# Servicios de Red e Internet

# Practica 01

# Índice:

1. Configuración máquina Debian4
Configuración archivo /etc/network/interfaces4
Configuración archivo /etc/resolv.conf4
Configuración del archivo /etc/hostname5
Configuración del archivo /etc/hosts5
Reiniciando el servicio de red6
Comprobación de que los cambios se han realizado
2. Configuración máquina Ubuntu
Configuración del entorno de red IPv47
Configuración del archivo /etc/hostname7
Configuración del archivo /etc/hosts8
Comprobación de que los cambios se han realizado8
3. Configuración máguina Windows 79
Configuración del entorno de red IPv49
Cambio del nombre de equipo y grupo de trabajo9
4. Configuración máguina Windows 2008 Server
Configuración del entorno de red IPv410
Cambio del nombre de equipo y grupo de trabajo10
5. Comprobación de la conectividad
Ping a la propia dirección debian07
Ping a la dirección de ubuntu0711
Ping a la dirección de Windows 7
Ping a la dirección de Windows 2008 Server
6. Configuración máguina IPCOP
Instalación IPCon
Selección del idioma
Seleccionar el medio de instalación
Ignorar la opción restablecer
Seleccionar la tarjeta de red para GREEN14
Configurar red para GREEN
Seleccionar teclado14
Seleccionar zona horaria
Configurar nombre del ordenador15
seccionar el nombre del dominio15
Inhabilitar RDSI
Tipo de configuración de red16
Selección de la tarjeta de red para RED16
Configuración de red de RED por DHCP17
Configuración de DNS17
Después de la instalación y de hacer login con la cuenta de root17
Haciendo PING desde la máquina con Debian hacia la máquina con IPCop18
Haciendo PING hacia www.google.es18
Accediendo a la interfaz web de IPCop desde la máquina Debian apuntando con
el navegador web a la dirección https://10.33.7.1:44519
Denegando el acceso a la interfaz web de IPCop desde la máquina ANFITRIÓN
apuntando con el navegador web a la dirección https://10.33.7.1:44519
Intento de conexión por telnet a la IP de la red interna del equipo con
IPCop:
Intento de conexión por telnet a la IP de la red externa del equipo con
IPCop, que le ha concedido el servidor DHCP externo:20
Intento de conexión por ssh a la IP de la red interna del equipo con IPCop:

21
Intento de conexión por ssh a la IP de la red externa del equipo con IPCop,
que le ha concedido el servidor DHCP externo:
7. Configuración de encaminador de red local virtual con Debian, 22
Ponerla al nombre de maguine debienrouter07
ronerie el nombre de maquina debiantoucero/
configuración de las dos interfaces de red
configuración del fichero /etc/nosts23
comprobacion de la configuracion de las interfaces de red
ejecutar echo 1 > /proc/sys/net/ipv4/ip_forward24
editando /etc/sysctl.conf24
ejecutando iptables -t nat -A POSTROUTING -o eth1 -j MASQUERADE25
creando el script de inicio rc.route25
Damos permisos de ejecución al script rc.route26
haciendo que rc.route arranque al inicio26
Comprobando la conexión a la red externa desde otra máquina que tiene como
router la debianrouter07 : ping www.google.es27
8. Configuración de encaminador de red local virtual con Windows
2008 Server
Ponerle el nombre de maguina w2008router07
Configuración estática interfaz de red interna
Configuración dinámica para la interfaz de red externa (la que nos dará
configuración dinamica para la internaz de rea externa (la que nos dara
Instalagión de la función Corruigio de Ageogo y Directivas de redes
Instalación de la función Servició de Acceso y Difectivas de fedes
Configurar el Servicio de Acceso y direccionamiento
inicio el asistente de configuración para la instalación del Servidor de
enrutamiento y acceso remoto
Seleccion de la opcion de Traduccion de direcciones NAT
Seleccionar la interfaz de red que darà salida fuera de la red interna32
Comprobación desde una máquina con Debian que funciona:
Haciendo ping desde la máquina con Debian al router (w2008router07)32
Haciendo ping desde la máquina con Debian a una dirección de Internet33
(www.google.es)
Navegando desde la máquina con Debian33
9. Visualización de NAT con Wireshark en Windows 2008 Server34
Seleccionando en una de las instancias de Wireshark la interfaz de red
interna
Seleccionando en otra de las instancias de Wireshark la interfaz de red
externa
Haciendo ping continuo desde un equipo de la red virtual hacia un equipo de
situado en el exterior de la red interna
Las dos instancias de Wireshark capturando paguetes del ping continuo. Ambas
instancias tienen activado un filtro para sólo ver ICMP
10 Instalación de Zentval en la red virtual 37
Pantalla de inicio de Zentval tras la instalación
Configuración de la red
Comprobagión de la genfiguragión

### 1. Configuración máquina Debian

Configuración archivo /etc/network/interfaces



iguración del archivo /ecc/hoschame	
😕 🕘 Debian 6.0.4 - VMware Workstation	
File Edit View VM Tabs Help	
🔲 🔢 💽 🧐 Snapshot 🖉 Revert 🖓 📗 📰 🗂 🗂 Unity 🛅	
🏠 Home 💊 🖆 Debian 6.0.4 🐟	
🕐 Aplicaciones Lugares Sistema 🔊 🗟 📑 mié 24	de sep, 16:29 🏟 🔳
carlos@JCFG-DEBIAN: ~ 🛛 🗖 🛛	$\times$ $( )$
Archivo Editar Ver Terminal Ayuda	
Equip GNU nano 2.2.4 Fichero: /etc/hostname	
e debian07	1×12 200
Carpeta per	A
	* **** _ <b></b>
Papele	
27	
Termir	$\odot \mathcal{A}^{\mathcal{R}}$
[ Escrita línea 1 ]	
AG Ver ayuda AG Guardar AF Leer Fich AY Pág Ant AK CortarTxt AG Pos actual AX Salir Al JustificarAM Buscar AM Pág Sig AL PegarTxt AT Ortografía V	
	$\times / \times \times$
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.	3 😨 · 🔒 🛒 📭 😰 🗂

# Configuración del archivo /etc/hostname

#### Configuración del archivo /etc/hosts

😸 🗇 🗉 Debian 6.0.4 - VMware Workstation	
File Edit View VM Tabs Help	
🔲 🔢 🔊 🧐 Snapshot 🖉 Revert 🔯 📗 📰 🗂 Unity 🛅	
🏫 Home 🐟 🖆 Debian 6.0.4 🐟	
⊘ Aplicaciones Lugares Sistema  Epiphany Navegue por la web Garroster CEG-DEBIAN: ~	24 de sep, 16:34 🕼 🔟
Archivo Editar Ver Terminal Ayuda	
GNU nano 2.2.4 Fichero: /etc/hosts	
Image: Carpeta personal carbos       127.0.0.1       localhost         Carpeta personal carbos       # The following lines are desirable for IPv6 capable hosts         i:1       ip6-localhost ip6-locpback         fe00::0       ip6-localnet         ff00::0       ip6-allhodes         ff02::1       ip6-allhouters	
Salir M Justificar W Buscar M Pág Sig M PegarTxt M Ortografia     CortarDx M CortarTxt M CortarTx	
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.	

#### Practica SRI



To direct input to this VM, move the mouse pointer inside or press Ctrl+G.

#### Comprobación de que los cambios se han realizado

😸 🗆 🗉 Debian 6.0.4 - VMw	are Wor	kstation	
File Edit View VM Tabs	Help		
🔲 💷 🕟 🧐 🔂 Sna	apshot	🕜 Revert 🙀 📗 🔜 🌄 🗂 Unity 📼	
🏠 Home 🐟 👘 Debian 6.0.4	~		
📿 Aplicaciones Lugares Si	istema (	26	🛿 mié 24 de sep, 16:40 🕼 🔳
		carlos@debian07: ~	
	<u>A</u> rchiv	ro <u>E</u> ditar ⊻er <u>T</u> erminal Ay <u>u</u> da	
Equipo	root@c ethO	lebian07:/home/carlos# ifconfig -a Link encap:Ethernet Hwaddr 00:0c:29:b1:10:ed inet addr:10.33.7.2 Bcast:10.33.7.255 Mask:255.255.255	i.o
Carpeta personal de		inet6 addr: fe80::20c:29ff:feb1:10ed/64 Scope:Link UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1 RX packets:0 errors:0 dropped:0 overruns:0 frame:0	
carlos		TX packets:76 errors:0 dropped:0 overruns:0 carrier:0 collisions:0 txqueuelen:1000 RX bytes:0 (0.0 B) TX bytes:8935 (8.7 KiB)	
		Interrupt:19 Base address:0x2000	
Papelera	lo		
		inet addr:127.0.0.1 Mask:255.0.0.0 inet6 addr: ::1/128 Scope:Host	
		UP LOOPBACK RUNNING MTU:16436 Metric:1	
		RX packets:27 errors:0 dropped:0 overruns:0 frame:0	
Terminal			- And
	pan0	Link encap:Ethernet HWaddr 86:01:6d:df:2a:f0 BROADCAST MULTICAST MTU:1500 Metric:1	
		4.4	
🔄 🔳 carlos@debian07: ~			
To direct input to this VM, mov	e the mo	puse pointer inside or press Ctrl+G.	

Página nº 6 de 38

#### 2. Configuración máquina Ubuntu Configuración del entorno de red IPv4

	Q Escriba su o	rden			
	8	Conectar automáticamente Cableada Seguridad 802.1x A Método: Manual	vjustes de IPv4 Ajust	es de IPv6	
	ta No Co	Dirección Máscara de red 10.33.7.3 255.255.2	Puerta de enlace 10.33.7.1	Añadir Eliminar	
<u>&gt;_</u>		Servidores DNS: 8.1 Dominios de búsqueda: DD del cliente DHCP:	3.8.8		
		Requiere dirección IPv4 p	ara que esta conexiór	se complete Rutas	
		🥑 Disponiີ່ນີ້ໄຂ para todos los usເ	Jarios Cancelar	Guardar	

#### Configuración del archivo /etc/hostname





To direct input to this VM, move the mouse pointer inside or press Ctrl+G.

🖾 🕞 • 🚔 🖬 🗖 🕤

Comprobación de que los cambios se han realizado



Página nº 8 de 38

. Config onfigurad	<b>guración</b> ión del e	<b>máquina Windo</b> entorno de red I	ows 7 Pv4		
⊗⊝⊡ w	/indows 7 - VMwa	are Workstation			
File Edit	View VM Tabs	Help			
	👂 🧐 Sr	napshot 🔃 Revert 🖓 📗	📃 📑 🗂 Unity		
🟫 Home 🔹	Windows 7	*			
Administrade		Propiedades: Protocolo de Internet versi General	ón 4 (TCP/IPv4) 🛛 🔗 🗾 🔁	Conexi	iones de red
-	Archivo Edicion Organizar -	Puede hacer que la configuración IP se a red es compatible con esta funcionalidad consultar con el administrador de red cu apropiada.	isigne automáticamente si la I. De lo contrario, deberá ál es la configuración IP		
	Red n	Obtener una dirección IP automático Unar la ciguiente dirección ID:	amente	ar	
Equipo	Cone	Dirección IP:	10 . 33 . 7 . 4		
		Máscara de subred:	255 . 255 . 255 . 0		
		Puerta de enlace predeterminada:	10 . 33 . 7 . 1	L	
Red		Obtener la dirección del servidor Di     Otar las siguientes direcciones de s     Sociales Dillo exercícios	NS automáticamente ervidor DNS:	opol te v	
		Servidor DNS pre <u>r</u> endo:	0.0.0.0	les	
Papelera de reciclaje		validar configuración al salir	Opciones avanzadas		
	1 elemento seleccion	ado		Incelar	al
<b>()</b>	3				ES _ 🙀 🕪 17:05 24/09/2014
To direct inc	out to this VM, mo	ve the mouse pointer inside or p	ress Ctrl+G.		

Cambio del nombre de equipo y grupo de trabajo

😸 🗆 💷 Windows 7 - VMware Wor	kstation	
File Edit View VM Tabs Help		
📕 🔢 🕟 🧐 🚱 Snapshot	🕐 Revert 🖓 📔 🔜 🔂 🗂 Unity 🔄	
🏠 Home 🗮 🗊 Windows 7 🗮		
Administrade	Propiedades del sistema	en el Panel de control
Ventana principal del Par control Seguipo Segu	Windows usa la siguiente información para identificar su equipo en la red.         Descripción del equipo:         Por ejemplo: "Equipo de la sala de estar" o "Equipo de María".         Nombre completo w707 de equipo:         Grupo de trabajo:       VIRTUAL         Para usar un asistente para unirse a un dominio o grupo de trabajo, haga clic en id. de red.       Id. de red	
Vea también Centro de actividades Windows Update Información y herramient rendimiento	Para cambiar el nombre de este equipo o cambiar el dominio o grupo de trabajo, haga clic en Cambiar Los cambios tendrán efecto después de reiniciar este equipo. Cerrar Cancelar Aplicar	ponible GHz 2.99 GHz I disponible para esta pantalla
		ES 🔺 隆 🖏 🕪 17:07 24/09/2014
To direct input to this VM, move the m	ouse pointer inside or press Ctrl+G.	🔤 💿 · 🗎 🖬 🖬 🖆

# 4. Configuración máquina Windows 2008 Server

Configuración del entorno de red IPv4

😸 🗆 💷 Windows Server 2008 R2 x64 - VMware Workstation
File Edit View VM Tabs Help
📕 🔢 🕞 🔄 Snapshot 🖉 Revert 🙀 📔 📰 🔂 🗂 Unity 🛅
🏠 Home 🐟 🗇 Windows Server 2008 R2 x64 🝝
Conexiones de red
Propiedades: Protocolo de Internet versión 4 (TCP/IPv4)
Organizar 🔻 Deshabilitar este disp 🖌 General 🖉 🖉
Conexión de área local Red no identificada Conexión de red Intel(R) P Conexión de red Intel(R) P Conex
C Obtener una dirección IP automáticamente
🕞 Usar la siguiente dirección IP:
Directión IP: 10 , 33 , 7 , 5
Máscara de subred: 255 . 255 . 0
Puerta de enlace predeterminada: 10 . 33 . 7 . 1
C Obtener la dirección del servidor DNS automáticamente
Usar las siguientes direcciones de servidor DNS:
Servidor DNS preferido: 8 . 8 . 8
Servidor DNS alternativo:
Validar configuración al salir Opciones avanzadas
Aceptar Cancelar
Anicio
Fo direct input to this VM, move the mouse pointer inside or press Ctrl+G.

# Cambio del nombre de equipo y grupo de trabajo

😸 🗇 🗉 Windows Server 2008 R2 x64 - VMware Workstation				
File Edit View VM Tabs Help				
📕 🕕 🔊 🧐 Snapshot 🖉 Revert 🖓 📗 📰 🗂 🗂 Unity 🛅				
Abome → Provide Windows Server 2008 R2 x64 →				
Sistema Propiedades del sistem Nombre de equipo Vent conti Went conti Windows usa en la red. Descripción del equipo: Windows usa en la red. Nombre completo de equipo: Win200807 Nombre completo de equipo: Mias Membro del © Dominio: Grupo de trabajo: VIRTUAL VIRTUAL Ocupation de la control Ocupation de trabajo: VIRTUAL Descripción del equipo: Winz 200807 Nombre completo de equipo: Win200807 Nombre completo de equipo: Vinature del control Ocupation: Ocupation: Ocupation: Ocupation: Ocupation: Ocupation: Ocupation:				
Vea D3PS @Cambiar				
Winc Aceptar Cancelar Aplicar				
▶ Inicio 🛃 🖉 🥞 🕵 🕅 ES 🕿 😵 🕼 17:16 24/09/2014 📼				
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.				

Página nº 10 de 38

#### 5. Comprobación de la conectividad

Ping a la propia dirección debian07

Second Debian 6.0.4 - VMware Workstation	
File Edit View VM Tabs Help	
📕 💵 🕞 🧐 🖓 Snapshot 🖉 Revert 🔯 📗 🚍 🗂 Unity	y 🖻
🖌 🗊 Windows Server 2008 R2 x64 🛛 🚓 👘 Ubuntu Desktop 12.04.1 🖍 節 Debi	ian 6.0.4 🔦 🗃 Windows 7 💊 🔪
Aplicaciones Lugares Sistema Cambie la apariencia y comportamiento del escritorio, obtenga ayuda o cierre la sesión Archivo Editar Ver Terminal Ayuda root@debian07:/home/carlos# ping 10.33.7.2 PING 10.33.7.2 (10.33.7.2) 56(34) bytes of data. 64 bytes from 10.33.7.2: icmp_req=1 ttl=64 time=0.024 ms 64 bytes from 10.33.7.2: icmp_req=2 ttl=64 time=0.024 ms 64 bytes from 10.33.7.2: icmp_req=2 ttl=64 time=0.025 ms 64 bytes from 10.33.7.2: icmp_req=4 ttl=64 time=0.028 ms 64 bytes from 10.33.7.2: icmp_req=5 ttl=64 time=0.029 ms 64 bytes from 10.33.7.2: icmp_req=5 ttl=64 time=0.038 ms 64 bytes from 10.33.7.2: icmp_req=7 ttl=64 time=0.027 ms	mié 24 de sep. 17:22 (1)
64 bytes from 10.33.7.2: icmp_req=8 ttl=64 time=0.028 ms 64 bytes from 10.33.7.2: icmp_req=8 ttl=64 time=0.028 ms 64 bytes from 10.33.7.2: icmp_req=11 ttl=64 time=0.027 ms 64 bytes from 10.33.7.2: icmp_req=12 ttl=64 time=0.028 ms 64 bytes from 10.33.7.2: icmp_req=13 ttl=64 time=0.028 ms 64 bytes from 10.33.7.2: icmp_req=14 ttl=64 time=0.028 ms 64 bytes from 10.33.7.2: icmp_req=15 ttl=64 time=0.028 ms 64 bytes from 10.33.7.2: icmp_req=16 ttl=64 time=0.028 ms 64 bytes from 10.33.7.2: icmp_req=16 ttl=64 time=0.028 ms 64 bytes from 10.33.7.2: icmp_req=18 ttl=64 time=0.028 ms 64 bytes from 10.33.7.2: icmp_req=19 ttl=64 time=0.028 ms 64 bytes from 10.33.7.2: icmp_req=19 ttl=64 time=0.028 ms 64 bytes from 10.33.7.2: icmp_req=21 ttl=64 time=0.026 ms	
📷 🛛 🔤 carlos@debian07: ~	
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.	

#### Ping a la dirección de ubuntu07



Ping a la dirección de Windows 7

😕 🕘 Debian 6.0.4 - VMware Workstation	
File Edit View VM Tabs Help	
📕 🕕 🚱 🔄 Snapshot 🖉 Revert 🖓 📗 🛄 🗂 Unity	
🔨 🗊 Windows Server 2008 R2 x64 🛛 🖝 🕼 Ubuntu Desktop 12.04.1 🖍 🍘 Debia	n 6.0.4 🐟 🗇 Windows 7 🐟 >
📿 Aplicaciones Lugares Sistema 🐔 奯	📑 mié 24 de sep, 17:25 🏟 🕅
Image: Carlos@debian07: ~           Archivo Editar Ver Terminal Ayuda           Proot@debian07:/home/carlos# ping 10.33.7.4           PING 10.33.7.4 (10.33.7.4) 56(84) bytes of data.           64 bytes from 10.33.7.4; icmp_req=1 ttl=128 time=0.468 ms           64 bytes from 10.33.7.4; icmp_req=2 ttl=128 time=0.468 ms           64 bytes from 10.33.7.4; icmp_req=3 ttl=128 time=0.468 ms           64 bytes from 10.33.7.4; icmp_req=3 ttl=128 time=0.468 ms           64 bytes from 10.33.7.4; icmp_req=4 ttl=128 time=0.468 ms           64 bytes from 10.33.7.4; icmp_req=3 ttl=128 time=0.468 ms           64 bytes from 10.33.7.4; icmp_req=3 ttl=128 time=0.468 ms           64 bytes from 10.33.7.4; icmp_req=4 ttl=128 time=0.268 ms           64 bytes from 10.33.7.4; icmp_req=5 ttl=128 time=0.288 ms           64 bytes from 10.33.7.4; icmp_req=5 ttl=128 time=0.293 ms           64 bytes from 10.33.7.4; icmp_req=8 ttl=128 time=0.746 ms           74	
🐻 🔳 carlos@debian07: ~	
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.	

#### Ping a la dirección de Windows 2008 Server

🐵 🕘 🗈 Debian 6.0.4 - VMware Workstation	
File Edit View VM Tabs Help	
📕 💷 🕞 🧐 Snapshot 🖉 Revert 🔯 📗 🔜 🛅 Unity 📴	
🟫 Home 💊 🖆 Windows Server 2008 R2 x64 😞 🎒 Ubuntu Desktop 12.04.1 💊 🛱 De	ebian 6.0.4 🐟 👘 Windows 7 🐟
📀 Aplicaciones Lugares Sistema 🔊 ळ	📑 mié 24 de sep, 17:31 🏟 🕅
carlos@debian07: ~	
Point       2010       2010       2010       2010         Pino       10.33.7.5       10.33.7.5       56(84)       bytes of data.         G4       bytes from 10.33.7.5       icmp_req=1       ttl=128       time=0.306       ms         G4       bytes from 10.33.7.5       icmp_req=2       ttl=128       time=0.306       ms         G4       bytes from 10.33.7.5       icmp_req=3       ttl=128       time=0.277       ms         G4       bytes from 10.33.7.5       icmp_req=4       ttl=128       time=0.278       ms         G4       bytes from 10.33.7.5       icmp_req=5       ttl=128       time=0.308       ms         G4       bytes from 10.33.7.5       icmp_req=6       ttl=128       time=0.308       ms         G4       bytes from 10.33.7.5       icmp_req=7       ttl=128       time=0.308       ms         G4       bytes from 10.33.7.5       icmp_req=7       ttl=128       time=1.69       ms         G4       bytes from 10.33.7.5       icmp_req=8       ttl=128       time=1.69       ms         G4       bytes from 10.33.7.5       icmp_req=8       ttl=128       time=1.69       ms         G4       bytes from 10.33.7.5       icmp_req=8       ttl=128	
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.	

# 6. Configuración máquina IPCOP

Instalación IPCop Selección del idioma



#### Seleccionar el medio de instalación

		🐵 🗆 🗉 IPCop - VMware Workstation	
		File Edit View VM Tabs Help	
		冒 🕕 👂 🧐 Snapshot 🕢 Revert 🔞 📗 🗫 🚍	🔁 Unity 🔲
		IPCop 🔹	
		IPCop v1.4.20 - The Bad Packets Stop Here	
		Selecciona un medio nama la instala	ción
			under Fl
		más fácil es hacerlo desde el CDROM. Otr	o modo, es
		a la que se accederá via HTTP o FTP. En	a maquina este caso
		debera preparar disquetes para acceder a	la red.
		CDRUHZUSB-KEY HTTP>FTP	
		OK	
		<tab>/<alt-tab> entre elementos   <space> pa</space></alt-tab></tab>	ra seleccionar
		To direct input to this VM. click inside or press Ctrl+G.	
Tgnorar	la opo	ión restablecer	
_ 9.10_ u_	Id opt		
		File Edit View VM Tabs Help	
		🔲 🕕 🚱 🛛 🚱 Snapshot 🕃 Revert 🖓 📗 🛄 🚍	🝯 Unity 🛅
		IPCop v1.4.20 - The Bad Packets Stop Here	
		Kestablecer	
		Si tiene un backup de la configuración de IPCop, seleccione el medio, y presione el	l sistema botón
		ACEPTAR. De lo contrario seleccione SALTA	R.
		( <mark>)</mark> Saltar () Disquete	
		( ) Llave USB ( ) http≠ftp	
		Nombre de ordenador	
		ipcop.localdomain	
		Contraseña de 'backup'	
		ОК	
		(Tab)/(Alt-Tab) entre elementos L (Space) pa	ra seleccionar
		(Tab)/ <alt-tab> entre elementos I <space> pa To direct input to this VM. click inside or press Ctrl+G.</space></alt-tab>	ra seleccionar

Página nº 13 de 38









#### Practica SRI

Haciendo PING desde la máquina con Debian hacia la máquina d	con IPCop
🐵 🗆 🗉 Debian 6.0.4 - VMware Workstation	
File Edit View VM Tabs Help	
📕 🕕 🚱 Snapshot 🖉 Revert 🖓 📗 📖 🗂 Unity 🛅	
🗊 IPCop 🐟 🗃 Windows Server 2008 R2 x64 🐟 🎒 Ubuntu Desktop 12.04.1 🐟 👘 Debian 6.0.4 🐟	
🙋 Aplicaciones Lugares Sistema 👰 😡	jue 25 de sep, 19:36 🥠 🔳
carlos@debian07: ~	
Archivo <u>E</u> ditar <u>V</u> er <u>T</u> erminal Ay <u>u</u> da	
<pre>carlos@debian07:~\$ ping 10.33.7.1 Equipp Equipp Find 10.33.7.1 (10.33.7.1) 56(84) bytes of data. 64 bytes from 10.33.7.1: icmp_req=1 ttl=64 time=0.439 ms 64 bytes from 10.33.7.1: icmp_req=2 ttl=64 time=0.283 ms 64 bytes from 10.33.7.1: icmp_req=3 ttl=64 time=0.323 ms 64 bytes from 10.33.7.1: icmp_req=5 ttl=64 time=0.321 ms 64 bytes from 10.33.7.1: icmp_req=6 ttl=64 time=0.293 ms 64 bytes from 10.33.7.1: icmp_req=7 ttl=64 time=0.301 ms 64 byt</pre>	
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.	

### Haciendo PING hacia <a href="http://www.google.es">www.google.es</a>

😕 🕘 🗉 Debian 6.0.4 - VMware Workstation
File Edit View VM Tabs Help
🔲 🕕 🚱 Snapshot 🕐 Revert 🖓 📔 🔜 🗂 🗂 Unity 💼
🕼 IPCop 😞 🚳 Windows Server 2008 R2 x64 😞 🚳 Ubuntu Desktop 12.04.1 🐟 🚳 Debian 6.0.4 🐟
🕐 Aplicaciones Lugares Sistema 🔊 🔗 🔤
carlos@debian07: ~
Archivo Editar Ver Terminal Ayuda
=105 ms Equipo 64 bytes from mad06s09-in-f23.1e100.net (173.194.45.183): icmp_req=2 ttl=54 time
64 bytes from mad06s09-in-f23.lel00.net (173.l94.45.l83): icmp_req=3 ttl=54 time
64 bytes from mad06s09-in-f23.le100.net (173.194.45.183): icmp_req=4 ttl=54 time Carpeta persc=23.8 ms
carlos 64 bytes from mad06s09-in-f23.1e100.net (173.194.45.183): icmp_req=5 ttl=54 time
64 bytes from mad06s09-in-f23.le100.net (173.194.45.183): icmp_req=6 ttl=54 time =41.0 ms
64 bytes from mad06s09-in-f23.le100.net (173.194.45.183): icmp_req=7 ttl=54 time Papelera=20.9 ms
64 bytes from mad06s09-in-f23.le100.net (173.194.45.183): icmp_req=8 ttl=54 time = = = = = = = = = = = = = = = = = = =
Carlos@debian07:~
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.

Accediendo a la interfaz web de IPCop desde la máquina Debian apuntando con el navegador web a la dirección https://10.33.7.1:445





Intento de conexión por telnet a la IP de la red interna del equipo con IPCop:

Intento de conexión por telnet a la IP de la red externa del equipo con IPCop, que le ha concedido el servidor DHCP externo:





Intento de conexión por ssh a la IP de la red interna del equipo con IPCop:

Intento de conexión por ssh a la IP de la red externa del equipo con IPCop, que le ha concedido el servidor DHCP externo:



#### 7. Configuración de encaminador de red local virtual con Debian Ponerle el nombre de maguina debianrouter07





comprobación de la configuración de las interfaces de red

😸 🗆 💷 Debian 6.0.4 Rou	iter - VMware Workstation	
File Edit View VM Ta	bs Help	
	Snapshot 🔯 Revert 🌆 📗 🔜 🛅 🗂 Unity 💼	
🕼 Debian 6.0.4 Router 🔸	PCop 🔹	
O Aplicaciones Lugares	Sistema 🔊 🗟	🔎 lun 29 de sep, 20:15 🏟 💹
*	carlos@debian-router07; ~	
	<u>A</u> rchivo <u>E</u> ditar <u>V</u> er <u>T</u> erminal Ay <u>u</u> da	
Equipo Carpeta personal de carlos Papelera	<pre>root@debianrouter07:/home/carlos# nano /etc/hosts root@debianrouter07:/home/carlos# ifconfig -a eth0 Link encap:Ethernet HWaddr 00:0c:29:66:1c:00 inet addr:10.33.7.1 Bcast:10.33.7.255 Mask:255.255.255.0 inet6 addr: fe80::20c:29ff:fe66:1c00/64 Scope:Link UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1 RX packets:0 errors:0 dropped:0 overruns:0 frame:0 TX packets:91 errors:0 dropped:0 overruns:0 carrier:0 collisions:0 txqueuelen:1000 RX bytes:0 (0.0 B) TX bytes:14310 (13.9 KiB) Interrupt:19 Base address:0x2000</pre>	
* Terminal	<pre>eth1 Link encap:Ethernet HWaddr 00:0c:29:66:1c:0a inet addr:172.124.200.35 Bcast:172.124.255.255 Mask:255.2 inet6 addr: fe80::20c:29ff:fe66:1c0a/64 Scope:Link UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1 RX packets:32887 errors:0 dropped:0 overruns:0 frame:0 TX packets:3564 errors:0 dropped:0 overruns:0 carrier:0 collisions:0 txqueuelen:1000 RX bytes:16706526 (15.9 MiB) TX bytes:270200 (263.8 KiB) Interrupt:19 Base address:0x2080 lo Link encap:Local Loopback</pre>	155.0.0 4 1 1 1
	inet addr:127.0.0.1 Mask:255.0.0.0	
💿 🔳 carlos@debian-rou	iter	
To direct input to this VM, n	nove the mouse pointer inside or press Ctrl+G.	🔤 😰 · · 🚔 🚅 😰 🛅



To direct input to this VM, move the mouse pointer inside or press Ctrl+G.





#### haciendo que rc.route arranque al inicio



Comprobando la conexión a la red externa desde otra máquina que tiene como router la debianrouter07 : ping www.google.es



To direct input to this VM, move the mouse pointer inside or press  $\mathsf{Ctrl}\mathsf{+}\mathsf{G}.$ 

# 8. Configuración de encaminador de red local virtual con Windows 2008 Server

Ponerle el nombre de maquina w2008router07

😸 🖂 💷 Windows Server 2008 R2 x64 Router - VMware Workstation	
File Edit View VM Tabs Help	
UNIty Discrete States S	
Abome → Windows Server 2008 R2 x6 →	
Propiedades del sistema       X         Papeiera de recicioje       Cambios en el dominio o el nombre del equipo       Iones avanzadas       Acceso remoto         Puede cambiar el nombre y la petenencia de este equipo. Los cambias podrían afectar al acceso a los recursos de red. Más información       Información para identificar su equipo         Nombre de equipo:       win2008router07       Ho: "Servidor de producción de IIS" o de cuentas".         Nombre del       Más       o o cambiar el cambiar         Membro del       Omnio:       Información         Image: grapo de trabajo:       VIRTUAL       Canealar	
Aceptar Cancelar Aplicar	
Minicio	16:45 01/10/2014
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.	3 () · · <b>) i i</b>
Configuración estática interfaz de red interna	
Server 2008 R2 x64 Router - VMware Workstation File Edit View VM Tabs Help	
📕 🔟 🕟 🧐 Inapshot 🕅 Revert 🖓 📗 📰 🗂 Unity 🕅	
A Home 🐟 🎒 Windows Server 2008 R2 x6 🐟	
Conexiones de red	
🕞 🕞 🗸 Panel de control 🗸 Propiedades: Protocolo de Internet versión 4 (TCP/IPv4)	red 🙋
Pape re Organizar V Deshabilitar este dis	
Conexión de área local Red no identificada Conexión de red trel(P) I	
C Obtener una dirección IP automáticamente	
C Usar la siguiente dirección IP:	
Máscara de subred: 255 . 255 . 0	
Puerta de enlace predeterminada:	
C Obtener la dirección del servidor DNS automáticamente	
G Usar las siguientes direcciones de servidor DNS:	
Servidor DNS preferido: 8 . 8 . 8 . 8	
Servidor DNS preferido: 8 8 8 8 8	
Servidor DNS preferido: 8 . 8 . 8 Servidor DNS alternativo:	
Servidor DNS preferido: 8 · 8 · 8 · 8 Servidor DNS alternativo: · · · Validar configuración al salir Opciones avanzadas Aceptar Cancelar	
Servidor DNS preferido: 8 · 8 · 8 · 8 Servidor DNS alternativo: · · · Validar configuración al salir Opciones avanzadas Aceptar Cancelar	
Servidor DNS preferido: 8 · 8 · 8 Servidor DNS alternativo: · · · Validar configuración al salir Opciones avanzadas Aceptar Cancelar ES & ES & E	16:47 01/10/2014

Configuración dinámica para la interfaz de red externa (la que nos dará salida fuera de la red interna)

	8-0 Wi	- D Windows Server 2008 R2 x64 Router - VMware Workstation					
	File Edit V	Edit View VM Tabs Help					
ſ		💵 📄 🧐 Snapshot 🖉 Revert 🖓 📗 📰 🗂 🗂 Unity 🔄					
Ē	🏫 Home 🝝	Iome 💊 🗊 Windows Server 2008 R2 x6 🐟					
	Cone	exiones de red	- Proniedades: I	Protocolo de Internet versión 4 (TCD/IDv4)	2 1 1 1	- Constitutes do and	
	Pape		General Con			ar Conexiones de red	
	-	Conexión de Red no ident Conexión de	Puede hacer red es comp consultar cor apropiada. O Usar la Dirección Máscara c	que la configuración IP se asigne automáticamente :       atible con esta funcionalidad. De lo contrario, deberá       n el administrador de red cuál es la configuración IP       er una dirección IP automáticamente       siguiente dirección IP:       IP:       ie subred:	sila		
			Obtene     Obtene     Osar la	enlace predeterminada:			
			Servidor L	NS pretendo:     8 . 8 . 8 . 8       NS alternativo:        r configuración al salir     Opciones avanza	adas		
				Aceptar	Cancelar əlar		
	🎝 Inicio	<b>I</b>		1		ES 🎓 🔁 🏚	16:49 01/10/2014 📼
	To direct inpu	ıt to this VM, n	nove the mo	ouse pointer inside or press Ctrl+G.		<b>2</b> 0 •	• 🔒 🚅 📠 🛅
Instalació	n de l	a func	ión S	Servicio de Acces	o y Dire	ectivas de	redes
	800	Windows Se	rver 2008 R2	2 x64 Router - VMware Workstation			
			Snapsho	ot 🕅 Revert 🖓 🗐 🔲 🥅 🧮	1 Unity 💼		
	A Hom	ne 💊 👘 Wind	ows Server 2	2008 R2 x6			
		sistente para agreg	jar roles			2	(IBX
		Selec	cionar role	s de servidor			008 <mark>R2</mark>
		Antes de comenzar		Seleccione uno o más roles para instalar en este servi	dor.		
	3	Roles de servidor Servicios de acceso y Servicios de rol Confirmación	directivas d	Roles: Active Directory Lightweight Directory Services Active Directory Rights Management Services Hyper-V Services of Veretory and Participation of the Services Services of Veretory and Participation of the Services Services of Veretory and Services of Veretory and Services Services of Veretory Services of Veretory and Services Services of Veretory Services of Veretory Services of Veretory Services Services of Services of Se	Description Servicio redes pr directiva Enrutam Autorida manteni	ción: s de acceso y directivas de oporciona Servidorde as de redes (NPS), iento y acceso remoto, ad de registro de miento (HRA) y Protocolo de	
		Progreso Resultado		Servicios de archivo Servicios de certificados de Active Directory Servicios de dominio de Active Directory Servicios de Escritorio remoto Servicios de Impresión y documentos Mindows Server Update Services Mindows Server Update Services	maitem autoriza (HCAP), segundi	mietto (n4x) y rotodos de host que protegen el estado y la d de la red.	
							<b>—</b>
				_ < Anteri	ior Siguiente >	Instalar Cancelar	
			7 😭	_ < Anter	ior Siguiente >	ES & Cancelar	▼ 52 2014 ■



Inicio el asistente de configuración para la instalación del Servidor de enrutamiento y acceso remoto.

😸 – 💷 Windows Server 2008 R2 x64 I	Router - VMware Workstation	
File Edit View VM Tabs Help		
📕 🕕 💽 🧐 🔀 Snapshot 🖉	Revert 🔯 📘 🔜 🛅 Unity 💼	
合 Home 🝝 🗃 Windows Server 2008 R	2 x6 🍖	
🔚 Administrador del servidor		X
Archivo Acción W Asistente para la instalación	n del servidor de enrutamiento y acceso remoto	
Image: Administrador del s	Éste es el Asistente para instalación del servidor de enrutamiento y acceso remoto	Acciones
Roles     Servicing d		Enrutamiento y acceso remoto 🔺
Constantial     Constantial     Constantial     Constantial     Constantial     Configuración     Configuración     Configuración     Configuración     Configuración     Configuración     Configuración	Ette asitierte le ayuda a configurar el servidor para que pueda conectarea a diras redea y pemitir conexiones desde claretes remitos. Haga clic en Siguierte para continuar:	Accones addonales
	< Attas Siguiente > Cancelar	
		-
		TÍ III
🎦 Inicio		ES 🖈 🍽 🕼 16:58
To direct input to this VM, move the mous	e pointer inside or press Ctrl+G.	🔤 💿 🔹 🛯 🔜 🖻

Selección de la opción de Traducción de direcciones NAT

😣 🗆 💷 Window	vs Server 2008 R2 x64 Router - VMware Workstation	
File Edit View	VM Tabs Help	
🔲 II 🕞 🕻	🖇 🛛 🚱 Snapshot 🔣 Revert 🖓 🛛 🚛 🧮 🗂 Unity 💼	
🏫 Home 👗 👘	Windows Server 2008 R2 x6 🔸	
📕 Administrador de	l servidor	_ 8 ×
Archivo Acción V	Asistente para la instalación del servidor de enrutamiento y acceso remoto	
Administrador del s	Configuración Puede habilitar cualesquiera de las siguientes combinaciones de servicios o puede personalizar este servidor.	Acciones Enrutamiento y acceso remoto
Configuración     Amacenamient	<ul> <li>Acceso remoto (acceso telefónico o red privada vitual) Pemitr a clientes remotos conectarse a este servidor a través de una conexión de acceso telefónico o una conexión segura a Internet de red privada vitual (VPN).</li> <li>Traducción de direcciones de red (NAT) Pemitr a clientes internos conectarse a internet usando una dirección IP pública.</li> <li>Acceso a red privada vitual (VPN) y NAT Pemitr que los clientes remotos as conectar a este servidor a través de Internet y que los clientes locales es conecter a returne usando una sola dirección IP pública.</li> <li>Conexión segura entre dos redes privadas Conectar esta red a una red remota, como a una oficina sucursal.</li> <li>Confugración personalizada Seleccionar cualquier combinación de características disponibles en Enrutamiento y acceso remoto.</li> </ul>	Acciones adicionales
		<u>_</u>
Marinicio		ES 2 16:59 01/10/2014
To direct input to	this VM move the mouse pointer inside or press Ctrl+G	

Advivo Adoón V Advivo Advivo	Home 💊 🗊	Windows Server 2008 R2 x6	iei x
	Archivo Accón V Archivo Accón V Administrador del s Roles Servicios d Servicios d Servicios d Características Digenóstico Bionofico Almacenamient	Astistente para la instalación del servidor de enrutamiento y acceso remoto Astistente para la instalación del servidor de enrutamiento y acceso remoto Conexión a Internet INT Puede seleccionar una interfaz existente o crear una nueva interfaz de marcado a petición para equipos cientes a fin de conectarse a Internet. Interfaces de red: Conexión de área local Conexión de red Intel( 10.33.7.1 Conexión de área local 2 Conexión de red Intel( 172.124.200.209 (DH Porter una conexión a Internet de marcado a petición Una interfaz de marcado a petición Una interfaz de marcado a petición Reardor ac conecta con un midem o usand el protection purto a purto a travé de Ethemet. El Asistente para interfaz de marcado a petición se iniciará al final de este asistente. Para obtener más información.	Acciones  Acciones addonaies

Seleccionar la interfaz de red que dará salida fuera de la red interna

Comprobación desde una máquina con Debian que funciona:



Haciendo ping desde la máquina con Debian a una dirección de Internet (<u>www.google.es</u>)



#### Navegando desde la máquina con Debian.



### 9. Visualización de NAT con Wireshark en Windows 2008 Server Seleccionando en una de las instancias de Wireshark la interfaz de red interna.

The Table Mission MAA Table Male	
File Edit View VM Tabs Help	
📕 💵 խ 🧐 Snapshot 👸 Revert 🌆 📗 🔤 🗂 Unity 🛅	
🗊 Debian 6.0.4 🗮 🕼 Windows Server 2008 R2 x6 🗮	
The Wireshark Network Analyzer [Wireshark 1.12.1 (v1.12.1-0-g01b65bf from mast 💶 🛛 🗶	
<u>Elle Edit Vi</u> ew <u>Go</u> <u>Capture</u> <u>Analyze</u> <u>Statistics</u> Telephony <u>T</u> ools <u>Internals</u> <u>H</u> elp	
Filter: Expression •	
WIRESHARK The World's Most Popular Network Protocol An Version 1.12.1 (v1.12.1-0-g01b65bf from master-1.12)	
Canture	
Wireshark: Capture Interfaces	
Uw Device Description IP Packets Packets	s
Conexión de área local 2 Conexiggn de red Intel(R) PRO/1000 MT fe80::cd86:6e9f:3b77:e7df 587 13	<u>D</u> etails
Si 🔽 Conexión de área local Conexiggn de red Intel(R) PRO/1000 MT fe80::3457:def3:e74f;f4c6 5 0	Details
Conex 1	
Conex Help Start Stop Options	Qose
Canture Ontions	
Start a capture with detailed options	
Capture Help	
Now to Capture	
Step by step to a successful capture setup	
Network Media	
Specific information for capturing on: Ethernet, WLAN,	
	FC - D- D- 17:28 -
	ES R P P 01/10/2014
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.	
Sologgionando en etra de las instangias	de Wireghark la interfag de red
Seleccionando en otra de las instancias	de Wileshalk la linterlaz de led
externa.	
<b>externa.</b> File Edit View VM Tabs Help	
externa. File Edit View VM Tabs Help III    Sapshot    Revert    The IIII    The IIIII    The IIIIII    The IIIIIIII    The IIIIIII    The IIIIIIII    The IIIIIIIIII	
externa. File Edit View VM Tabs Help	
externa. File Edit View VM Tabs Help Edit View VM Tabs Help Shapshot Revert Rate End Control	
externa. File Edit View VM Tabs Help File Edit View VM Tabs Help Sample States	The Wireshark Network Analyzer [Wireshark 1.12.1 (v1.12.1-0-g01b65bf from master-1.12)]
externa. File Edit View VM Tabs Help Bui Sapshot Revert a Durity Durity And State	The Wireshark Network Analyzer [Wireshark 112.1 (v1.12.1-0-g01b65bf from master-1.12)]
externa. File Edit View VM Tabs Help Bui Sapshot Revert a Constant Consta	The Wireshark Network Analyzer [Wireshark 112.1 (v1.12.1-0-g01165bif from master: 1.12)] Ele Edit view Go Capture Analyze Statistics Telephony Tools Internals Help Control Capture Analyze Telephony T
externa. File Edit View VM Tabs Help Bui Sapshot Revert a Second Secon	Image: The Wireshark Network Analyzer:       [Wireshark 1:12:1 (y1:12:1-0:001b65bif from master: 1:12)]         Image:
externa. File Edit View VM Tabs Help Home & Sanapshot Revert R I I Unity I Unity Home & Windows Server 2008 R2 x6 Capturing from Concodin de área local (Wreshark 1121 (v1121-0-g01b65b) from moster 512) File Edit View So Capture Analyze Statistics Telephony Tools Internals Help Filer: Filer: Time Source Destination Protocol Length Info 10.00000000 Fe80::3457:def3:e74 ff02::113 LLMNR 84 Stanfard query. Oxc	Ibe Wireshark Network Analyzer       Wireshark 1.12.1 (v1.12.1 0-001b65bi from master-1.12)         Ele Edit View Go Capture Analyzer       Statistics Telephony Tools Internals Help         Image: Image
externa.  File Edit View VM Tabs Help  File Edit View VM Tabs Help  File Edit View VM Tabs Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help  File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help  File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help  File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help  File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help  File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help  File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help  File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help  File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help  File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help  File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help  File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help  File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help  File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help  File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help  File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help  File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help  File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help  File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help  File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help  File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help  File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help  File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help  File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help  File Edit View Go Captur	Image: Static
externa.  File Edit View VM Tabs Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals H	Image: Static
File Edit View VM Tabs Help         Image: Second	The Wrrestark Network Analyzer       Wireshark 132.1 (v1.12.1-0-g01b65bf from master-1.12)         Ele Edit Yew So Capture Analyzer       Statatus Telephony Tools Internals Heb         Image: Statatus Telephony Tools Internals Heb       Image: Statatus Telephony Tools Internals Heb         Image: Statatus Telephony Tools Internals Heb       Image: Statatus Telephony Tools Internals Heb         Image: Statatus Telephony Tools Internals Heb       Image: Statatus Telephony Tools Internals Heb         Image: Statatus Telephony Tools Internals Heb       Image: Statatus Telephony Tools Internals Heb         Image: Statatus Telephony Tools Internals Heb       Image: Statatus Telephony Tools Internals Heb         Image: Statatus Telephony Tools Internals Heb       Image: Statatus Telephony Tools Internals Heb         Image: Statatus Telephony Tools Internals Heb       Image: Statatus Telephony Tools Internals Heb         Image: Statatus Telephony Tools Internals Heb       Image: Statatus Telephony Tools Internals Heb         Image: Statatus Telephony Tools Internals Heb       Image: Statatus Telephony Tools Internals Heb         Image: Statatus Telephony Tools Internals Heb       Image: Statatus Telephony Tools Internals Heb         Image: Statatus Telephony Tele
externa. File Edit View VM Tabs Help Home A B Windows Server 2008 R2 X6 A Home A B Windows Server 2008 R2 X6 A Capturing from Conexión de área local (Wiresland 1121 (V1121-0-001655bi from enster-5122)) Els Edit View So Capture Analyze Statstics Telephony Tools Internals Help File Edit View So Capture Analyze Statstics Telephony Tools Internals Help File Edit View So Capture Analyze Statstics Telephony Tools Internals Help File Edit View So Capture Analyze Statstics Telephony Tools Internals Help No. Time Source Destination Protocol keneth Info 10.00000000 fe80::3457:def3:e74 ff02::11:3 LLMMR 64 Standard query Oxc 30.0951640200 fe80::3457:def3:e74 ff02::11:3 LLMMR 64 Standard query Oxc 50.2983390010:33.7.1 10.33.7.255 NBNS 92 Name query NB MPAD 61.0623250010.33.7.1 10.33.7.255 NBNS 92 Name query NB MPAD 61.0623250010.03.7.1 10.33.7.255 NBNS 92 Name query NB MPAD 82 Name q	The Wrreshark Network Analyzer       Wirreshark 1121 (v1.12.1-0-g0 b655hf from master-1.12)         Ele Edit Yew Go Capture Analyze Statistics Telephony Tools Internals Heb         Image: Statistic Telephony Tools Internals Heb
externa. File Edit View VM Tabs Help File Edit View So Capture Analyze Statistics Telephony Tools Internals Help File Edit View So Capture Analyze Statistics Telephony Tools Internals Help File Edit View So Capture Analyze Statistics Telephony Tools Internals Help File Edit View So Capture Analyze Statistics Telephony Tools Internals Help File Edit View So Capture Analyze Statistics Telephony Tools Internals Help File Edit View So Capture Analyze Statistics Telephony Tools Internals Help File Source Destination File Edit View So Capture Analyze Statistics Telephony Tools Internals Help File Source Destination File Source Destination File Source Control View Source Analyze Statistics Telephony Tools Internals Help File Source Destination File Source Destination File Source Control View Source Analyze Statistics Telephony Tools Internals Help Source Destination File Source Destination File Source Destination File Source Destination File Source Control View Source Analyze Statistics Telephony Tools Internals Help File Source Destination File Source	The Wreeshark Network Analyzer       Wireshark 112.1 (v112.1-0-g01b65bd from master-1.12)         Ele       Edit Yew So Capture Analyze Statistics Telephony Tools Internals Help         Image: Solution of the state o
externa.  File Edit View VM Tabs Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View	The Wireshark Network Analyzer       Wireshark 1.12.1 (v1.12.1-0-g01b65bf from master-1.12)         Be Edit Yew So Capture Analyze Statistics Telephony Tools Intends Help         Image: So Capture Analyze Statistics Telephony Tools Intends Help         Image: So Capture Analyze Statistics Telephony Tools Intends Help         Image: So Capture Analyze Statistics Telephony Tools Intends Help         Image: So Capture Analyze Statistics Telephony Tools Intends Help         Image: So Capture Interface List         Image: Capture Interfaces
externa.         File Edit View VM Tabs Help         Image: Source	The Wireshark Network Analyzer       Wireshark 1.12.1 (v1.12.1-0-g01b65bf from master-1.12)         Be Edit Yew @ Capture Analyze Statistics Telephony Tools Internals Help         Be Edit Yew @ Capture Analyze Statistics Telephony Tools Internals Help         Filer:       Expression Clear Apply Save         Filer:       Expression Clear Apply Save         WIRESHARK       The World's Most Popular Network Protocol Analyzer         Version 1.12.1 (v1.12.1-0-g01b65bf from master-1.12)         Capture       Files         Interface List       Open         Device       Description         IP       Padets Padets/s
externa.         File Edit View VM Tabs Help         Image: State S	The Wireshark Network Analyzer       Wireshark 112.1 (v112.1-0-g01165bf from master 1.12)       Image: Statistic Telephony Tools Internals Help         Image: Statistic Telephony Tools Internals Help       Image: Statistic Telephony Tools Internals Help       Image: Statistic Telephony Tools Internals Help         Image: Statistic Telephony Tools Internals Help       Image: Statistic Telephony Tools Internals Help       Image: Statistic Telephony Tools Internals Help         Image: Statistic Telephony Tools Internals Help       Image: Statistic Telephony Tools Internals Help       Image: Statistic Telephony Tools Internals Help         Image: Statistic Telephony Tools Internals Help       Image: Statistic Telephony Tools Internals Help       Image: Statistic Telephony Tools Internals Help         Image: Statistic Telephony Tools Internals Help       Image: Statistic Telephony Tools Internals Help       Image: Statistic Telephony Tools Internals Help         Image: Statistic Telephony Tools Internals Help       Image: Statistic Telephony Tools Internals Help       Image: Statistic Telephony Tools Internals Help         Image: Statistic Telephony Tools Internals Help       Image: Statistic Telephony Tools Internals Help       Image: Statistic Telephony Tools Internals Help         Image: Statistic Telephony Tools Internals Help       Image: Statistic Telephony Tools Internals Help       Image: Statistic Telephony Tools Internals Help         Image: Statistic Telephony Tools Internals Help       Image: Statistic Telephony Tools Internals Help       Image: Statistic Telephony To
externa.         File Edit View VM Tabs Help         Image: Constraint of the second of	The Wireshark Hetwork Analyzer       Wireshark 112.1 (v112.1-0-g0116554f from master-112)         Eke Edit View Go Capture Analyze Statistics Telephony Tools Internals Help         Eke Edit View Go Capture Analyze Statistics Telephony Tools Internals Help         Eke Edit View Go Capture Analyze Statistics Telephony Tools Internals Help         Eke Edit View Go Capture Analyze Statistics Telephony Tools Internals Help         Eke Edit View Go Capture Analyze Statistics Telephony Tools Internals Help         Eke Edit View Go Capture Analyze Statistics Telephony Tools Internals Help         Exercision Internal Help         Exercision Internal Help         Exercision Internal         Exercision Internal     <
externa.         File Edit View VM Tabs Help         Image: Superstand Structure         Image: Superstand Structure         Home Image: Superstand Structure	The Wrreshark Network Analyzer       Wireshark 1.12.1 (V1.12.1-0.4011655/d from master-0.12))         Ele Edit Yew So Capture Analyze Statatics Telephony Tools Internals Help         © © @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @
externa. File Edit View VM Tabs Help Home Windows Server 2008 R2 x6 Home Windows Server 2008 R2 x6 Contraining from Concestion de Area facel (Wreshark 1.12.1 (c1.12.10-g01b65bd from mesters 1.12.)) Fe Edit View Go Capture Analyze Statutos Telephony Tods Internals Help Fitter: Despression Cerr Apply Sove No. <u>Time Source Destination</u> 1 0.00000000 fe80::3457:def3:e74 ff02::11:3 LLMMR 64 Standard query OxC 3 0.095460200 fe80::3457:def3:e74 ff02::11:3 LLMMR 64 Standard query OxC 5 0.29833900 10.33.7.1 1 0.33.7.255 NENS 92 Name query NB WPAD 7 1.82676800 10.33.7.1 1 0.33.7.255 NENS 92 Name query NB WPAD 7 1.8267800 10.33.7.1 1 0.33.7.255 NENS 92 Name query NB WPAD 7 1 1.8267800 10.33.7.1 1 0.33.7.255 NENS 92 Name query NB WPAD 7 1 1.8267800 10.33.7.1 1 0.3	The Wrrestark Network Analyzer       Wireshark L12.1       (V112.1-9.4010551611000000000000000000000000000000
externa. File Edit View VM Tabs Help Home & Sanapshot & Revert & Umity Umity Home & Windows Server 2008 R2 X6 & Home & Windows Server 2008 R2 X6 & Ceptuming from Concording Edit View Soc Experience (Centre Apply Server) Edit View So Capture Analyze Statistics Telephony Tools Internals Help File Edit View So Capture Analyze Statistics Telephony Tools Internals Help File Edit View So Capture Analyze Statistics Telephony Tools Internals Help File Edit View So Capture Analyze Statistics Telephony Tools Internals Help File Edit View So Capture Analyze Statistics Telephony Tools Internals Help File Edit View So Capture Analyze Statistics Telephony Cools Internals Help File Conceptual Statistics Conceptual	The Wreeshark Network Analyzer       Wireshark 1122 (V1.121-0-001 b65bf from moster-0.123)         Ele Edit Yew Go Capture Analyzer Statistics Telephony Tools Internals Help         Image: Statistic Telephony Tool Telephony Tool Telephony Tools Internals Help         Image: Statistic Telephony Tool Telephony Tool Telephony Tool Telephony Tool Telephony Tools Internals Help         Image: Statistic Telephony Tool Telephony Tool Telephony Tool Telephony Tools Internals Help         Image: Statistic Telephony Tool Telephony Tools Internals Help         Image: Statistic Telephony Tools Telephony Tools Internals Telephony Tools Internals Help </td
externa.         File Edit View VM Tabs Help         Image: Status	The Wreeshark Network Analyzer       (Wireshark 112.1 (v1.12.1-0-g01b65bl from mester-1.12))         Ele Edit yew go capture Analyze Statistics Telephony Tools Internals Help         Image: Second Statistics Telephony Tools Internals Help
externa.         File Edit View VM Tabs Help         Image: Status       Revert Image: Image	The Wireshark Network Analyzer (Wireshark 1.12.1 (v1.12.1-0-g01b65bl from master-1.12))         Eke Edit View Go Capture Analyze Statistics Telephony Tools Internals Help         Eke Edit View Go Capture Analyze Statistics Telephony Tools Internals Help         Filter:
externa.         File Edit View VM Tabs Help         Image: Source       Revert Image: Image	The Wireshark Itekwork Analyzer [Wireshark 1.12.1 (v1.12.1-0-g01b65bf from master-1.12)]         Ele Edit View Go Capture Analyze Statistics Telephony Tools Intends Help         Event Social Control Contrecontrol Contect Control Control Control Control Contro
externa.         File Edit View VM Tabs Help         Image: Superstand Status         Image: Superstand Stat	The Wireshark Network Analyzer       Wireshark 1.12.1 (v1.12.1-0-g01b65bf from master 1.12)         Exe Edit Yew Go Capture Analyze Statistics Telephony Tools Internals Help         Exe Edit Yew Go Capture Analyze Statistics Telephony Tools Internals Help         Exercise Control Capture         Filter:         Exercise Control Capture         Exercise Capture         Exercise Control Capture
externa.         File Edit View VM Tabs Help         Image: Superstand Status         Image: Superstand Stat	The Writesbark Network Analyzer       Wiresbark 112.1 (V1.12.1-0.q011655d from master-1.12)         Ele Edit Vew Go Capture Analyze Statatics Telephony Tools Internals Help       Image: Capture C
externa.         File Edit View VM Tabs Help         Image: Superstand Structure         Image: Superstand Structure <tr< td=""><td>The Writesbark Network Analyzer       (Wiresbark Lizz (VLIZL-0-gg)1365hf from mastered Lizz)         Fle Elit Yew go capture Analyze Statistics Telephony Tools Internals Help         Image: Statistic Telephony Tools Internals Help         Image: Statistics Telephony Tools Internals Help         Image: Statistic Telephony Tools Internals Help         Interface List       Open         Image: Statistic Telephony T</td></tr<>	The Writesbark Network Analyzer       (Wiresbark Lizz (VLIZL-0-gg)1365hf from mastered Lizz)         Fle Elit Yew go capture Analyze Statistics Telephony Tools Internals Help         Image: Statistic Telephony Tools Internals Help         Image: Statistics Telephony Tools Internals Help         Image: Statistic Telephony Tools Internals Help         Interface List       Open         Image: Statistic Telephony T
externa.         File Edit View VM Tabs Help         Image: Superstand Strength Strengt Strength Strength Str	The Writesbark Network Analyzer       Wiresbark 112.1 (V112.1-9-g011655hf from mastere 12.2)         Ele Edit Yew go capture Analyze Statistics Telephony Tools Internals Heb       Image: Computer Statistics Telephony Tools Internals Heb         Filter:       Image: Computer Statistics Telephony Tools Internals Heb       Image: Computer Statistics Telephony Tools Internals Heb         Filter:       Image: Computer Statistics Telephony Tools Internals Heb       Image: Computer Statistics Telephony Tools Internals Heb         Filter:       Image: Computer Statistics Telephony Tools Internals Heb       Image: Computer Statistics Telephony Tools Internals Heb         Filter:       Image: Computer Statistics Telephony Tools Internals Heb       Image: Computer Statistics Telephony
externa. File Edit View VM Tabs Help Home Windows Server 2008 R2 X6 Home Windows Server 2008 R2 X6 Cerptomon from Concection de Arcoa faced (Viereslands 1221 (2122-0-g01b6cbd from enested-122)) E Edit Yew So Capture Analyze Statutos Telephony Tools Internals Help Fitter: Protocol Length Info 1 0.00000000 Fe80::3457:def3:e74 ff02::11:3 LLMMR 64 Standard query OxC 3 0.095460200 Fe80::3457:def3:e74 ff02::11:3 LLMMR 64 Standard query OxC 5 0.298339001 0.33.7.1 1 0.33.7.255 NBNS 92 Name query NB WPAD 7 1.826766001 0.33.7.1 1 0.33.7.255 NBNS 92 Name query NB WPAD 7 1.826768001 0.33.7.1 1 0.33.7.255 NBNS 92 Name query NB WPAD 7 1.826768001 0.33.7.1 1 0.33.7.255 NBNS 92 Name query NB WPAD 7 1.826768000 0.33.7.1 1 0.33.7.255 NBNS 92 Name query NB WPAD 7 1.826768000 0.33.7.1 1 0.33.7.255 NBNS 92 Name query 7 14 4.43208800 10.33.7.1 1 0.33.7.255 NBNS 92 Name query 7 10 1 00 00 00 00 00 00 00 00 00 00 00 0	The Writesbark Network Analyzer       Wiresbark 112.1 (v1.12.1-0-g01b65bif from moster-0.12.0)         File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help       Expression Cerr Apply Sove         Filter:       Expression Cerr Apply Sove         WIRESHARK       The World's Most Popular Network Protocol Analyzer         Version 1.12.1 (v1.12.1-0-g01b65bif from master-1.12)         Capture       Files         Interface List       Open         ark: Capture Interfaces       Implement Protocol P         Device       Description       IP         Statistics Conexign de red Intel(R) RR0/1000 MT       FeB0::03457:de51:3073-274f       144         Open       Statistics       Implement         Metwork Media       Stop       Open         Interface List       Implement       Implement         Device       Description       IP       Padetis Padets/s         Conexign de red Intel(R) RR0/1000 MT       FeB0::03457:de51:a74f:fiels       Implement         Start       Stop       Options       Open         Metwork Media       Stop       Options       Open         Start       Stop       Options       Open         Start       Stop       Options       Open         Start       Stop
externa. File Edit View VM Tabs Help Home VM Tabs Help Home VM Tabs Help Home VM Tabs Help The Edit View VM Tabs Help File Edit View So Capture Analyse Statuss Telephony Tods Internal Help File: Peperation. Concretion 64 area local (Viree lands 1121 (01121-0-00160504 from muscles 112)) File: File: Peperation. Concretion 64 area local (Viree lands 1121 (01121-0-00160504 from muscles 112)) File: File: Peperation. Concretion 64 area local (Viree lands 1121 (01121-0-00160504 from muscles 112)) File: Peperation. Concretion 64 area local (Viree lands 1121 (01121-0-00160504 from muscles 112)) File: Peperation. Concretion 64 area local (Viree lands 1121 (01121-0-00160504 from muscles 112)) File: Peperation. Concretion 64 area local (Viree lands 1121 (01121-0-00160504 from muscles 112)) File: Peperation. Concretion 64 area local (Viree lands 1121 (01121-0-00160504 from muscles 112)) File: Peperation. Concretion 64 area local (Viree lands 1121 (01121-0-00160504 from muscles 112)) File: Peperation. Concretion 64 area local (Viree lands 1121 (01121-0-00160600 from muscles 112)) File: Peperation. Concretion 64 area local (Viree lands 1121 (01121-001607070000 from muscles 1121 (01121-00160707000 from muscles 1121 (01121-001607070700 from muscles 1121 (01120-001600 from muscles 1121 (01120-001600 from muscles 112)) File: Frame 1: 84 bytes on wirre (672 bits), 84 bytes captured (672 bits) on interfa file: Frame 1: 84 bytes on wirre (672 bits), 84 bytes captured (672 bits) on interfa File: Frame 1: 84 bytes on wirre (672 bits), 84 bytes captured (672 bits) on interfa File: Frame 1: 84 bytes on wirre (672 bits), 84 bytes captured (672 bits) on interfa File: Frame 1: 84 bytes on wirre (672 bits), 84 bytes captured (672 bits) on interfa File: File: Frame 1: 84 bytes on wirre (672 bits), 84 bytes captured (672 bits) on interfa File:	The Wreeshark Network Analyzer       Wireshark 112.1 (v1.12.1-0-g01.b55hf from mester-1.12)         Ele Edit Yew Go Capture Analyze Statistics Telephony Tools Internais Help         Image: Statistic Statistics         Filter:       Depression Clear Apply Save         Filter:       Depression Clear Apply Save         VIRESHARK       The World's Most Popular Network Protocol Analyzer         Version 1.12.1 (v1.12.1-0-g01.b65bf from master-1.12)         Capture       Files         Interface List       Open         Device       Description         Device       Description         Device       Description         Statistics       199         Options       Open         Statistics       Statistics         Device       Description         Device       Description         Statistics       Statistics         Statistics       Statistics         Statistics       Statistics         Statistics       Statistics         Device       Description         Statistics       Statistics         Device       Description         Statistics       Statistics         Statistics       Statistics         Statistics       Statis
externa.         File Edit View VM Tabs Help         Image: State of the state	The Wreeshark Network Analyzer       Wireshark 112.1 (v1.12.1-0-g01.bi55hf from mester-1.12)         Ele Edit Yew Go Zapture Analyze Statistics Telephony Tools Internals Help         Image: Statistic Telephony Tools Internals Help         Image: Interface List         Ima
externa.  File Edit View VM Tabs Help  File Edit View VM Tabs Ever 2008 R2 X6  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File Edit View So Capture Analyze Statistics Telephony Tools Internals Help  File:  File: Fil	The Wireeshark Network Analyzer (Wireehark 1.12.1 (v1.12.1-0-g010/65bl from mester-1.12))         Ele Edit Yew Go Capture Analyze Statistics Telephony Tools Internals Help         Image: Statistic Telephony Tools Internals Help         Image: Interface List         Image: Interfac
externa. File Edit View VM Tabs Help Home S Sapashot Revert C The Control of Control o	The Wireshark Itelwork Analyzer       Wireshark 1122.1 (v1123.1 0.001655d from master-1.12)         Ele Edit Vew Go Capture Analyzer       Statutes Telephony Tools Internals Help         Image: Comparison of the Compa

Página nº 34 de 38

Haciendo ping continuo desde un equipo de la red virtual hacia un equipo de situado en el exterior de la red interna.

😸 — 💷 Debian 6.0.4 - VM	Iware Workstation			
File Edit View VM Tab	s Help			
	Snapshot 🛛 Revert	🔞 📘 🔜 🗂 🗂 Unity [		
Windows Server 2008 R2	x6 💊 🗊 Debian 6.0	0.4 🐟		
O Aplicaciones Lugares	Sistema 👩 👩			mié 8 de oct, 16:06 🕼 🕅
Equipo Carpeta personal de carlos Papelera Terminal	Archivo Editar Ver carlos@debian07:-\$ PING 172.124.117.16 64 bytes from 172.1 64 bytes from 172.1	Carlos@debian07: ~ <u>Jerminal Ayuda</u> ping 172.124.117.107 70 (172.124.117.107) 56(84) by 24.117.107: icmp_req=1 ttl=64 24.117.107: icmp_req=3 ttl=64 24.117.107: icmp_req=4 ttl=64 24.117.107: icmp_req=5 ttl=64 24.117.107: icmp_req=5 ttl=64 24.117.107: icmp_req=7 ttl=64	tes of data. time=0.757 ms time=3.13 ms time=0.66 ms time=0.551 ms time=0.51 ms time=0.590 ms	
To direct input to this VM, m	ove the mouse pointer i	nside or press Ctrl+G.		

Las dos instancias de Wireshark capturando paquetes del ping continuo. Ambas instancias tienen activado un filtro para sólo ver ICMP

File Edit View VM Tabs Help	File Edit View VM Tabs Help							
🗧 💵 🕟 🧐 Snapshot 👸 Revert 🚡 📗 🛄 🔂 Unity 🛅								
🗊 Windows Server 2008 R2 x6 💊 🗿 Debian 6.0.4 🐟								
Capturing from Conexión de área local [Wire:	shark 1.12.1 (v1.12.1-0-g01b65bf frc	m master-1.12)]	Capturing from Conexión de área local 2 [Win	reshark 1.12.1 (v1.12.1-0-g01b65bf fron	n master-1.12)]			
File Edit View Go Capture Analyze Statistics	File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help							
• • <b>*</b> • <b>*</b> • • • <b>*</b> 2	् 🔶 🛸 🥥 🐺 👱 🔳		• • <b>(</b> • <b>) (</b> • • <b>) (</b> • • • • <b>)</b>	् 🔅 🔿 🖓 🛃 🔳 🖪				
Filter: icmp	Expression	on Clear Apply Save	Filter: icmp	Expression.	Clear Apply Save			
No. (Time Source	Destination Protoco	Length Info	No. Time Source	Destination Protocol	Length Info			
217 255.327104 Vmware_b9:34:ee	Vmware_b1:10:ed ARP	42 Who has 10.33.7	4070 209.863237 172.124.117.107	172.124.200.28 ICMP	98 Echo (ping)			
218 255.327521 Vmware_b1:10:ed	Vmware_b9:34:ee ARP	60 10.33.7.2 is at	4095 210.862989 172.124.200.28	172.124.117.107 ICMP	98 Echo (ping)			
219 255.348214 10.33.7.2	172.124.117.107 ICMP	98 Echo (ping) req	4096 210.863060 172.124.117.107	172.124.200.28 ICMP	98 Echo (ping)			
220 255. 3484 30 172. 124. 117. 107	10.33.7.2 ICMP	98 Echo (ping) rep	4118 211.863072 172.124.200.28	172.124.117.107 ICMP	98 Echo (ping)			
221 256.348281 10.33.7.2	1/2.124.11/.10/ ICMP	98 Echo (ping) req	4119 211.863191 172.124.117.107	172.124.200.28 ICMP	98 Echo (ping)			
222 256.348530 1/2.124.11/.10/	10.33.7.2 ICMP	98 Echo (ping) rep	413/ 212.86314/1/2.124.200.28	1/2.124.11/.10/ ICMP	98 Echo (ping)			
223 257.3481/310.33.7.2	1/2.124.11/.10/ ICMP	98 Echo (ping) req	4138 212.863289 1/2.124.11/.10/	1/2.124.200.28 ICMP	98 Echo (ping)			
224 237.3463601/2.124.117.107	172 124 117 107 TCMP	98 Echo (ping) rep	4169 213.8630361/2.124.200.28	172.124.117.107 ICMP	98 ECho (ping)			
223 236.346230 10.33.7.2	10 22 7 2 TCMP	98 Echo (ping) req	41/0 213.8031401/2.124.11/.10/	172.124.200.28 ICMP	98 ECHO (p1ng)			
220 230.5404231/2.124.11/.10/	172 124 117 107 TCMP	98 Echo (ping) reg	4184 214.803118 1/2.124.200.28	172.124.117.107 ICMP	98 ECHO (ping)			
228 259 248412 172 124 117 107	10 22 7 2 TCMP	98 Echo (ping) rep	4105 214.00519/1/2.124.11/.10/	172.124.200.20 ICMP	98 Echo (ping)			
220 255.540415172.124.117.107	172 124 117 107 TCMP	98 Echo (ping) reg	4201 213.803032172.124.200.28	172.124.117.107 ICMP	98 Echo (ping)			
230 260 348478 172 124 117 107	10 33 7 2 TCMP	98 Echo (ping) rep	4202 213.80310/1/2.124.11/.10/	172.124.200.20 ICMP	98 Echo (ping)			
231 261 348192 10 33 7 2	172 124 117 107 TCMP	98 Echo (ping) reg	4235 216. 862225 172 124 117 107	172.124.117.107 ICMP	98 Echo (ping)			
232 261 348448 172 124 117 107	10 33 7 2 TCMP	98 Echo (ping) ren	4250 217 862058 172 124 200 28	172.124.200.20 ICMP	98 Echo (ping)			
233 262 348225 10 33 7 2	172 124 117 107 TCMP	98 Echo (ping) reg	4259 217.863008172.124.200.20	172.124.117.107 ICMP	98 Echo (ping)			
	1/1/11/110/ 10/1	So ceno (pring) req	4200 217:005207 172:124:117:107	172.124.200.20 1000	so echo (pring)			
			<u>, , , , , , , , , , , , , , , , , , , </u>					
Frame 188: 98 bytes on wire (784)	bits), 98 bytes captured	(784 bits) on interface 🔺	➡ Frame 3073: 98 bytes on wire (78)	4 bits), 98 bytes captured (7	784 bits) on inter 📥			
Ethernet II, Src: Vmware_b9:34:ee	e (00:0c:29:b9:34:ee), Dst	: Vmware_b1:10:ed (00:0c -	Ethernet II, Src: Vmware_b9:34:f     Et	8 (00:0c:29:b9:34:f8), Dst: N	Micro-St_a5:2b:ad			
The second second second for the second seco		117 1071 Bet. 10 11 7	Totonnat Bootocal Vancion A Coc	172 124 200 20 (172 124 20)	20) Dett 172 17			
		<u> </u>						
10000 00 0C 29 b1 10 ed 00 0C 29 b	09 34 ee 08 00 45 00). d1 ac 7c 75 6b 0a 21	).4E.	0000 8c 89 a5 a5 2b ad 00 0c 29 l		).4E.			
0020 07 02 00 00 3f 19 1c 62 00 2	26 21 45 35 54 56 c2	?b .&!E5TV.	0020 75 6b 08 00 e1 a4 01 00 00 0	01 fc 44 35 54 ec bd uk	D5T			
0030 Oc 00 08 09 0a 0b 0c 0d 0e 0	of 10 11 12 13 14 15		0030 Oc 00 08 09 0a 0b Oc 0d 0e 0	of 10 11 12 13 14 15				
0040 16 17 18 19 1a 1b 1c 1d 1e 1	1f 20 21 22 23 24 25		0040 16 17 18 19 1a 1b 1c 1d 1e 1	1f 20 21 22 23 24 25	!"#\$%			
10050 26 27 28 29 2a 20 2C 20 2e 2	21 30 31 32 33 34 35 & (, 67	)^+,/012345	0050 26 27 28 29 2a 20 2C 20 2e 2	2T 30 31 32 33 34 35 & ()*+	F,/012345			
	07		0000 30 37	07				
🚫 🦅 Conexión de área local: <li></li>								
Complexity 7601								
【Inicio】 🚳 🖉 🔚 💻								
To direct input to this VM, move the mouse	pointer inside or press Ctrl+G.				🖾 💿 · · 🔒 🛒 🗖 🛍			

Se observa que la instancia de la izquierda, correspondiente a la interfaz de la red virtual con IP 10.33.7.1, recibe los paquetes del equipo de la red virtual con ip 10.33.7.2 hacia la IP 172.124.117.107 que es hacia la que se está haciendo el ping

File Edit View VM Tabs Help									
🗧 💵 խ 🧐 🕼 Snapshot 🖉 Revert: 🍖 🛛 📰 🧫 📅 🗂 Unity 📷									
🗊 Windows Server 2008 R2 x6 🔿 🍘 Debian 6.0.4 🔿									
6 Capturing from Conexión de área local [Wire	shark 1.12.1 (v1.12.1-0-g01t	65bf from master-1.12)]							_ 8 ×
Elle Edit View Go Capture Analyze Statistic	s Telephony <u>T</u> ools <u>I</u> nternals	Help							
• • <b>*</b> • <b>*</b> • • • <b>*</b>	् 🗢 🔿 7 🕹		0, 🖭   🌌 🗹	褐 💥   🕱					
Filter: icmp	•	Expression Clear Apply	Save						
No. Time Source	Destination	Protocol Length Info							<b>_</b>
324 305.34819610.33.7.2	172.124.117.107	ICMP 98 Echo	(ping) request	id=0x1c62,	seq=103/26368,	tt]=64 (	no response found!)		
325 305.348473172.124.117.107	10.33.7.2	ICMP 98 Echo	(ping) reply	id=0x1c62,	seq=103/26368,	ttl=64 (	request in 324)		
326 306. 348229 10. 33. 7. 2	1/2.124.11/.10/	ICMP 98 ECho	(ping) request	1d=0x1c62,	seq=104/26624,	ttl=64 (	no response Tound!)		
32/ 300.348394 1/2.124.11/.10/	10.33.7.2	1CMP 98 ECHO	has 10 22 7 22	To=UXIC02,	seq=104/20024,	11=04 (	request in 326)		
329 307 323266 Vmware b1:10:ed	Vmware b9:34:ee	ARP 60.10.3	3 7 2 is at 00.	0c·29·b1·10.55.7	- T				
330 307, 348155 10, 33, 7, 2	172, 124, 117, 107	ICMP 98 Echo	(ping) request	id=0x1c62.	seg=105/26880.	tt]=64 (	reply in 331)		
331 307.348334 172.124.117.107	10.33.7.2	ICMP 98 Echo	(ping) reply	id=0x1c62.	seg=105/26880.	tt]=64 (	request in 330)		
332 308.348151 10.33.7.2	172.124.117.107	ICMP 98 Echo	(ping) request	id=0x1c62,	seq=106/27136,	ttl=64 (	reply in 333)		
333 308.348327 172.124.117.107	10.33.7.2	ICMP 98 Echo	(ping) reply	id=0x1c62,	seq=106/27136,	ttl=64 (	request in 332)		
334 309.34822010.33.7.2	172.124.117.107	ICMP 98 Echo	(ping) request	id=0x1c62,	seq=107/27392,	ttl=64 (	reply in 335)		
335 309.348497 172.124.117.107	10.33.7.2	ICMP 98 Echo	(ping) reply	id=0x1c62,	seq=107/27392,	ttl=64 (	request in 334)		
336 310.348194 10.33.7.2	172.124.117.107	ICMP 98 Echo	(ping) request	id=0x1c62,	seq=108/27648,	ttl=64 (	reply in 337)		
337 310. 348422 172.124.117.107	10.33.7.2	ICMP 98 Echo	(ping) reply	id=0x1c62,	seq=108/27648,	ttl=64 (	request in 336)		
338 311.348187 10.33.7.2	172.124.117.107	ICMP 98 Echo	(ping) request	1d=0x1c62,	seq=109/27904,	ttl=64 (	reply in 339)		
339 311.3483991/2.124.11/.10/	172 124 117 107	TCMP 98 ECHO	(ping) reply	id=0x1062,	seq=109/2/904,	ttl=64 (	ne necese foundly		
341 312 348468172 124 117 107	10 33 7 2	TCMP 98 Echo	(ping) request	id=0x1c62,	seq=110/28160	tt]=64 (	request in 340)		-
541 512. 540400 1/2.124.11/.10/	10.55.7.2	104F 50 ECH0	(pring) repry	10-0.1002,	36q-110/20100,	(()-04	request in 5407		
■ Frame 188: 98 bytes on wire (784	bits), 98 bytes capt	ured (784 bits) on	interface 0						
Ethernet II, Src: Vmware_b9:34:e	e (00:00:29:b9:34:ee)	), DST: Vmware_D1:1	0:ed (00:0c:29:	b1:10:ed)					
Internet Protocol Version 4, Src	1/2.124.11/.10/ (1/	2.124.11/.10/), DS	t: 10.33.7.2 (10	0.33.7.2)					
± Internet Control Message Protoco	1								
0000 00 0c 29 b1 10 ed 00 0c 29	b9 24 op 08 00 45 00								
0010 00 54 66 cd 00 00 40 01 e0	d1 ac 7c 75 6b 0a 21		1						
0020 07 02 00 00 3f 19 1c 62 00	26 21 45 35 54 56 c2	?b .&!E5TV							
0030 0c 00 08 09 0a 0b 0c 0d 0e	0f 10 11 12 13 14 15	1"#4							
0050 26 27 28 29 2a 2b 2c 2d 2e	2f 30 31 32 33 34 35	&'()*+/01234	5						
0060 36 37		67							
1									
🔘 💅 Conexión de área local: <live capture="" in="" progress<="" td=""><td>&gt; Packets: 341 · Displayed: 341</td><td>. (100.0%)</td><td></td><td></td><td></td><td></td><td>Profile: Default</td><td></td><td></td></live>	> Packets: 341 · Displayed: 341	. (100.0%)					Profile: Default		
									16:08
🌠 Inicio 🛛 🚵 🔁								ES 客 🗁 🗐 🕼	08/10/2014
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.									

En la instancia de la derecha, correspondiente a la interfaz de la red externa con IP 172.124.117.209 (esta IP se adquiere por DHCP) recibe los paquetes y los manda a la IP 172.124.117.107

File Edit View VM Tabs Help		
🗧 🔢 🕞 🧐 🕼 Snapshot 🖉 Revert 🖓 📗 🚛 🚍 🗂 Unity 🔤		
🛱 Windows Server 2008 R2 x6 🔶 🛱 Debian 6.0.4 😞		
/o Capturing from Conexión de área local 2 [Wireshark 1.12.1 (v1.12.1-0-g01b65bf from master-1.12)]		_ 8 ×
Ele Edit View Go Capture Analyze Statistics Telephony Tools Internals Help		
Filter: imp Expression Clear Apply Save		
No. Time Source Destination Protocol Length Info		
5062 286.863199 172.124.117.107 172.124.200.28 ICMP 98 Echo (ping) reply id=0x0100, seq=128/32768, tt]=64 (request in 5061)		
5068 287. 863091172.124.200.28 172.124.117.107 ICMP 98 Echo (ping) request id=0x0100, seq=129/33024, ttl=63 (no response found!)		
5059 287. 8632211/2.124.11/.10/ 1/2.124.200.28 ICMP 98 ECho (phg) reply 1d=0X0100, seq=129/33024, tt]=64 (request in 5068)		
507/288.8550951/2.124.200.28 1/2.124.11/.10/ ICMP 98.ECHO (ping) request in=0x1100, seq=130/33280, ttl=55 (no response foundar)		
50/8 288.8054421/2.124.11/.10/ 1/2.124.200.28 172.124.200.28 0 CMP 98 ECHO (ping) Febry To=0x0100, Seq=130/33280, LLI=04 (Fequest In 30/7) 50/8 50/8 10/2012 12/2012 1		
5082 589 56041051/2.124.200.20 172.124.117.107 172.124.200 8 romp 98 romp renty id=0x0100, seq=33735350, tt==55 (repty in 5000)		
5110 290 863188172 124 200.28 172 124 117 107 TCMP 98 Echo (ping) request id=0x0100, seq=317/3393, tr1=63 (reqUe in 5007)		
5111 290.863311172.124.117.107 172.124.200.28 ICMP 98 Echo (ping) rely id=0x0100. seg=132/33792, tt]=64 (request in 5110)		
5121 291.863054 172.124.200.28 172.124.117.107 ICMP 98 Echo (ping) request id=0x0100, seg=133/34048, tt]=63 (reply in 5122)		
5122 291.863124 172.124.117.107 172.124.200.28 ICMP 98 Echo (ping) reply id=0x0100, seq=133/34048, ttl=64 (request in 5121)		
5130 292.862993 172.124.200.28 172.124.117.107 ICMP 98 Echo (ping) request id=0x0100, seq=134/34304, ttl=63 (reply in 5131)		
5131 292.863071 172.124.117.107 172.124.200.28 ICMP 98 Echo (ping) reply id=0x0100, seq=134/34304, ttl=64 (request in 5130)		
5135 293.863055 172.124.200.28 172.124.117.107 ICMP 98 Echo (ping) request id=0x0100, seq=135/34560, ttl=63 (no response found!)		
5136 293.863182 172.124.117.107 172.124.200.28 ICMP 98 Echo (ping) reply id=0x0100, seq=135/34560, ttl=64 (request in 5135)		
5151 294, 863094 1/2.124.200.28 1/2.124.117.107 ICMP 98 Echo (ping) request id=0x0100, seq=136/34816, tt=63 (no response found)		
5152 294, 6052401/2.124,11/.10/ 1/2.124,12/0.28 172,124,200.28 172,124,200.28 172,124,12/0.28 172,124,120,124,124,124,124,124,124,124,124,124,124		_
101291.0030501/21124.20020 1/21124.11/10/ 10m 36 ECIIO (print) request 10-0x100; seq=13//30/2; CLI-05 (10 response rounder)		*
Frame 30/3: 98 bytes on whre (/84 bits), 98 bytes captured (/84 bits) on interface 0		
H ECHEPTHET 11, SFC: VINWARE_D9134:18 (U0:UC:29:D9134:18), DST: MICRO-St_a3:2D:a0 (8C:89:d3:d3:2D:30)		
H Internet (Protocol Version 4, Stc. 1/2.124.200.28 (1/2.124.200.23), USC. 1/2.124.11/.10/ (1/2.124.11/.10/)		
0000 8c 89 a5 a5 2b ad 00 0c 29 b9 34 f8 08 00 45 00+ ).4E.		
0010 00 54 00 c0 40 00 3f 01 00 00 ac 7c c8 1c ac 7c		
0020 /5 6b 08 00 e1 a4 01 00 00 01 TC 44 35 54 eC bd uK LDST		
0040 16 17 18 19 1a 1b 1c 1d 1e 1f 20 21 22 23 24 25		
0050 26 27 28 29 2a 2b 2c 2d 2e 2f 30 31 32 33 34 35 & ()*+,/012345		
0000 30 3/ 6/		
In conexion de area local 21 «live capture in progress practets: 3161 "uspayed: 273 (5.3%)      Profile: Default		1
	ES 客 陀 🗑 🌆	16:09 08/10/2014
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.	2 () ·	• 😹 🖷 🗖 🖺



# Configuración de la red



#### 10. Instalación de Zentyal en la red virtual

Pantalla de inicio de Zentyal tras la instalación

### Practica SRI

Comprobación de la configuración						
Sentyal 3.2 - VMware Workstation						
File Edit View VM Tabs Help						
🔲 🕕 🚱 🖉 Snapshot 🖉 Revert 🔞 📘 🔜 🛅 🍊 Unity 💼						
Zentyal 3.2 A						
root@zentyal07: /home/carlos	- • ×					
<u>A</u> rchivo <u>E</u> dición <u>P</u> estañas Ay <u>u</u> da						
Panel de control Zentyaroot@zentyal07:/home/carlos# ifconfig -aeth0Link encap:Ethernet HWaddr 00:0c:29:51:9a:a0 inet addr:10.33.7.6 Bcast:10.33.7.255 Mask:255.255.255.0 inet6 addr: fe80::20c:29ff:fe51:9aa0/64 Scope:Link UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1 RX packets:0 errors:0 dropped:0 overruns:0 frame:0 TX packets:6 errors:0 dropped:0 overruns:0 carrier:0 collisions:0 txqueuelen:1000 RX bytes:0 (0.0 B) TX bytes:468 (468.0 B) Later addread and the second s						
Interrupt:19 Base address:0x2000						
<pre>eth1 Link encap:Ethernet HWaddr 00:0c:29:51:9a:aa inet addr:172.124.200.22 Bcast:172.124.255.255 Mask:255.255.0 inet6 addr: fe80::20c:29ff:fe51:9aaa/64 Scope:Link UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1 RX packets:5484 errors:0 dropped:0 overruns:0 frame:0 TX packets:755 errors:0 dropped:0 overruns:0 carrier:0 collisions:0 txqueuelen:1000 RX bytes:2121293 (2.1 MB) TX bytes:76717 (76.7 KB) Interrupt:16 Base address:0x2080</pre>	9.0					
<pre>lo Link encap:Local Loopback inet addr:127.0.0.1 Mask:255.0.0.0 inet6 addr: ::1/128 Scope:Host UP LOOPBACK RUNNING MTU:65536 Metric:1 RX packets:471 errors:0 dropped:0 overruns:0 frame:0 TX packets:471 errors:0 dropped:0 overruns:0 carrier:0 collisions:0 txqueuelen:0 RX bytes:142602 (142.6 KB) TX bytes:142602 (142.6 KB)</pre>						
💻 🗔 🜔 💻 📓 🙋 Zentyal - Mozilla Firefox 🔤 🔤 root@zentyal07: /home/	20:10 🌉 🙆					
To direct input to this VM, click inside or press Ctrl+G.	· · 🔒 🚅 🜆 🐿					