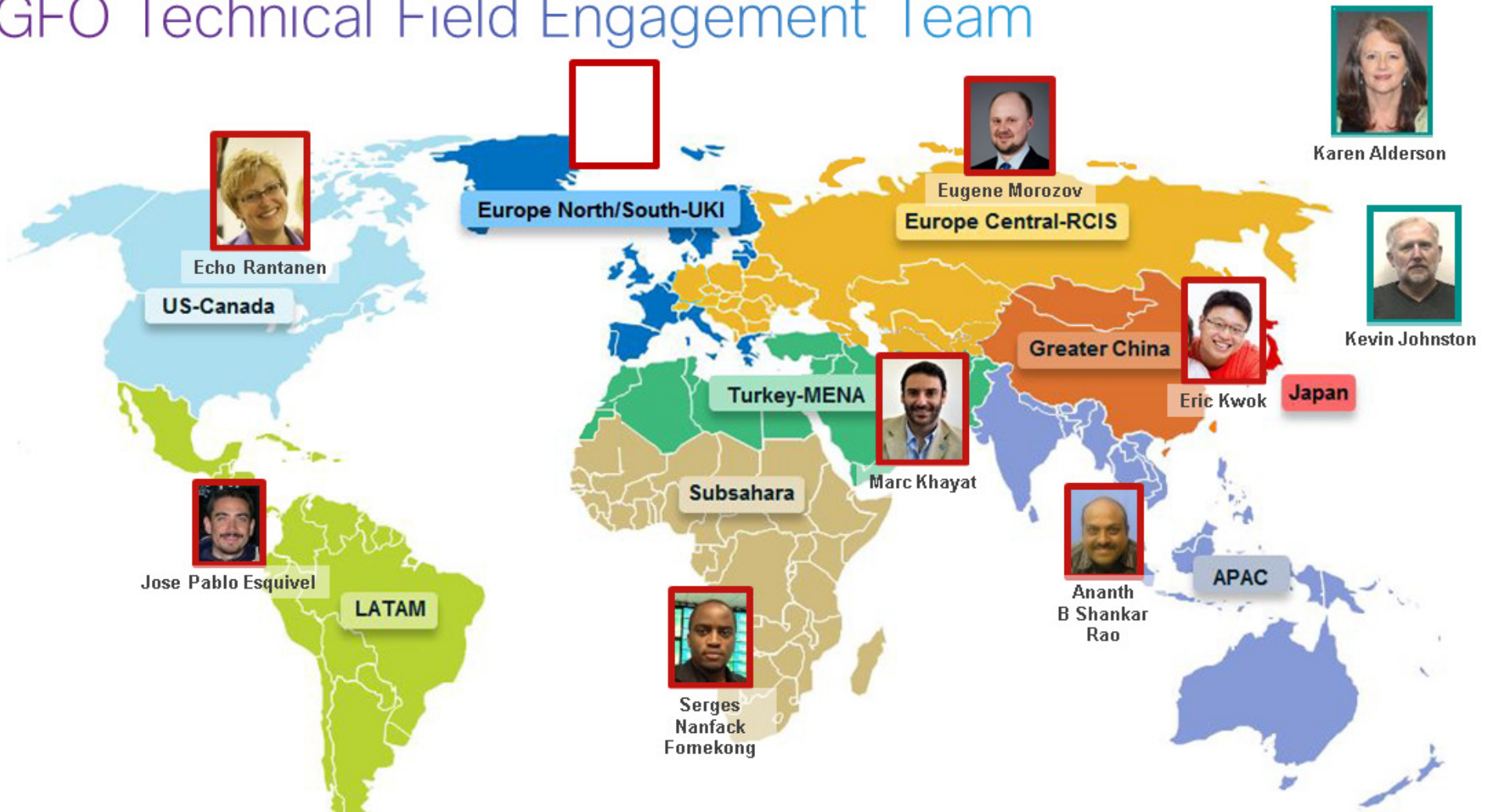
Eugene Morozov

Technical Manager CEE-RCIS

28 May 2015
Stockholm



GFO Technical Field Engagement Team



Agenda

- Course Portfolio Overview
- CCNA R&S Instructor Resources
- NetSpace Updates
- Packet Tracer Updates
- CCNP R&S and Lab Bundles Updates
- Introduction to Cybersecurity v1.1
- Technopreneur Series
- Get Connected
- Linux Courses
- IoE Offerings
- Academy Fast Track
- Professional Development Opportunities



NetAcad Strategy



Aspiration

A long-exposure photograph of a city at night, likely Dubai, showing a complex highway interchange with light trails from cars. In the background, numerous skyscrapers are illuminated, with the Burj Khalifa being the most prominent. The sky is dark, and the city lights create a vibrant, glowing effect.

Play a foundational role
in capturing the IoE market transition
by making networking, software and ICT education
relevant and exciting again and
thus fueling the growth of the Internet of Everything

Who Develops Courses?



Instructor-led and self-paced courses offered in partnership with schools and organizations around the world

Community

Learning materials developed by NetAcad instructors in partnership with Cisco

Partners

Courses developed by partner organizations and offered to help broaden student skills and improve their career prospects

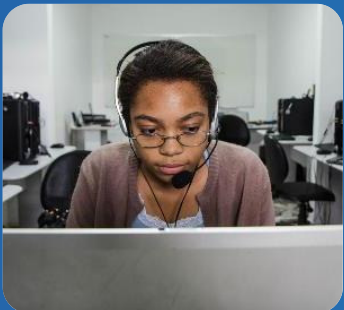
Course Delivery

Instructor Led



Courses that are opened and taught by an instructor, in a face-to-face classroom setting, a blended classroom and distance-learning environment, or remotely.

Self Paced



Courses that allow students to self-enroll and complete the learning activities at their own pace, sometimes within a set time frame.

Self-paced offerings also include podcasts.

Focus on Employment: Gain Knowledge and Employable Skills

Networking & Technology

OS & IT

Networking

Security



Technology

Packet Tracer

Internet of Everything


Entrepreneurship

Get Connected

CCNA Routing & Switching (1-4)  


Intro to Cybersecurity 


Voice Primer

Cisco Packet Tracer (PT) 

Intro2IoE Podcast 

Entrepreneurship 

IT Essentials 


CCNP Routing & Switching (1-3) 

CCNA Security  

Cloud Primer

Packet Tracer Know How 

Introduction to Internet of Everything  


Be Your Own Boss 

NDG Linux Essentials 

Networking Essentials 

Collaboration Primer

PT Mobile Android 

IoE: Connecting Data* 

NDG Introduction to Linux I 

Mobility Series: Wireless Tech Standards 

IoE: Connecting People & Process* 

NDG Introduction to Linux II

IoE: Connecting Things* 

Smart Grid Essentials

 Cisco Developed Course
  Community Developed Content
  Partner Developed Course
  Cisco Software
  Planned
  Option
  Podcast
  Certification Alignment
  Linux Certificate
  Packet Tracer Activities

CCNA R&S Updates



End-of-Life for CCNA Discovery, CCNA Exploration, and CCNA R&S Transitional Courses

English versions:

Course	Language	Last Class Start Date	Last Class End Date
CCNA Discovery: • All courses	English	1-DEC-2014	30-JUNE-2015
CCNA Exploration: • All courses	English	1-DEC-2014	30-JUNE-2015
CCNA Routing and Switching: • Network Basics course • Routing Protocols course • Switched Networks course	English	1-DEC-2014	30-JUNE-2015

Translated versions:

Course	Languages	Last Class Start Date	Last Class End Date
CCNA Discovery 1-4	Arabic Chinese (Simplified) French Japanese Portuguese Russian Spanish Turkish	1 December 2015	30 June 2016
CCNA Exploration 1-4	Chinese (Simplified) French Portuguese Spanish	1 December 2015	30 June 2016

CCNA R&S Instructor Feedback

- Continue to hear: “ITN is too long ...” (especially at the High School level)

Align to CCENT Certification

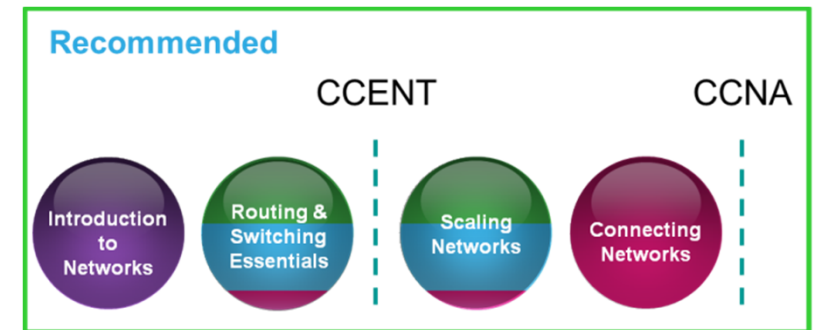
Teach more than just technical skills but also business context

Tailor ITN course as needed based on your student’s IT knowledge and learning goals

- CCNA assessments are all over the Internet

NetAcad assessments are developed to assess students’ competency

Instructors have the flexibility to use the assessment tools in a manner that works best for their students



The screenshot shows the Cisco NetSpace feedback interface. On the left, there is a 'Feedback' sidebar with a list of items. Each item has a status (e.g., UNDER REVIEW, PLANNED, RECEIVED) and a count of votes and comments. The main area on the right is a 'Give feedback' form. It includes a 'What is your idea?' text field, a 'Category (optional)' dropdown menu, a 'Describe your idea... (optional)' text area, an 'Attach a File' button, and a 'Your email address' field with a 'Post idea' button. There are also social media icons for Facebook and Twitter.

CCNA R&S Instructor Feedback

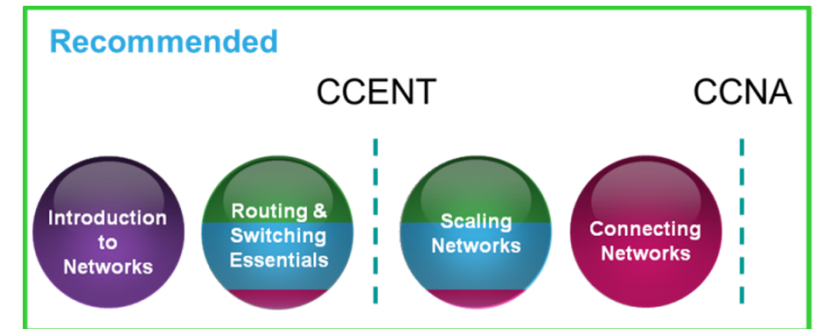
- Continue to hear: “ITN is too long ...” (especially at the High School level)

Align to CCENT Certification

Teach more than just technical skills but also business context

Enable students to be adequately prepared to pursue advanced technology learning and certification

Tailor ITN course as needed based on your student’s IT knowledge and learning goals



The screenshot shows the Cisco NetSpace feedback interface. On the left, there is a "Feedback" section with a "browse ideas" link. Below it is a list of ideas, each with a lightbulb icon, a status label, and vote/comment counts. The ideas are: "Instructors taking assessments" (UNDER REVIEW, 188 votes, 10 comments), "lock downloading of certificates for students" (UNDER REVIEW, 163 votes, 6 comments), "Access to resources needs to be improved" (UNDER REVIEW, 129 votes, 11 comments), "Allow assessments to be run in the Respon..." (UNDER REVIEW, 109 votes, 0 comments), "Allow instructors to set up multiple activatio..." (PLANNED, 109 votes, 3 comments), "Course Index for ITE 5.0 and CCNA 5.0" (PLANNED, 108 votes, 4 comments), "CCNA Certification Practice Exam for prep..." (RECEIVED, 87 votes, 0 comments), and "Clear organisation of courses" (PLANNED, 59 votes, 9 comments). On the right, there is a "Give feedback" button and a form titled "Please tell us how we can make Cisco NetSpace even better!". The form includes a text input for "What is your idea?", a "Category (optional)" dropdown, a "Describe your idea... (optional)" text area, an "Attach a File" button, a "Your email address" input, and a "Post idea" button. There are also social media icons for Facebook and Twitter.

CCNA R&S Instructor Resource Spotlight

- NetAcad’s recommendations on: “ITN is too long ...”

It can be difficult to transition through a major curriculum change – give yourself extra time

Leverage the Instructor Planning Guides (IPGs) - guidelines and best practices for teaching each chapter of the CCNA R&S courses

Cisco® Packet Tracer (PT) activities and quizzes can be modified and assigned to students to fit your local needs – do not have to assign all of them to your students

- Additional information can be found on the CCNA R&S Instructor Resource Spotlight

CCNA Routing and Switching Instructor Resources Spotlight

Please review these helpful resources for CCNA Routing and Switching instructors.

Curriculum Resources

- [CCNA Routing and Switching Scope and Sequence](#) – Document outlining the course objectives and goals.
- [CCNA Routing and Switching FAQs](#) – Answers to frequently asked questions on CCNA R&S curriculum.
- CCNA R&S courses are designed to allow you to tailor your instructions to fit your students’ needs within a 70-hour semester format. <Coming soon>
- NetAcad’s recommendations in teaching CCNA R&S ITN course. <Coming soon>
- Teaching CCNA R&S Best Practices – Methods and materials collected from CCNA R&S instructors around the world on how they are customizing and modifying their curriculum delivery for student success. <Coming soon>
- [CCNA ITN Instructor Planning Guides](#) – Guidelines and best practices for teaching each chapter of the CCNA R&S ITN course.
- [CCNA ITN Activity Map](#) – Summary of the learning objectives and resources needed for every activity in the CCNA R&S ITN course.

Assessment Resources


- [NetAcad Assessment Resources Spotlight](#) – Tutorials on NetAcad assessments, including activating and managing assessments, using Canvas quizzes, using Assessment Viewer, etc.
- [Assessment FAQ](#) - Answers to frequently asked questions on Assessments.

Cisco Certification Changes

- [Cisco Associate-Level Certification Changes Video](#) – A short video discussing the redesigned Cisco CCNA Routing and Switching and CCENT certifications and what the certification changes mean for you and your students.
- [Changes in Cisco CCNA Certification Exams](#) – An overview for instructors of changes to the CCNA certifications exams, including end-of-life dates for the current exams.
- [What Students Need to Know About CCNA Certification Exams](#) – An overview for students of changes to the CCNA certifications exams, including end-of-life dates for the current exams.

- [NetSpace Home – Offerings – CCNA – CCNA Routing and Switching Instructor Resources Spotlight](#)

Best Practices for Teaching CCNA R&S



Karen Alderson
Lubbock, TX
United States
Joined: 8/29/12

0 Points

Февраль 4, 2015 12:06 PM

Methods and materials collected from CCNA R&S instructors around the world on how they are customizing and modifying their curriculum delivery for student success.

Course	Instructor	The Situation	The Solution	Resources
CCNA R&S ITN and RSE	Jeff Mason and Rod Thompson Newport High School Bellevue, Washington USA	How do you fit in all this new curriculum AND give a meaningful lab experience!	Good planning Lab modification—modify, modify, modify!	Download resources Course calendar Modified labs Rubrics Watch recorded presentation PowerPoint Presentation
CCNA R&S ITN	A Kayode Adesemowo Nelson Mandela Metropolitan University Port Elizabeth, South Africa	Huge first-year student classes with diverse backgrounds. Concerned with assessment security issues. Focused on active teaching and learning.	CCNA R&S ITN is year long class CCNA R&S ITN students use Packet Tracer while all other CCNA R&S students use physical hardware Leverage PT User profile, Activity Grader and Excel functions to detect cheating issues Secure Assessments	Watch recorded presentation Download PowerPoint
CCNA R&S ITN and RSE	Rasel Dela Cruz Mapua Institute of Technology Philippines	Diverse learning styles of students.	Leveling of expectation at start of course. A variety of lecture techniques and strategies to engage students. Student journals for assignments and notes. Packet Tracer problem activities. Use a variety of formative and summative assessments.	Watch recorded presentation Download PowerPoint
CCNA R&S ITN and RSE	Shailesh Jadhav Centre for Research &	CCNA R&S curriculum in four months Develop excellent configuration and	Pretest students to determine previous knowledge	Watch recorded presentation

- From instructors to instructors
- We interviewed 20+ instructors around the world
- Collected 13 best practice cases
- Posted in NetSpace
- <http://cs.co/90032U7x>

• NetSpace Home – Communities – Global Instructor Resources – Blog

NetAcad Assessment Resource Spotlight

- NetAcad’s recommendations on: “CCNA assessments ...”

NetAcad refresh Final Exams frequently: isomorphs, multiple forms, randomization, flexible activation controls, etc.

Instructors can modify existing quizzes or design new quizzes and set them up as graded items in the gradebook

Instructors can change the weighting in the gradebook to emphasize skills assessments and labs

Use other item types such as essay and short answer questions

- Additional information can be found on the NetAcad Assessment Resource Spotlight

NetAcad Assessment Resources Spotlight

NetAcad Assessment Resources

[Assessment FAQ](#) - Frequently Asked Questions on Assessments

[Values of NetAcad Assessments](#) - NetAcad Assessments are still strong educational tools even if the answers are posted on the Internet

[Mitigation of exposed NetAcad Assessments](#) - Helpful tips from instructors to mitigate the impact of exposed assessments

Managing NetAcad Assessments using Assignments tab

[Default Assessments](#) - Learn how to activate NetAcad Assessments using default settings

[Advanced Assessments](#) - Learn how to activate NetAcad Assessments using advanced settings

[Manage Assessments](#) - Learn how to manage NetAcad Assessments after activation

Managing NetAcad Assessments using Activation Tool tab

[Activation Tool: Creating an Activation Profile](#) - Learn how to create and copy an activation profile to apply advanced settings for NetAcad Assessments

[Activation Tool: Bulk Activation](#) - Learn how to activate multiple NetAcad Assessments at one time

[Activation Tool: Manage Activations](#) - Learn how to manage NetAcad Assessments after activation

Assessments Viewer

[Assessment Viewer](#) - Learn how to view the assessment questions using the Assessment Viewer

Using Canvas Quizzes

[Edit Quiz Tutorial](#) - Learn how to modify and adjust an existing quiz

[Advanced Quiz Tutorial](#) - Learn how to add questions to a quiz

[Update Question Bank Tutorial](#) - Learn how to update a question bank and relink to a quiz

[Create a Quiz from a Question Bank Tutorial](#) - Learn how to create a quiz by linking to multiple question banks

- NetSpace Home – Offerings – NetAcad Assessment Resource Spotlight

Assessments - NetSpace FAQs and Tutorials

- There are several tutorials that can help you use the tools available.

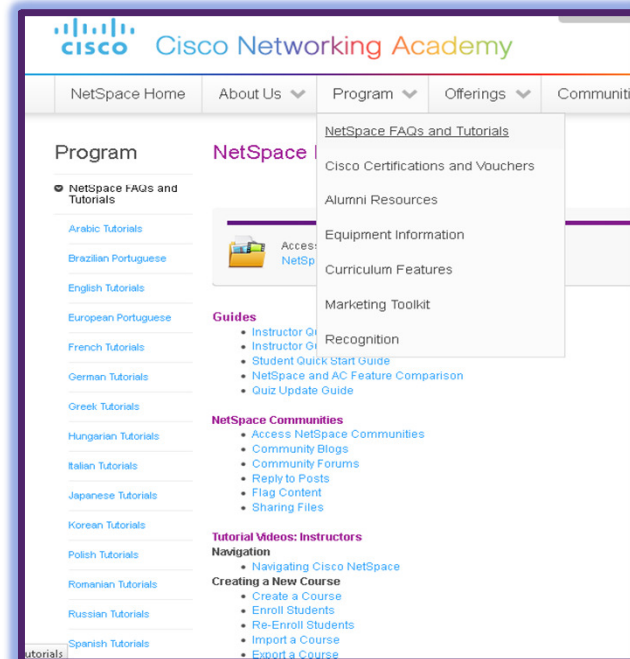
- **Assessment Resource Spotlight**

One place for Assessment Info

Updates on new features

Highlights of some tutorials

- **NetSpace Home – Program – NetSpace FAQs and Tutorials**



Managing Assessments

- **Assessment FAQ**
- Assessment Viewer
- Default Assessments *Revised*
- Advanced Assessments *Revised*
- Manage Assessments *Revised*
- Student Performance Assessment Summary
- Activation Tool: Complete Tutorial (13 Minutes)
- Activation Tool: Bulk Activation
- Activation Tool: Manage Activations
- Activation Tool: Creating an Activation Profile
- **PacketTracer Activity Grader**

Managing Assignments

- Assignments
- Weighting Assignments
- Grade Book
- Grade History
- Importing and Exporting Grades
- Syllabus
- Calendar
- Adding/Editing a Quiz *Revised*
- Advanced Quizzes
- Update Question Bank *Revised*
- **Create a Quiz from a Question Bank *Revised***
- **Adding the Quizlet App**
- SpeedGrader
- Modules
- Create Custom Pages
- View Page History
- Change Homepage Layout

Assessment New Features – We Hear You!

Recently Released Features

- ✓ Updates to Activation Profile
 - Exam Duration
 - Toggles for Student Feedback

Sometimes Forgotten but Needed Features

(can see these in NetSpace FAQs and Tutorials)

Assessment Viewer
Activation Profile
View Current Activations
Personalized Feedback

Upcoming Features

- ✓ Removal of PTMOs from all Final Exams
- ✓ Final Exam Activation to 1 week
- ✓ Bulk Deactivation
 - Future Exam Activation
 - View All Student Attempts
 - Increased Frequency Refresh time frames on Finals
 - More reports by objectives/claims

NetSpace Updates



Unclutter the Instructor Course List

As an Instructor, I want to quickly access the courses I am teaching.

Before:

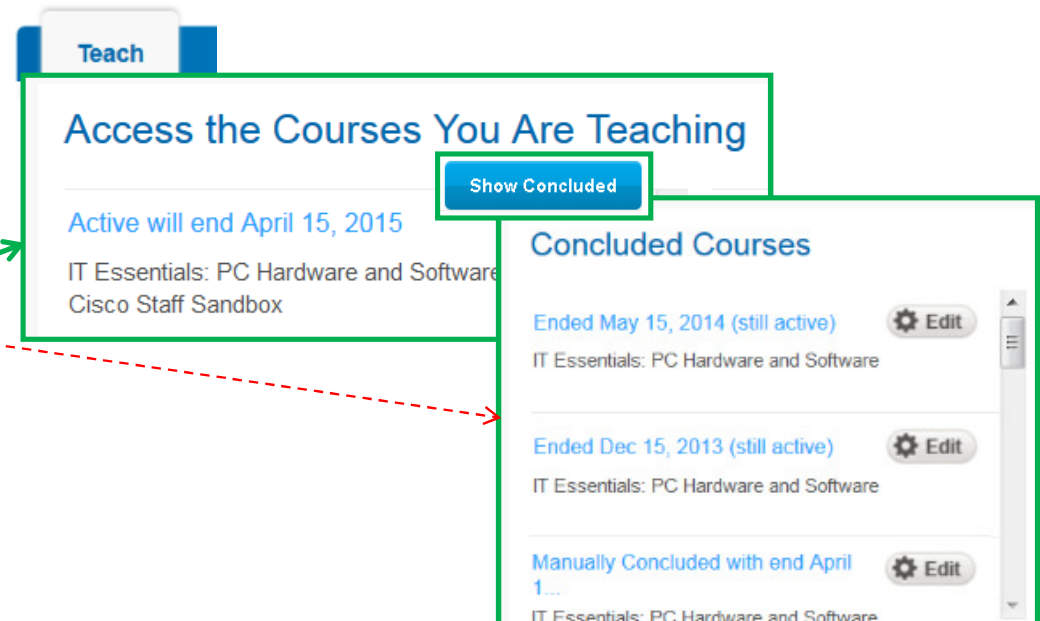
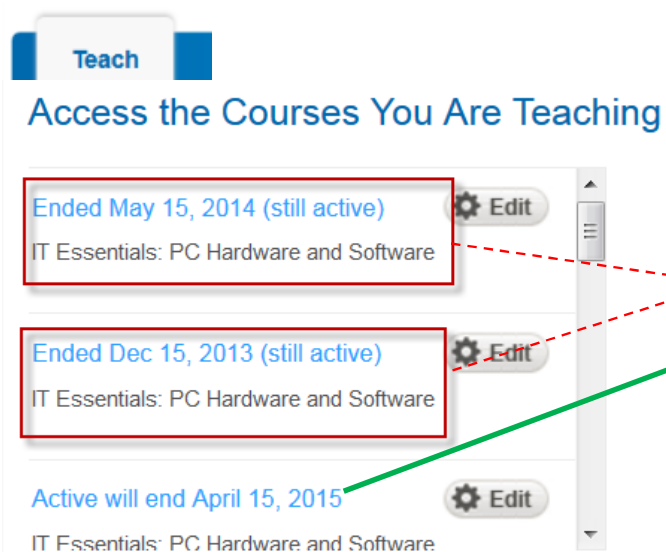
Active course list cluttered.

Instructors must manually conclude courses in canvas to remove from Active list.

After:

Active course list shows current courses only.

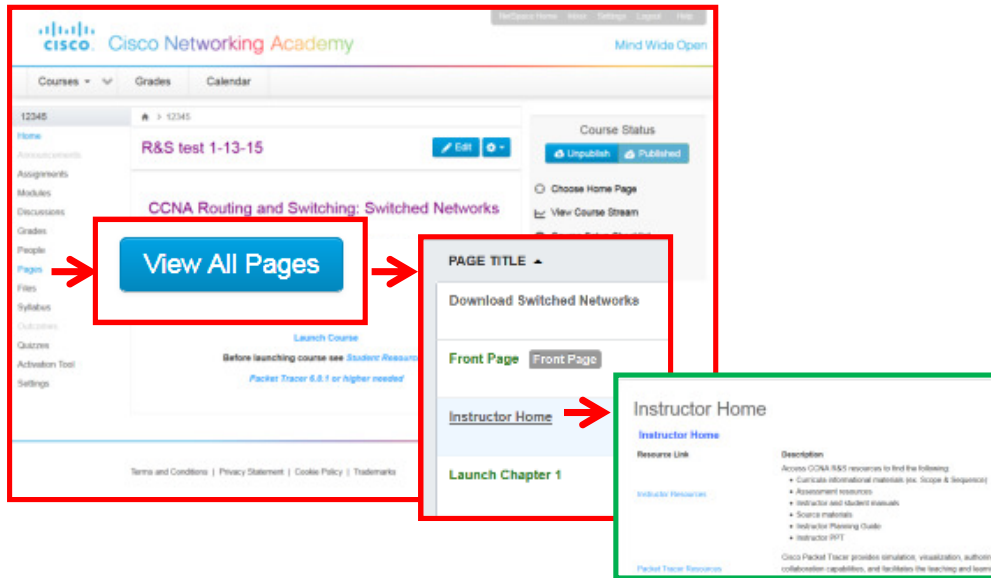
All courses past end date will be automatically moved to the concluded list. Simply click "Show Concluded".



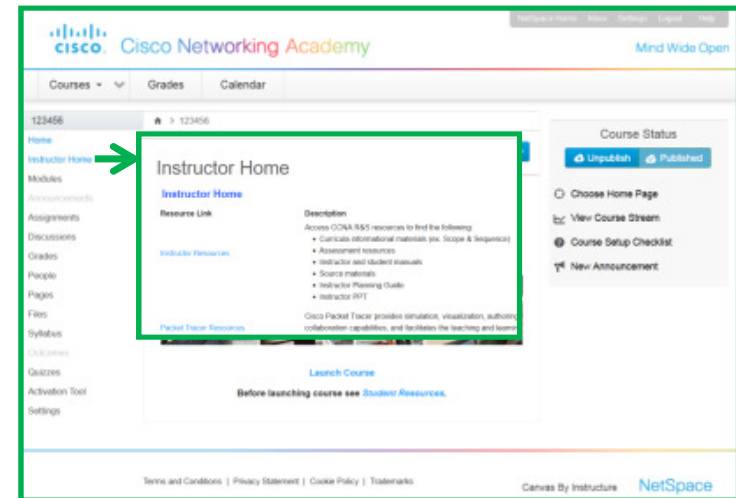
Direct Instructor Home page access

As an Instructor, I need to view the Instructor Home page when I open a course, so I can quickly find resources to help me teach the course.

Before:
3 clicks, hard to find, need instructions



After:
1 click, intuitive



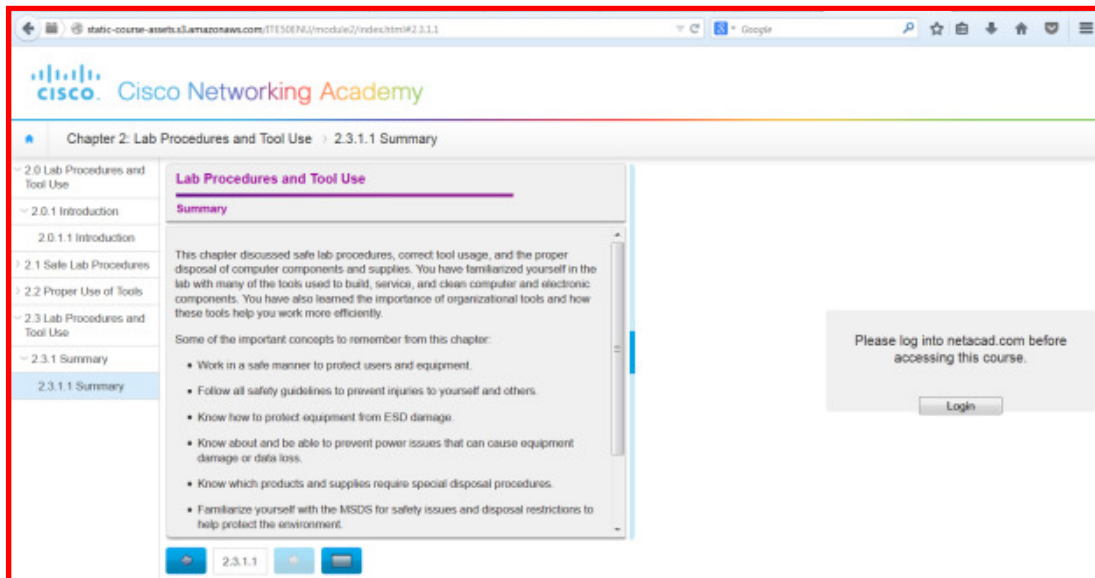
Final Assessment Activation Window

The screenshot shows the Cisco Networking Academy interface for a final exam. The breadcrumb trail is: [CN_TW](#) > [Assignments](#) > [Final Exam](#) > Final Exam. The main content area displays the exam title "Connecting Networks (Version 5.0) - CN Final Exam" and a "Settings" tab. A green box highlights the "Maximum Activation Window: 7 days" setting, with a green arrow pointing to the "7 days" value. Below this, the "Current Time" is shown as 02/04/2015 08:55 AM EST, and the "Start Time" and "End Time" are both set to 02/04/2015 08:55 AM EST. The "Maximum Number of Attempts" is set to 6. There are also checkboxes for "Instructor Must Approve Additional Attempts" (checked) and "Instructor Must Re-enable Incomplete Assessments" (unchecked). At the bottom, a table lists various settings for the exam, including "Activate", "Form", "Language", "Duration", "Number of Attempts", "Randomize Items", "Instructor Item Information", "Instructor Item Feedback", "Instructor View Correct", "Instructor Personalized Feedback", "Student Item Feedback", "Student View Correct", and "Student Personalized Feedback".

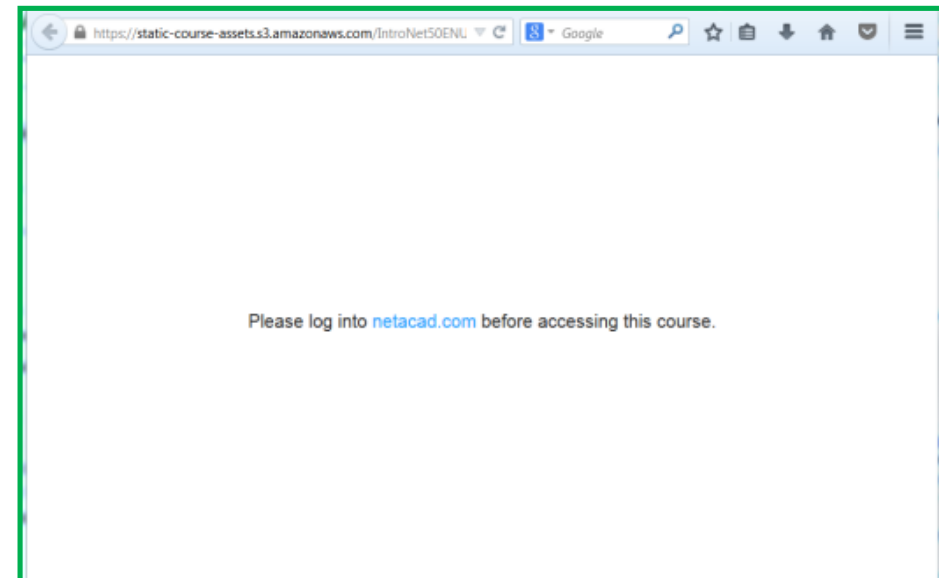
Secure Content

Require NetAcad authentication to access all content including text, videos, images, and outlines.

Before

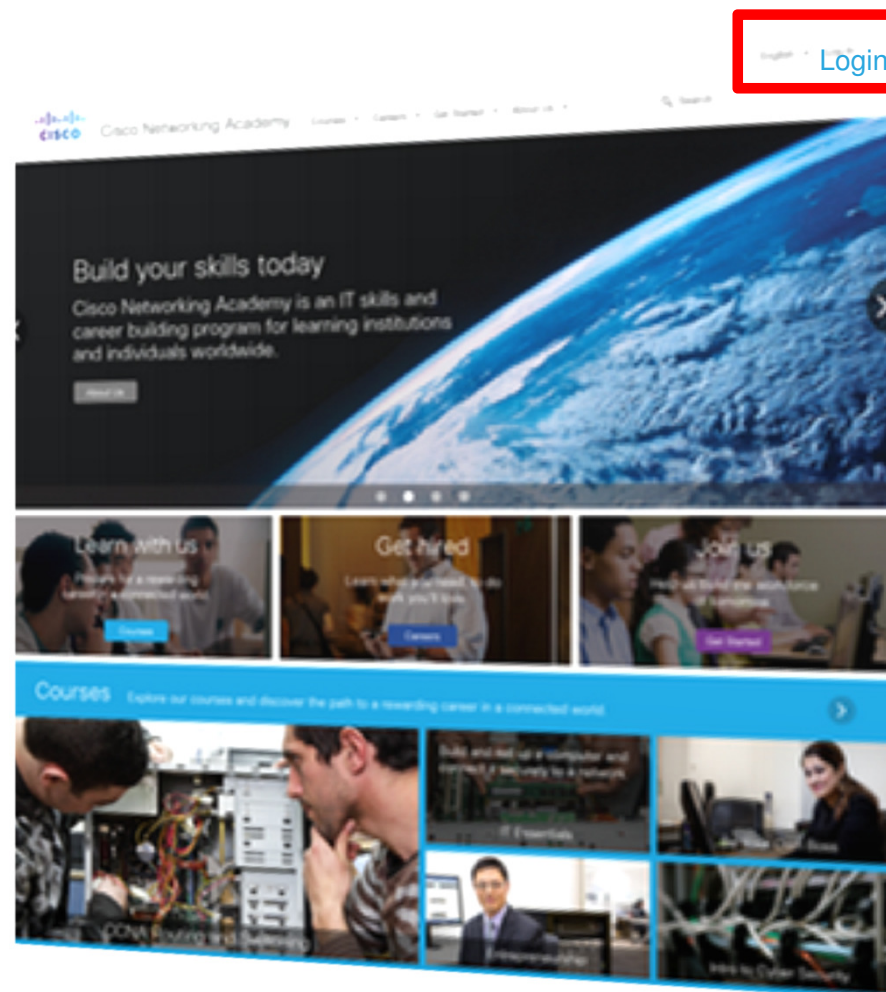


After



New NetAcad Pre Login Page

- Our top courses are highlighted on the front page
- A new careers section
- The site is available in English and Spanish
- Improvements to the Academy Locator
- Redesigned with mobile in mind
- Login has moved



Packet Tracer Updates



About Packet Tracer

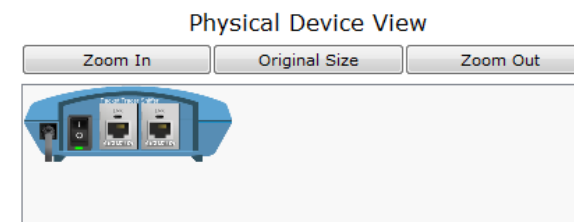
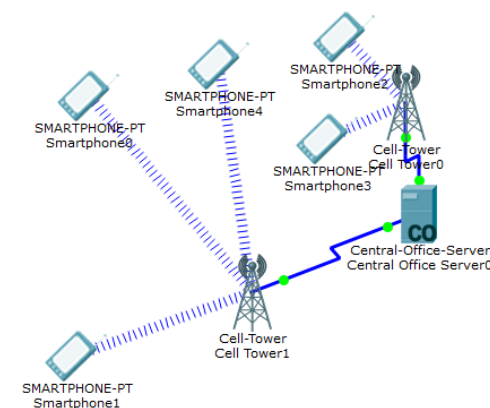
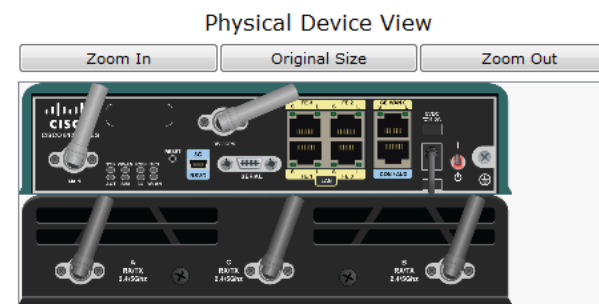
- Packet Tracer is software for educational use, it can not and will not replace real equipment
- Packet Tracer does not contain any code from Cisco IOS® , it simulates the behavior of network equipment
- Packet Tracer does not support all IOS commands, it can support most of the commands used in CCNA R&S
- Packet Tracer can“pause the network state”, it is a good tool to demonstrate the state of networks
- Packet Tracer allows multiple users to work on the same topology
- Packet Tracer can help instructors quickly demonstrate a network topology in the class



Cisco Packet Tracer 6.2 (Desktop)

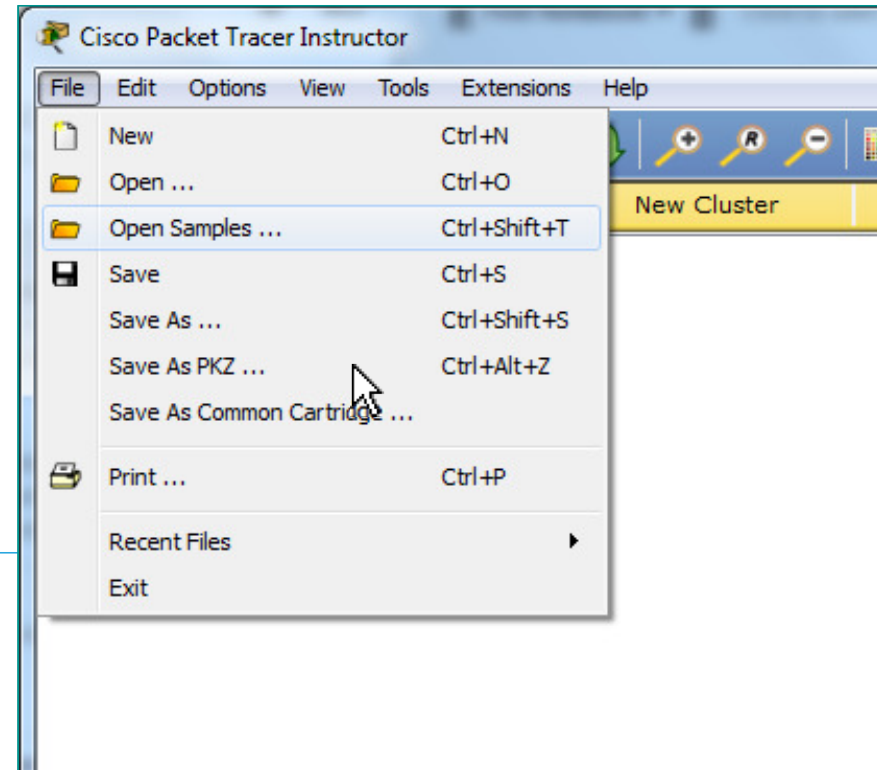
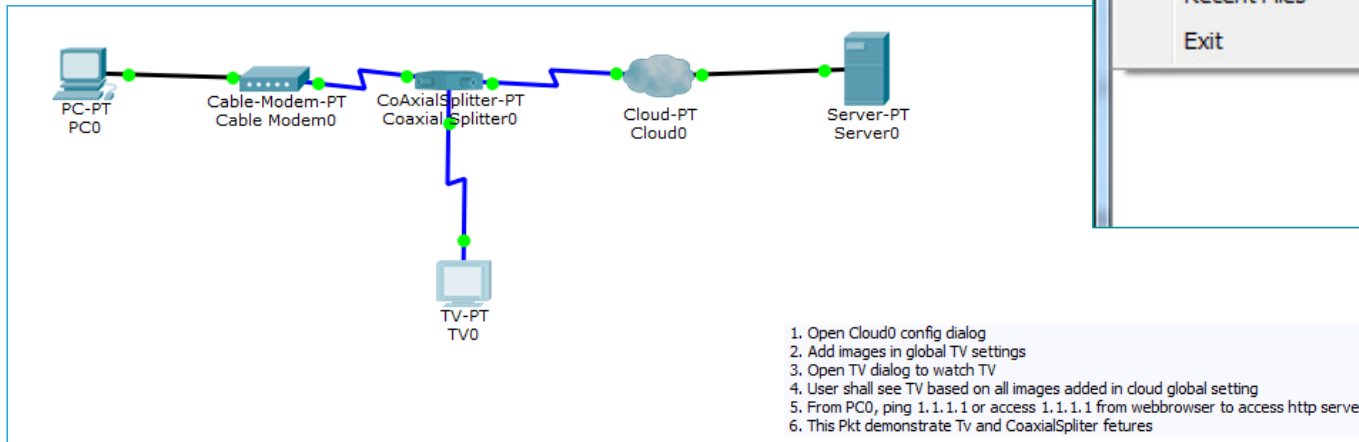
- New devices: Cisco 819 router, cell tower, CO server, sniffer
- Improved physical view: You can add devices directly into physical view
- Improved HTTP server: Supports JavaScript and CSS, also supports import files via FTP server inside PT
- Improved IOS command support
- Released in NetSpace:

<https://www.netacad.com/group/offerings/packet-tracer>

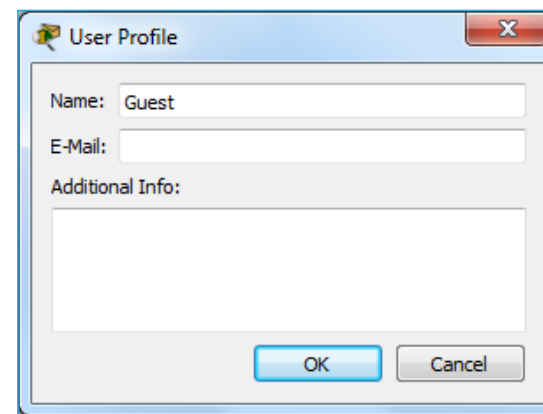
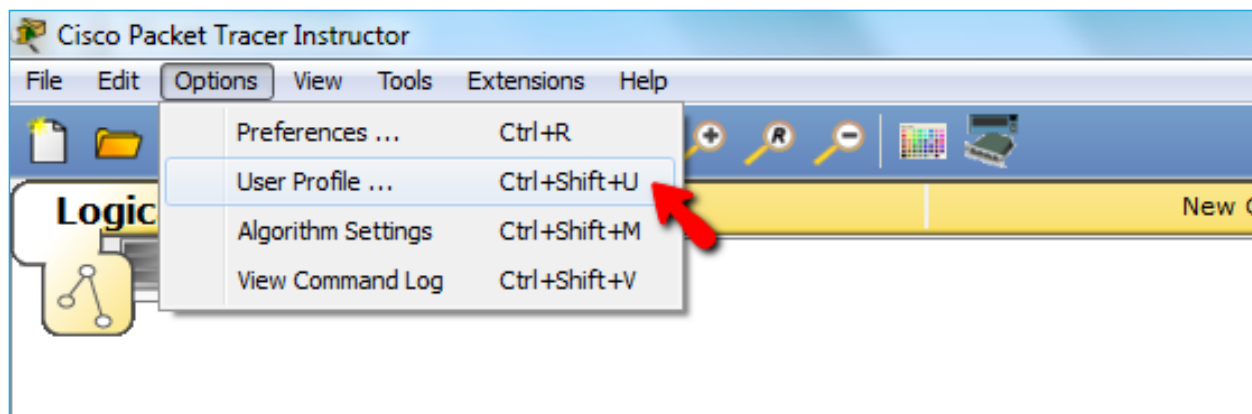


Sample Topologies

- 110 sample topologies shipped with PT
- Can be used as reference
- Or to make quick demo for your class



PT User Profile



- Students can configure a Name and Email for PT User Profile
- Their completed PKAs can be 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

Instructions

Answer Network

Scripting

Initial Network

Password

Test Activity

Check Activity

Save

Save As..

Save As pkz

Export As CC

Assessment Tree | Connectivity Test | Scoring Model | Overall Feedback | Settings

Time Settings

Different timing settings can be applied to this activity. The "Time Elapsed" setting will keep a

Time Elapsed

Countdown

None

Feedback Settings

Enabling dynamic percentage feedback will assess the user network against the assessment tree

No Dynamic Feedback

Show Score

Show Item Count Percentage

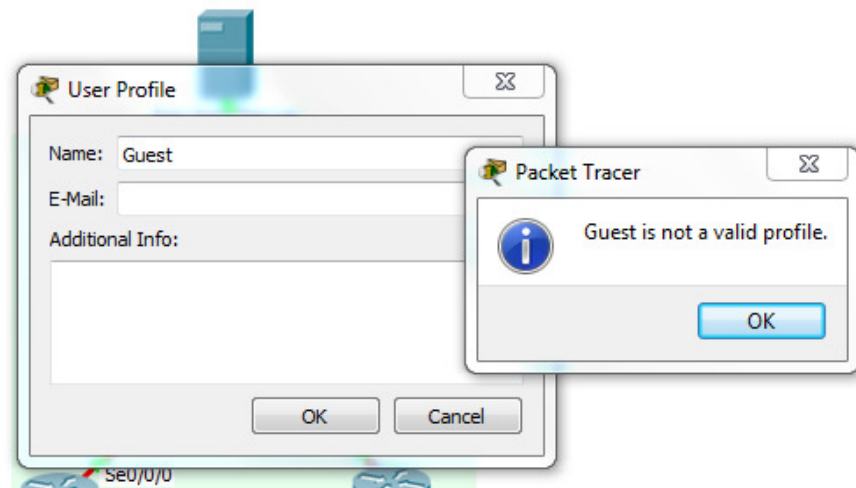
User profile locking prevents the user from changing their user profile during an ac

User Profile Locking

No Guest Profile

Time (ms) to forward Answer Network: 0

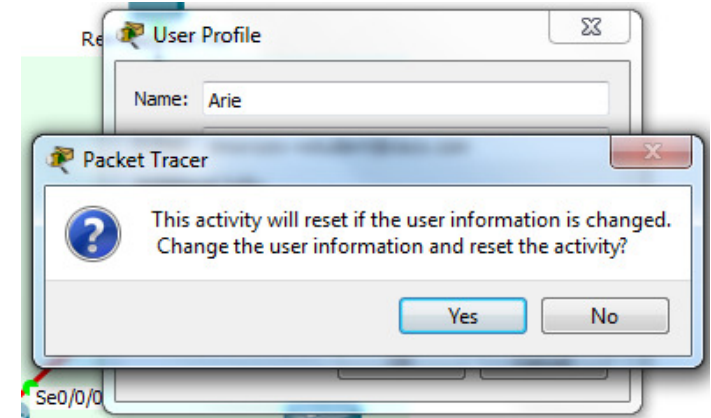
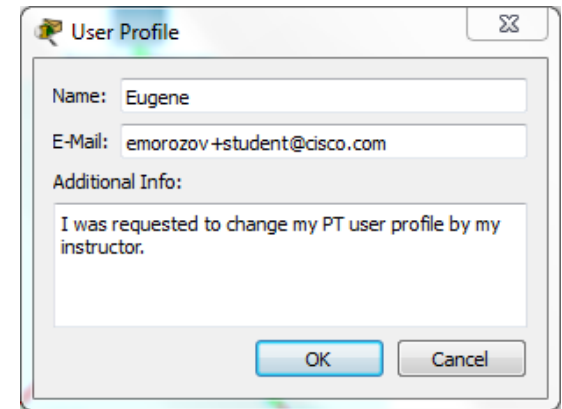
- Guest profile restricted in this PKA
- Student is asked to change their profile name when open PKA



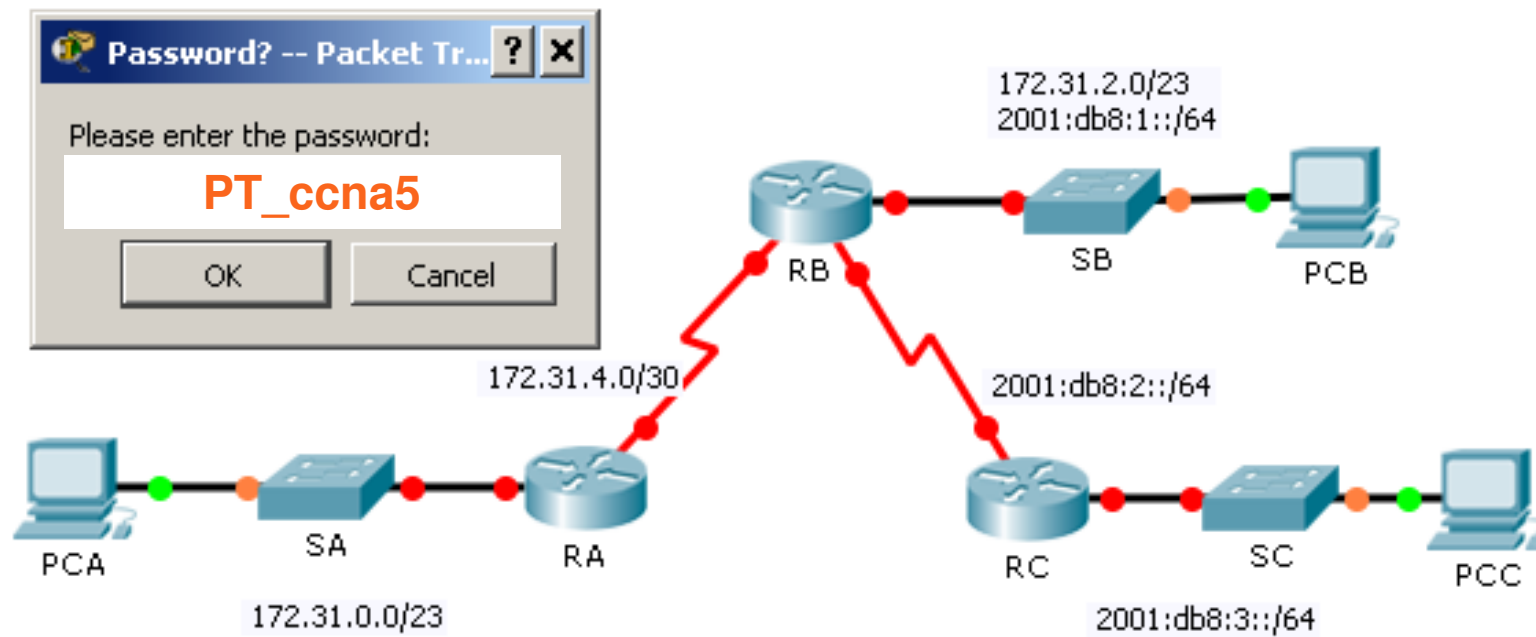
PKA User Profile Locking

The screenshot shows the 'Settings' tab of the Packet Tracer interface. The 'User Profile Locking' section is highlighted with a red box. It contains two checked checkboxes: 'User Profile Locking' and 'No Guest Profile'. Below these checkboxes is a text input field for 'Time (ms) to forward Answer Network' with the value '0'. The 'Additional Info' section contains the text: 'I was requested to change my PT user profile by my instructor.'

- User profile cannot be changed
- Students are enforced to change their profile name
- That prevents cheating by copying



The password of PKA files in CCNA R&S is

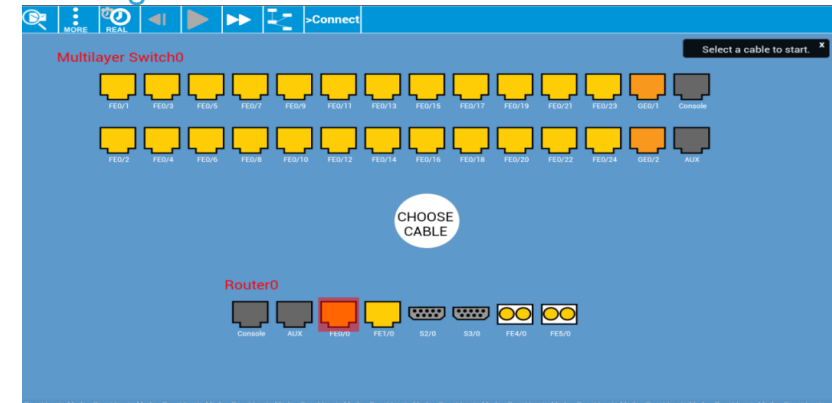


Cisco Packet Tracer Mobile 2.0 (Android)

- Packet Tracer for Android tablets!
- 2nd major release of Packet Tracer for Android
- Optimized for screens with a **minimum size of 7 inches**
- Supports multiple Android tablets with **ARM CPUs** running **Android 4.2.x to Android 5.0**
- Simulation engine is based on Packet Tracer 6.2
- Reference topologies included
- Tips of Day will be displayed when loading the application
- Users need to be authenticated by logging into the Cisco Networking Academy® Cisco NetSpace™ application before the Packet Tracer Mobile app is activated. Non-Netacad user can request trial access to the application with limited functions.
- After the initial authentication, Internet connection is NOT required.
- Available Now in Google Play!

What's New:

1. New PT 6.2 engine
2. Guest login mode: Allowing Non-NetAcad user trial access with limited functions
3. Display Tips of the Day when loading
4. Improved user interface
5. Bug fixes



<https://play.google.com/store/apps/details?id=com.netacad.PacketTracerM&hl=en>

Packet Tracer Know How 1: Packet Tracer 101

- The first of the "Packet Tracer Know How Series" course
- Designed for new users of Packet Tracer for self study and familiarization of Packet Tracer
- 3 chapters, 1 hands-on activity, 1 quiz and a survey
- By taking this course, students will develop a basic understanding of Packet Tracer:
 - ✓ the navigation of user interfaces
 - ✓ the difference between logical view and physical view
 - ✓ how to build a simple network topology
 - ✓ how to complete a Packet Tracer Activity
- Recommended length of study is 1 hour
- Released in NetSpace for self-enrollment:
<https://www.netacad.com/group/offerings/self-enroll-courses>
5000+ enrollments in three months



Need your help!

- When you encounter any Packet Tracer bugs, please report back with detailed information.

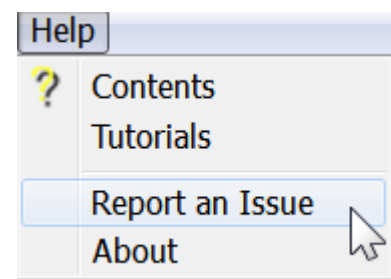
For software bugs, report back via “Report an Issue” under Help menu

For Packet Tracer activity (curriculum related) bugs report back via helpdesk.

- Share your suggestions in NetSpace community for Packet Tracer:

<https://www.netacad.com/group/communities/packet-tracer>

- PT Know How 2: PT mobile
Recruiting author(s)



CCNP R&S



CCNP R&S Exams and Courses

- CCNP R&S Certifications Changes

Old CCNP Cert Exam EoL Date: January 29th, 2015

- CCNP R&S Courses Revision

Available Now in NetSpace

Ciscopress.com textbooks (Foundation Learning Guides)

CCNP R&S labs and assessments

No changes to HW lab bundles

Instructor re-accreditation NOT required

Important Changes to CCNP Certification Exams and Courses

The following announcement is scheduled for external release to all non-student users on 1 August 2014

On 29 July 2014, [Cisco announced changes to the Cisco CCNP certification](#) for network professionals. The name of the certification has changed from "CCNP" to "CCNP Routing and Switching," and the three exams, ROUTE, SWITCH, and TSHOOT, have been revised. The new exams include more emphasis on IPv6 and additional focus on Cisco StackWise, virtual switching services, and Dynamic Multipoint VPN (DMVPN). The prior exams will continue to be available until 29 January 2015. Please visit the [Cisco Learning Network](#) for more details.

NetAcad CCNP Routing and Switching Courses

NetAcad CCNP 6.0 courses will be revised to align with the new CCNP Routing and Switching certification exams. CCNP Routing and Switching (R&S) courses will be released in the January 2015 timeframe with updated hands-on lab activities, quizzes, and chapter and final exam components. Instructors can open and teach CCNP R&S ROUTE, SWITCH, and TSHOOT courses that align with the new CCNP R&S certification exams after January 2015.

Cisco Press CCNP R&S textbooks that align with the new certification exams are targeted for release by January 2015.

The NetAcad CCNP 6.0 lab equipment bundles are compatible with the new CCNP R&S certification exams and will be simplified to support the CCNP R&S courses.

New Topics in CCNP R&S

- CCNP ROUTE

 - Cisco Express Forwarding (CEF)

 - RIPv2 and RIPv6, EIGRP for IPv6, OSPFv3

 - DMVPN and Easy Virtual Networking (EVN)

- CCNP SWITCH

 - Switching Database Manager(SDM)

 - VTP

- CCNP TSHOOT

 - Troubleshoot EIGRP for IPv6, OSPFv3

<http://www.cisco.com/go/ccnp>

The screenshot displays three overlapping exam description cards for CCNP R&S exams. The top card is for 'Implementing Cisco IP Routing (300-101)' (Version 6). The middle card is for 'Implementing Cisco IP Switched Networks (300-115)' (Version 7). The bottom card is for 'Troubleshooting and Maintaining Cisco IP Networks (300-135)' (Version 7). The bottom card is the most visible and contains the following text:

Exam Description

Troubleshooting and Maintaining Cisco IP Networks (TSHOOT 300-135) is a 120-minute qualifying exam with 15–25 questions for the Cisco CCNP Routing and Switching certification. The TSHOOT 300-135 exam certifies that the successful candidate has the knowledge and skills necessary to:

- Plan and perform regular maintenance on complex enterprise routed and switched networks
- Use technology-based practices and a systematic ITIL-compliant approach to perform network troubleshooting

The following topics are general guidelines for the content that is likely to be included on the exam. However, other related topics may also appear on any specific version of the exam. To better reflect the contents of the exam and for clarity, the following guidelines may change at any time without notice.

[Download Complete List of Topics in PDF format](#)

CCNP R&S Major Course Components



Implementing Cisco IP Routing (ROUTE) Foundation Learning Guide

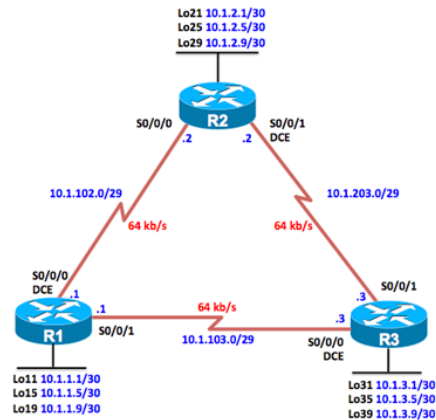


Diane Teare
Bob Vachon
Rick Graziani

ciscopress.com

Chapter 2 Lab 2-1, EIGRP Load Balancing

Topology



Objectives

- Review a basic EIGRP configuration.
- Explore the EIGRP topology table.
- Identify successors, feasible successors, and feasible distances.
- Use **show** and **debug** commands for the EIGRP topology table.
- Configure and verify equal-cost load balancing with EIGRP.
- Configure and verify unequal-cost load balancing with EIGRP.

Background

As a senior network engineer, you are considering deploying EIGRP in your corporation and want to eval

Chapter 2 Exam

Started: Dec 15 at 2:56pm

Quiz Instructions

Question 1

Which EIGRP algorithm tracks all the routes that are advertised by neighbors and uses the each route to compare the routes?

- STP
- Dijkstra
- DUAL
- SPF

Question 2

Lab Bundles



Switch for CCNP

- Current L3 switch: WS-C3560V2-24PS-E
- End of Sale on 14 Nov 2015



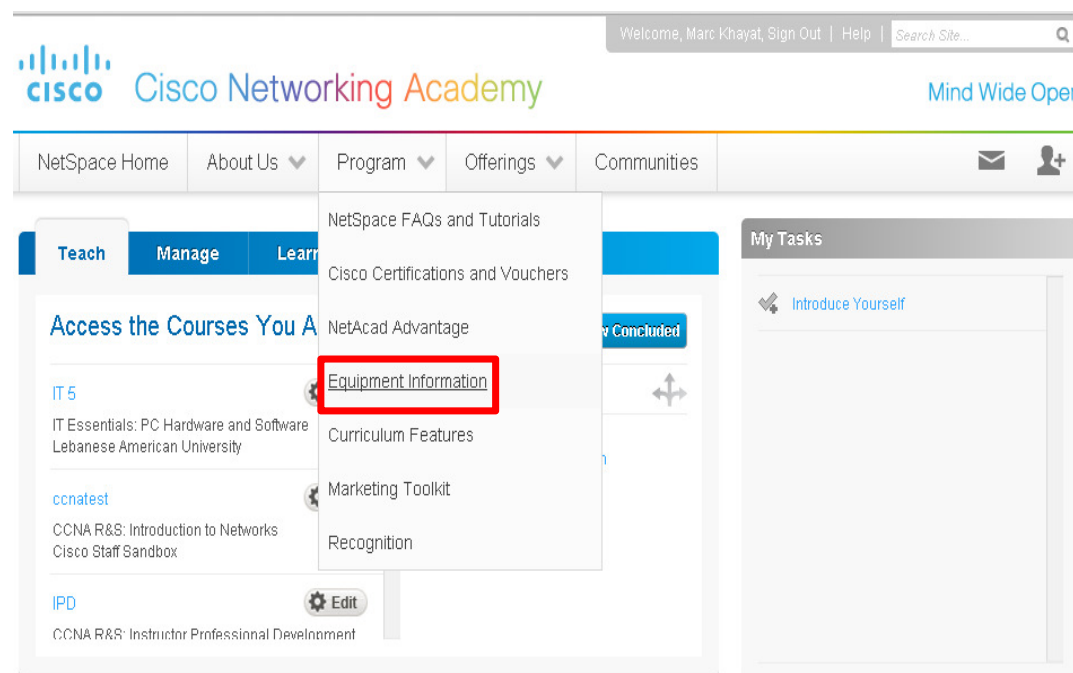
- Replacement options for new bundles:
 - Recommended: WS-C3650-24TS-E
 - Optional: WS-C3650-24PS-E (PoE ports, more expensive)



Top 1 FAQ about equipment

Question: what is the latest equipment list?

Answer: it's on NetSpace



The screenshot displays the Cisco Networking Academy NetSpace interface. At the top, the Cisco logo and 'Cisco Networking Academy' text are visible, along with a user greeting 'Welcome, Marc Khayat, Sign Out | Help' and a search bar. Below this is a navigation bar with 'NetSpace Home', 'About Us', 'Program', 'Offerings', and 'Communities'. A dropdown menu is open under 'Offerings', listing several options: 'NetSpace FAQs and Tutorials', 'Cisco Certifications and Vouchers', 'NetAcad Advantage', 'Equipment Information' (highlighted with a red box), 'Curriculum Features', 'Marketing Toolkit', and 'Recognition'. The main content area shows 'Access the Courses You A' with a list of courses including 'IT 5', 'IT Essentials: PC Hardware and Software', 'ccnatest', and 'IPD'. A 'My Tasks' sidebar on the right contains 'Introduce Yourself'.

Another VERY common question

Question: Does my ISR G1 router (1800/2800) support IOS 15?

Answer: Yes



More info on...

Equipment lists

- CCNA, CCNA-Sec, CCNP, CCNA-Voice, ITE

Equipment ordering

- How to buy bundles

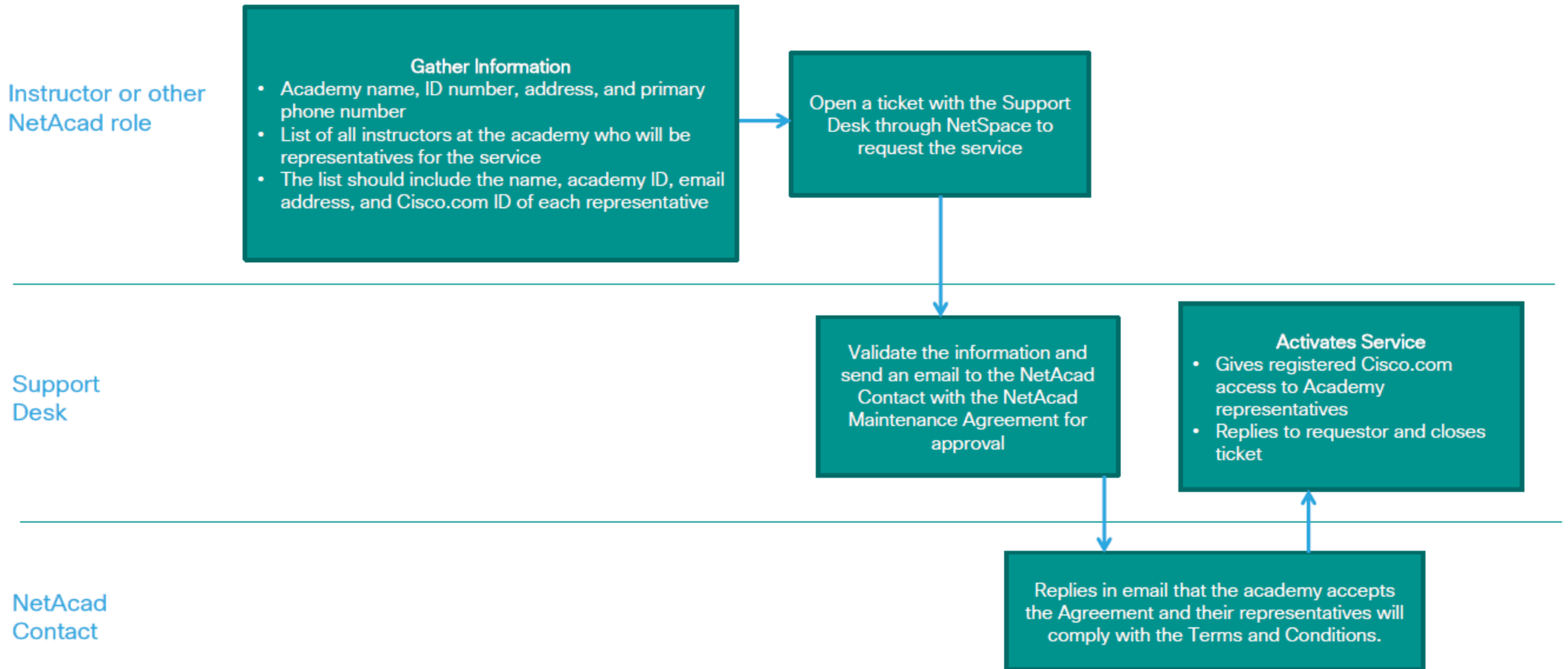
NetAcad Maintenance

- Download IOS
- Activate SEC technology package

Software Installation and Configuration

- CCP

NetAcad Maintenance Sign-up Process



Introduction to Cybersecurity v1.1



Introduction to Cybersecurity

Course Overview

Introduction to Cybersecurity covers trends and career opportunities in the growing field of computer network security

It features presentations and panel discussions delivered by cybersecurity professionals and industry experts.

Prerequisites: None

Languages: English

Course Delivery: Instructor led or self paced


Estimated Time to Complete: 15 hours

Recommended Next Course: CCNA R&S Introduction to Networks

Career Prep

Upper secondary and junior college students interested in learning about trends, certifications, and career opportunities in the cybersecurity field.

Introduction to Cybersecurity



Delete doesn't mean deleted

Over 3 years later, "deleted" Facebook photos are still online - CNN.com
By Joseph Chang, Ars Technica
2012-02-06T17:29:38Z



Learning Components

- 8 modules
- Video presentations and panel discussions
- Activities that reinforce learning
- Pre-test, 8 quizzes, and final exam
- Links to related resources

Course Outline

Module		Goals	Revisions in 1.1
1	The Cybersecurity Industry	<ul style="list-style-type: none"> Explain the importance of cybersecurity in the global economy Explain why cybersecurity is a growing profession 	<ul style="list-style-type: none"> Transcript added to video
2	Malware and How to Protect Yourself	<ul style="list-style-type: none"> Explain the characteristics and operation of malware Explain how hackers use unsuspecting individuals to propagate malware 	<ul style="list-style-type: none"> Enhanced audio Transcript added to video
3	Overview of Cybersecurity in Finance and Telecommunications	<ul style="list-style-type: none"> Explain why cybersecurity is critical to the banking industry Explain why cybersecurity is critical to the telecommunications industry 	<ul style="list-style-type: none"> Updated information Enhanced video and audio, remove repetition to enhance user experience
4	Cisco Security Solutions	<ul style="list-style-type: none"> Explain Cisco's approach to cybersecurity Explain the behavior-based approach to cybersecurity 	<ul style="list-style-type: none"> Transcript added to video
5	Defending Against Global Threats	<ul style="list-style-type: none"> Explain the characteristics of cyber warfare Explain how Cisco Security Intelligence Operations (SIO) tracks and responds to a global threat 	<ul style="list-style-type: none"> Remove repetition information. Revise assessment
6	Strategic and Architectural Cybersecurity Planning	<ul style="list-style-type: none"> Explain trends in the cyber threat landscape Explain the framework of the Enterprise Security Architecture 	<ul style="list-style-type: none"> Transcript added to video
7	Vulnerabilities and Solutions	<ul style="list-style-type: none"> Explain why cybersecurity is critical to the medical devices industry 	<ul style="list-style-type: none"> Transcript added to video Revise assessment
8	Will Your Future Be in Cybersecurity?	<ul style="list-style-type: none"> Explain the opportunities for pursuing network security certifications 	<ul style="list-style-type: none"> Updated CCNAS curriculum Updated CCNAS certification Transcript added to video Revise assessment

Closed Captioned



Peter Holliday is the Chief Defense Architect for Cisco Systems in the Asia Pacific region and has over 25 years of experience as a professional engineer in the fields of communications and software engineering. Peter's comprehensive knowledge comes from practical involvement in design, implementation, and management of operational defense Communications and Information Systems and as a senior technical adviser to numerous defense and non-government projects.

Think Like a Hacker, Defend Like a Ninja

Threat Spectrum – Cyber adversaries

- State sponsored Cyber operations
Includes Cyber Warfare, Espionage and
- Ideological and Political Extremism
Indoctrination, recruitment, and radicalization
Hacktivism
- Criminal organizations – Profit Motivated
Traditional organized criminal groups vs. Organized cybercriminal groups.
Organized criminals use virtual world to augment physical world activities.
Cyber criminal group based activities entirely in virtual world.
- Low level or individual – Personal Gain
"Script kiddie" to Hacker.
Motivation ranges from individual fame to vengeance.

So the biggest threat and the number one threat, really,

Closed captioning helps students follow video better

Transcripts

Threat Spectrum – Cyber adversaries

- State sponsored Cyber operations
Includes Cyber Warfare, Espionage and
- Ideological and Political Extremism
Indoctrination, recruitment, and radicalization
Hacktivism
- Criminal organizations – Profit Motivated
Traditional organized criminal groups vs. Organized cybercriminal groups.
Organized criminals use virtual world to augment physical world activities.
Cyber criminal group based activities entirely in virtual world.
- Low level or individual – Personal Gain
"Script kiddie" to Hacker.
Motivation ranges from individual fame to vengeance.

In fact,
one of the greatest breaches

To read a transcript of this recorded presentation, click [here](#) ↗



Cisco Networking Academy®

Mind Wide Open™

Cybersecurity Module 1: Think Like a Hacker, Defend Like a Ninja (50 min) - Peter Holliday

Cybersecurity Introduction (0:00-5:26)

You've got to start thinking like your enemy and you start thinking like, "Well, how are they gonna get into my network?" And I will take you through a few of those things and then I'll look at defending like a ninja--well, defending like a ninja the Cisco way.

So I'll take you through some of the Cisco things that we do. Should point out that no one company is ever going to be perfect when it comes to private security, so

Copy of spoken
content for reference



Be Your Own Boss: Technopreneur Series



Be Your Own Boss

Course Overview

The Be Your Own Boss Technopreneur Series provides the guidelines, insights, and advice needed to launch successful tech ventures.

The series features video presentations by entrepreneurs from around the world who share lessons learned along their journeys to success.

Career Prep

Technology students interested in developing the entrepreneurial skills and habits needed to launch and grow a successful technology business.

Prerequisites: None

Languages: English

Course Delivery: Self paced

Estimated Time to Complete: 8 hours

Recommended Next Course: Entrepreneurship



Learning Components

- 8 modules (5 available now)
- Technopreneurs sharing personal success stories in video format
- Quizzes and surveys for each module

Get Connected



Get Connected

Course Overview

Get Connected teaches the basic information technology skills needed to compete in the global workforce, with a focus on basic communication and collaboration technologies.

Students are introduced to the Internet and experiment with various social networking sites.

Career Prep

Anyone seeking to develop basic ICT and social networking skills, which are essential for career advancement.

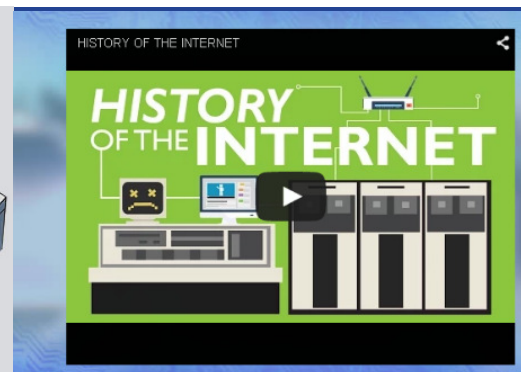
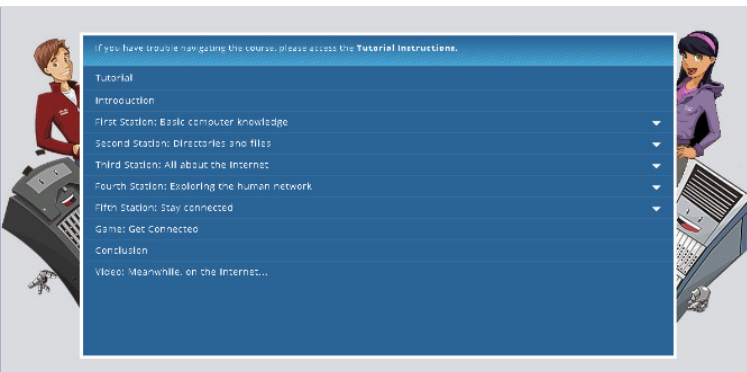
Prerequisites: None

Languages: English & Portuguese-Brazilian

Course Delivery: Instructor led or self paced

Estimated Time to Complete: 30 hours

Recommended Next Course: IT Essentials



Learning Components

- 5 chapters
- Illustrations and narrations guide students through topics
- Videos and activities
- Quizzes

Get Connected Course Design

- Engaging characters and illustrations
- Interactive comic book
- Audio narration



Get Connected Course Design

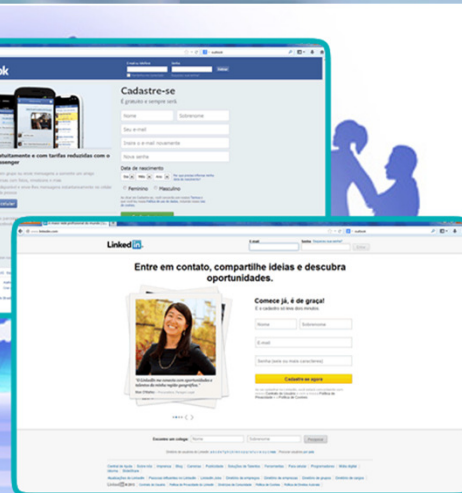
- Activities, videos, quizzes
- Audio narration

Correlacione as colunas para formar as definições de cinco itens que compõem o computador ou se acoplam a ele.

A - Elemento de entrada	D	A	Onde os dados e as informações dos usuários são guardadas.
B - Elemento de saída	B	B	
C - Elemento de processamento	C	C	
D - Elemento de armazenamento	A	D	

Outro exemplo são as redes sociais, como o LinkedIn e o Facebook, que você conhecerá em detalhes a seguir.

Quanto aos fóruns, chats, jogos e blogs, você deverá pesquisar na Internet ou conversar com seus amigos para saber quais são os mais legais de acordo com o assunto que você deseja conhecer.



Linux Essentials

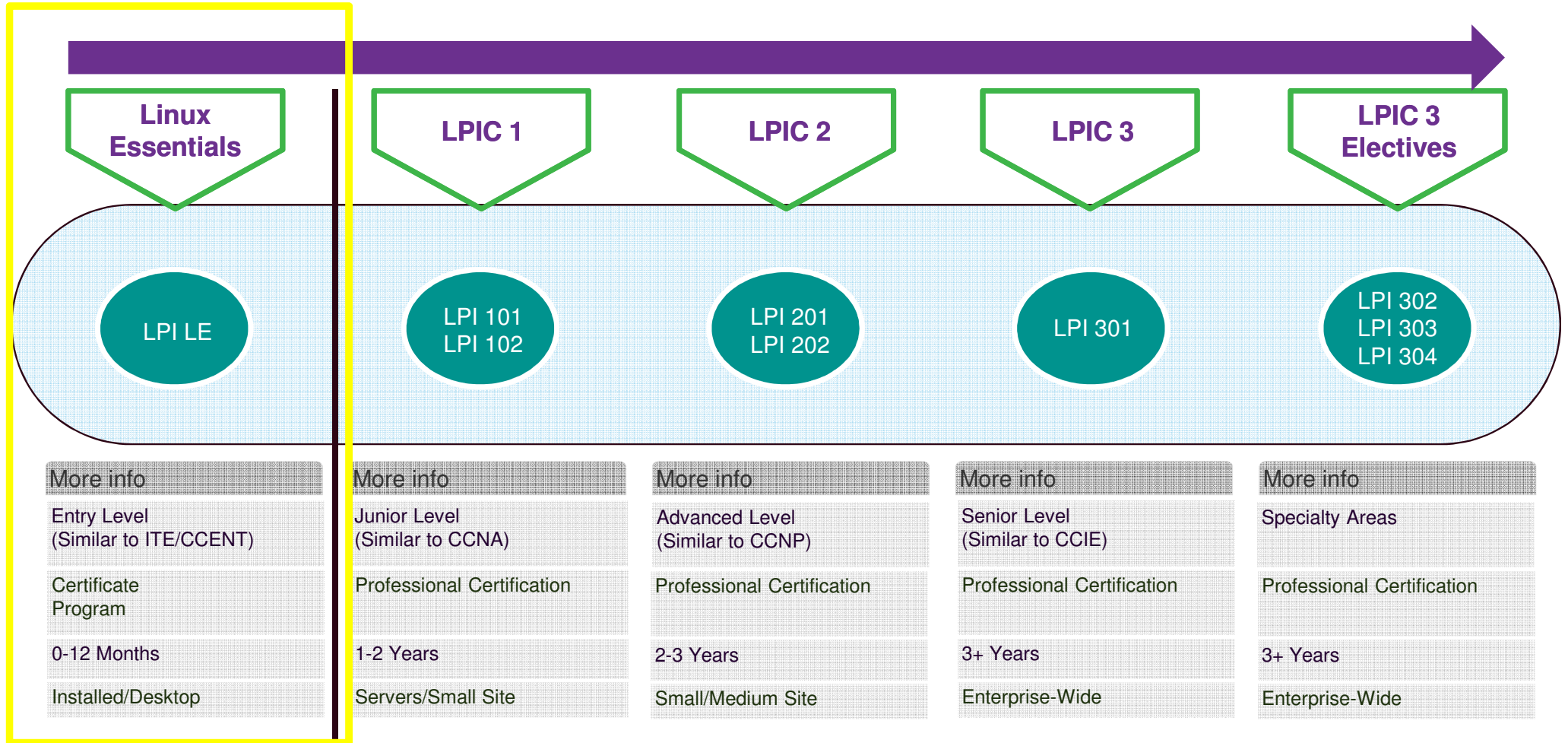


What is the Linux Essentials course?

- Developed, offered and supported by NDG
Also provides access to Linux VMs
- Available to Cisco Networking Academy
Through Cisco NetSpace as an instructor-led course
- Aligned to LPI.ORG Linux Essentials Certificate
<https://www.lpi.org/linux-certifications/entry-level-credential/linux-essentials>



Linux Pathways



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 IoT 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

Estimated Time to Complete: 70 hours

Recommended Next Course: CCNA R&S Introduction to Networks



Network Development Group

Overview

Linux Essentials Course

The screenshot shows the course interface with a table of contents on the left and a terminal window on the right. The terminal window displays a Linux prompt and some commands. Below the terminal, there is a yellow box with the text "Consider This..." and a paragraph about scripting.

Why is knowing the command line important?

Flexibility and mobility!

By understanding the foundation of Linux, you have the ability to work on ANY Linux distribution. This could mean one company with a mixed environment or a new company with a different Linux distribution.

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 Linux Essentials Course Content

- Designed to be a full semester course
 - With lectures, content, labs and assessments
 - Designed to be a 70 hour course
- Sixteen (16) chapters
- Thirteen (13) lab exercises
- Assessments
 - Chapter, midterm and final
- Instructor presentations for each chapter
- Current release is English only



NDG Linux Essentials

Title of Learning Module / Chapter	LPI.org Linux Essentials Certificate Objectives Covered
1 Introduction to Linux	1.1 Linux Evolution and Popular Operating Systems 4.1 Choosing an Operating System
2 Open Source Applications and Licenses	1.2 Major Open Source Applications 1.3 Understanding Open Source Software and Licensing
3 Using Linux	1.4 ICT Skills and Working in Linux
4 Command Line Skills	2.1 Command Line Basics
5 Getting Help	2.2 Using the Command Line to Get Help
6 Working with Files and Directories	2.3 Using Directories and Listing Files 2.4 Creating, Moving and Deleting Files
7 Archiving and Compression	3.1 Archiving Files on the Command Line
8 Pipes, Redirection, and REGEX	3.2 Searching and Extracting Data from Files
9 Basic Scripting	3.3 Turning Commands into a script
10 Understanding Computer Hardware	4.2 Understanding Computer Hardware
11 Managing Packages and Processes	4.3 Where Data is Stored
12 Network Configuration	4.4 Your Computer on the Network
13 System and User Security	5.1 Basic Security and Identifying User Types
14 Managing Users and Groups	5.2 Creating Users and Groups
15 Ownership and Permissions	5.3 Managing File Permissions and Ownership
16 Special Permissions, Links and File Locations	5.4 Special Directories and Files

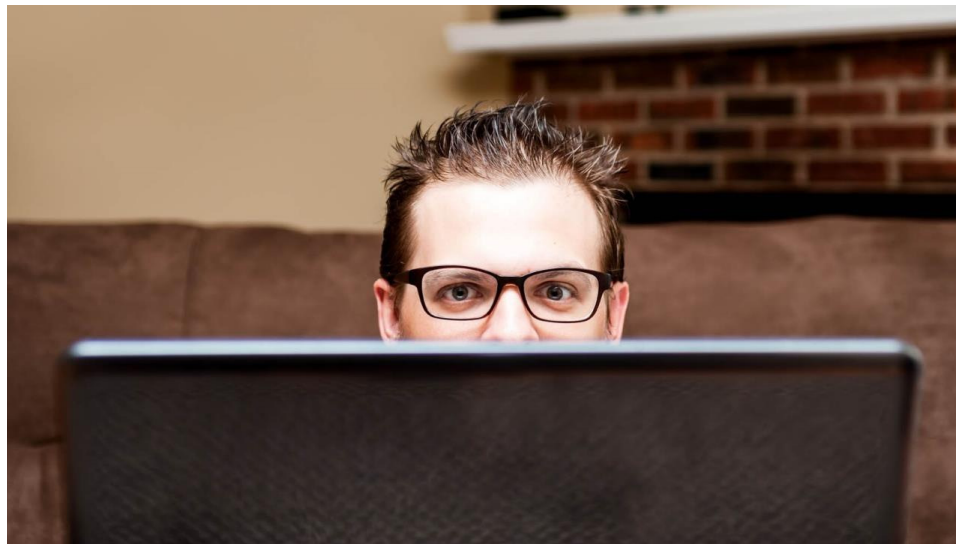
Course Content with Virtual Machine = Learn by Doing!

The screenshot shows a web browser window with the URL <https://content.netdevgroup.com/contents/linux-essentials/1/>. The page title is "NDG Linux Essentials". The main content area is titled "1.1 Introduction" and contains the text: "In this chapter we will explore the evolution of Linux and popular operating systems. We will also discuss the considerations for choosing an operating system." Below this text is a graphic with a red banner that says "Linux is Open Source. What does that mean?". Below the banner are two white boxes with text: "The code that powers Linux isn't owned by a company." and "Instead, it is developed by the community that uses it." Below the text is an illustration of a group of people sitting around a table. To the right of the main content is a "Linux Terminal" window showing the following output:

```
individual files in /usr/share/doc/*/copyright.
Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.
sysadmin@localhost:~$
sysadmin@localhost:~$ pwd
/home/sysadmin
sysadmin@localhost:~$ ls
Desktop Documents Downloads Music Pictures Public Templates Videos
sysadmin@localhost:~$ ls -l
total 0
drwxr-xr-x 1 sysadmin sysadmin 0 Jul 3 05:56 Desktop
drwxr-xr-x 1 sysadmin sysadmin 0 Jul 3 05:56 Documents
drwxr-xr-x 1 sysadmin sysadmin 0 Jul 3 05:56 Downloads
drwxr-xr-x 1 sysadmin sysadmin 0 Jul 3 05:56 Music
drwxr-xr-x 1 sysadmin sysadmin 0 Jul 3 05:56 Pictures
drwxr-xr-x 1 sysadmin sysadmin 0 Jul 3 05:56 Public
drwxr-xr-x 1 sysadmin sysadmin 0 Jul 3 05:56 Templates
drwxr-xr-x 1 sysadmin sysadmin 0 Jul 3 05:56 Videos
sysadmin@localhost:~$ su
Password:
su: Authentication failure
```

Linux Essentials Instructor Requirements

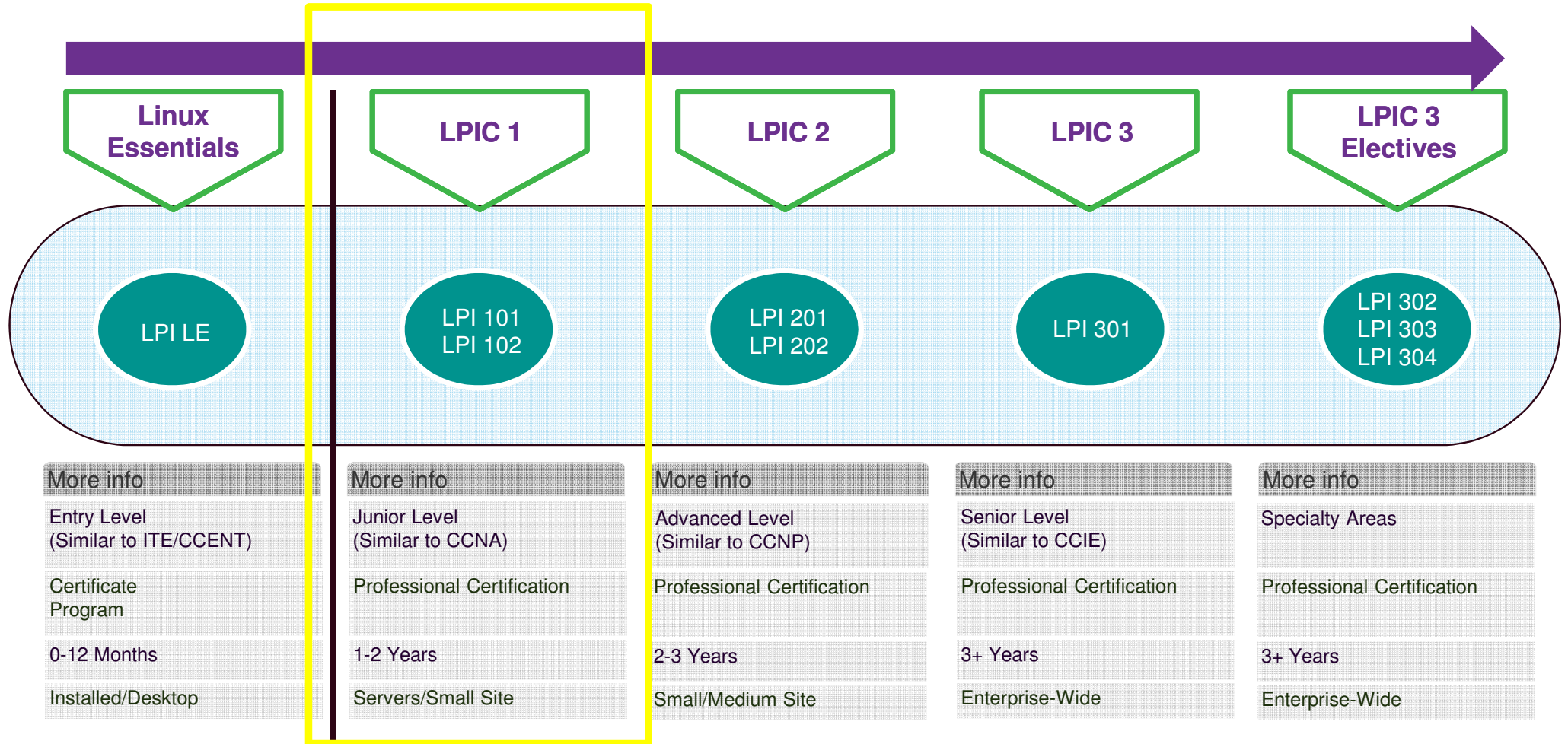
- NDG requests that:
 - academic institutions provide quality instructors and facilities
 - instructors study the course material
 - instructors consider taking Linux Essentials professional development certificate
- No instructor training or skill test is required to teach Linux Essentials (*subject to change*)



NDG Introduction to Linux I

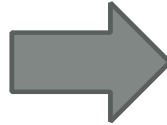


Linux Pathways



3-in-1 Advantage

2 Exams (101, 102)



3 Professional Certifications



- **LPI partners with CompTIA and SUSE**
- **2 exams yield 3 leading professional Linux certifications**
- **No additional cost or testing required**
- **Pass Linux+ to receive Linux+, LPIC-1 and SUSE certification**
- **Note: not available in Japan**

NDG Intro to Linux I Course Content

- Designed to be a full semester course
 - With lectures, content, labs and assessments
 - Designed to be a 70-hour course
- Higher level of rigor than Linux Essentials
- Twenty Seven (27) chapters
- Twenty Four (24) lab exercises
- Assessments
 - Chapter, midterm and final
- To be released in English only



NDG Introduction to Linux I

The course aligns to one of two required exams for the LPIC-1 certification. It covers basic skills for the Linux professional that are common to major distributions of Linux.

Module 1	Chapter 1: Using the Shell Chapter 2: Getting Help Chapter 3: Text Utilities Chapter 4: Configuring the Shell	Module 5	Chapter 15: Hardware Configuration Chapter 16: The Boot Process Chapter 17: Bootloaders Chapter 18: Runlevels
Module 2	Chapter 5: File Manipulation Chapter 6: File Globbing Chapter 7: Finding Files	Module 6	Chapter 19: Designing a Scheme Chapter 20: Creating Partitions Chapter 21: Mounting Filesystems
Module 3	Chapter 8: Regular Expressions Chapter 9: The vi Editor Chapter 10: Standard Text Streams and Redirection Chapter 11: Managing Processes	Module 7	Chapter 22: Maintaining Integrity Chapter 23: Fixing Filesystems Chapter 24: Disk Quotas
Module 4	Chapter 12: Archive Commands Chapter 13: File Permissions and Ownership Chapter 14: Filesystem Links	Module 8	Chapter 25: RPM Package Management Chapter 26: Debian Software Management Chapter 27: Managing Shared Libraries

Lab Exercises: Guidance and Virtual Machines

The screenshot displays a web browser window with the following content:

- Browser Tab:** LPIC1 Series 1 - Lab 17: Bootloaders
- Address Bar:** <https://content.netdevgroup.com/labs/lpic1-s1/17/>
- Page Title:** LPIC1 Series 1 - Lab 17: Bootloaders
- Content Area:**
 - Table of Contents:** A list of steps from 17.1 to 17.24. Step 17.2 is highlighted.
 - Step 17.2:** "17.2 Step 1". A light blue box contains the instruction: "Please use the Ubuntu image to complete the following steps".
 - Step 17.6:** "Log in to the system using the root account. When prompted, provide the root password: netlab123".
 - Terminal Preview:** A small terminal window showing the login process for Ubuntu 14.04.1 LTS.
 - Navigation:** "Previous" and "Next" buttons.
- Terminal Window:** A large terminal window showing the login process for Ubuntu 14.04.1 LTS. The output is as follows:

```
Ubuntu 14.04.1 LTS ubuntu tty1
This lab has two other user accounts (username :: password)
root :: netlab123
sysadmin :: netlab123
Press the [Enter] key to begin...
ubuntu login: root
Password:
Login incorrect
ubuntu login: root
Password:
Last login: Tue Nov  4 23:52:26 UTC 2014 on tty1
Welcome to Ubuntu 14.04.1 LTS (GNU/Linux 3.13.0-32-generic x86_64)
* Documentation:  https://help.ubuntu.com/
root@ubuntu:~#
root@ubuntu:~#
root@ubuntu:~#
root@ubuntu:~#
root@ubuntu:~#
root@ubuntu:~#
```

Assessments: Chapter Quizzes, Midterm, Final and Answer Key

The screenshot displays the Cisco Networking Academy interface for an assessment. The browser address bar shows the URL: https://87122843.netacad.com/courses/206974/assignments/4207581?module_item_id=12675488. The page title is "Chapter 02 Exam". The navigation menu includes "Courses", "Grades", and "Calendar". The main content area shows the breadcrumb path: "LPIC1101 > LPIC1101 > Assignments > Chapter 02 Exam > Chapter 02 Exam". The current question is "Exam 02" and is titled "Question ID 370". The question text is: "To view the manual page for a topic the correct command is:". The answer options are: "help", "show", "doc", and "man". The "man" option is marked as correct with a green checkmark. The "help", "show", and "doc" options are marked as incorrect with red X's. On the right side of the question area, there are two buttons: "Edit Assignment Settings" and "Speed Grader". The left sidebar contains a navigation menu with items: "Home", "Modules", "Assignments", "Grades", "Outcomes", "Syllabus", "Pages", "People", "Files", "Discussions", "Quizzes", "Announcements", "Help & Resources", and "Settings".

NDG Support is All Online

Linux Essentials Help

5.3.2 Controlling the man Page Display

The `man` command uses a "pager" to display documents. Normally this pager is the `less` command, but on some distributions it may be the `more` command. Both are very similar in how they perform and will be discussed in more detail in a later chapter.

If you want to view the various movement commands that are available, you can type the letter `h` while viewing a man page. This will display a help page (note: If you are working on a Linux distribution that uses the `more` command as a pager, your output will be different than the example shown here):

```
sysadmin@localhost:~  
File Edit View Search Terminal Help  
  
SUMMARY OF LESS COMMANDS  
  
Commands marked with * may be preceded by a number, N.  
Notes in parentheses indicate the behavior if N is given.  
  
h H          Display this help.  
q :q Q :Q ZZ Exit.  
-----  
  
MOVING  
  
e ^E j ^N CR * Forward one line (or N lines).  
y ^Y k ^K ^P * Backward one line (or N lines).  
f ^F ^V SPACE * Forward one window (or N lines).  
b ^B ESC-v    * Backward one window (or N lines).  
z           * Forward one window (and set window to N).  
w           * Backward one window (and set window to N).  
ESC-SPACE  * Forward one window, but don't stop at end-of-file.  
d ^D        * Forward one half-window (and set half-window to N).  
u ^U        * Backward one half-window (and set half-window to N).  
ESC-) RightArrow * Left one half screen width (or N positions).  
ESC-( LeftArrow  * Right one half screen width (or N positions).  
HELP -- Press RETURN for more, or q when done
```

If your distribution uses the `less` command, you might be a bit overwhelmed with the large number of "commands" that are available. The following table provides a summary of the more useful commands:

```
>_ Linux Terminal Show/Hide  
  
Your lab session is ready. Press the [Enter] key to begin...  
  
sysadmin@localhost:~$  
sysadmin@localhost:~$  
sysadmin@localhost:~$
```

Reset Restart

Consider This...

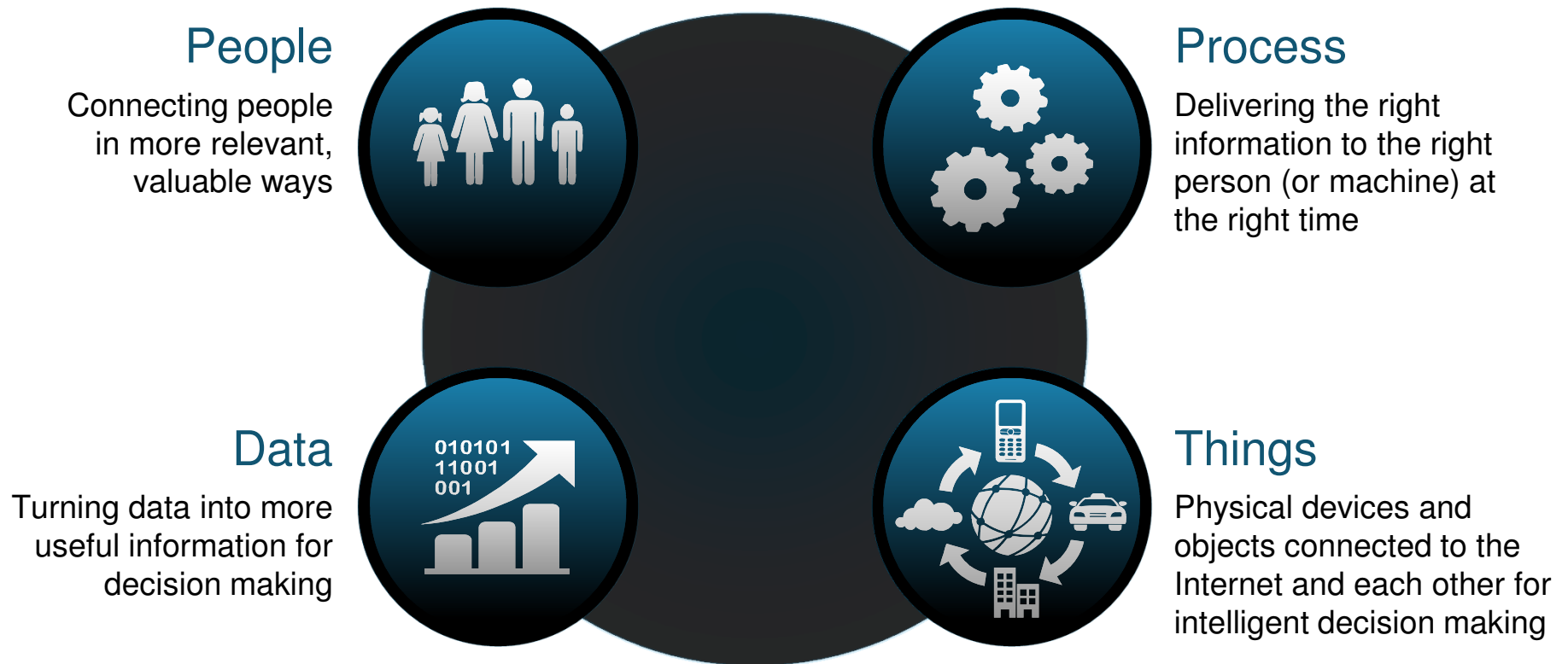
If you want to send your man page to your default printer, then you may want to execute the man command as follows:

Internet of Everything Offerings



The Internet of Everything:

Networked Connections of People, Process, Data, Things



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.

Career Prep

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

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



What is the IoE?

The Internet of Everything is the networked connection of people, process, data, and things.



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

I2IoE Course Outline

Module		Objectives
1	What Is the IoE?	<ul style="list-style-type: none">Describe the Internet and its evolution to the Internet of EverythingExplain the four pillars of IoE and how its innovations can transform businesses
2	Pillars of the IoE	<ul style="list-style-type: none">Explain the interconnection of people, process, data, and things that forms the Internet of Everything
3	Connecting the Unconnected	<ul style="list-style-type: none">Explain how things that are non-IP-enabled and IP-enabled devices can be connected to a network to communicate in the Internet of ThingsExplain programming and show a simulated version of the Cisco Coffee JavaScript application
4	Transitioning to the IoE	<ul style="list-style-type: none">Explain the steps to evaluate and implement an IoE solutionExplain security concerns that must be considered when implementing IoE solutions
5	Bringing It All Together	<ul style="list-style-type: none">Describe the M2M, M2P and P2P interactions and review an example of an IoE solution at a modeled wineryExplain the concept of prototyping and how this is critical in the nascent IoE market

I2IoE Course Facilitation Model

	Self-Enroll Classes	Instructor-led Classes
Class Instructors	Cisco SME	NetAcad instructors
Class Duration (estimated time to complete: 15-20 hours)	6 weeks	Up to the instructors
Optimal class size (# of students)	2K - 5K	Typically under 50
Add your own instructional materials (recordings, pencasts, etc.) or leverage NetAcad library of instructional materials	Yes	Up to the instructors
Monitoring and moderating class discussion forum (asynchronously)	Yes	Up to the instructors
Synchronous office hours	No	Up to the instructors
Synchronous collaborations sessions	No	Up to the instructors

I2IoE v1.2 New Case Study: Healthcare



The screenshot displays two windows from the Cisco Packet Tracer Instructor. The left window is titled "Environment" and contains a "Condition Controller Dashboard". The dashboard has the following text:

Condition Controller Dashboard
Use the buttons below to influence John's condition.

Induce Hypoglycemia:
Reduces John's blood sugar level to 50% lower than usual.

Induce Hyperglycemia:
Raises John's blood sugar level to 100% higher than usual.

Restore Normal Levels:
Restores John's blood sugar level back to his normal range.

Note:
The buttons below will also influence John's exercise level over the last 5 hours.

Buttons: Induce Hypoglycemia, Induce Hyperglycemia, Restore John's Normal Levels, Speed Up Time 15x

Always On Top 1 minute = 60 seconds

The right window is titled "Cisco Packet Tracer Instructor - C:\Users\emorozov\AppData\Local\Temp\5.1.1.8 Packet Tracer - Diabetic Patient Healthcare IoE ...". It shows a network diagram in "Logical" view. The diagram includes:

- John's Home (represented by a house icon)
- MPTC (represented by a medical truck icon)
- Cloud Data Storage Services (represented by a server rack icon)
- HMC (represented by a building icon)
- Coax2 Internet (represented by a cloud icon)

Connections are shown between these elements. The interface also shows a "Realtime" panel at the bottom with a timer at 00:00:19, "Power Cycle Devices", and "Fast Forward Time" options. A table with columns "Fire", "Last Status", "Source", and "Destination" is visible in the Realtime panel.

Explore the Course Navigation

Module 1
What is the IoE?

Module 2
Pillars of the IoE

Module 3
Connecting the Unconnected

Module 4
Transitioning to the IoE

Module 5
Bringing it all Together

Section 1.0
Introduction

Section 1.1
Internet of Everything

Section 1.2
The Value of the IoE

Section 1.3
Globally Connected

Section 1.4
Summary

Topic 1.0.1
Welcome

Page 1.0.1.1
Module 1: What is the IoE?



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More IoE Offerings



Introduction to the Internet of Everything Summary Podcast

Series Overview

This podcast series provides an introduction to the future of the Internet, where a network foundation connects billions of things and trillions of gigabytes of data, enhancing our decision making and daily interactions.

It can be used to prepare for the Introduction to the Internet of Everything course.

Career Prep

Anyone seeking to develop a broad understanding of trends, technologies, and career opportunities in the Internet of Everything.

Prerequisites: None

Languages: English

Delivery Method: mp3 files

Estimated Time to Complete: 2.5 hours

Recommended Next Course: Introduction to the Internet of Everything



Learning Components

- 5 modules featuring a panel of IoE experts
- Links to related resources
- Downloadable mp3 files

Planned

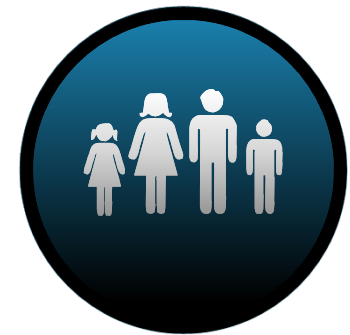
- IoE: Connecting Data



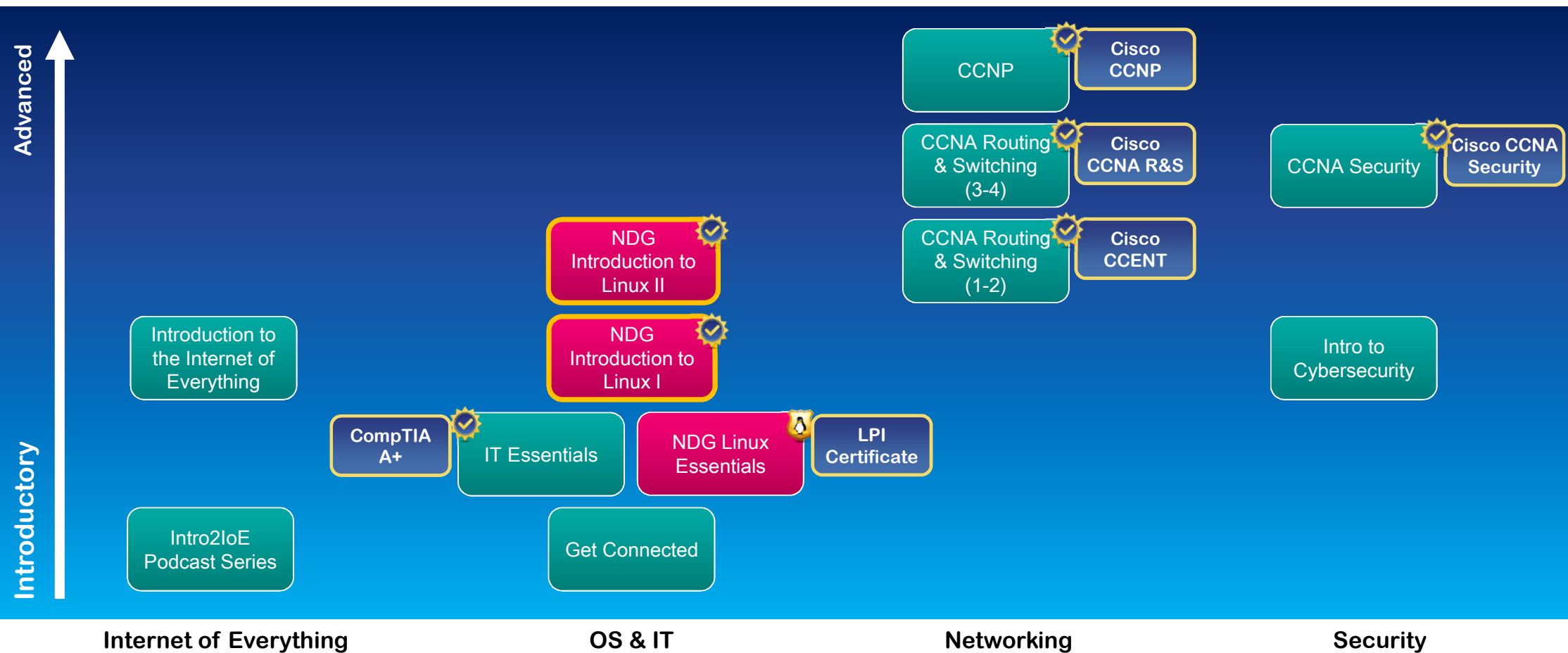
- IoE: Connecting Things



- IoE: Connecting People & Process



Course Proficiency and Certifications



Course Progression, Careers, and Certifications

0-1 Years of Experience

Technical Support
IT Field Service Technician
Help Desk Technician

Mobile Application Support
Network Support Technician
Network Analyst

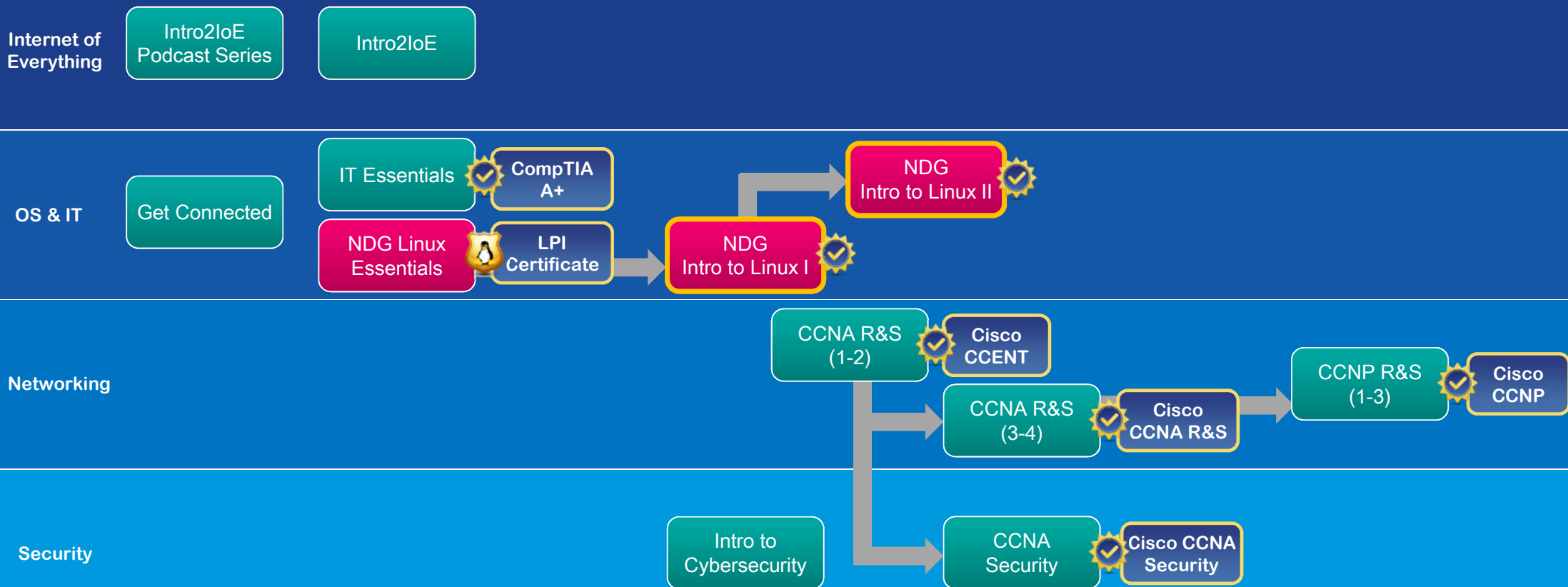
1-3 Years of Experience

Network Technician
Support Engineer
Network Administrator

Network Designer
Entry-Level Network Engineer
Network Specialist

3-5 Years of Experience

Level II Network Engineer
Network Designer
Security, Voice or Wireless Engineer



Academy Fast Track



Get on the “Academy Fast Track” to get Started in NetAcad



Encourage new institutions to join NetAcad

Nonprofit learning and community centers can join our Fast Track program.

The “fast track” does not require instructor training, equipment purchases, or a formal support agreement.

Academy Fast Track Courses

Get Connected

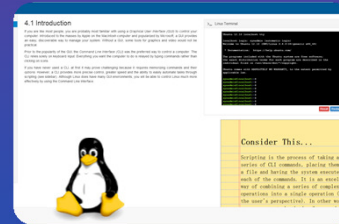
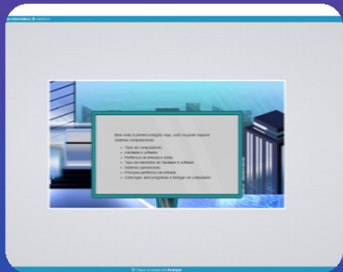
Introduction to the Internet of Everything

Introduction to Cybersecurity

NDG Linux Essentials

Be Your Own Boss

Entrepreneurship



No instructor training or equipment purchase requirements

Instructor Professional Development





Global IPD Week



- Global Instructor Professional Development Week
- Last time happened 20 - 24 April
- 18 sessions in multiple time zones:
 - Instructor Forums** – Featuring Academy Success Dashboard & Best Practices for teaching the New Courses
 - Technical Sessions** – Packet Tracer 6.2 New Features, Creating attacks on Routers and Switches using Packet Tracer, MPLS Concepts and two IPv6 sessions
 - Program Updates** – Catch up on the latest strategies and products from Cisco Networking Academy
 - Localized sessions** – Offering localized sessions in seven different languages (Arabic, Brazilian Portuguese, Chinese, French, Russian, Spanish and Turkish)
- The Global IPD Week course available in NetSpace:
<https://1040239.netacad.com/enroll/NN9R49>

Global IPD Week

- On your Teach tab
- Session presentations and recordings are available for download

Summary in Russian	Eugene Morozov Technical Manager CEE, Russia & CIS	Date: 23rd April Time: 11:00 UTC 14:00 Kyiv 14:00 Moscow 16:00 Yekaterinburg 21:00 Vladivostok Register to attend the session	Resources posted after session  
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- **Next Global IPD Week is:
September 28 – October 2, 2015**
Save the Date

Global IPD Week: 20th-24th, April 2015



Meet the [Technical Field Engagement Team](#)
Cisco Corporate Affairs

Click for Information on our [April Global IPD Week Sweepstakes!](#)

[Access early-bird materials now!](#)

Day 1 Tues 21 st Apr, 2015	Day 2 Wed 22 nd Apr, 2015	Day 3 Thu 23 rd Apr, 2015 Fri 24 th Apr, 2015	Translated Summaries
Program Updates [Check the Agenda]	Technical Sessions [Check the Agenda]	Instructor Forums [Check the Agenda]	Summary Sessions in Translated Languages [Arabic, Brazilian Portuguese, Chinese, French, Russian, Spanish, Turkish]

Tshoot me if you can



- Packet Tracer troubleshooting game
- CCNA R&S level
- Bring your laptop
- Today 15.00-16.05 at Kruger
- Tokens at frontdesk

Thank you.



Cisco Networking Academy
Mind Wide Open