

Administración de Sistemas Operativos

INSTITUTO POLITÉCNICO NACIONAL
LA TÉCNICA AL SERVICIO DE LA PATRIA

[illegible]

Agenda

1. Instalación del Sistema Operativo Linux
2. Identificación de los principales elementos:
 - ❖ Kernel
 - ❖ Bibliotecas
 - ❖ Aplicaciones
 - ❖ Archivos de usuario / datos
 - ❖ Bitácoras y registros
3. Procesos y aplicaciones
4. Gestión de usuarios



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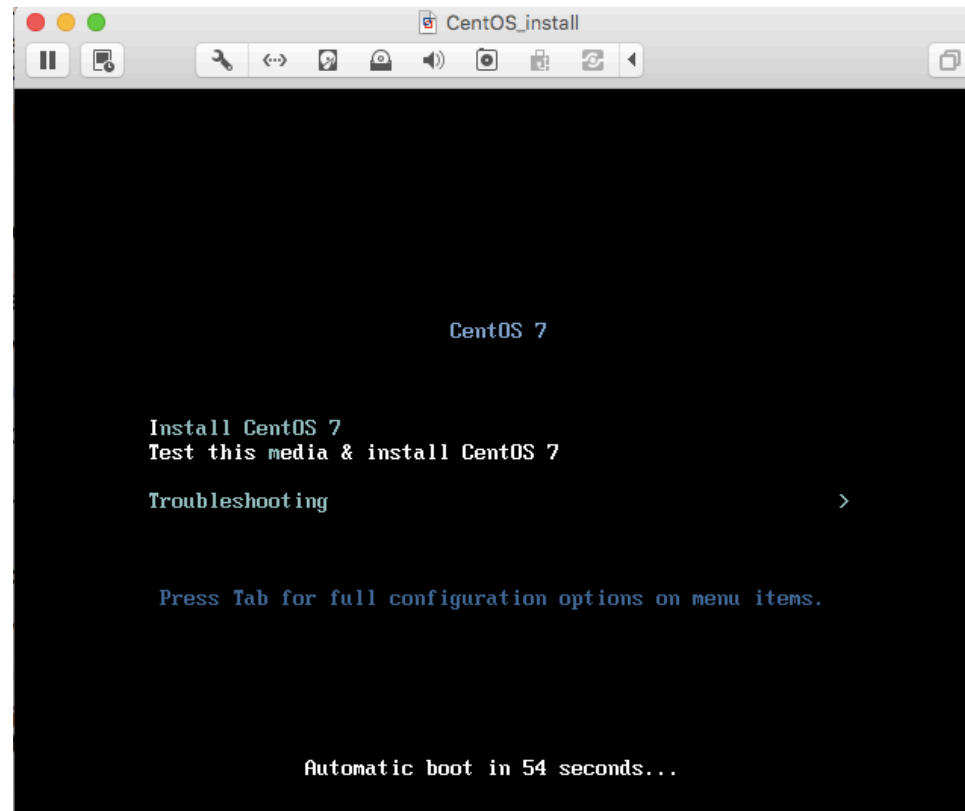
Instalación del Sistema Operativo Linux



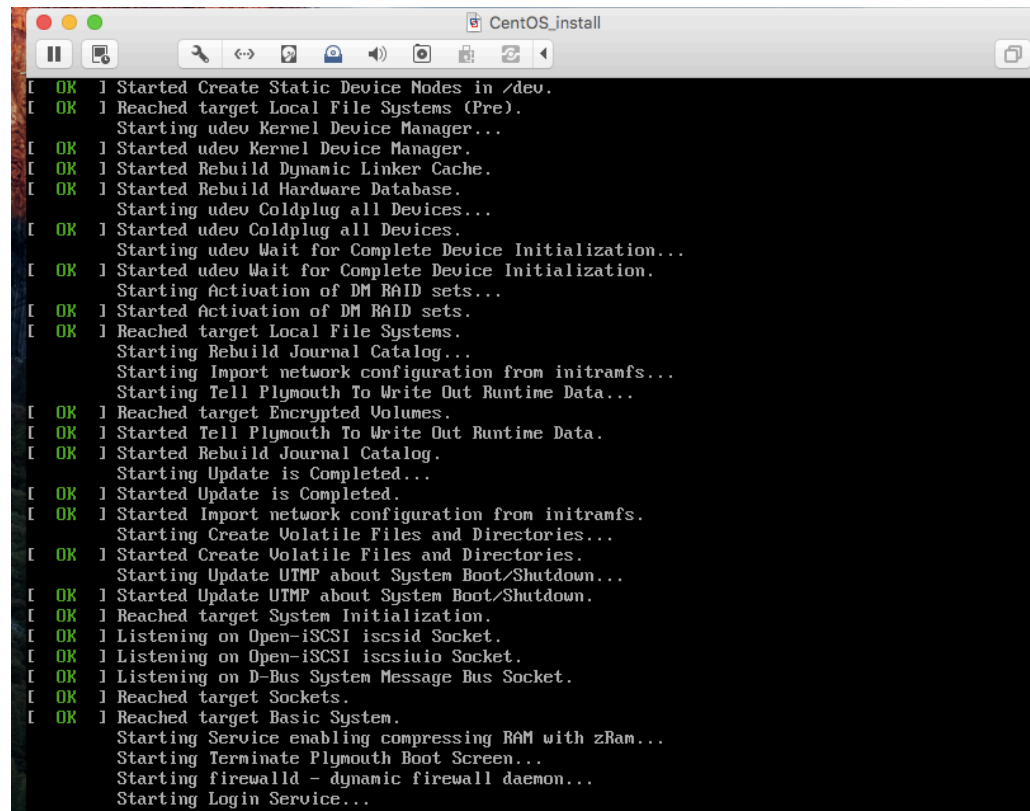
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Proceso de Instalación



Proceso de Instalación

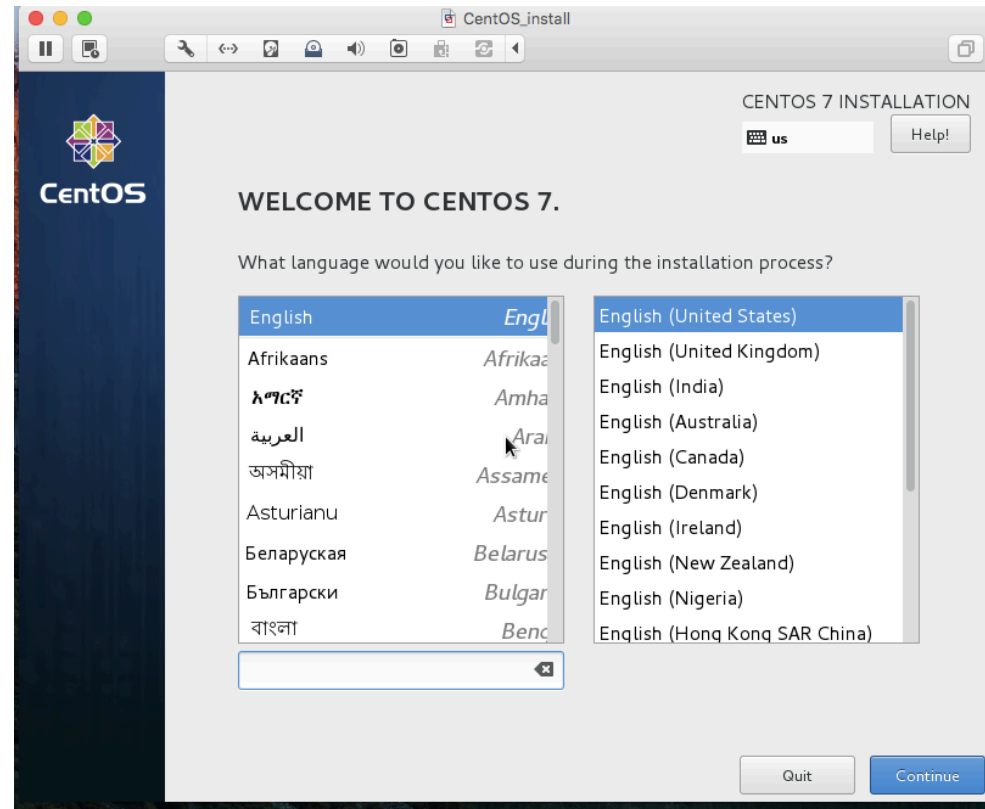


A terminal window titled 'CentOS_install' showing the progress of a CentOS installation. The window has a standard Linux desktop environment with window controls and a toolbar. The text in the terminal is as follows:

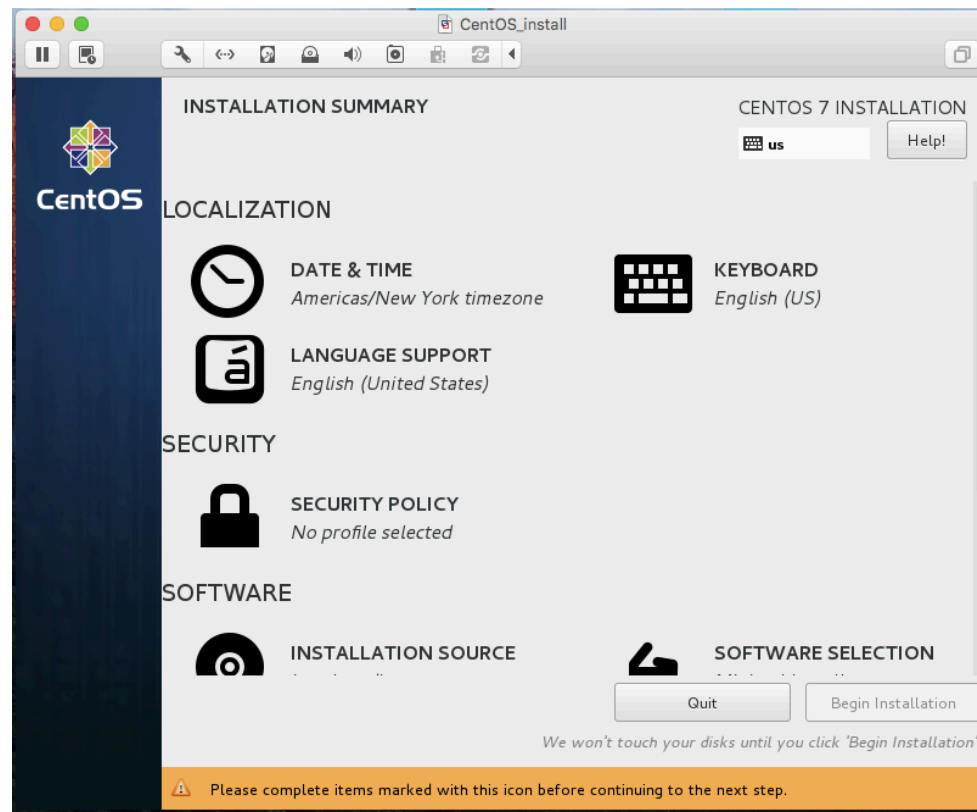
```
[ OK ] Started Create Static Device Nodes in /dev.
[ OK ] Reached target Local File Systems (Pre).
       Starting udev Kernel Device Manager...
[ OK ] Started udev Kernel Device Manager.
[ OK ] Started Rebuild Dynamic Linker Cache.
[ OK ] Started Rebuild Hardware Database.
       Starting udev Coldplug all Devices...
[ OK ] Started udev Coldplug all Devices.
       Starting udev Wait for Complete Device Initialization...
[ OK ] Started udev Wait for Complete Device Initialization.
       Starting Activation of DM RAID sets...
[ OK ] Started Activation of DM RAID sets.
[ OK ] Reached target Local File Systems.
       Starting Rebuild Journal Catalog...
       Starting Import network configuration from initramfs...
       Starting Tell Plymouth To Write Out Runtime Data...
[ OK ] Reached target Encrypted Volumes.
[ OK ] Started Tell Plymouth To Write Out Runtime Data.
[ OK ] Started Rebuild Journal Catalog.
       Starting Update is Completed...
[ OK ] Started Update is Completed.
[ OK ] Started Import network configuration from initramfs.
       Starting Create Volatile Files and Directories...
[ OK ] Started Create Volatile Files and Directories.
       Starting Update UTMP about System Boot/Shutdown...
[ OK ] Started Update UTMP about System Boot/Shutdown.
[ OK ] Reached target System Initialization.
[ OK ] Listening on Open-iSCSI iscsid Socket.
[ OK ] Listening on Open-iSCSI iscsiui Socket.
[ OK ] Listening on D-Bus System Message Bus Socket.
[ OK ] Reached target Sockets.
[ OK ] Reached target Basic System.
       Starting Service enabling compressing RAM with zRam...
       Starting Terminate Plymouth Boot Screen...
       Starting firewalld - dynamic firewall daemon...
       Starting Login Service...
```



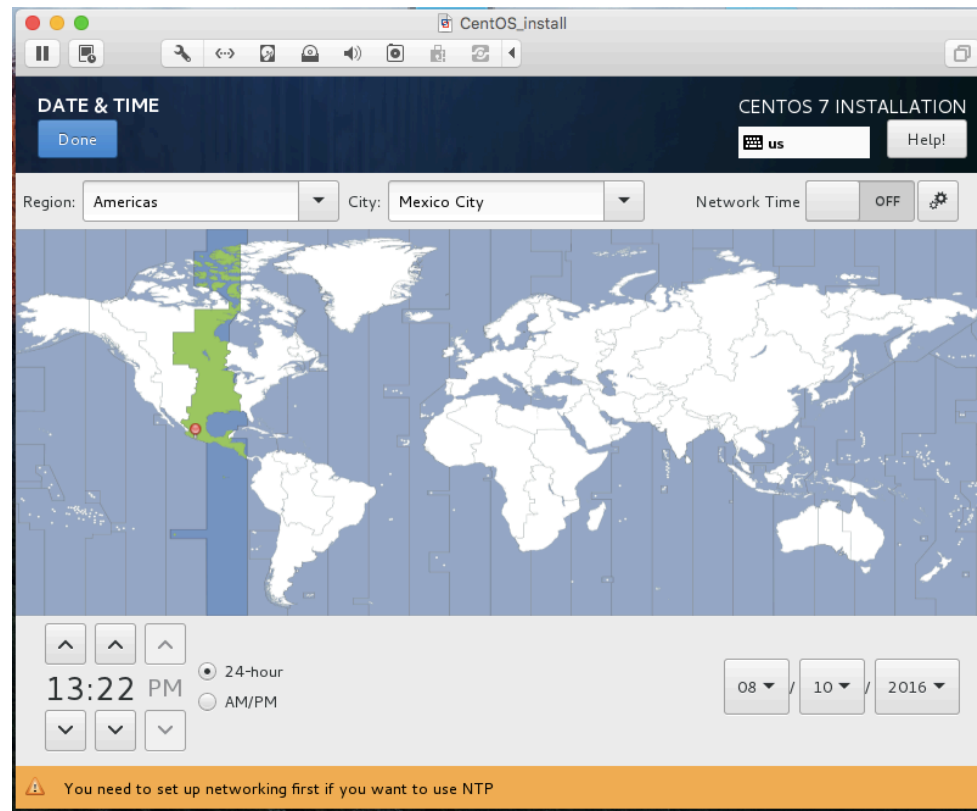
Proceso de Instalación



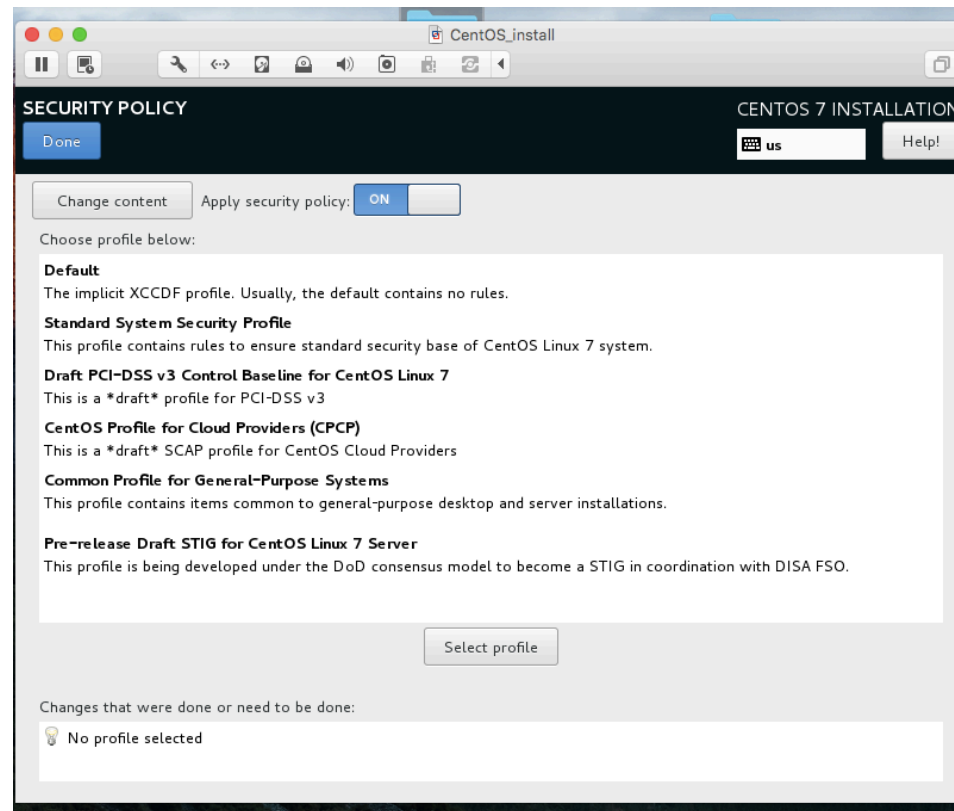
Proceso de Instalación



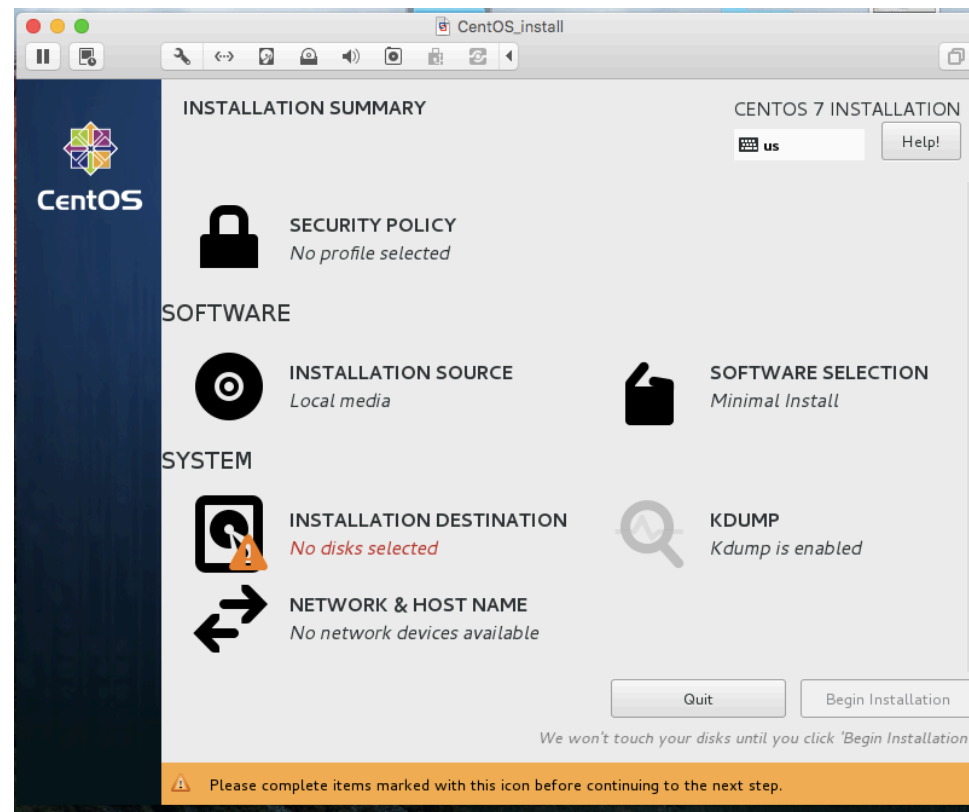
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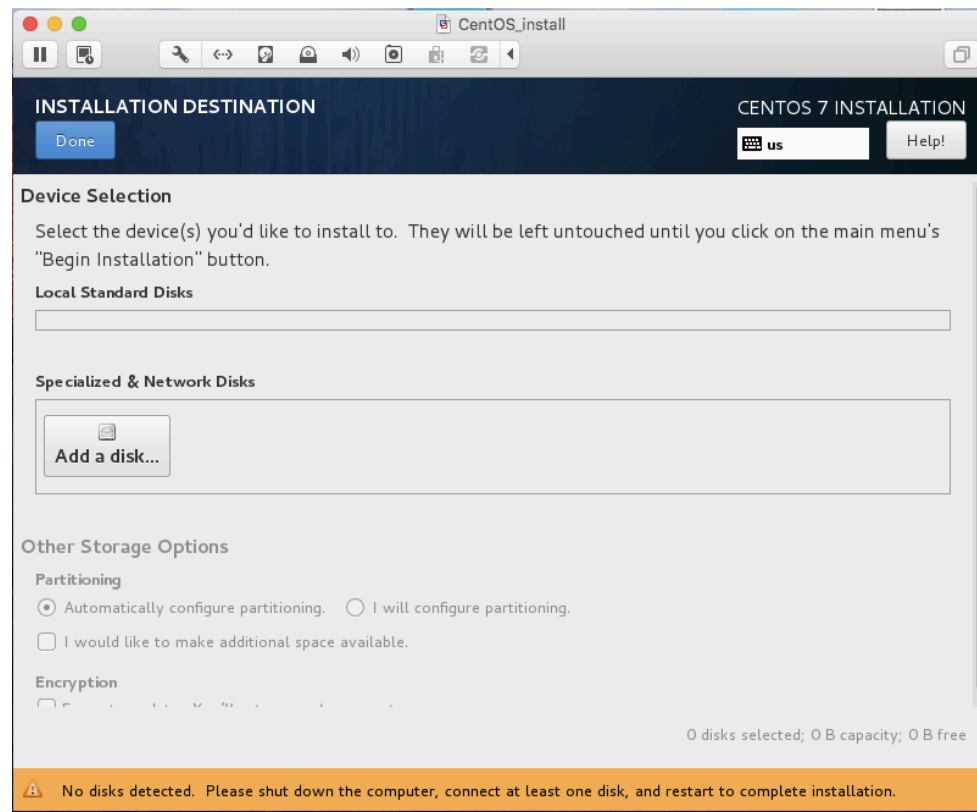
Proceso de Instalación



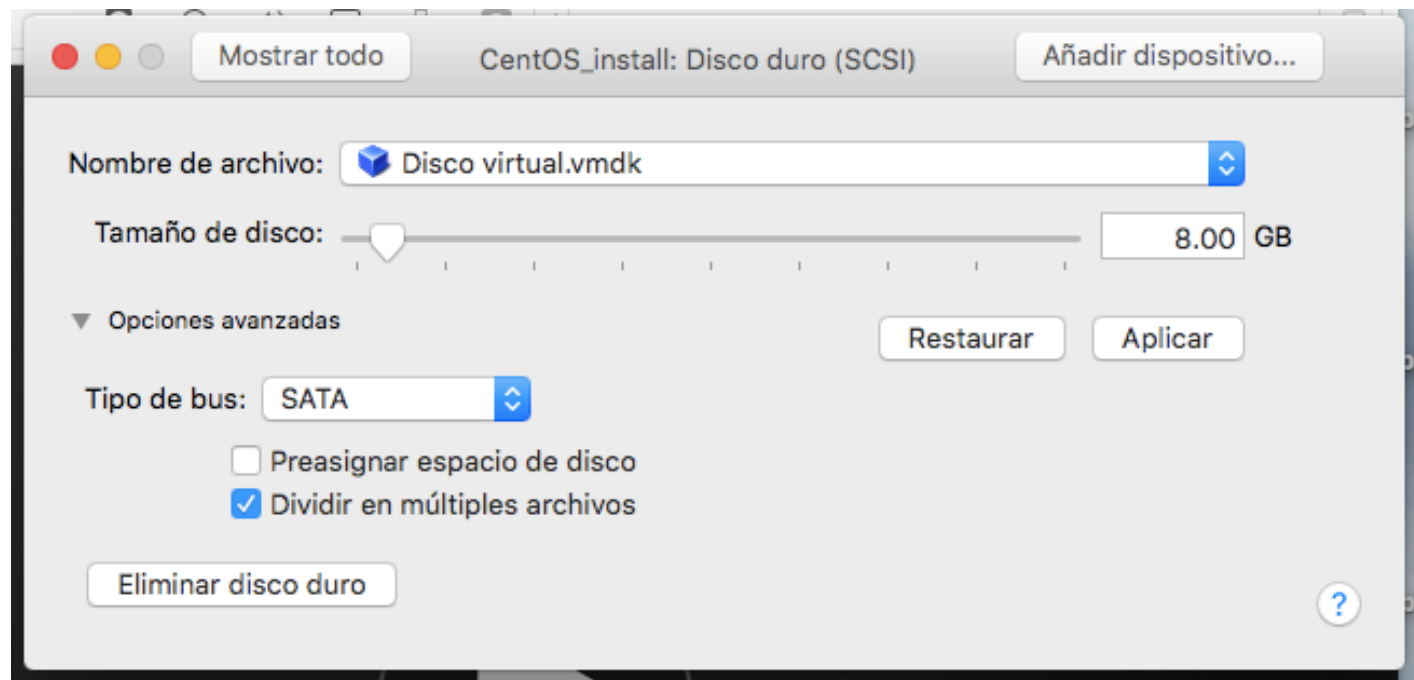
Proceso de Instalación



Proceso de Instalación



Proceso de Instalación



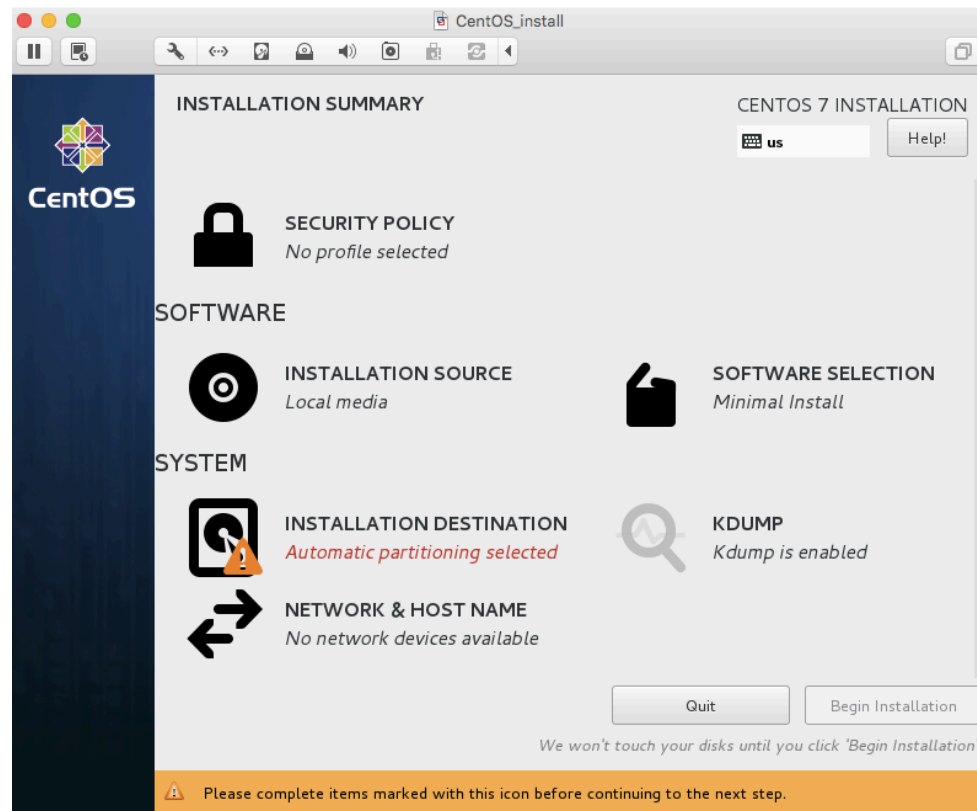
Proceso de Instalación



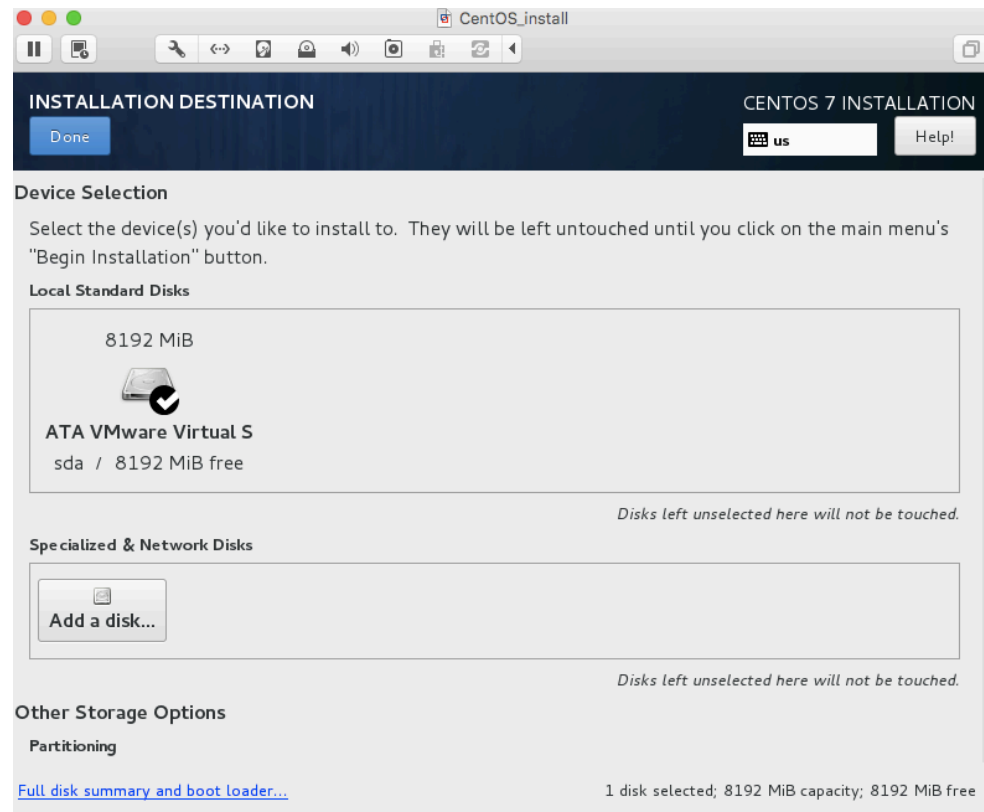
Proceso de Instalación



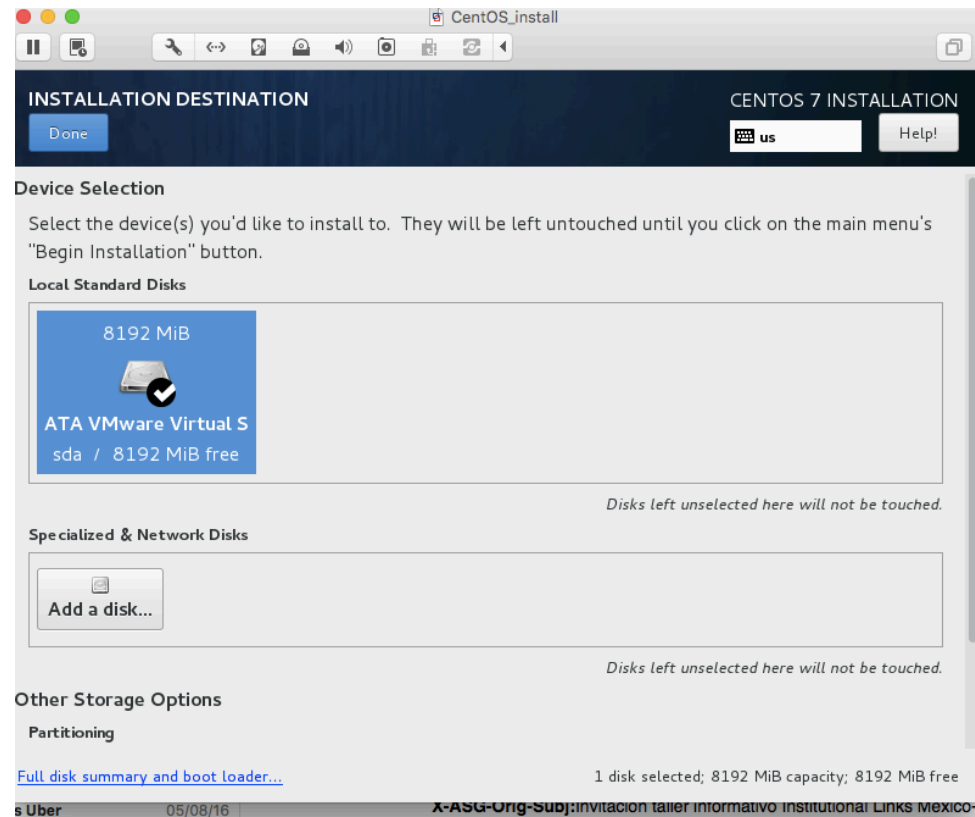
Proceso de Instalación



Proceso de Instalación



Proceso de Instalación



Proceso de Instalación

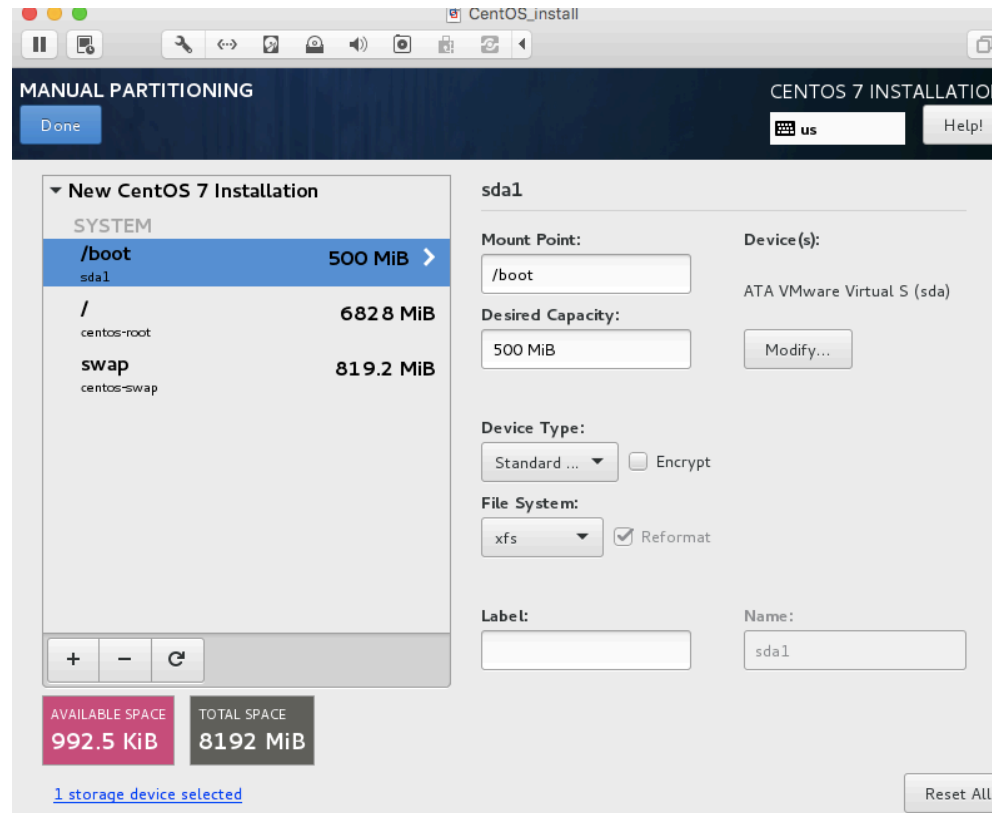
Other Storage Options

Partitioning

- ☐ Automatically configure partitioning. ☒ I will configure partitioning.
- ☐ I would like to make additional space available.



Proceso de Instalación



The screenshot shows the 'MANUAL PARTITIONING' window of the CentOS 7 installer. The window title is 'CentOS_install'. The main heading is 'MANUAL PARTITIONING' with a 'Done' button. The sub-heading is 'CENTOS 7 INSTALLATION' with a language dropdown set to 'us' and a 'Help!' button.

Under 'New CentOS 7 Installation', there is a 'SYSTEM' table:

SYSTEM	Size
/boot sda1	500 MiB
/ centos-root	6828 MiB
swap centos-swap	819.2 MiB

Below the table are buttons for '+', '-', and a refresh icon. At the bottom left, it shows 'AVAILABLE SPACE 992.5 KiB' and 'TOTAL SPACE 8192 MiB'. A link says '1 storage device selected'.

On the right, the 'sda1' partition details are shown:

- Mount Point: /boot
- Device(s): ATA VMware Virtual S (sda)
- Desired Capacity: 500 MiB (with a 'Modify...' button)
- Device Type: Standard ... (with an 'Encrypt' checkbox)
- File System: xfs (with a 'Reformat' checkbox)
- Label: (empty field)
- Name: sda1

A 'Reset All' button is at the bottom right.



Proceso de Instalación

▼ New CentOS 7 Installation

SYSTEM	
/boot sda1	500 MiB >
/ centos-root	6828 MiB
swap centos-swap	819.2 MiB

sda1

Mount Point:
/boot

Device(s):
ATA VMware Virtual S (sda)

Desired Capacity:
500 MiB

Device Type:
Standard ... ☐ Encrypt

File System:
xfs ☒ Reformat

Modify...



Proceso de Instalación

▼ New CentOS 7 Installation

SYSTEM	
/boot sda1	500 MiB
/ centos-root	6828 MiB >
swap centos-swap	819.2 MiB

centos-root

Mount Point: /

Device(s): ATA VMware Virtual S (sda)

Desired Capacity: 6828 MiB

Modify...

Device Type: LVM

☐ Encrypt

Volume Group: centos (40 MiB free)

File System: xfs

☒ Reformat

Modify...



Proceso de Instalación

▼ New CentOS 7 Installation

SYSTEM

/boot	500 MiB
sda1	
/	6828 MiB
centos-root	
swap	819.2 MiB >
centos-swap	

centos-swap

Mount Point:

Device(s):

ATA VMware Virtual S (sda)

Desired Capacity:

819.2 MiB

Modify...

Device Type:

LVM ▼

☐ Encrypt

File System:

swap ▼

☒ Reformat

Volume Group

centos (40 MiB free) ▼

Modify...



Proceso de Instalación

New CentOS 7 Installation centos-swap

SUMMARY OF CHANGES

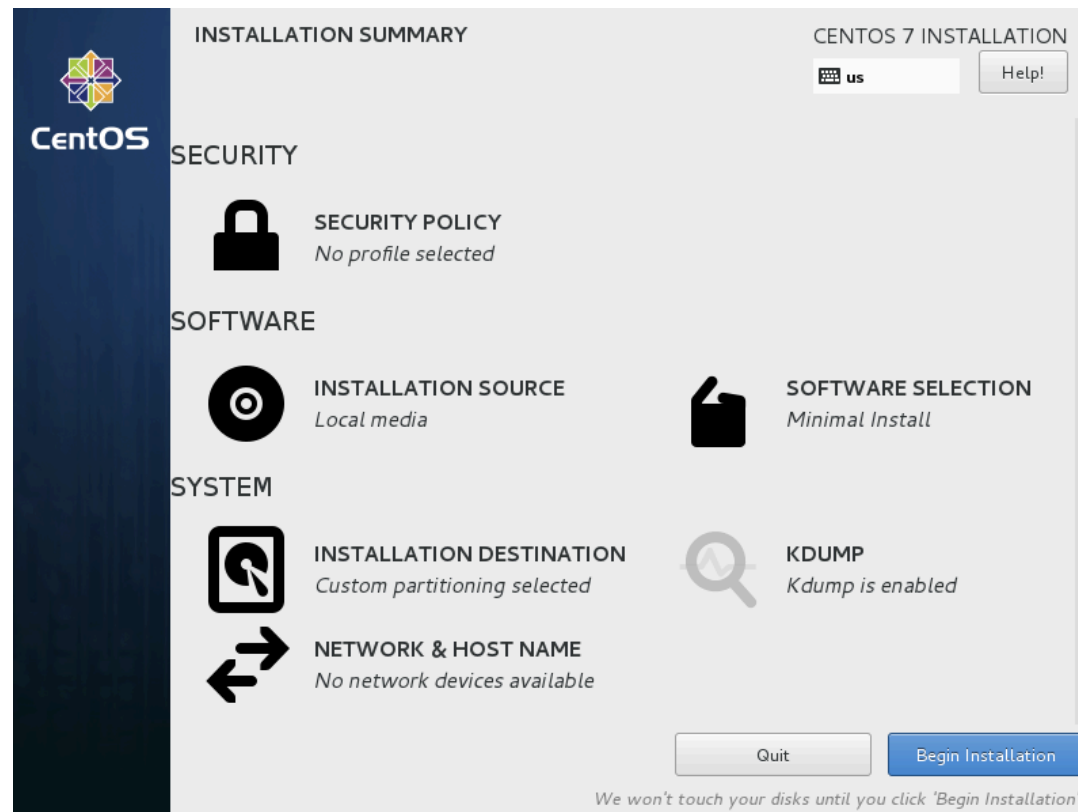
Your customizations will result in the following changes taking effect after you return to the main menu and begin installation:

Order	Action	Type	Device Name	Mount point
1	Destroy Format	Unknown	sda	
2	Create Format	partition table (MSDOS)	sda	
3	Create Device	partition	sda1	
4	Create Format	xfs	sda1	/boot
5	Create Device	partition	sda2	
6	Create Format	physical volume (LVM)	sda2	
7	Create Device	lvmvg	centos	
8	Create Device	lvmlv	centos-swap	
9	Create Format	swap	centos-swap	
10	Create Device	lvmlv	centos-root	
11	Create Format	xfs	centos-root	/

Cancel & Return to Custom Partitioning Accept Changes



Proceso de Instalación



Proceso de Instalación

ROOT PASSWORD CENTOS 7 INSTALLATION


[Done](#) us [Help!](#)

The root account is used for administering the system. Enter a password for the root user.

Root Password:

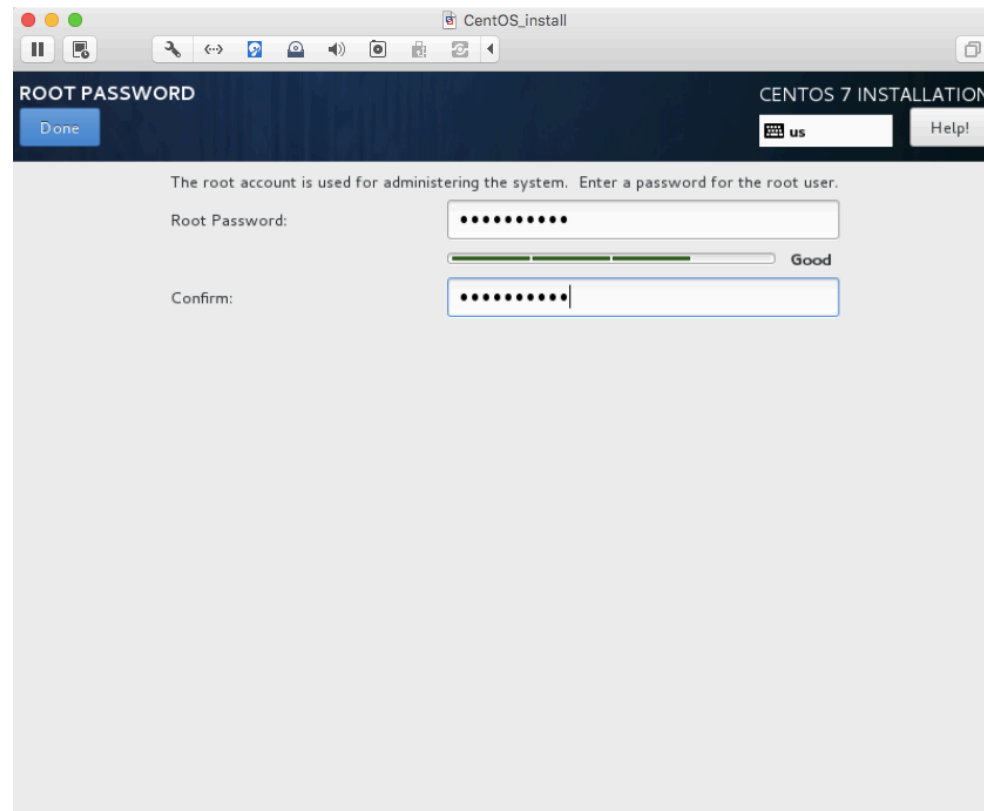
Weak

Confirm:

 The password you have provided is weak: The password is shorter than 5 characters. You will have to press Done twice to confirm it.



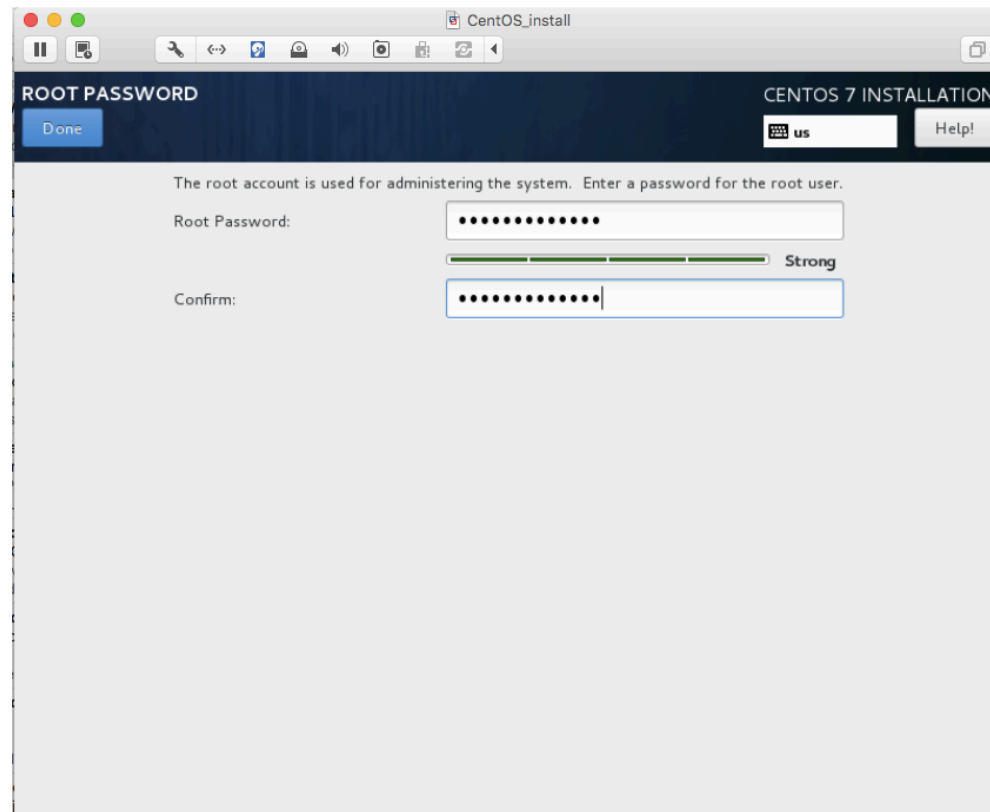
Proceso de Instalación



The image shows a screenshot of the CentOS 7 installation window. The window title is "CentOS_install". The main heading is "ROOT PASSWORD". In the top right corner, it says "CENTOS 7 INSTALLATION" with a language dropdown set to "us" and a "Help!" button. A "Done" button is in the top left. The text below the heading reads: "The root account is used for administering the system. Enter a password for the root user." There are two input fields: "Root Password:" and "Confirm:". The "Root Password:" field contains ten dots and has a strength indicator below it showing a green bar and the word "Good". The "Confirm:" field also contains ten dots.



Proceso de Instalación



The image shows a screenshot of the CentOS 7 installation window titled "CentOS_install". The window has a dark blue header with the text "ROOT PASSWORD" on the left and "CENTOS 7 INSTALLATION" on the right. Below the header, there is a "Done" button on the left and a "Help!" button on the right. The main content area is light gray and contains the following text: "The root account is used for administering the system. Enter a password for the root user." Below this text, there are two input fields. The first field is labeled "Root Password:" and contains a series of dots. Below the first field is a green progress bar with the word "Strong" next to it. The second field is labeled "Confirm:" and also contains a series of dots. The window has a standard Linux desktop environment with a taskbar at the top showing various icons.



Proceso de Instalación

CentOS_install

CREATE USER

Done

CENTOS 7 INSTALLATION

us Help!

Full name user1

User name user1

Tip: Keep your user name shorter than 32 characters and do not use spaces.

☐ Make this user administrator

☒ Require a password to use this account

Password

Empty

Confirm password

Advanced...

The password is empty.



Proceso de Instalación

CentOS_install

CREATE USER Done CENTOS 7 INSTALLATION us Help!

Full name

User name

Tip: Keep your user name shorter than 32 characters and do not use spaces.

☐ Make this user administrator

☒ Require a password to use this account

Password Strong

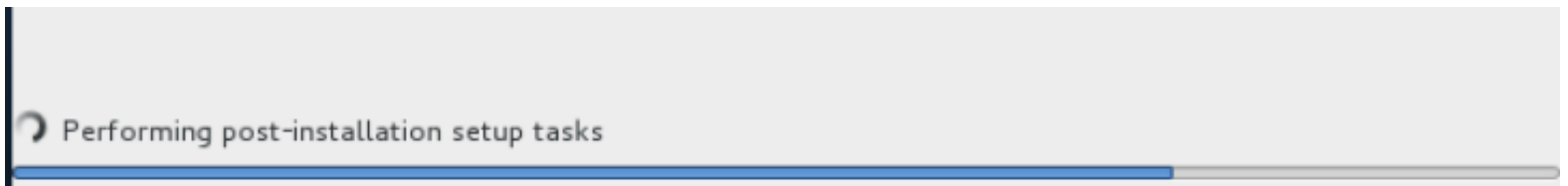
Confirm password

Advanced...

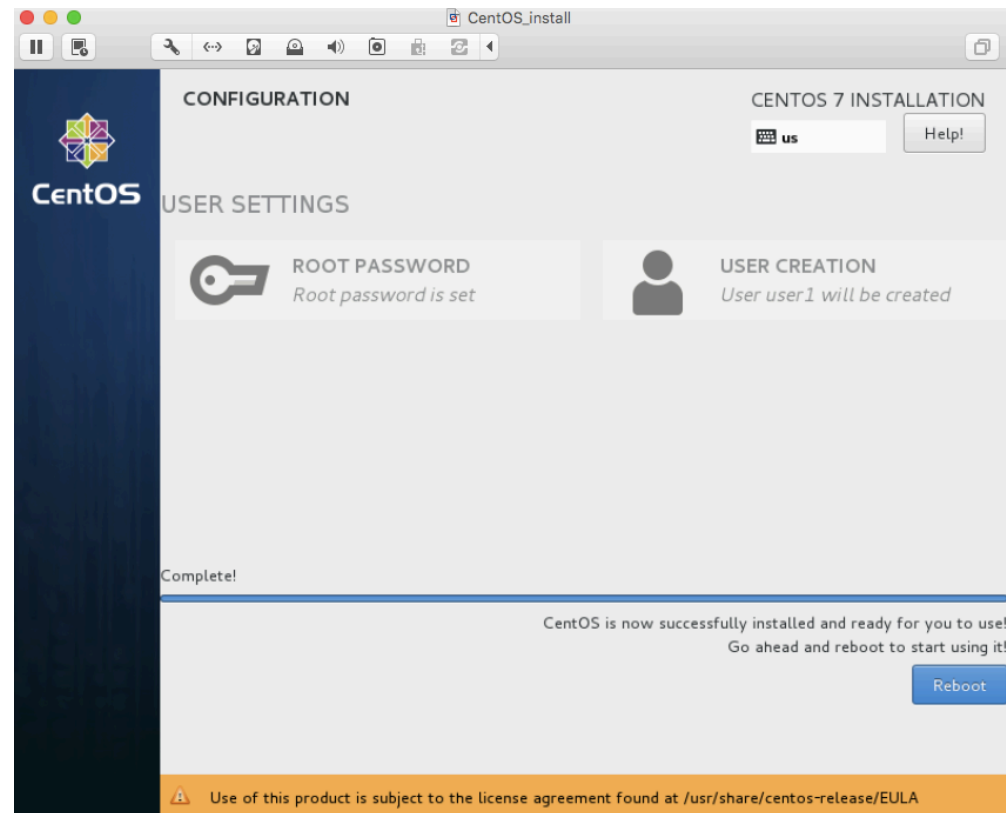
The passwords do not match.



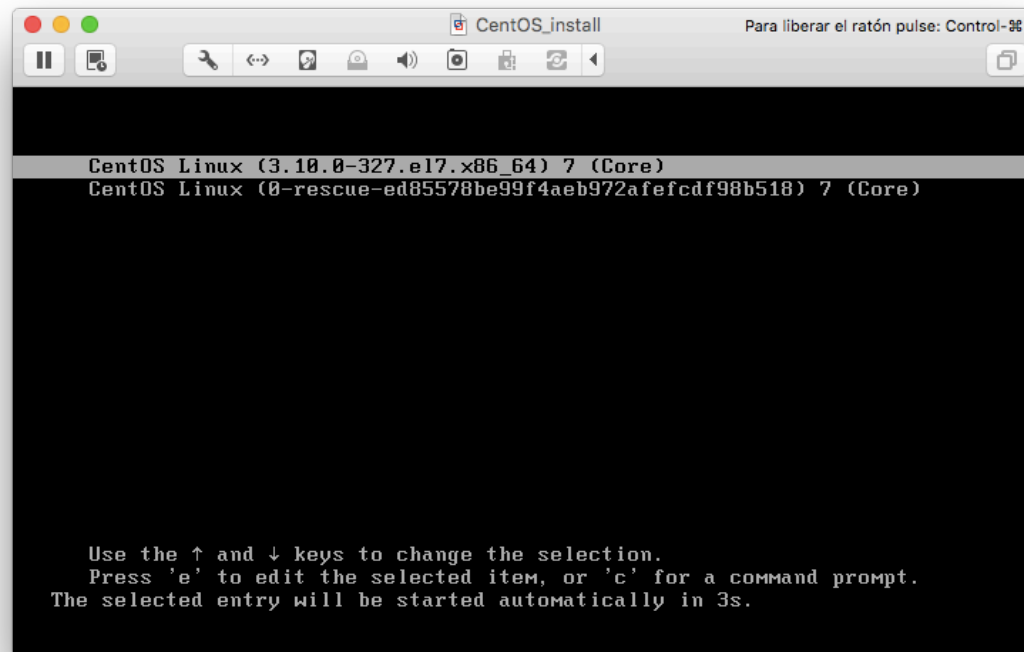
Proceso de Instalación



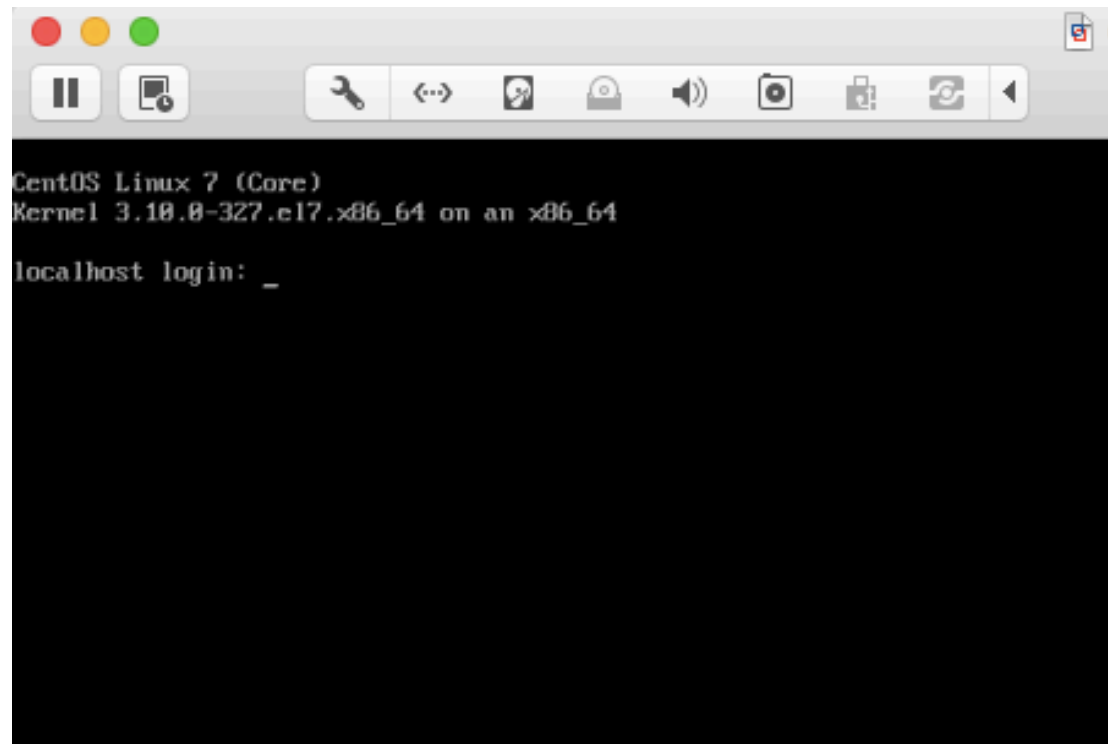
Proceso de Instalación



Proceso de Instalación



Proceso de Instalación



A terminal window with a macOS-style title bar (red, yellow, green buttons) and a toolbar with icons for pause, copy, paste, search, and other functions. The terminal text reads:

```
CentOS Linux 7 (Core)  
Kernel 3.10.0-327.el7.x86_64 on an x86_64  
  
localhost login: _
```



Proceso de Instalación

