Getting Started with Linux

LINUX AND THE OPEN SOURCE COMMUNITY

David Clinton
LINUX SYSTEM ADMINISTRATOR

bootstrap-it.com/linux-start | @davidbclinton | linkedin.com/in/dbclinton

Linux at Work

**Enterprise Servers
(VMware...)**

Linux at Work

Enterprise Servers (VMware...)

Cloud (AWS, Azure...)

Linux at Work

Enterprise Servers (VMware...)

Cloud (AWS, Azure...)

Mobile (Android)

Linux at Work

Enterprise Servers (VMware...)

Cloud (AWS, Azure...)

Mobile (Android)

DevOps (Continuous Integration/Continuous Deployment)

Linux at Work

Module Overview

Module Overview

What is Linux?

Module Overview

What is Linux?

How does open source work?

Module Overview

What is Linux?

How does open source work?

Which Linux distro is for you?

Course Overview

Course Overview

Linux installation

Course Overview

Linux installation

Configure the Linux boot process

Course Overview

Linux installation

Configure the Linux boot process

Configure the Linux environment

Course Overview

Linux installation

Configure the Linux boot process

Configure the Linux environment

Administrating Linux desktops

Course Overview

Linux installation

Configure the Linux boot process

Configure the Linux environment

Administrating Linux desktops

Linux servers

Introducing Open Source Software

Open Source Licensing Models

Open Source Licensing Models

Free Software Foundation (FSF)

Open Source Licensing Models

Free Software Foundation (FSF)

•

Open Source Initiative (OSI)

Open Source Licensing Models

Free Software Foundation (FSF)

•

Open Source Initiative (OSI)

Creative Commons

Open Source Licensing Models

Free Software Foundation (FSF)

- **GPL (Linux kernel)**

Open Source Initiative (OSI)

Creative Commons

Sample BSD license

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

Free Software

FOSS: **Free and Open Source Software**

FLOSS: **Free/Libre and Open Source Software**

Creative Commons Licenses

Creative Commons Licenses

Attribution
Share-alike

Creative Commons Licenses

Attribution
Share-alike
Non-commercial
No Derivative
Works

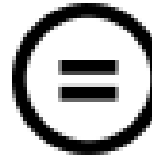# Creative Commons Licenses

Attribution
Share-alike
Non-commercial
No Derivative
Works
Public Domain

Creative Commons Licenses

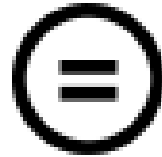Attribution
Share-alike
Non-commercial
No Derivative
Works
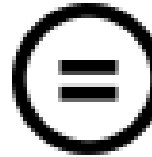Public Domain

Creative Commons Licenses

Attribution
Share-alike
Non-commercial
No Derivative
Works
Public Domain

PUBLIC DOMAIN

The Linux Operating System

The Linux Ecosystem

Linus Torvalds
Linux
Third-party customizations

User I/O operations Interpreted by the OS

Operating System

Storage Device

System access

Motherboard | CPU | Memory | Networking
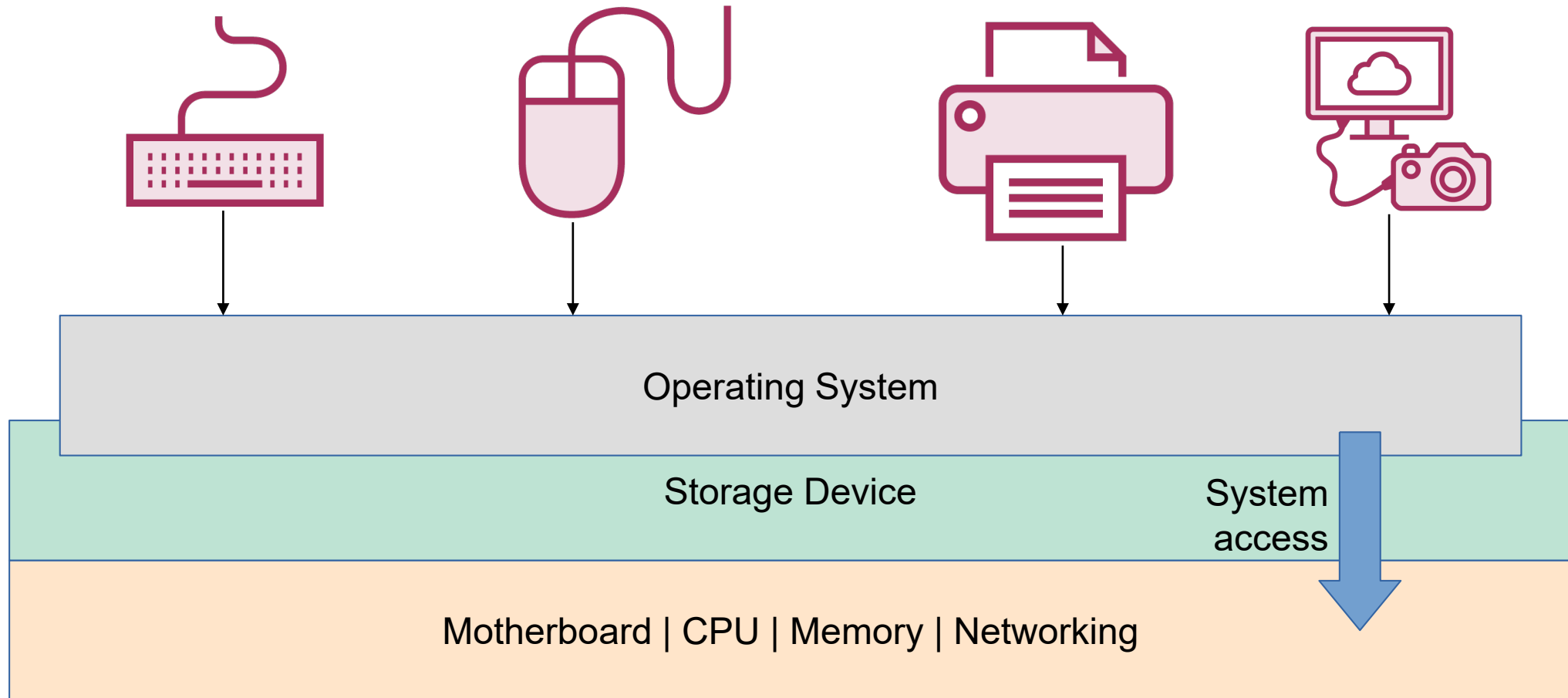
The Linux Kernel Is Free

The Linux Kernel Is Free

Customization

Don't like the way it came? Rebuild Linux to taste

The Linux Kernel Is Free

Customization

Don't like the way it came? Rebuild Linux to taste

Flexibility

Move drives between machines; duplicate and share images

The Linux Kernel Is Free

Customization

Don't like the way it came? Rebuild Linux to taste

Flexibility

Move drives between machines; duplicate and share images

Virtualization

You can freely explore, experiment, and test configurations

The Layers of a Linux Distribution

The Layers of a Linux Distribution

The Linux kernel handles system hardware resources on behalf of the OS user

The Layers of a Linux Distribution

The Linux kernel handles system hardware resources on behalf of the OS user

A Linux desktop is a software designed to manage graphic interface features like windows, menus, and application controls

The Layers of a Linux Distribution

The Linux kernel handles system hardware resources on behalf of the OS user

A Linux desktop is a software designed to manage graphic interface features like windows, menus, and application controls

A Linux distribution will use a specific suite of system tools (like software package managers and process managers)

Linux Distributions

Linux Distributions

(all-round)

Mint

Linux Distributions

Android

(all-round)

Mint

Linux Distributions

Android

(mobile devices)

Red Hat Enterprise Linux

(all-round)

Mint

Linux Distributions

Android

       (mobile devices)

Red Hat Enterprise Linux

       CentOS

SUSE

       OpenSUSE

(all-round)

Mint

Linux Distributions

Android

(mobile devices)

Red Hat Enterprise Linux

CentOS

SUSE

OpenSUSE

Scientific Linux   (science and

(all-round)

Mint

Linux Distributions

Android

(mobile devices)

Red Hat Enterprise Linux

CentOS

SUSE

OpenSUSE

Scientific Linux   (science and math)

(all-round)

Mint

Linux Distributions

Android

(mobile devices)

Red Hat Enterprise Linux

CentOS

SUSE

OpenSUSE

Scientific Linux   (science and math)

Kali Linux

(all-round)

Mint

Linux Distributions

Android (mobile devices)

Red Hat Enterprise Linux

CentOS

SUSE

OpenSUSE

Scientific Linux (science and math)

Kali Linux (security)

Raspbian (mini architectures)

Ubuntu (all-round)

Mint

Distribution Families

Distribution Families

Debian

Ubuntu, Mint, and Kali Linux

Distribution Families

Debian

Ubuntu, Mint, and Kali Linux

Red Hat Enterprise Linux

CentOS and Fedora

Distribution Families

Debian

Ubuntu, Mint, and Kali Linux

Red Hat Enterprise Linux

CentOS and Fedora

SUSE

OpenSUSE

Distribution Families

Debian

Ubuntu, Mint, and Kali Linux

Red Hat Enterprise Linux

CentOS and Fedora

SUSE

OpenSUSE

Arch Linux

LinHES and Manjaro

Module Review

Module Review

License models:

Module Review

License models:

- GPL, Creative Commons, MIT, Apache, BSD

Module Review

License models:

- GPL, Creative Commons, MIT, Apache, BSD

Linux distributions

Module Review

License models:

– **GPL, Creative Commons, MIT, Apache, BSD**

Linux distributions

Linux desktops

Module Review

License models:

- GPL, Creative Commons, MIT, Apache, BSD

Linux distributions

Linux desktops

Software package managers