

SOLUCIONES CON CHR *CLOUD HOSTED ROUTER*

Alejandro Teixeira G.
ateixeira@mkx.cl
MikroTik Certified Trainer
MikroTik Trainer ID #TR0163



mikrotik xper^{ts}



consulting
Soluciones en Telecomunicaciones

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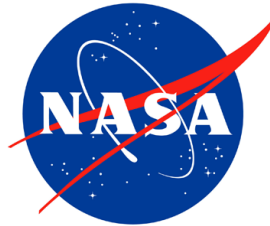
LLEGAMOS
DONDE OTROS NO LLEGAN

Pioneros en brindar conectividad
a los rincones más recónditos
de la Patagonia Chilena

Nuestros clientes

3

Nuestros Clientes



Austro proveedor oficial de NASA en Magallanes.
por segundo año consecutivo, **NASA** ha confiado en
nuestros altos estándares de calidad al momento de
elegir un proveedor de internet para llevar a cabo sus
proyectos investigativos en el continente Antártico.



Temas

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- ¿Qué es CHR?
 - ▣ Licenciamiento
- ¿Qué es AWS?
 - ▣ Ejemplos de implementaciones
- Sistemas de virtualización
- Soluciones con CHR
 - ▣ Laboratorios en GNS3

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¿Qué es CHR?

¿Qué es CHR?

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- Es una versión de RouterOS diseñada especialmente para funcionar **de forma óptima** sobre sistema de virtualización
- Soporta **arquitecturas x86 y 64-bit**
- Puede ser empleado sobre los sistemas mas comunes de virtualización
 - ▣ Vmware ESX
 - ▣ XEN Server
 - ▣ KVM, QUEMU
 - ▣ VirtualBox
 - ▣ Hyper-V

Licenciamiento CHR

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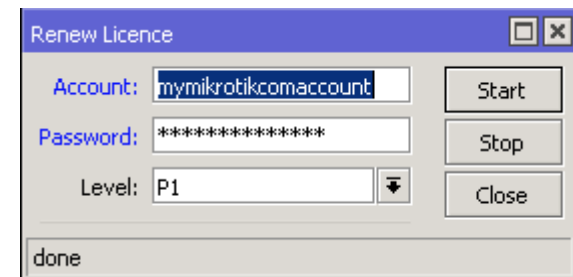
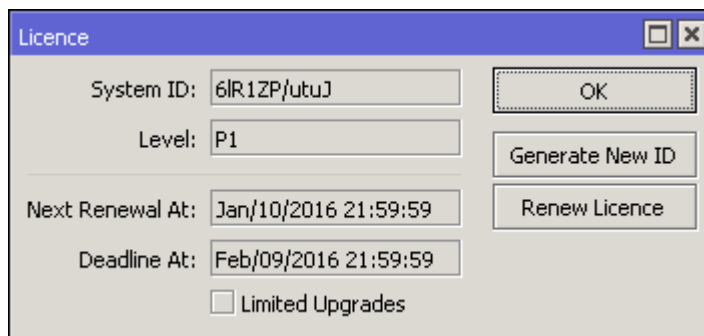
□ Basado en licencia L6 para x86

Level number	0 (Trial mode)	1 (Free Demo)	3 (WISP CPE)	4 (WISP)	5 (WISP)	6 (Controller)
Price	no key ↗	registration required ↗	volume only ↗	\$45	\$95	\$250
Initial Config Support	-	-	-	15 days	30 days	30 days
Wireless AP	24h trial	-	-	yes	yes	yes
Wireless Client and Bridge	24h trial	-	yes	yes	yes	yes
RIP, OSPF, BGP protocols	24h trial	-	yes(*)	yes	yes	yes
EoIP tunnels	24h trial	1	unlimited	unlimited	unlimited	unlimited
PPPoE tunnels	24h trial	1	200	200	500	unlimited
PPTP tunnels	24h trial	1	200	200	500	unlimited
L2TP tunnels	24h trial	1	200	200	500	unlimited
OVPN tunnels	24h trial	1	200	200	unlimited	unlimited
VLAN interfaces	24h trial	1	unlimited	unlimited	unlimited	unlimited
HotSpot active users	24h trial	1	1	200	500	unlimited
RADIUS client	24h trial	-	yes	yes	yes	yes
Queues	24h trial	1	unlimited	unlimited	unlimited	unlimited
Web proxy	24h trial	-	yes	yes	yes	yes
User manager active sessions	24h trial	1	10	20	50	Unlimited
Number of KVM guests	none	1	Unlimited	Unlimited	Unlimited	Unlimited

Licenciamiento CHR

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- ❑ 60 días de trial full
- ❑ Costos
 - ▣ free
 - ▣ p1 perpetual-1 (\$45)
 - ▣ p10 perpetual-10 (\$95)
 - ▣ p-unlimited perpetual-unlimited (\$250)



Foro MikroTik

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□ <http://forum.mikrotik.com/>

	RouterOS Virtual Labs	by kasparskr » Wed Aug 19, 2015 1:21 am » in General	1 2	62	22937
	Cloud Hosted Router	by normis » Mon Jul 27, 2015 2:56 pm	1 ... 6 7 8 9 10	453	63123



normis

MikroTik Support

MikroTik
Posts: 20696

Joined: Fri May 28, 2004 11:04 am

Reputation: 154

First RouterOS version: 2.3.18

Location: Riga, Latvia

Cloud Hosted Router

by **normis** » Mon Jul 27, 2015 2:56 pm

We are releasing a test version of an exciting new feature - **Cloud Hosted Router (CHR)**.

It is a Virtual Machine image of RouterOS that has **full functionality** of RouterOS without any kind of conventional RouterOS license, with the limitation of **1Mbit per interface**, in future, we will offer unlimited speed with a paid subscription. This allows you to use RouterOS in training classes, for testing, for experimentation or any other purpose, without the need for 24h trial or Demo license.

We provide a generic (RAW) format IMG, VMDK file for VMWare, VDI for VirtualBox and VHDX for Hyper-V. These are ready to use virtual disk images (add as a virtual hard drive to your VM). These are NOT templates for importing.

qemu commands for converting images (if you need to convert to another format)

RAW to VMware:

Code: Select all

```
qemu-img convert -f raw -O vmdk chr-6.31rc9.img chr-6.31rc9.vmdk
```

RAW to VirtualBox:

Code: Select all

```
qemu-img convert -f raw -O vdi chr-6.31rc9.img chr-6.31rc9.vdi
```

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¿Qué es AWS?

¿Qué es AWS?

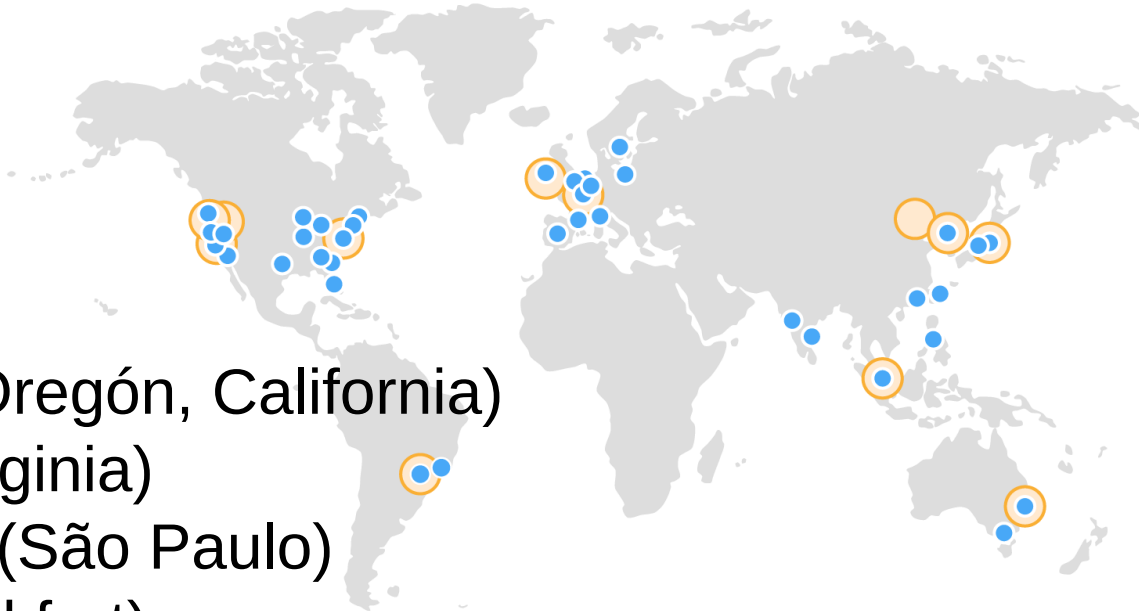
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□ Amazon Web Services

- ▣ Servicios globales de informática
- ▣ Almacenamiento
- ▣ Bases de datos
- ▣ Análisis
- ▣ Aplicaciones

□ Zonas

- ▣ EE.UU. Oeste (Oregón, California)
- ▣ EE.UU. Este (Virginia)
- ▣ América del Sur (São Paulo)
- ▣ UE (Dublín, Frankfurt)
- ▣ Asia Pacífico (Seúl, Singapur, Sídney, Tokio)
- ▣ China (Pekín)



Servicios AWS

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Compute

-  **EC2**
Virtual Servers in the Cloud
-  **EC2 Container Service**
Run and Manage Docker Containers
-  **Elastic Beanstalk**
Run and Manage Web Apps
-  **Lambda**
Run Code in Response to Events

Storage & Content Delivery

-  **S3**
Scalable Storage in the Cloud
-  **CloudFront**
Global Content Delivery Network
-  **Elastic File System** PREVIEW
Fully Managed File System for EC2
-  **Glacier**
Archive Storage in the Cloud
-  **Import/Export Snowball**
Large Scale Data Transport
-  **Storage Gateway**
Hybrid Storage Integration

Database

-  **RDS**
Managed Relational Database Service
-  **DynamoDB**
Managed NoSQL Database
-  **ElastiCache**
In-Memory Cache
-  **Redshift**
Fast, Simple, Cost-Effective Data Warehousing
-  **DMS** PREVIEW
Managed Database Migration Service

Networking

-  **VPC**
Isolated Cloud Resources
-  **Direct Connect**
Dedicated Network Connection to AWS
-  **Route 53**
Scalable DNS and Domain Name Registration

Developer Tools

-  **CodeCommit**
Store Code in Private Git Repositories
-  **CodeDeploy**
Automate Code Deployments
-  **CodePipeline**
Release Software using Continuous Delivery

Management Tools

-  **CloudWatch**
Monitor Resources and Applications
-  **CloudFormation**
Create and Manage Resources with Templates
-  **CloudTrail**
Track User Activity and API Usage
-  **Config**
Track Resource Inventory and Changes
-  **OpsWorks**
Automate Operations with Chef
-  **Service Catalog**
Create and Use Standardized Products
-  **Trusted Advisor**
Optimize Performance and Security

Security & Identity

-  **Identity & Access Management**
Manage User Access and Encryption Keys
-  **Directory Service**
Host and Manage Active Directory
-  **Inspector** PREVIEW
Analyze Application Security
-  **WAF**
Filter Malicious Web Traffic
-  **Certificate Manager**
Provision, Manage, and Deploy SSL/TLS Certificates

Analytics

-  **EMR**
Managed Hadoop Framework
-  **Data Pipeline**
Orchestration for Data-Driven Workflows
-  **Elasticsearch Service**
Run and Scale Elasticsearch Clusters

Internet of Things

-  **AWS IoT**
Connect Devices to the Cloud

Game Development

-  **GameLift**
Deploy and Scale Session-based Multiplayer Games

Mobile Services

-  **Mobile Hub**
Build, Test, and Monitor Mobile Apps
-  **Cognito**
User Identity and App Data Synchronization
-  **Device Farm**
Test Android, FireOS, and iOS Apps on Real Devices in the Cloud
-  **Mobile Analytics**
Collect, View and Export App Analytics
-  **SNS**
Push Notification Service

Application Services

-  **API Gateway**
Build, Deploy and Manage APIs
-  **AppStream**
Low Latency Application Streaming
-  **CloudSearch**
Managed Search Service
-  **Elastic Transcoder**
Easy-to-Use Scalable Media Transcoding
-  **SES**
Email Sending and Receiving Service
-  **SQS**
Message Queue Service
-  **SWF**
Workflow Service for Coordinating Application Components

Enterprise Applications

-  **WorkSpaces**
Desktops in the Cloud
-  **WorkDocs**
Secure Enterprise Storage and Sharing Service
-  **WorkMail**
Secure Email and Calendaring Service

EC2

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Launch Instance Connect Actions							
Filter by tags and attributes or search by keyword							
☐	Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Public IP
☐	AWS-CLI	i-6ad752d9	t2.micro	us-east-1a	stopped		
☐	CRM AUSTRO	i-c3903770	t2.small	us-east-1a	stopped		
☐	ubuntu - kakita	i-aa54c619	t2.nano	us-east-1a	stopped		
☐	elastix	i-27c70194	t2.nano	us-east-1a	running	2/2 checks passed	
☐	CHR2	i-d15f8362	t2.nano	us-east-1a	running	2/2 checks passed	
☐	CRM TFNET	i-a0238113	t2.small	us-east-1a	stopped		
☐	CHR3	i-3259d881	t2.nano	us-east-1a	stopped		
☐	CHR1	i-b6b97f05	t2.nano	us-east-1a	running	2/2 checks passed	
☐	Windows: Austro, Sambil, .NET v4	i-1876f6ab	t2.medium	us-east-1a	running	2/2 checks passed	
☐	academy, helpdesk, MySQL	i-3bee05d4	t2.micro	us-east-1a	stopped		
☐	Windows: dropbox	i-6608d1c6	t2.small	us-east-1a	running	2/2 checks passed	

Costos AWS EC2

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Linux	RHEL	SLES	Windows	Windows con SQL Standard	Windows con SQL Web
Windows con SQL Enterprise					
Región: EE.UU. Este (Norte de Virginia) ↕					
	vCPU	ECU	Memoria (GiB)	Almacenamiento de instancias (GB)	Uso de Linux/UNIX
Uso general – Generación actual					
t2.nano	1	Variable	0.5	Solo EBS	\$0.0065 por hora
t2.micro	1	Variable	1	Solo EBS	\$0.013 por hora
t2.small	1	Variable	2	Solo EBS	\$0.026 por hora
t2.medium	2	Variable	4	Solo EBS	\$0.052 por hora

5 USD / MES

Ejemplo CHR en AWS

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Interface List

Interface	Ethernet	EoIP Tunnel	IP Tunnel	GRE Tunnel	VLAN	VRP	Bonding	LTE	
Name / Type	L2 MTU	Tx	Rx	Tx Packet (p/s)	Rx Packet (p/s)	FP Tx	FP Rx	FP Tx Packet (p/s)	FP Rx Packet (p/s)
R aws-chr2 L2TP Server Binding		50.9 Mbps	50.6 Mbps	8 337	8 336	0 bps	0 bps	0	0
R aws-chr3 L2TP Server Binding		0 bps	0 bps	0	0	0 bps	0 bps	0	0
R aws-scl L2TP Server Binding		0 bps	0 bps	0	0	0 bps	0 bps	0	0
R ether1 Ethernet		54.4 Mbps	53.4 Mbps	8 337	8 346	0 bps	0 bps	0	0

Bandwidth Test (Running)

Test To: 10.55.55.2

Protocol: ☒ udp ☐ tcp

Local UDP Tx Size: 1500

Remote UDP Tx Size: 1500

Direction: both

TCP Connection Count: 20

Local Tx Speed: 50M bps

Remote Tx Speed: 50M bps

☐ Random Data

User: admin

Password: *****

Lost Packets: 0

Tx/Rx Current: 49.9 Mbps/49.9 Mbps

Tx/Rx 10s Average: 49.9 Mbps/49.9 Mbps

Tx/Rx Total Average: 49.9 Mbps/49.9 Mbps

Interface <aws-chr2>

General Status Traffic

Tx/Rx Rate: 50.9 Mbps / 50.6 Mbps

Tx/Rx Packet Rate: 8 337 p/s / 8 336 p/s

FP Tx/Rx Rate: 0 bps / 0 bps

FP Tx/Rx Packet Rate: 0 p/s / 0 p/s

Tx/Rx Bytes: 944.9 MiB / 977.1 MiB

Tx/Rx Packets: 1 300 822 / 1 351 241

Tx/Rx Drops: 1 / 0

Tx/Rx Errors: 0 / 0

Resources

Uptime: 16d 16:58:25

Free Memory: 408.3 MiB

Total Memory: 496.3 MiB

CPU: Intel(R)

CPU Count: 1

CPU Frequency: 2400 MHz

CPU Load: 4 %

Free HDD Space: 460.5 MiB

Total HDD Size: 527.8 MiB

Sector Writes Since Reboot: 8 057 688

Total Sector Writes: 8 057 689

Architecture Name: x86_64

Board Name: CHR

Version: 6.34 (stable)

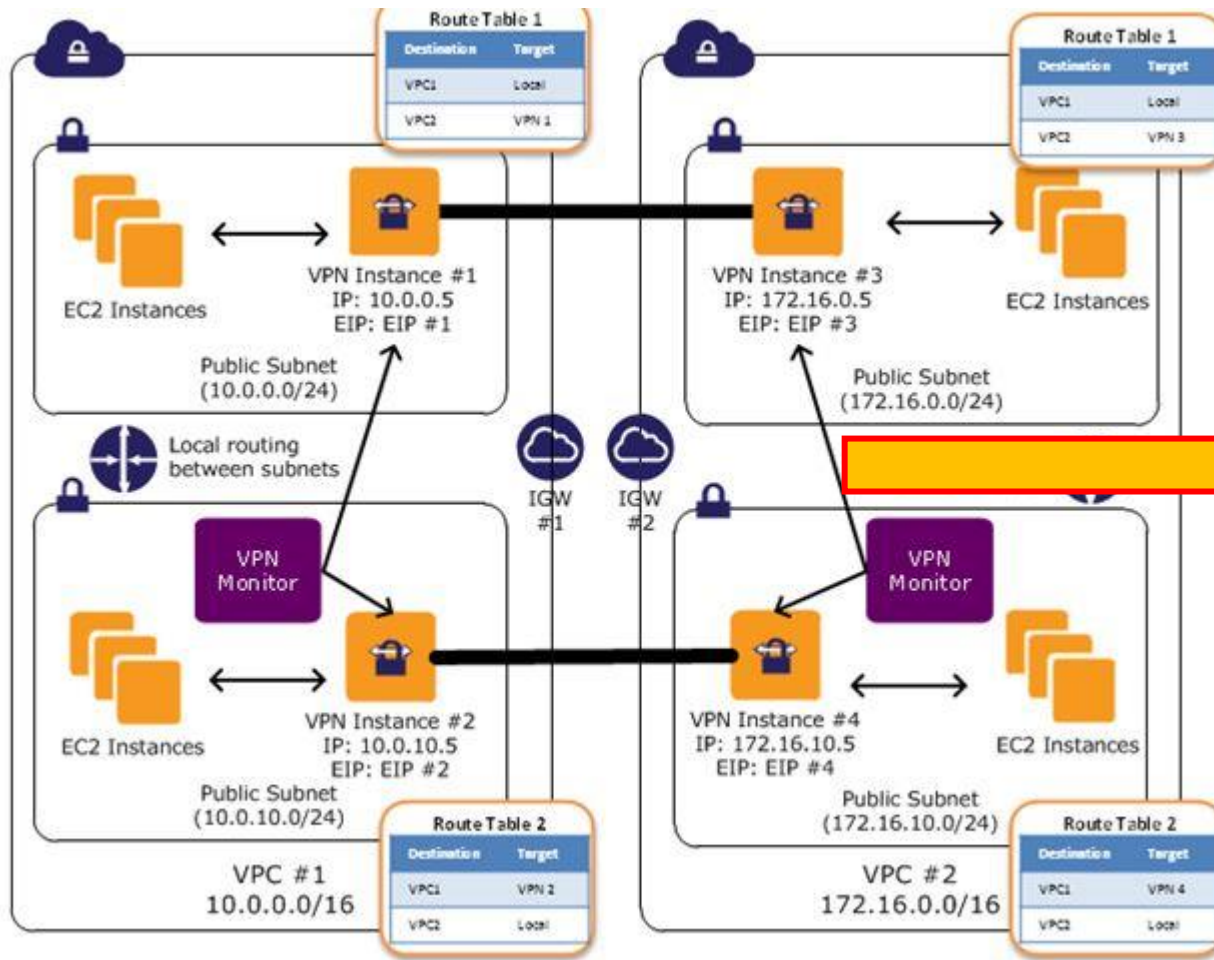
Build Time: Jan/29/2016 10:25:47

enabled running slave Status: connected

Soluciones VPN

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□ Servidor VPN en la nube



Interconexión con Datacenter

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Sessions Settings Dashboard

Safe Mode Session:

Quick Set CAPsMAN Interfaces Wireless Bridge PPP Switch Mesh IP MPLS Routing System Queues Files Log Radius Tools New Terminal LCD MetaROUTER Partition Make Supout.rtf Manual New WinBox Exit

Interface List

Interface	Ethernet	EoIP Tunnel	IP Tunnel	GRE Tunnel	VLAN	VRRP	Bonding	LTE
Name	Type	L2 MTU	Tx	Rx				
S OK_eoip_voip_eco-camp.natales	EoIP Tunnel	65535	0 bps					
RS OK_eoip_voip_fs.puq	EoIP Tunnel	65535	0 bps					
RS OK_eoip_voip_fs.puq.2	EoIP Tunnel	65535	0 bps					
R OK_eoip_voip_puq	EoIP Tunnel	65535	0 bps					
R bonding_sxt	Bonding		8.6 Mbps					
RS vlan-101	VLAN		2.8 Mbps					
R vlan-201	VLAN		3.0 Mbps					
R vlan-301	VLAN		363.6 kbps					
R vlan-401	VLAN		2.2 Mbps					
RS vlan-501	VLAN		3.8 kbps					
R bridge_HRS	Bridge	65535	0 bps					
R bridge_WILD-FI	Bridge	1594	2.5 kbps					
R bridge_loopback	Bridge	65535	0 bps					
R bridge_swicth-ubnt	Bridge	65535	0 bps					
R bridge_vlan-101	Bridge	1594	0 bps					
R bridge_vlan-501	Bridge	1594	3.9 kbps					
R bridge_voip	Bridge	1594	0 bps					
RS eoip_HRS	EoIP Tunnel	65535	0 bps					
RS eoip_HRS-PAINE	EoIP Tunnel	65535	0 bps					
XS eoip_SOD.WILD-FI	EoIP Tunnel	65535	0 bps					
S eoip_demo.hotspot.puq	EoIP Tunnel	65535	0 bps					
X eoip_movistar_vlan-501_HRS-OPERA	EoIP Tunnel	65535	0 bps					
S eoip_switch-ubnt	EoIP Tunnel	65535	0 bps					
RS eoip_voip-RUBENS-WF	EoIP Tunnel	65535	1456 bps					
RS eoip_voip_El-Chileno	EoIP Tunnel	65535	0 bps					
RS eoip_voip_LiliK	EoIP Tunnel	65535	0 bps					
RS eoip_voip_PatagoniaCamp	EoIP Tunnel	65535	0 bps					
RS eoip_wild-fi_CampingFS	EoIP Tunnel	65535	1456 bps					
RS eoip_wild-fi_Cuemos	EoIP Tunnel	65535	1456 bps					
RS eoip_wild-fi_EcoCamp	EoIP Tunnel	65535	1456 bps					
RS eoip_wild-fi_ElChileno	EoIP Tunnel	65535	4.8 kbps					
RS eoip_wild-fi_Frances-Camping	EoIP Tunnel	65535	1456 bps					
RS eoip_wild-fi_Frances-Domos	EoIP Tunnel	65535	1456 bps					
RS eoip_wild-fi_HRS	EoIP Tunnel	65535	1456 bps					
RS eoip_wild-fi_KIOSKO	EoIP Tunnel	65535	1456 bps					

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Route List

Routes	NextHops	Rules	VRF
Dist. Address	Gateway	Distance	Routing Mark
AS 0.0.0.0/0	208.67.222.123 recursive via 186.103.198.97 vlan-201	1	vlan-201
AS 0.0.0.0/0	208.67.220.123 recursive via 186.103.180.57 bridge_vlan-101	1	
S 0.0.0.0/0	208.67.222.123 recursive via 186.103.198.97 vlan-201	2	
AS 0.0.0.0/0	208.67.222.220 recursive via 186.103.227.193 vlan-301	1	vlan-301
AS 0.0.0.0/0	208.67.220.222 recursive via 186.103.227.185 vlan-401	1	vlan-401
S 0.0.0.0/0	208.67.222.220 recursive via 186.103.227.193 vlan-301	3	
S 0.0.0.0/0	208.67.220.222 recursive via 186.103.227.185 vlan-401	4	
S 0.0.0.0/0	209.244.0.3 recursive via 190.82.88.185 bridge_vlan-501	5	
AS 0.0.0.0/0	208.67.220.123 recursive via 186.103.180.57 bridge_vlan-101	1	vlan-101
AS 0.0.0.0/0	209.244.0.3 recursive via 190.82.88.185 bridge_vlan-501	1	vlan-501
DAo 1.1.1.0/30	10.87.23.2 reachable vlan-1563_TEN-BONDING	110	
DAC 10.17.13.0/24	ether5_SXT-Frigorifico2 reachable	0	10
DAC 10.17.14.0/24	vlan-2702_SXT-CerroNegro-SUR reachable	0	10
DAC 10.17.15.0/24	bridge_WILD-FI reachable	0	10
DAC 10.17.16.0/24	bridge_vlan-101 reachable	0	10
DAo 10.18.12.0/24	172.17.12.10 reachable vlan-2703_BaseBox-CerroNegro	110	
DAo 10.18.13.0/24	172.17.12.10 reachable vlan-2703_BaseBox-CerroNegro	110	
DAC 10.19.0.0/16	bridge_WILD-FI reachable	0	10
DAo 10.20.30.0/30	10.87.23.2 reachable vlan-1563_TEN-BONDING	110	
DAo 10.32.72.0/24	10.87.23.2 reachable vlan-1563_TEN-BONDING	110	
DAC 10.43.143.0/29	ether7_vmware reachable	0	10
DAC 10.44.144.0/24	bridge_swicth-ubnt reachable	0	10
DAC 10.49.64.0/24	vlan-2921 reachable	0	10
DAo 10.53.153.0/29	10.87.23.2 reachable vlan-1563_TEN-BONDING	110	
DAo 10.57.11.0/24	10.87.23.2 reachable vlan-1563_TEN-BONDING	110	
DAo 10.57.12.0/24	10.87.23.2 reachable vlan-1563_TEN-BONDING	110	
DAo 10.57.13.0/24	10.87.23.2 reachable vlan-1563_TEN-BONDING	110	
DAo 10.57.14.0/24	10.87.23.2 reachable vlan-1563_TEN-BONDING	110	
DAo 10.57.15.0/24	10.87.23.2 reachable vlan-1563_TEN-BONDING	110	
DAo 10.57.16.0/24	10.87.23.2 reachable vlan-1563_TEN-BONDING	110	
DAo 10.57.18.0/24	10.87.23.2 reachable vlan-1563_TEN-BONDING	110	
DAo 10.57.19.0/24	10.87.23.2 reachable vlan-1563_TEN-BONDING	110	
DAo 10.57.20.0/24	10.87.23.2 reachable vlan-1563_TEN-BONDING	110	
DAo 10.57.22.0/24	10.87.23.2 reachable vlan-1563_TEN-BONDING	110	
DAo 10.57.202.0/24	10.87.23.2 reachable vlan-1563_TEN-BONDING	110	

111 items

Reglas de filtrado y NAT

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#	Action	Chain	Src. Address	Dst. Address	Proto...	Src. Port	Dst. Port	In. Inter...	Out. Int...	Bytes	Packets	Comment
0	masquerade	srcnat	10.232.102.0/24							9.0 MiB	20 569	
1	masquerade	srcnat	10.232.103.79							5.3 MiB	35 120	
2	masquerade	srcnat	10.255.255.0/24							0 B	0	
3	redirect	dstnat	10.232.102.0/24		17 (u...		53			359.3 KiB	5 925	
4	dst-nat	dstnat		10.232.101.101	17 (u...					8.4 KiB	40	redvoiss
5	dst-nat	dstnat		10.232.101.101	17 (u...		4569			84 B	2	elastix
6	dst-nat	dstnat		10.232.101.101	17 (u...		5060			18.5 KiB	25	elastix
7	dst-nat	dstnat		10.232.101.101	17 (u...		10000-20...			9.0 KiB	53	elastix
8	dst-nat	dstnat		10.232.101.101	6 (tcp)		8081			1280 B	32	ubuntu - blocked page
9	dst-nat	dstnat		10.232.101.101	6 (tcp)		80			1083.4 KiB	18 817	ubuntu - blocked page
10	dst-nat	dstnat		10.232.101.101	6 (tcp)		80			0 B	0	ubuntu - blocked page
11	redirect	dstnat		10.232.101.101	6 (tcp)		80			22.1 KiB	455	web-proxy

#	Action	Chain	Src. Address	Dst. Address	Proto...	Src. Port	Dst. Port	In. Inter...	Out. Int...	Connection State	Connection NAT ...	Bytes	Packets	Comment
0	drop	input								invalid		137.9 KiB	2 211	
1	accept	input								established related		9.3 GiB	9 208 528	
2	accept	input			6 (tcp)		8291					616 B	12	winbox
3	accept	input			17 (u...		1701					1320 B	10	i2p
4	accept	input			6 (tcp)		8071					22.1 KiB	455	web-proxy
5	accept	input	10.232.102.0/24		17 (u...		53					359.3 KiB	5 926	dns redirect
6	accept	input	10.232.101.1		17 (u...	67	68					656 B	2	dhcp
7	accept	input						all ppp				49.0 MiB	139 642	vpn
8	accept	input	54.165.129.249		6 (tcp)		22					2080 B	40	AWS GenCert
9	accept	input	52.70.224.186									0 B	0	CHR2-AWS
10	accept	input	52.71.156.82									0 B	0	CHR3-AWS
11	drop	input										83.3 MiB	1 441 926	
12	drop	forward								invalid		174.7 KiB	4 459	
13	accept	forward								established related		4712.5 MiB	8 024 727	
14	accept	forward						all ppp				75.9 KiB	1 488	vpn
15	accept	forward							all ppp			35.6 KiB	227	vpn
16	accept	forward	10.232.102.0/24		1 (ic...							0 B	0	icmp - echo request
17	accept	forward	10.232.102.0/24		6 (tcp)		80,443					5.4 KiB	92	http, https
18	accept	forward	10.232.102.0/24		17 (u...		53,123					351.8 KiB	4 740	dns, ntp
19	accept	forward	10.232.102.11		17 (u...	5060,100...						32.3 MiB	60 660	elastix
20	accept	forward	10.232.102.11	190.153.25.202	17 (u...	4569						0 B	0	elastix
21	accept	forward	10.232.102.219									0 B	0	AWS-CLI
22	accept	forward	64.76.154.0/24									156.6 KiB	799	redvoiss
23	accept	forward		64.76.154.0/24								0 B	0	redvoiss
24	accept	forward	10.232.103.79									5.8 MiB	38 749	aws workspaces
25	accept	forward									dstnat	2791.6 KiB	46 211	dst-nat
26	drop	forward										204.4 KiB	3 411	

Sistemas de virtualización

Sistemas de virtualización

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Laboratorios con GNS3

Laboratorios con GNS3

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The image shows a banner for the GNS3 website. At the top, there is a navigation bar with a logo on the left and links for SOFTWARE, NEWS, COMMUNITY, SUPPORT, MARKETPLACE, and ACADEMY. The main part of the banner features a large, stylized GNS3 logo in the upper right. Below the logo, the text reads: "The software that empowers network professionals." followed by "Join the over 2 million network professionals who rely on GNS3 to build better networks, share ideas and make connections." At the bottom right, there is a blue button with the text "FREE DOWNLOAD".

 SOFTWARE NEWS COMMUNITY SUPPORT MARKETPLACE ACADEMY


GNS3®

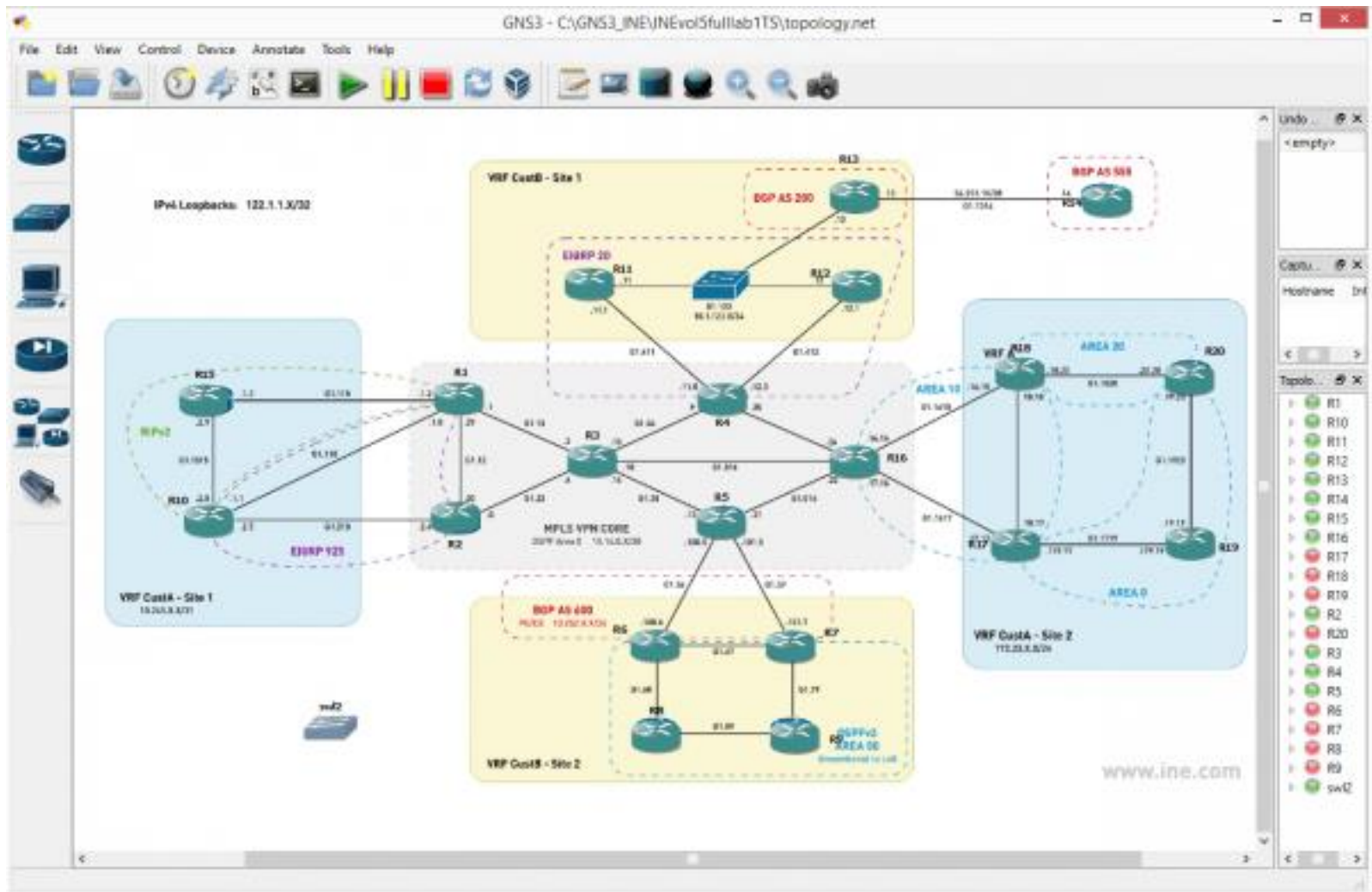
**The software that empowers
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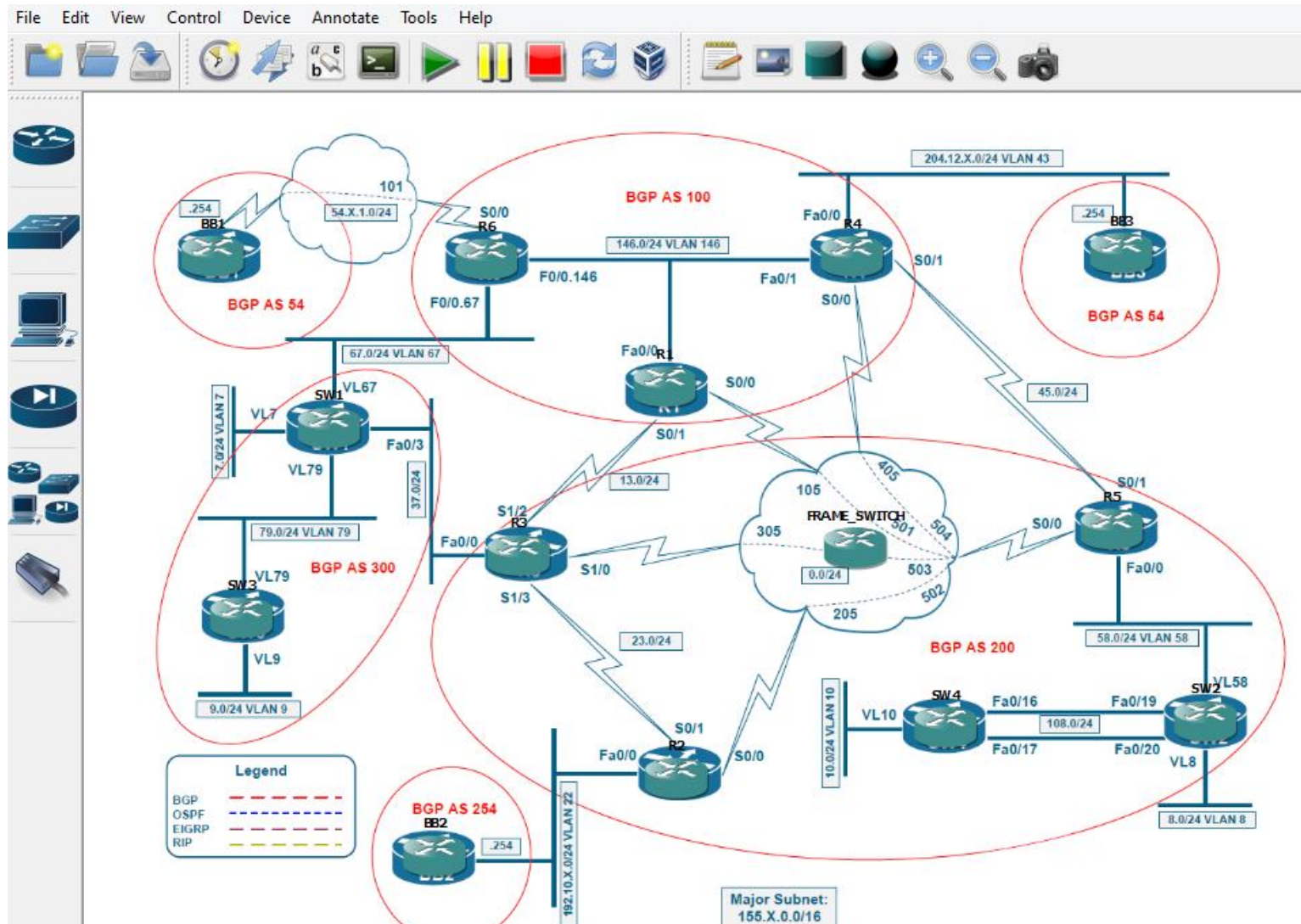
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Foro MikroTik

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□ <http://forum.mikrotik.com/>

	RouterOS Virtual Labs by kasparskr » Wed Aug 19, 2015 1:21 am » in General	1 2	62	22937
	Cloud Hosted Router by normis » Mon Jul 27, 2015 2:56 pm	1 ... 6 7 8 9 10	453	63123



normis

MikroTik Support

MikroTik
Posts: 20696

Joined: Fri May 28, 2004 11:04 am

Reputation: 154

First RouterOS version: 2.3.18

Location: Riga, Latvia

Cloud Hosted Router

by **normis** » Mon Jul 27, 2015 2:56 pm

We are releasing a test version of an exciting new feature - **Cloud Hosted Router (CHR)**.

It is a Virtual Machine image of RouterOS that has **full functionality** of RouterOS without any kind of conventional RouterOS license, with the limitation of **1Mbit per interface**, in future, we will offer unlimited speed with a paid subscription. This allows you to use RouterOS in training classes, for testing, for experimentation or any other purpose, without the need for 24h trial or Demo license.

We provide a generic (RAW) format IMG, VMDK file for VMWare, VDI for VirtualBox and VHDX for Hyper-V. These are ready to use virtual disk images (add as a virtual hard drive to your VM). These are NOT templates for importing.

qemu commands for converting images (if you need to convert to another format)

RAW to VMware:

Code: Select all

```
qemu-img convert -f raw -O vmdk chr-6.31rc9.img chr-6.31rc9.vmdk
```

RAW to VirtualBox:

Code: Select all

```
qemu-img convert -f raw -O vdi chr-6.31rc9.img chr-6.31rc9.vdi
```

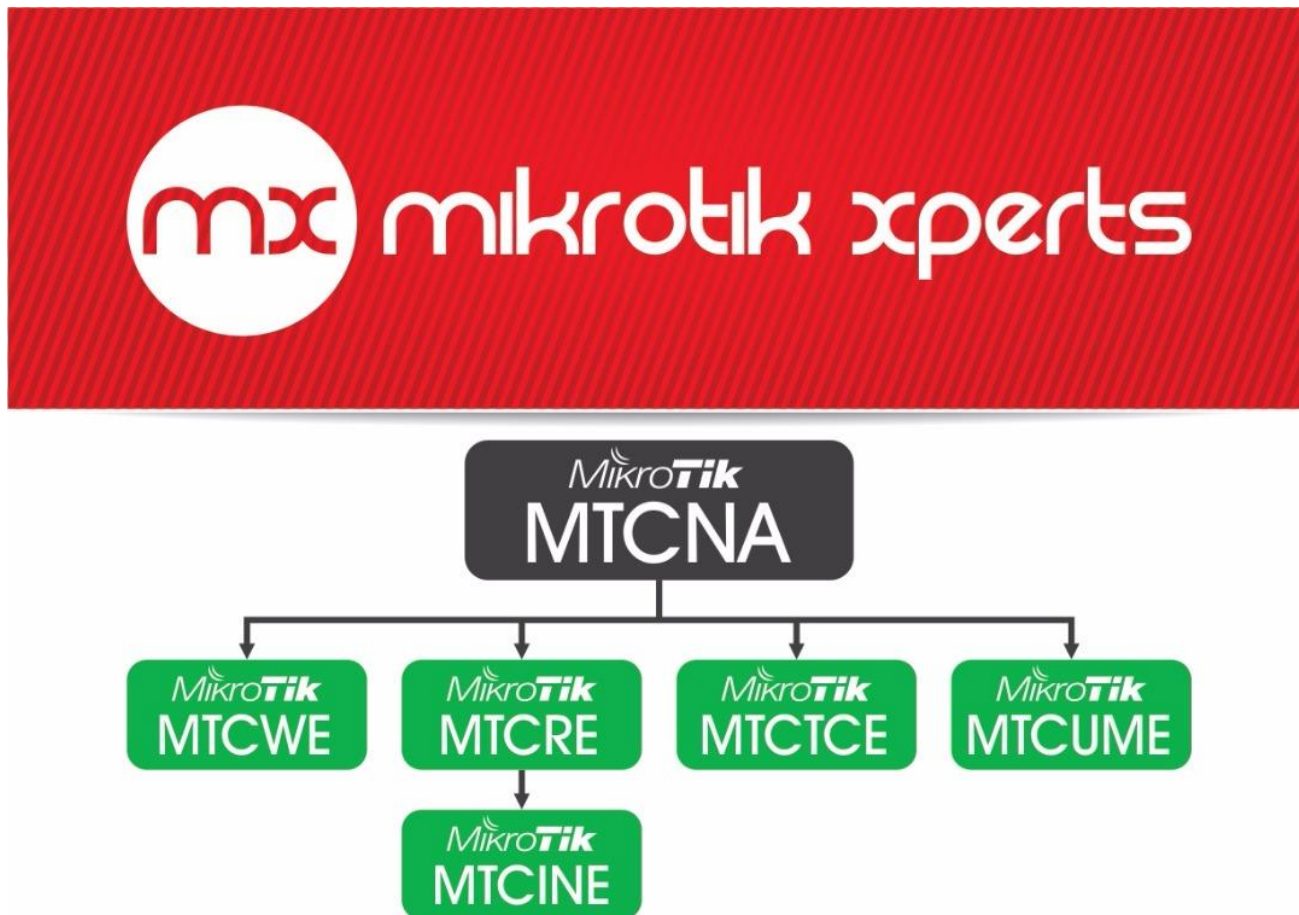
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Invitación

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- Cursos de certificación oficial MikroTik



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WhatsApp: +56-9-9017-1908, Fijo: 2-2583-5522
www.mkx.cl / cursos@mkx.cl
Las Condes, Santiago - Chile

 AcademyXpertsChile

¿Preguntas?

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Gracias por
su atención