



Cisco Networking Academy and NDG Present

Give Students Limitless Opportunities with Linux Courses



Welcome to the 1st session of the *Intro to Linux* webinar series!

- Use the Q and A panel to ask questions.
- Use the Chat panel to communicate with attendees and panelists.
- A link to a recording of the session will be sent to all registered attendees.
- Please take the feedback survey at the end of the webinar.



Presenters and Panel

- Grace Bixby – NDG Linux Course Product Manager
- Rich Weeks – NDG President
- Jorge Leiton – Cisco Linux Course Product Manager
- Richard Myers – Director of Support Services Linode
- Matt Rice – Linux Professional Institute (LPI) Executive Director
- Fabian Thorn – LPI Director of Certification Development
- Josh Good – Cisco Customer Support Engineer
Data Center Solutions

Agenda

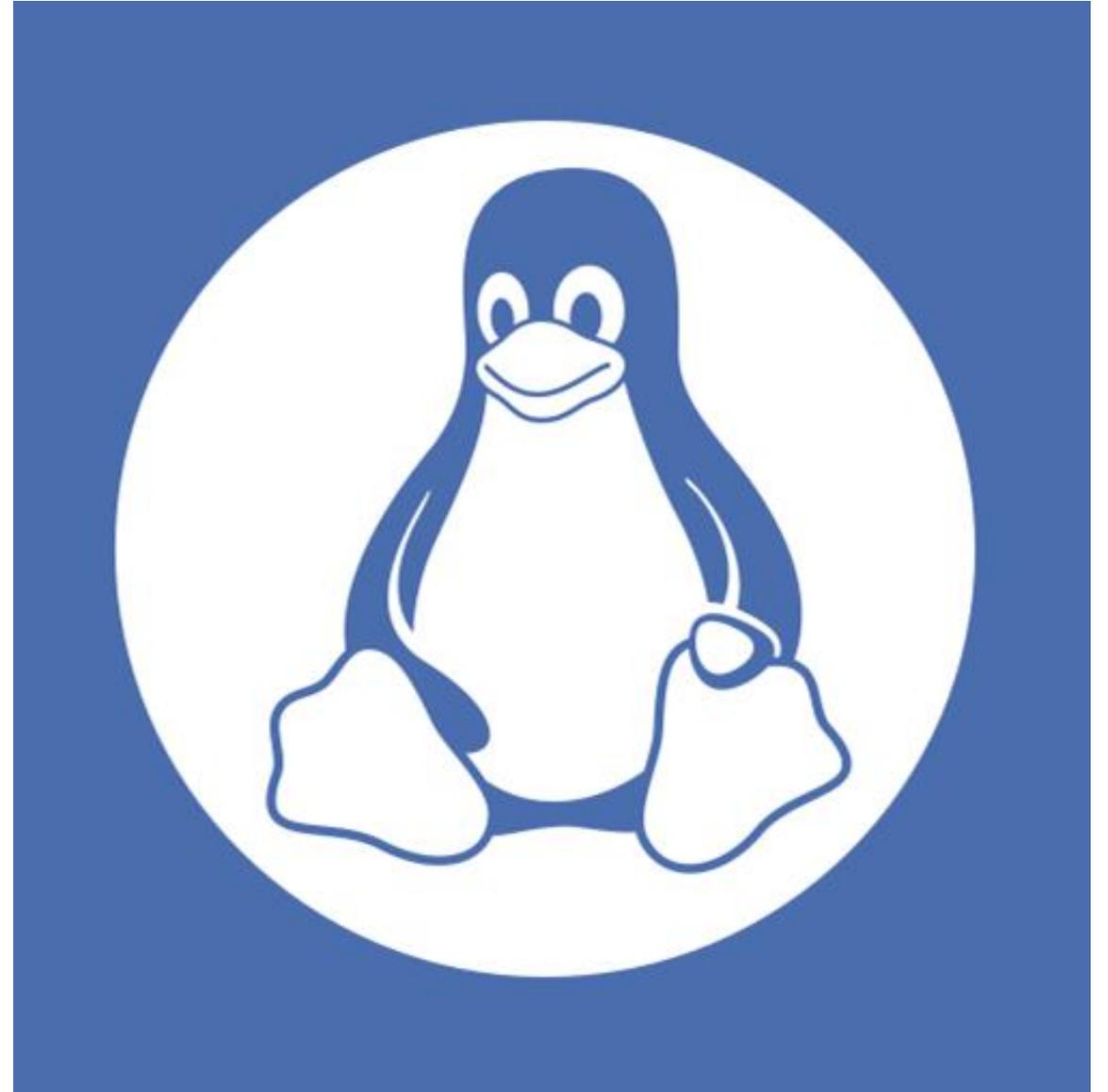
- Why should you learn or teach Linux?
- Job opportunities for people that know Linux.
- Example of a business using Linux to serve the marketplace.
- Brief overview of NDG courses available via Cisco Networking Academy.
- Linux Professional Institute will explain how to document your job skills.
- Example of how a Cisco engineer uses Linux at work.

What Is Linux?

Linux [lin-uh ks]

Computers, Trademark.

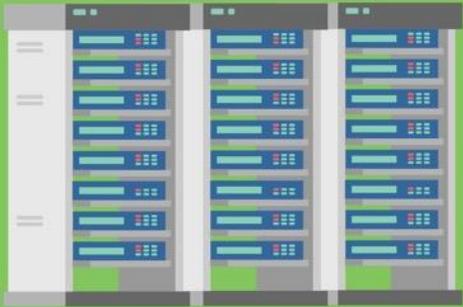
1. an operating system created by Linus Torvalds, based on UNIX, that runs on many different hardware platforms and whose source code is available to the public.



Linux is Everywhere!



THE WORLD RUNS SMARTER WITH LINUX



99% of the world's
top supercomputers
run Linux



1.4 Billion active
users of Linux-based
Android devices



80% of all stock
exchanges rely
on Linux

LINUX GOES WHERE NO MAN HAS GONE BEFORE



32 space missions
completed with Linux

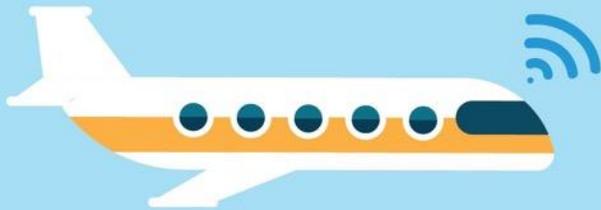


Linux is helping NASA's
Curiosity Rover
explore Mars

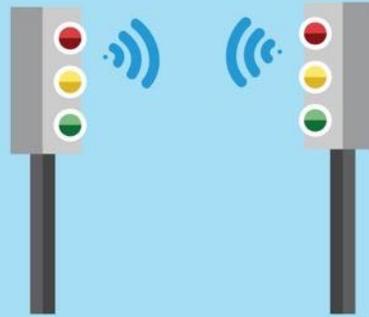


SpaceX uses Linux
on the Dragon and Falcon 9
spacecraft

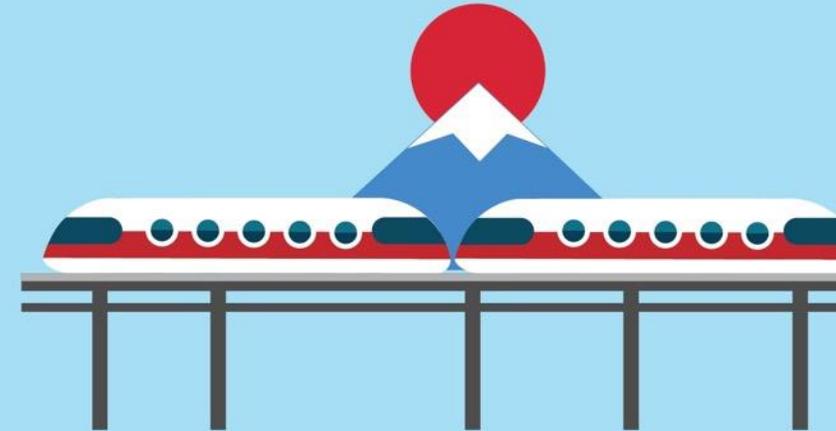
LINUX IS TRANSFORMING TRANSPORTATION



US air traffic
control runs on Linux



Queensland Motorways
relies on Linux for smart traffic
management



Linux helps run
bullet trains in Japan

SWIMMING THE SEAS WITH TUX



Poseidon Linux is the preferred GNU/Linux distribution for **oceanography**

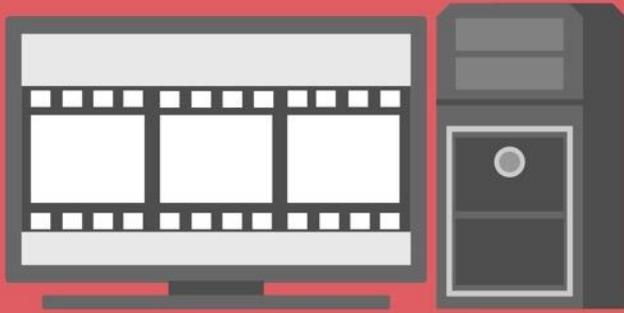


1.2 Million nautical miles traveled by the Linux-powered Wave Glider® ocean robot



Linux helps smart buoys detect **tsunami formations** in the Indian Ocean

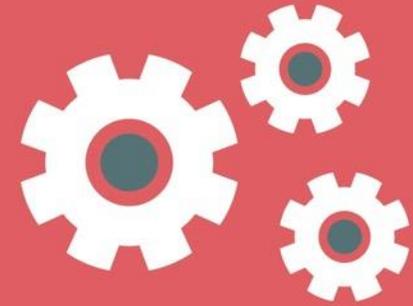
LINUX IS BIG IN HOLLYWOOD



95% of desktops and servers use Linux for animation and visual effects

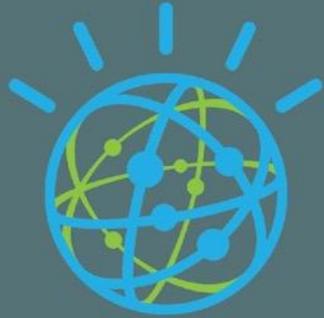


Titanic was the first feature film produced on Linux servers

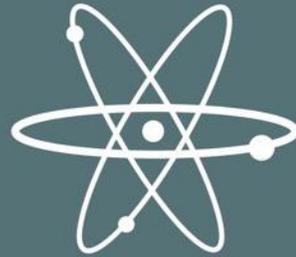


It took **9100** computing render-years to produce **The Croods**

FROM BIG DATA TO THE BIG BANG



Linux helps IBM's Watson analyze
200 Million pages of
clinical data in 15 seconds



“The God Particle”
was discovered using CERN's
Linux-powered Large Hadron
Collider



**Google, Amazon, even
Microsoft** use Linux to
power their cloud services

Companies That Use Linux



WIKIPEDIA

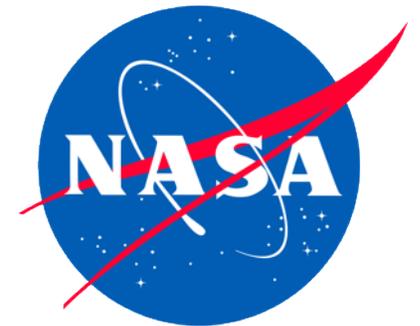


Google

TESLA

NETFLIX

IBM



amazon



SPACEX

Interesting Opportunities for Linux Professionals

Take a drive with Bill Gates in a Tesla Model X

Fred Lambert - 2 days ago [@FredericLambert](#)

CARS MODEL X TESLA



8 Comments

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TECHNOLOGY LAB / INFORMATION TECHNOLOGY

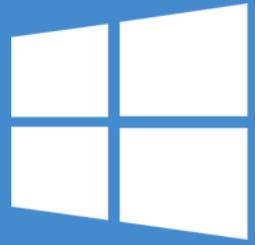
Microsoft “loves Linux” as it makes Azure bigger, better

11 million servers, new giant VMs, and more third-party app support.

by Peter Bright - Oct 20, 2014 10:00pm EDT

[Share](#) [Tweet](#) 150

Microsoft  Linux



Windows 10

ubuntu

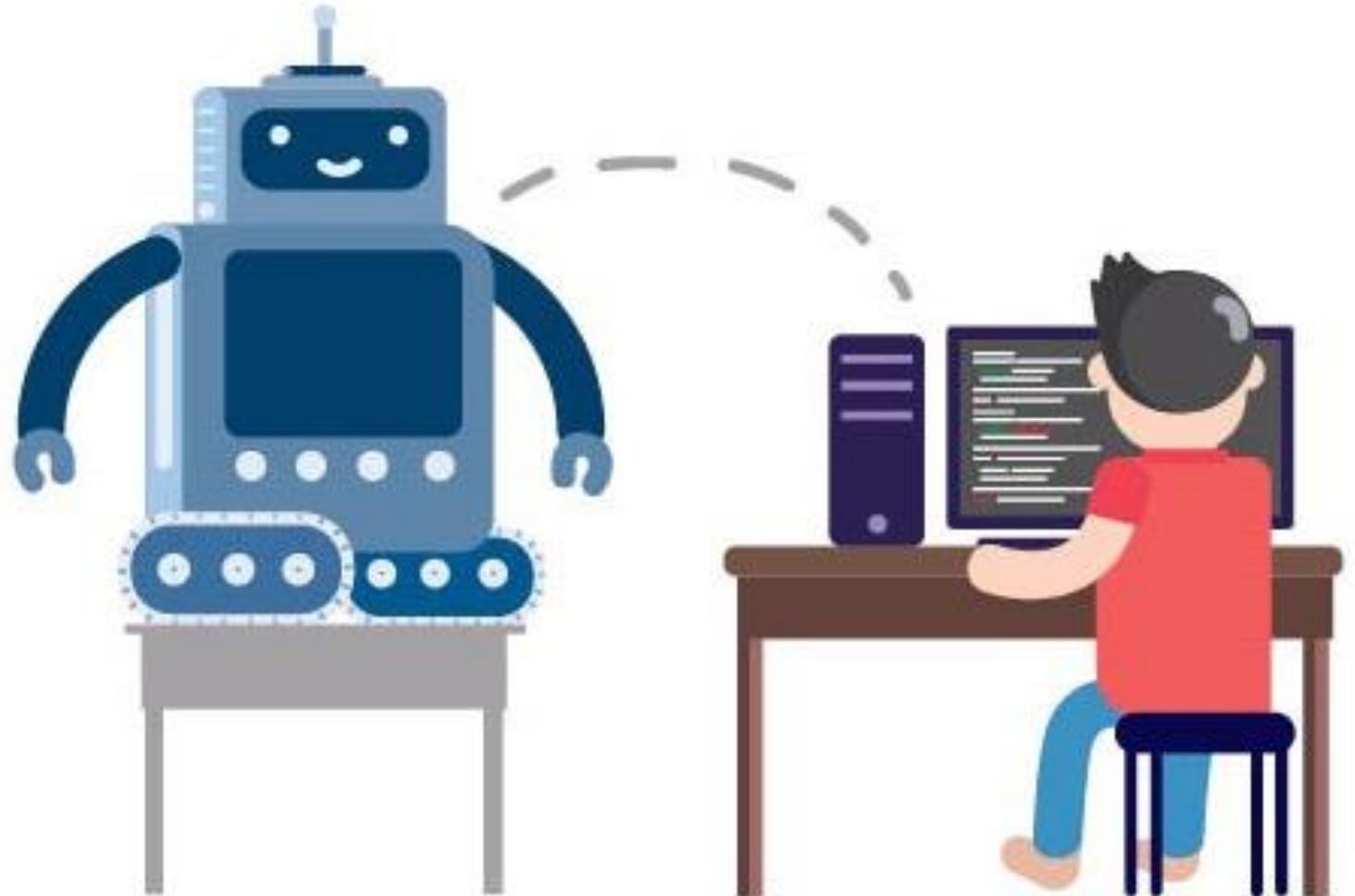


Linux Is Open Source



Advantages of Open Source

- Community
- Security
- Flexibility
- Adaptability
- Freedom
- Quality
- Cost



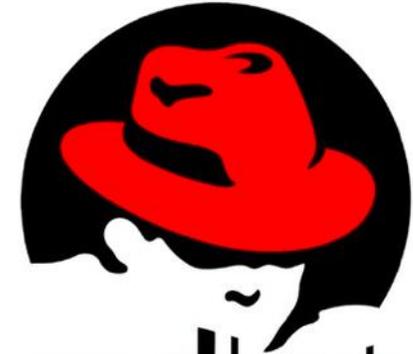
Popular Linux Distributions



debian



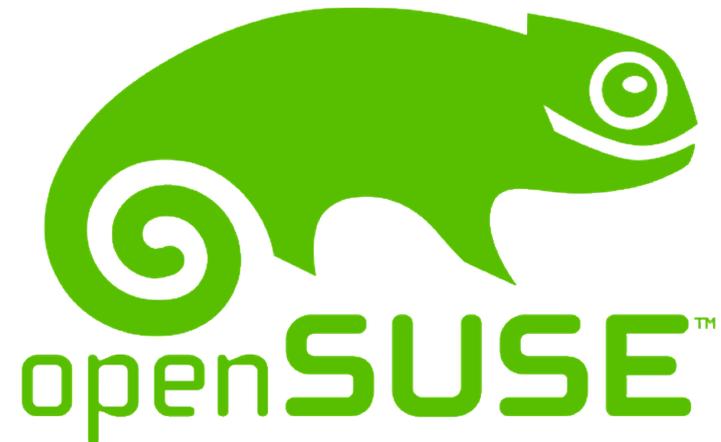
ubuntu.



redhat



fedora.



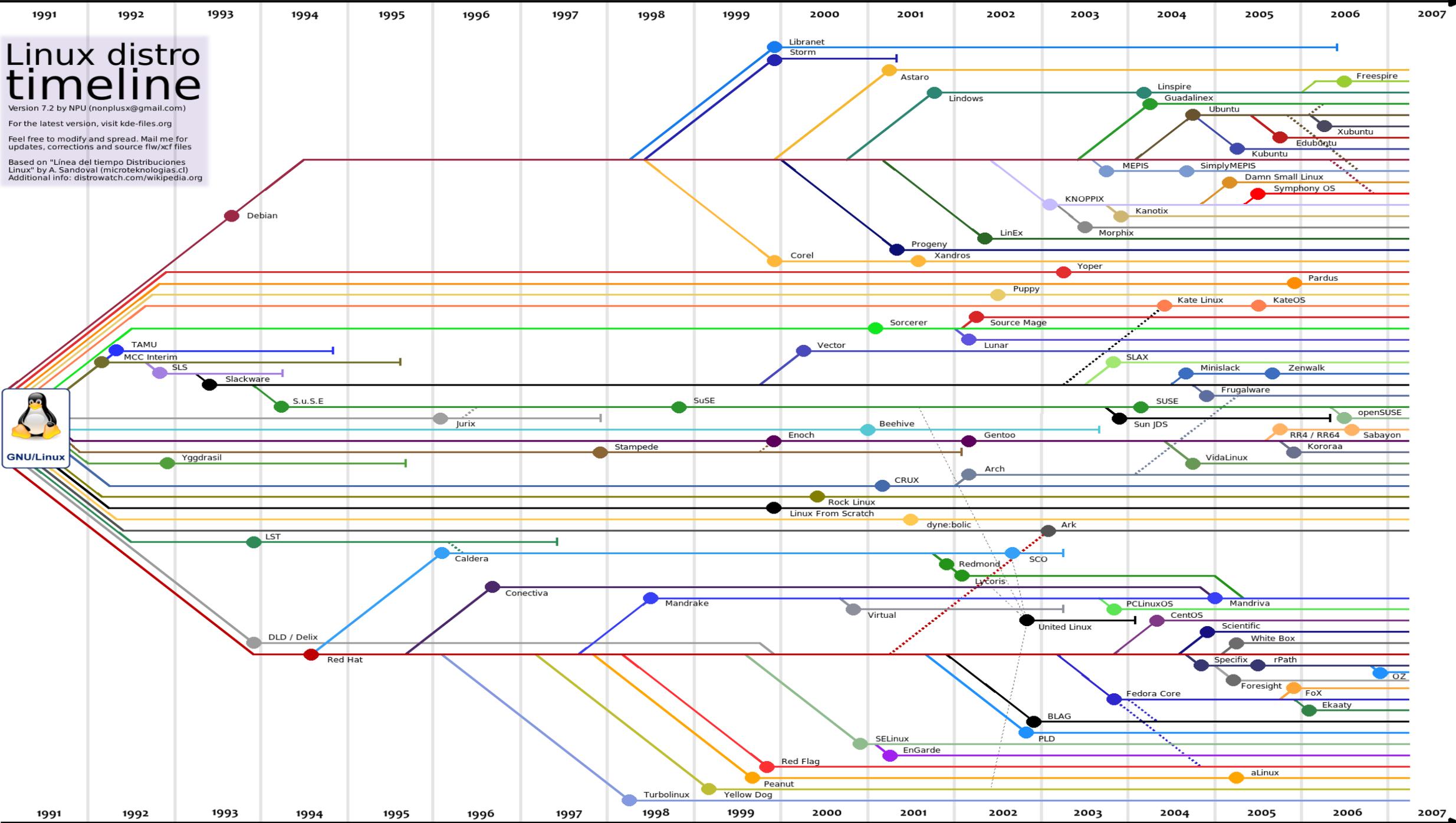
Linux distro timeline

Version 7.2 by NPU (nonplusx@gmail.com)

For the latest version, visit kde-files.org

Feel free to modify and spread. Mail me for updates, corrections and source fw/xcf files

Based on "Línea del tiempo Distribuciones Linux" by A. Sandoval (microtecnologias.cl)
Additional info: distrowatch.com/wikipedia.org



Linux Skills Are In Demand



97% of hiring managers plan to hire Linux talent within 6 months



88% of hiring managers say it is difficult to find qualified Linux talent



90% of professionals say that knowing Linux has advanced their careers

Source: 2015 Linux Jobs Report (Linux Foundation and Dice)

Linux Skills Are In Demand

Indeed.com Job Search Keyword = Linux

Jobs	Country
76,594	China
63,929	USA
19,867	Japan
19,030	India
10,965	England
8,576	France
8,362	Germany
1,255	Australia
1,187	Mexico



Linux jobs in United States

Sort by: **relevance** - [date](#)

Salary Estimate

\$70,000+ (55568)
\$85,000+ (44823)
\$95,000+ (33748)
\$100,000+ (27478)
\$115,000+ (11099)

Job Type

Full-time (54002)
Contract (8602)
Internship (1193)
Temporary (1086)
Part-time (864)
Commission (70)

Location

New York, NY (2845)
Seattle, WA (2238)

what:

Linux

job title, keywords or company

where:

United States

city, state, or zip

Find Jobs

Jobs 1 to 10 of 63,929

New! [Join Indeed Prime](#) - Get offers from great tech companies

Show: **all jobs** - [37,829 new jobs](#)

Network/Server Administrator (IDC Onsite)

CAMiWell - Santa Clara, CA

Position: Network/Server Administrator (5) Job type: Full-time City: Santa Clara, CA, USA Start date: April 2016 Requirements: * Fluent in English and Chinese...

[Easily apply](#)

17 days ago - [email](#)

[Sponsored](#)

Linux Technical Support

Linode - Haddonfield, NJ

Linux System Administration experience. Comfortable with the Linux command line. Familiarity with common Linux server applications such as Apache2, Nginx,...

[Easily apply](#)

30+ days ago - [email](#)

[Sponsored](#)

Linux Salary Guide



Linux System Administrator

Salary Range: \$41,000 to \$105,000



National Average: \$67,000

Linux System Engineer

Salary Range: \$59,000 to \$118,000



National Average: \$89,018



Network Administrator

Salary Range: \$48,000 to \$82,000



National Average: \$63,584

Network Engineer

Salary Range: \$54,000 to \$108,000



National Average: \$73,165



Support Technician

Salary Range: \$23,000 to \$51,000



National Average: \$36,337

Support Engineer

Salary Range: \$43,000 to \$97,000

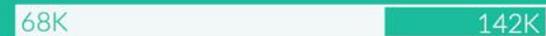


National Average: \$70,000



DevOps Engineer

Salary Range: \$68,000 to \$142,000



National Average: \$100,000

Cloud Engineer/Developer

Salary Range: \$50,000 to \$120,000

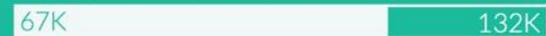


National Average: \$95,000



Software Engineer

Salary Range: \$67,000 to \$132,000



National Average: \$95,195

Software Developer

Salary Range: \$44,000 to \$127,000

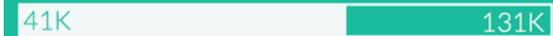


National Average: \$85,000



IT Manager

Salary Range: \$41,000 to \$131,000



National Average: \$70,628

IT Technician

Salary Range: \$23,000 to \$57,000



National Average: \$35,839

It's not just one type of job.



System Admin



Cloud Computing



DevOps



Networking



Cyber Security



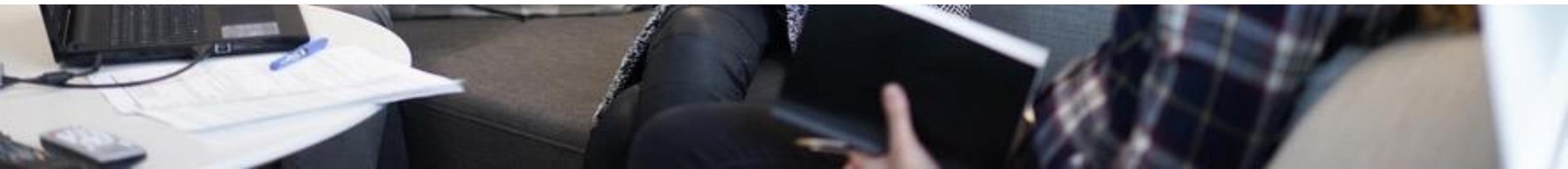
Design/Arch
Planning



Data
Management



Linux is a core skill for all IT professionals.





Linode.com

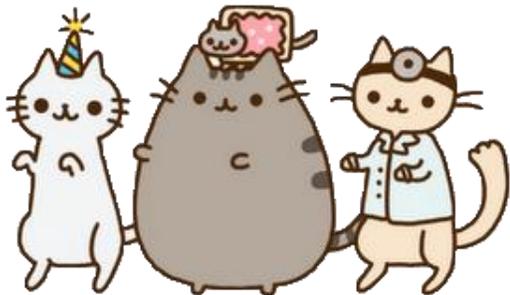
Cloud Servers for Designers, Developers, Ideas and You

Richard Myers, Director of Customer Support
rmyers@linode.com



What Does Linode Do?

Cloud Hosting
(IaaS)



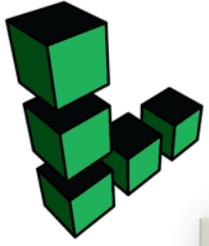


What's Linode's Story?



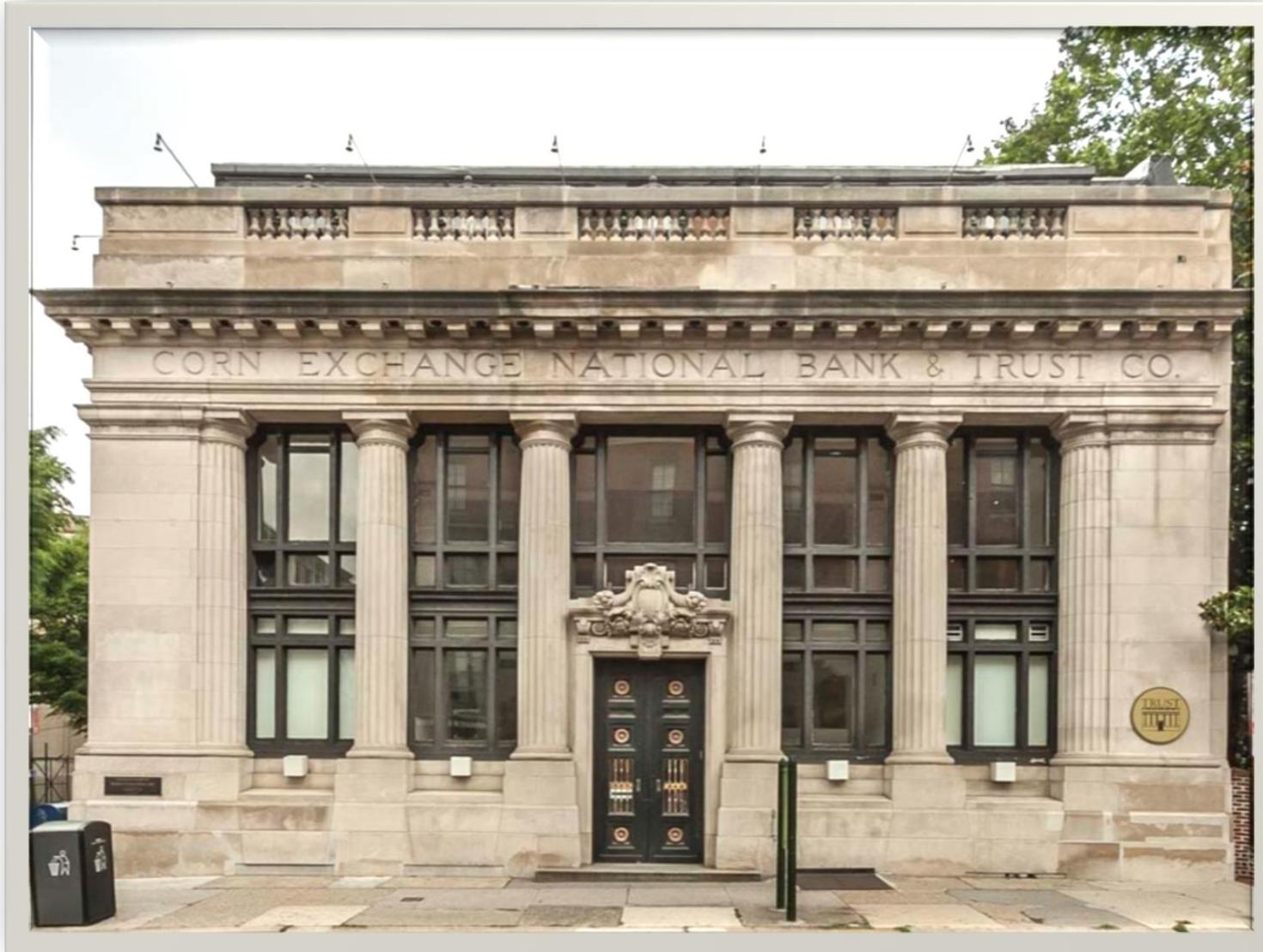
2003





linode

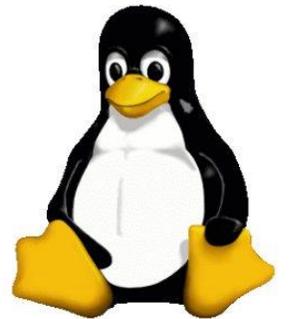
From an Apartment to This

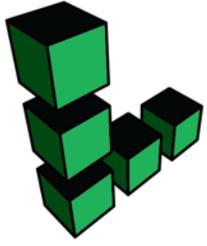




What's So Great About Linux?

- Dominant operating system for servers on the Internet
- It's open source so:
 - It's more secure
 - It's a constantly advancing technology
 - It's free
 - Other “cool” technologies use it
 - More and more companies are outsourcing IT to Linux based IaaS providers.
- Money & Jobs
- Start-ups





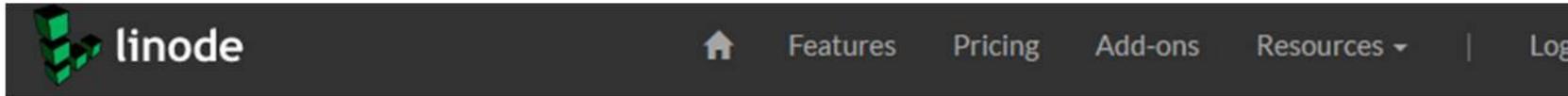
linode

What Can You Do if You Know Linux?

- Linode's Current Needs
 - Front-end Engineer
 - Back-end Engineer
 - Technical Support
- Other Linux/Linode Jobs
 - Security
 - Networking
 - Hardware

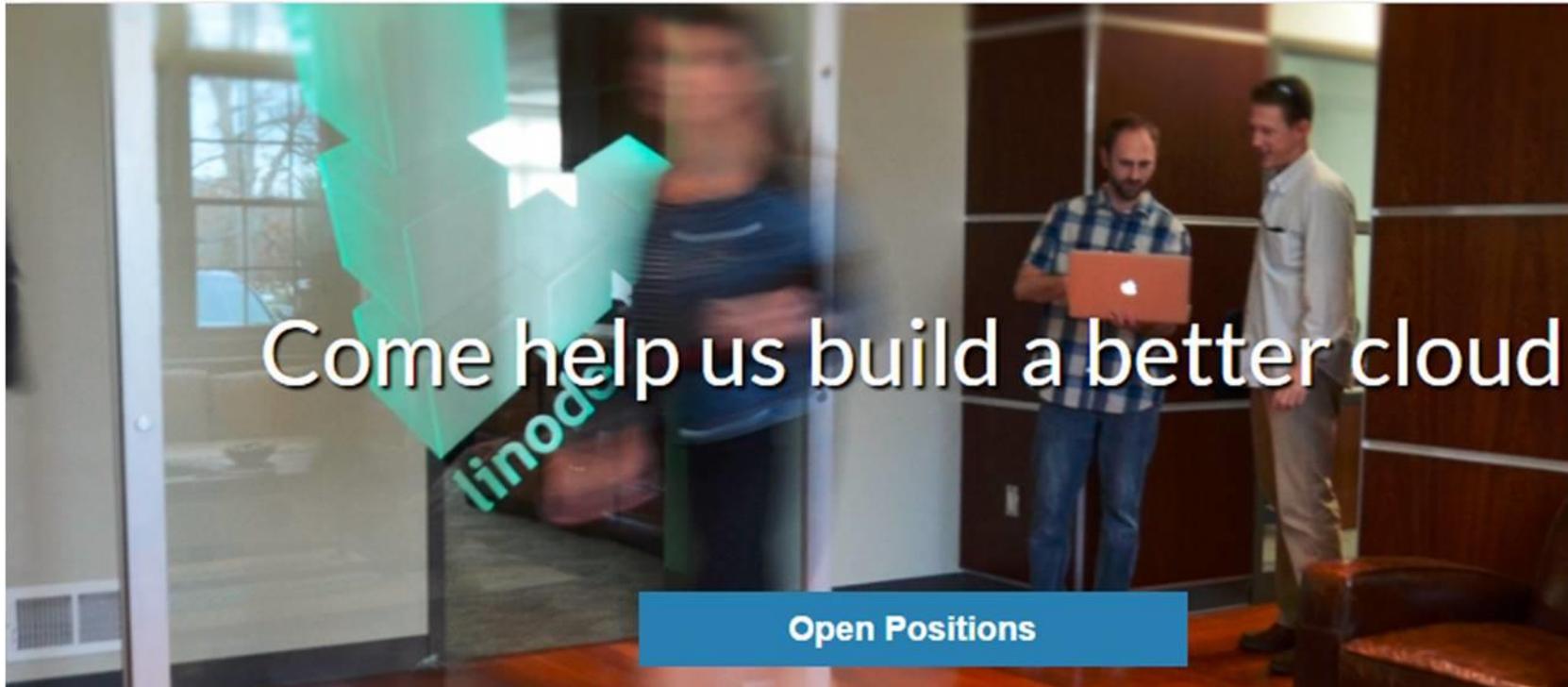


www.linode.com/careers



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Customer Support

[Linux Technical Support](#)

Haddonfield, NJ

Development

[Front-End Engineer](#)

Haddonfield, NJ

[Manager, Software Engineering](#)

Haddonfield, NJ

[Software Engineer](#)

Haddonfield, NJ

Operations

[Linux Systems Engineer](#)

Haddonfield, NJ

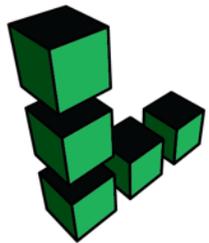
[Manager, System Engineering](#)

Haddonfield, NJ



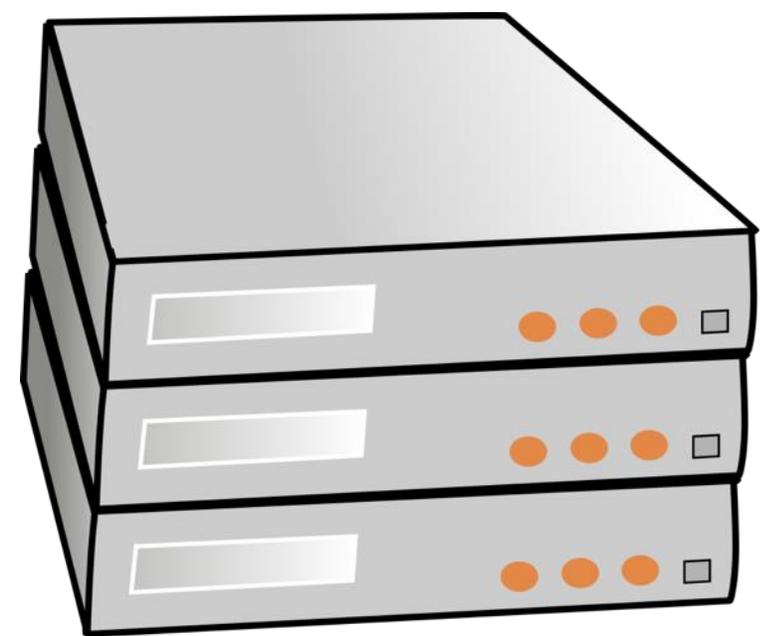
How do our employees learn?

- Customized training
- Use of courseware like NDG Linux courses
- Use of other learning modules online
- Interacting with other Linodians
- Lunch-and-learns & other knowledge-shares
- Books
- Just do it



linode

Why Do Our Customers Like Linode?





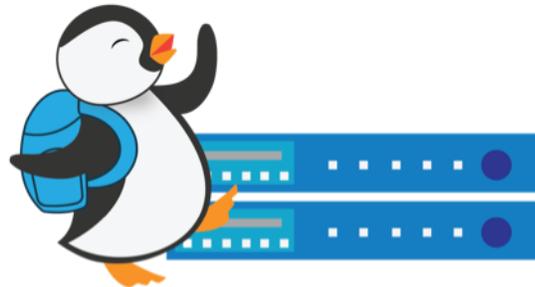
Why Do We Like Linode?

- Great benefits
- Great Vice Presidents
- Chance to work with leading edge technology
- Chance to “make a difference, not just fill a hole”
- Treated like a human being
- Egalitarian environment
- Generous environment
- Lots of opportunity

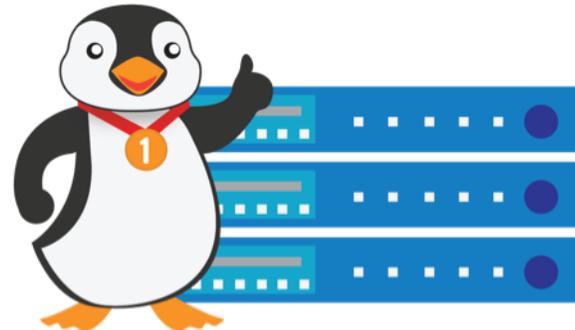
NDG Linux Courses Offered to Cisco Networking Academies



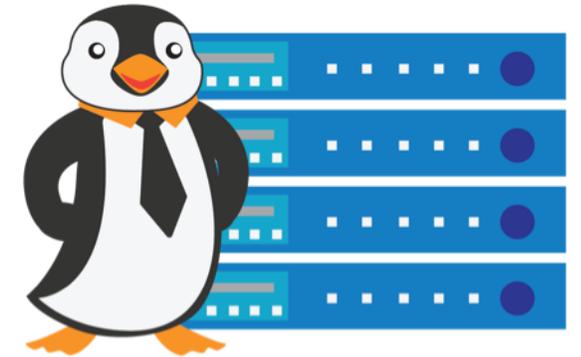
NDG Linux Unhatched



NDG Linux Essentials



NDG Linux 1



NDG Linux 2

Available in Networking Academy

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 Cisco Networking Academy Courses Careers Get Started About Us

Home / Courses / NDG Introduction to Linux

NDG Introduction to Linux

Learn basic Linux system administration skills and prepare for LPI LPIC-1 or CompTIA Linux+ powered by LPI certification.

Enroll Now



■ ■ ■ Intermediate Duration: 140 hours Fee: \$39.95 Self-paced / Instructor-led

Course Summary

Developed by: [NDG](#)

NDG Introduction to Linux is a 2-course series for aspiring Linux system administrators. Develop proficiency in performing maintenance tasks on the command line, installing and configuring a computer running Linux, and configuring basic networking, using virtual machines running Linux.

- Introduction to Linux I, 70 hours, prepares you for certification Exam 101 and covers: system architecture, Linux installation and package management, GNU and UNIX commands, devices, Linux file systems, and file system hierarchy standards.
- Introduction to Linux II, 70 hours, prepares you for certification Exam 102 and covers: shells, scripting and data management, interfaces and desktops, administrative tasks, essential system services, networking fundamentals, and security.
- Develop a working knowledge of the Linux command line.
- Study with an instructor in the classroom or at your own pace. Access expert content online anytime.
- Get immediate feedback on your knowledge through built-in quizzes and tests.
- Connect with the global Cisco Networking Academy community.

Languages: English

Enroll Now

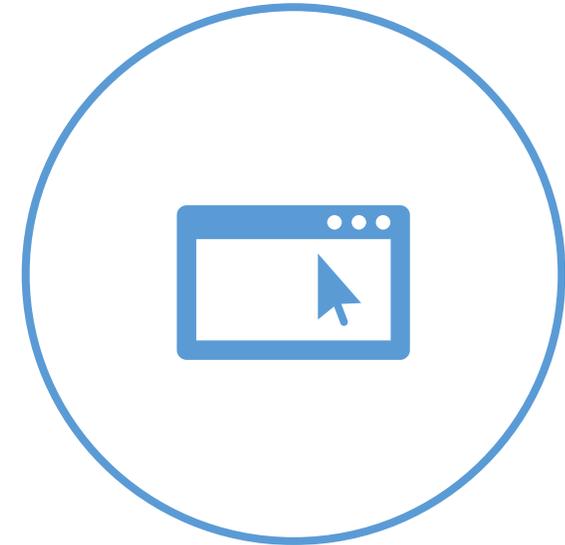
Easy to Use



Delivered on the
Networking Academy
learning platform



Lectures, content, labs,
assessments, and classroom
aids



Real command-line
experience through
NDG virtual terminal

Learn By Doing!

“I hear and I forget.

I see and I remember.

I do and I understand.”

Confucius



Course Content with Virtual Machine

Content

Objectives

Key Terms

3.6 head Command

The purpose of the `head` command is to view the beginning of a file or output. By default, the `head` command will display the first ten lines of a file's contents. For example, the following command displays the first ten lines of the `alpha.txt` file:

```
sysadmin@localhost:~/test$ head alpha.txt
A is for Apple
B is for Bear
C is for Cat
D is for Dog
E is for Elephant
F is for Flower
G is for Grapes
H is for Happy
I is for Ink
J is for Juice
```

There are several options for the `head` command that are useful. For instance, there is the ability to use a number as an option to indicate how many lines of output to display. For example, to display the first three lines of the `alpha.txt` file execute:

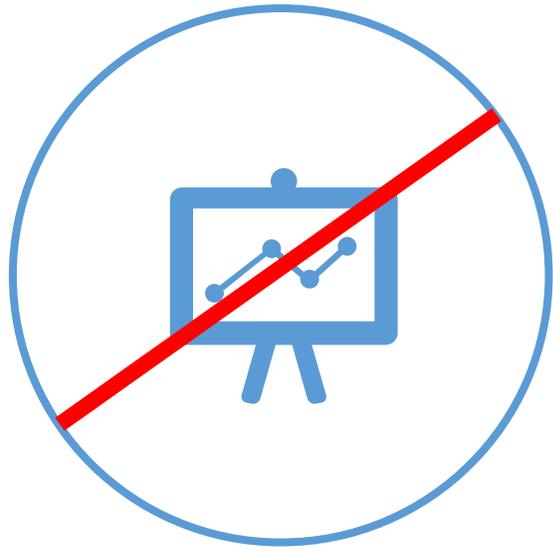
```
sysadmin@localhost:~/test$ head -3 alpha.txt
A is for Apple
B is for Bear
C is for Cat
```

There is also an option, `-n`, which takes an argument for the number of lines to display. So, the

>_ Ubuntu PC

```
sysadmin@localhost:~/test$
```

Easy to Get Started



No Special
Training



No Lab
Equipment



Free To
Instructors

Economical

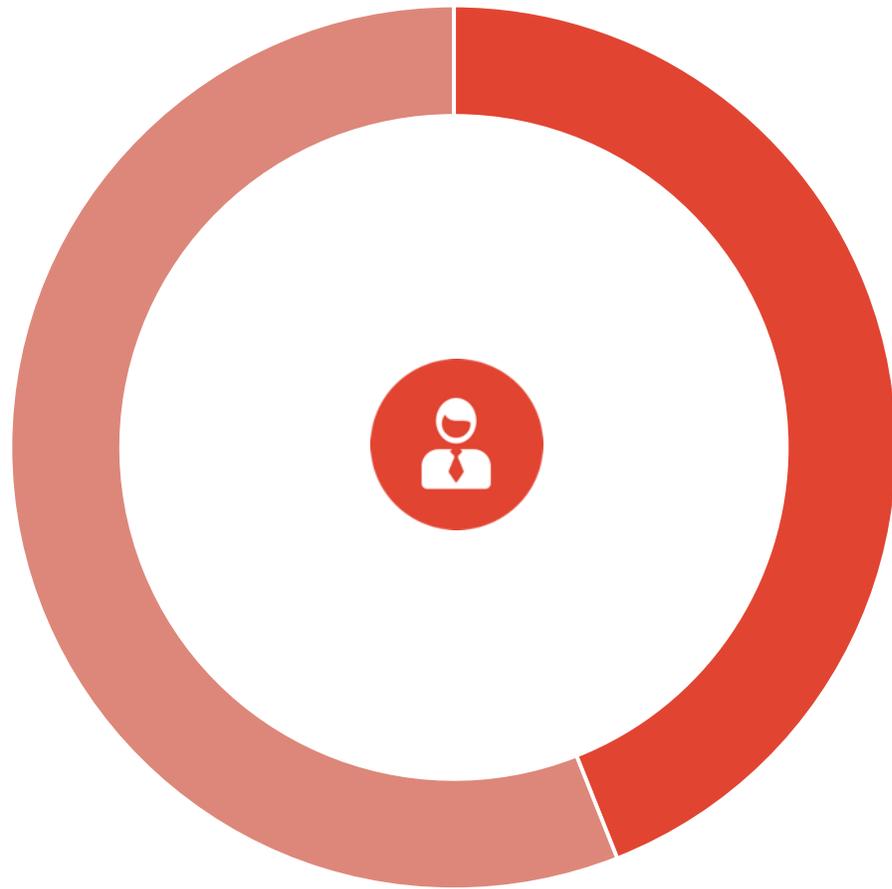
Course Title		Cost to Instructors	Cost to Students
NDG Linux Unhatched		FREE	FREE
NDG Linux Essentials		FREE	FREE
NDG Linux I		FREE	\$39.95*
NDG Linux II		FREE	\$39.95*

** Paid by the learning institution or the individual student*

Certifications Help Students Stand Out

COURSE TITLE	CERTIFICATION EXAM ALIGNMENT
NDG Linux Unhatched	 CompTIA A+ (Linux Knowledge)
NDG Linux Essentials	 Linux Essentials Professional Development Certificate
NDG Linux Series	 LPIC-1: Linux Server Professional Certification
	 CompTIA Linux+ Powered by LPI

Certifications Help Students Stand Out



44% of hiring managers are more likely to hire a candidate with Linux certification.



Developing and Documenting your Linux Skills with Certifications

Who we are



- Our purpose is to enable economic and creative opportunities for everybody by making open source knowledge and skills certification universally accessible.
- Non-profit organization based in Canada. Our Affiliates provide local support around the world.
- Independent from vendors and Linux distributions.

How we serve the Linux and Open Source community



Guidance in the Linux Jungle



- The flexibility of Linux is overwhelming
- Extending knowledge requires a plan
- LPI certification objectives
 - Describe the expectation for an exam
 - Point out what matters
 - Set the agenda for books and classes
 - Outcome from community consultation

Creating a Community Certification



- LPI has a large community of alumni, academic partners and experts
- Open certification development process:
 - Relevant exams require input and feedback from the whole Linux community
 - Exam topics are updated every 2.5 years
 - Objectives are based on community consultations and are discussed on a public mailing list
 - Alumni are encouraged to provide feedback to the certification development team
 - Public beta exams for quality assurance

Benefits of (LPI) Certifications



- An (LPI) certification ...
 - encompasses numerous qualifications and skills
 - affirms professional competencies as well as engagement in continuing education
 - represents a common standard in both content and quality
 - provides a great adjunct to a formal education and combined with a degree or diploma...
 - makes the best and most distinguishing credential!

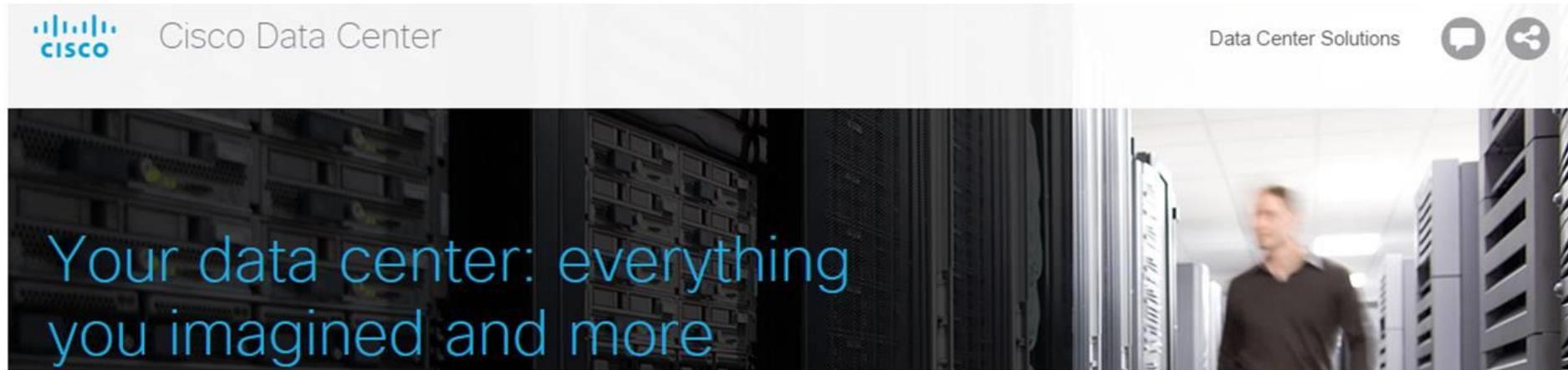
How to get started?

- Get your hands dirty!
 - Install Linux on a VM or a Raspberry Pi
 - NDG Linux Courses with VM
- Start using Linux!
 - Use Linux for as much of your daily work as you can
- Accomplish challenges - NDG Linux courses
 - LPI objectives!
 - Cisco Networking Academy

Where to find help

- Find or create a community
 - Ask your teachers, professors, friends
 - Search for Meetups and Linux User Groups
 - Volunteer to provide services at your school, contribute to an FOSS project
- Get documentation
 - LPI objectives are the foundation for numerous books, websites and training offerings

Cisco TAC Support Engineer: Josh Good



- Supporting Linux customers
 - UCS Servers
 - Nexus Switches
 - Vblock and / or FlexPod
- Linux professional that provide solution support to the client
 - SAP Hana (Database) – Red Hat or Suse Linux O/S

Linux Use

- Authentication – services such as LDAP or Kerberos Authentication
- Administration – SSH
- Automation - puppet/chef/ansible/kickstart
- Monitoring – nagios/zenoss/UCS Performance Manager
- WebAPP – Apache/nginx
- Databases Oracle/SAP
- Hardware – Cisco Nexus Switches/Cisco UCS
- Mobile phones/tablets – Apple IOS /Android OS
- Embedded devices – FireTV/Chromecast

After 100 days of running data centers built on Cisco UCS servers, customers improved IT productivity by 30 to 50% and reduced project execution time by 75%, according to a recent study by Forrester Research. Business moves fast. You can move faster with Cisco UCS.

How To Access

1. Go to <http://netacad.com>



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Cisco Networking Academy is an IT skills and career building program for learning institutions and individuals worldwide.



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How To Access

3. Choose Course

If you are not part of the Cisco Networking Academy, you can only enroll in Linux Essentials.

<h3>NDG Linux Unhatched</h3> <p>Establish basic knowledge that starts to build Linux expertise, a valuable skill needed for in-demand IT careers.</p> <p>■ ■ ■ Beginning</p>	Learn More Self-paced
<h3>NDG Linux Essentials</h3> <p>Learn basic open source concepts and how to use the Linux operating system and command line.</p> <p>■ ■ ■ Beginning LPI Linux Essentials Professional Development</p>	Learn More Instructor-led / Self-paced
<h3>NDG Linux I & II</h3> <p>Learn Linux system administration skills and prepare for LPI LPIC-1 or CompTIA Linux+ powered by LPI certification.</p> <p>■ ■ ■ Intermediate CompTIA Linux+ Powered by LPI</p>	Learn More Instructor-led / Self-paced

How To Access

4. Click **Enroll Now**

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NDG Linux Essentials

Learn the basics of Linux, the world's most popular operating system, and expand your career opportunities in IT.

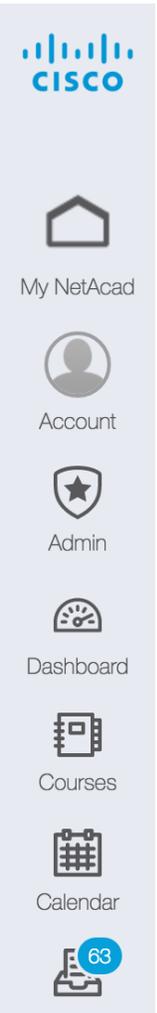
[Enroll Now](#)



How To Access

If you are part of Cisco Networking Academy...

5. Click **Enroll in Course**



Enroll in NDG Linux Essentials - 08/16

You are enrolling in **NDG Linux Essentials - 08/16**

[View Privacy Policy](#)



How To Access

If you are **NOT** part of Cisco Networking Academy...

5. Fill out the **Sign Up Now** box.

■ ■ ■ Beginning Duration: 70 Hours

Self-paced

Course Summary

NDG Linux Essentials is designed for learners who are beginning to build Linux knowledge for a career in IT. This is the self-paced course for students who are new to Cisco Networking Academy.

- Learn basic open source concepts.
- Understand how Linux is used and the basics of the command line.
- Apply skills using Linux virtual machine with step-by-step and hands-on lab activities.
- Build foundational knowledge for progressively mastering Linux commands.
- Connect with the global Cisco Networking Academy community.

Languages: English

After you sign up, check your email for a login to the Networking Academy web site and a link to your course.

Tips for Accessing Networking Academy

- Recommended browsers: Mozilla Firefox, Google Chrome.
- If you don't receive your email, check your spam folder.
- If you still can't find it, add noreply@netacad.com to your safe sender list and resend activation email.
- If you are locked out after too many attempts, try again in 10 to 15 minutes.

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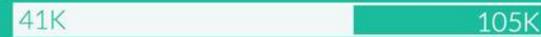

Text Verification *

For more info visit: ndg.tech/linux1



Linux System Administrator

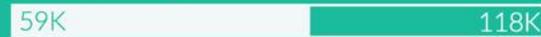
Salary Range: \$41,000 to \$105,000



National Average: \$67,000

Linux System Engineer

Salary Range: \$59,000 to \$118,000

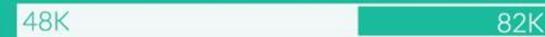


National Average: \$89,018



Network Administrator

Salary Range: \$48,000 to \$82,000



National Average: \$63,584

Network Engineer

Salary Range: \$54,000 to \$108,000



National Average: \$73,165



Support Technician

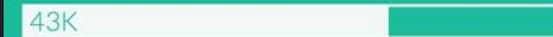
Salary Range: \$23,000 to \$51,000



National Average: \$36,337

Support Engineer

Salary Range: \$43,000 to \$97,000

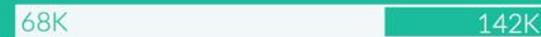


National Average: \$70,000



DevOps Engineer

Salary Range: \$68,000 to \$142,000



National Average: \$100,000

Cloud Engineer/Developer

Salary Range: \$50,000 to \$120,000



National Average: \$95,000



Software Engineer

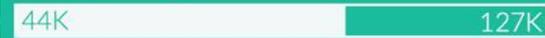
Salary Range: \$67,000 to \$132,000



National Average: \$95,195

Software Developer

Salary Range: \$44,000 to \$127,000



National Average: \$85,000



IT Manager

Salary Range: \$41,000 to \$131,000



National Average: \$70,628

IT Technician

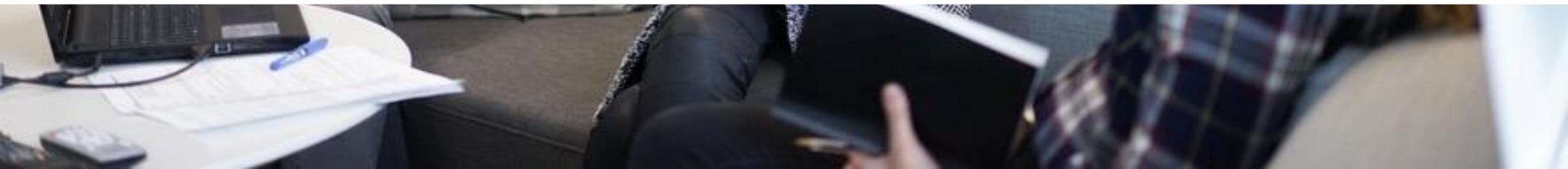
Salary Range: \$23,000 to \$57,000



National Average: \$35,839



Q&A: Linux is a core skill for all IT professionals.



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NEXT SESSION:

Linux in the Industry

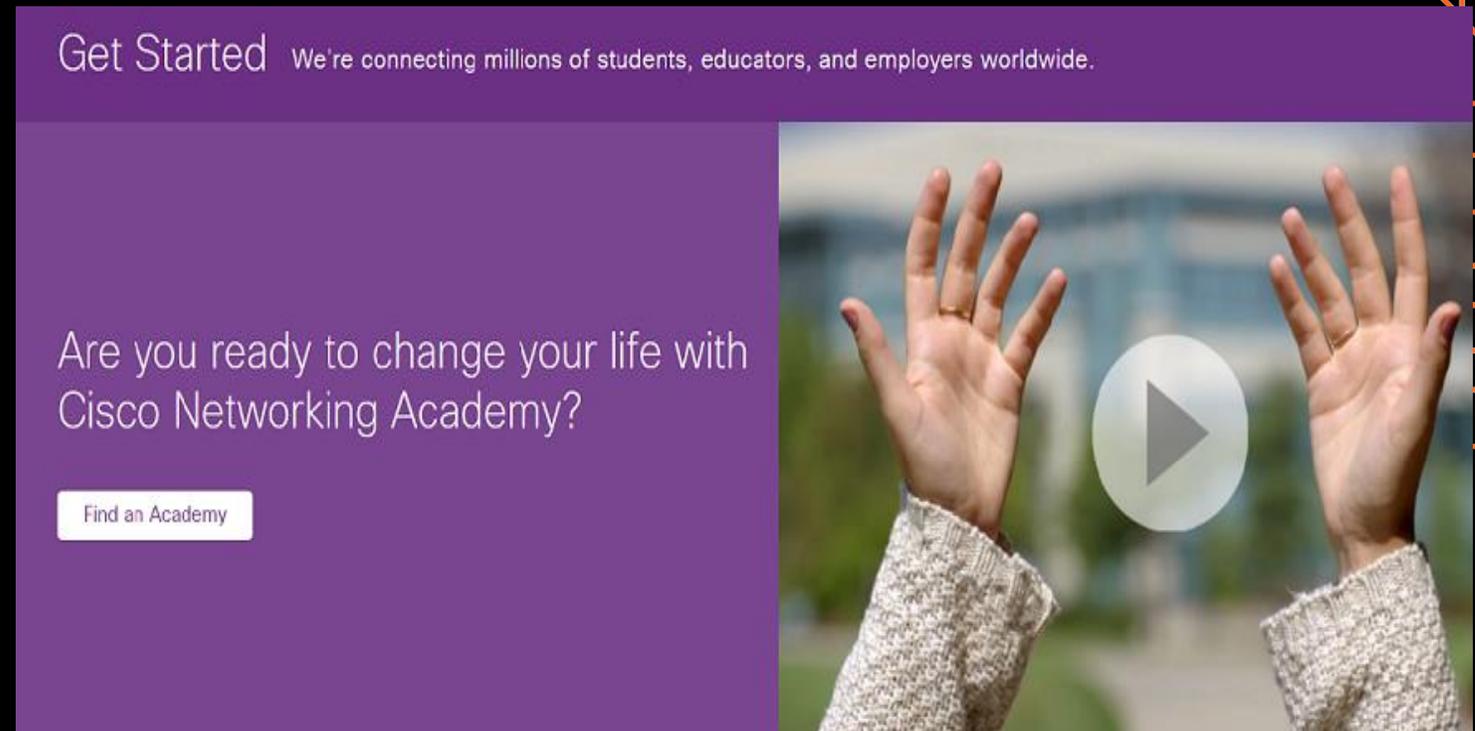


16 November, 2016 – 8:00 A.M. PST

Register at: bit.ly/LinuxWeb

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