INFORME DE ACTIVIDADES DE IMPLEMENTACIÓN Y SUMINISTRO CONTRATO CO1.PCCNTR.2769350

OBJETO: Adquisición de bienes tecnológicos (Hardware y software) en desarrollo del proceso de modernización para el Instituto de Cultura y Patrimonio de Antioquia.

INSTITUTO DE CULTURA Y PATRIMONIO DE ANTIOQUIA

Medellín, diciembre 2021

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TABLA DE CONTENIDO

1. EQUIPO DE MANEJO UNIFADO DE AMENAZAS 3
2. MÓDULO SFP+ PARA FIBRA ÓPTICA 4
3. LICENCIA A 5 AÑOS PARA EL EQUIPO UTM 5
4. INSTALACIÓN, CONFIGURACIÓN, PUESTA PUNTO Y CONFIGURACIÓN EQUIPO UTM ... 6
5. MIGRACIÓN PLANTA TELEFÓNICA ELASTIX A ISSABEL 7
6. DISCO DURO SSD PARA SERVIDOR DE CÁMARAS, PARA HACER ARREGLO RAID 11
7. MIGRACIÓN DEL SISTEMA LINUX Y PLATAFORMA EXACVISION A NUEVO ARREGLO DE DISCOS RAID 15
8. LICENCIA ARCSERVE SOPORTE PLATAFORMA ARCSERVE 16
9. SWITCHE DE CORE 20
10. FUENTE REDUNDANTE PARA SWITCHE DE CORE 21
11. TARJETA DE MÓDULOS DE FIBRA ÓPTICA, SFP+ COMPATIBLE CON EL SWITCHE DE CORE HP PROCURVE 5412ZL 23
12. INSTALACIÓN Y CONFIGURACIÓN DEL SWITCHE DE CORE EN ALTA DISPONIBILIDAD JUNTO AL SWITCHE DE CORE ACTUAL 25
13. SWITCHE DE BORDE 48 PUERTOS PoE+, 4 SFP+, 370W 37
14. MÓDULO SFP+, VELOCIDAD 10 GBPS 40
15. ACCESS POINT PARA WIFI DE ÚLTIMA GENERACIÓN 42
16. LICENCIA RED SIN CONTROLADORA HASTA 25 AP'S 46
17. INSTALACIÓN, CONFIGURACIÓN Y PUESTA A PUNTO DE LA RED DE DATOS CORPORATIVA 47
18. COMPUTADOR PORTÁTIL 56
19. TABLETA DE ÚLTIMA GENERACIÓN 59

1. EQUIPO DE MANEJO UNIFADO DE AMENAZAS

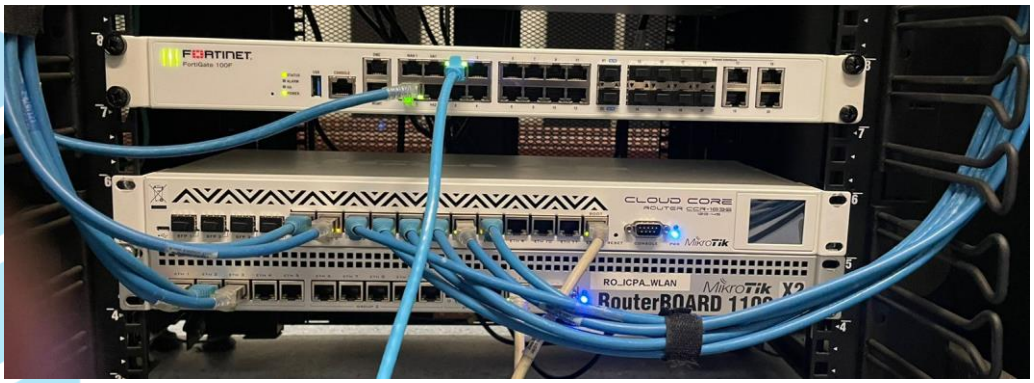
Se procede a suministrar el equipo UTM (Unified Threat Management), de acuerdo al elemento presentado en la oferta

EQUIPO:	UTM
MARCA:	FORTINET
REFERENCIA:	FG-100F-BDL-950-36
CANTIDAD:	Uno (1)
DESCRIPCIÓN:	Equipo de Manejo unificado de amenazas, Unifi Threat Management, Puertos 22 x GE RJ45 (including 2 x WAN ports, 1 x DMZ port, 1 x Mgmt port, 2 x HA ports, 16 x switch ports with 4 SFP port shared media), 4 SFP ports, 2x 10G SFP+ FortiLinks, dual power supplies redundancy.
SERIAL:	FG100FTK20013425

- Suministro







2. MÓDULO SFP+ PARA FIBRA ÓPTICA

Se procede a suministrar el módulo equipo UTM (Unified Threat Management), de acuerdo al elemento presentado en la oferta

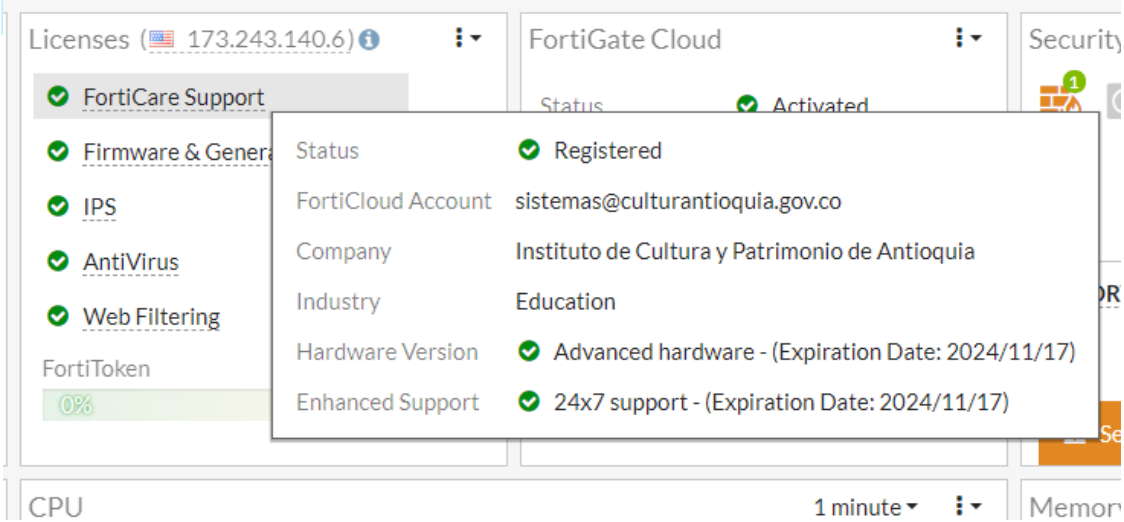
EQUIPO:	SFP+
MARCA:	FORTINET
REFERENCIA:	FG-TRANS-SFP+SR
CANTIDAD:	1 (Uno)
DESCRIPCIÓN:	Módulo SFP+ para fibra óptica, conexión a 10 Gbps, Incluye el Patch Cord compatible
SERIAL:	CSG101L30664



3. **LICENCIA A 5 AÑOS PARA EL EQUIPO UTM**

Se procede a hacer la activación y registro de la licencia del equipo UTM vía web

EQUIPO:	LICENCIA
MARCA:	FORTINET
REFERENCIA:	FG-100F-BDL-950-36
CANTIDAD:	Una (1)
DESCRIPCIÓN:	Licencia a 5 años para el equipo UTM
SERIAL:	No aplica

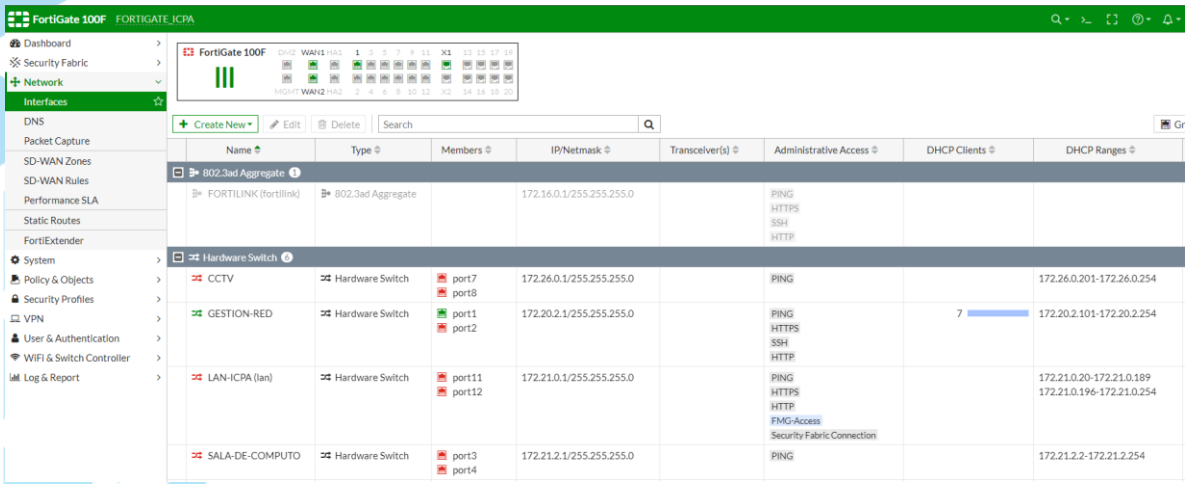


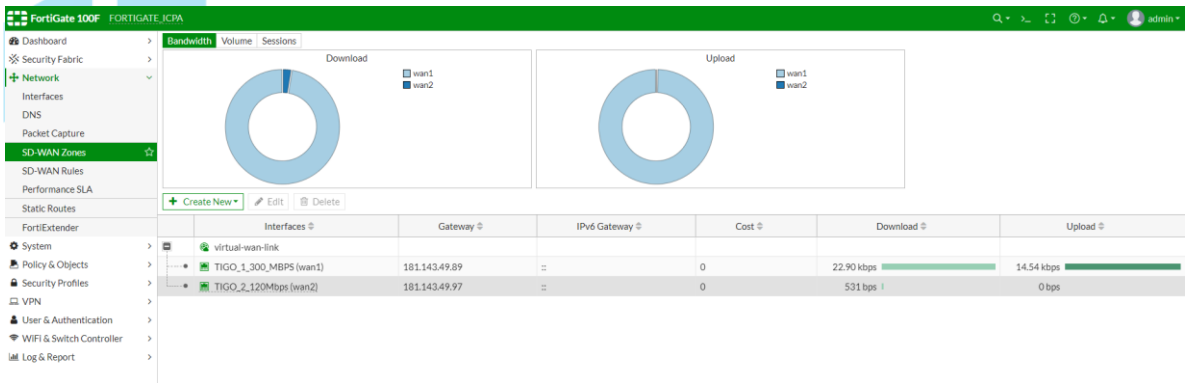
4. INSTALACIÓN, CONFIGURACIÓN, PUESTA PUNTO Y CONFIGURACIÓN EQUIPO UTM

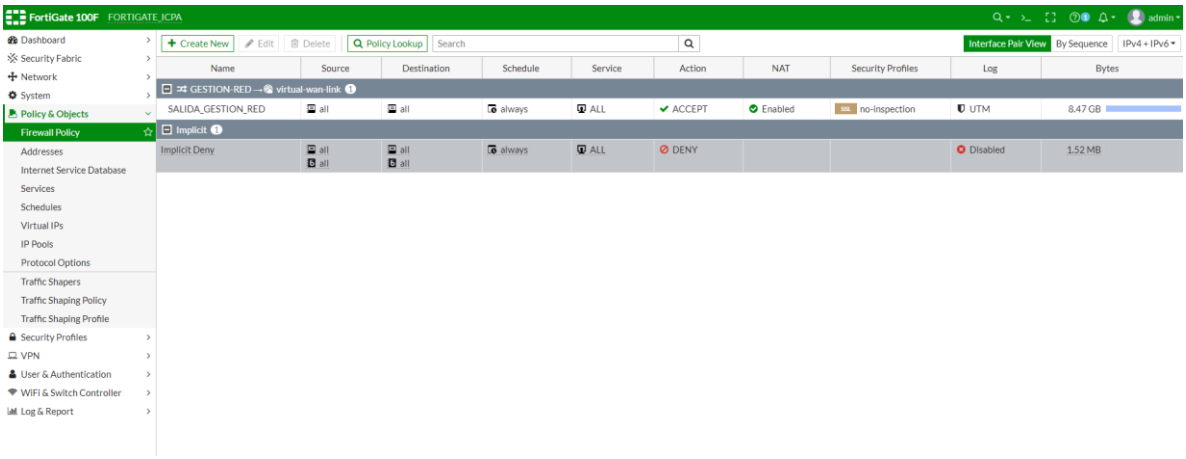
Se procede a hacer la capacitación con el personal destinado por el Instituto de Cultura y Patrimonio de Antioquia para la operación y manejo del UTM

- Instalación

- Configuración y Puesta a Punto







- Capacitación

TIPO:	CAPACITACIÓN
UBICACIÓN:	Instituto de Cultura y Patrimonio de Antioquia
ASISTENTES:	ICPA – Raul Augusto Restrepo
INSTRUCTOR:	Andrés Echeverry

5. MIGRACIÓN PLANTA TELEFÓNICA ELASTIX A ISSABEL

Se procedió a hacer un backup del servidor actual (plata telefónica Elastix), teniendo en cuenta la configuración de:

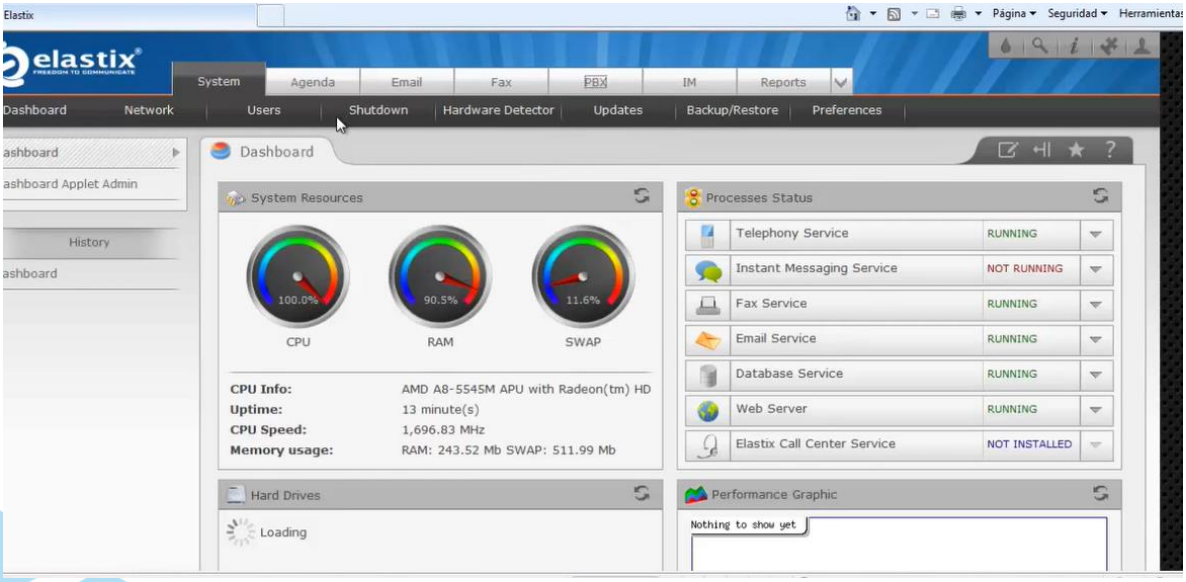
- Troncales SIP
- Rutas entrantes y Salientes
- Extensiones
- IVR
- Grabaciones

Posterior a esto, se hizo la configuración en un servidor de respaldo para verificar el correcto funcionamiento de la nueva

EQUIPO:	Servidor HP
MARCA:	HP – Software Issabel
REFERENCIA:	Issabel
DESCRIPCIÓN:	Software de planta telefónica, con software compatible con versiones anteriores (incluido Elastix)
VERSIÓN:	

- Anterior versión de planta telefónica Elastix

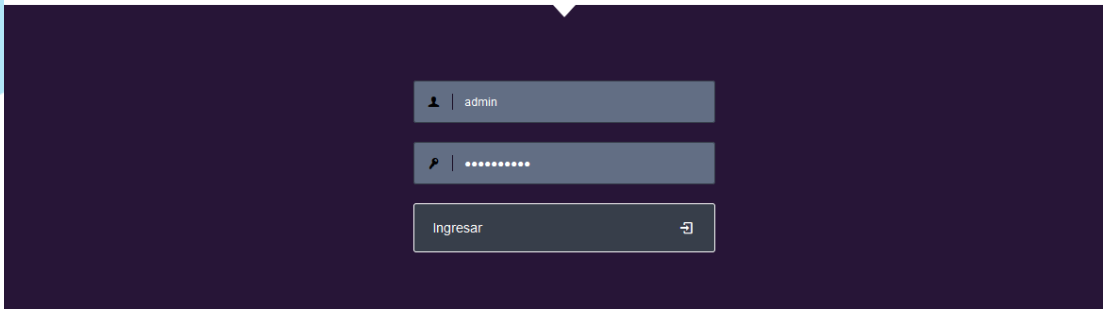


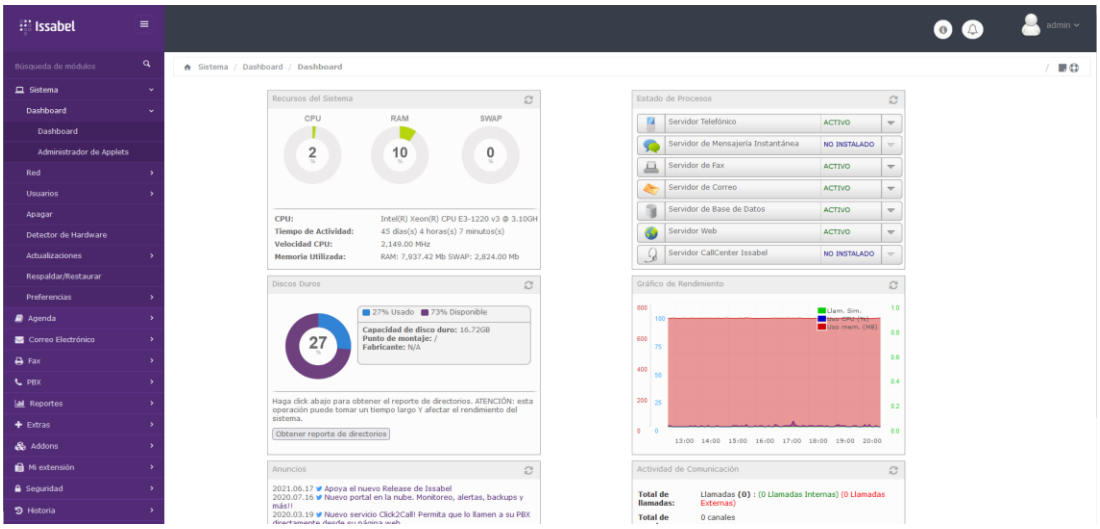


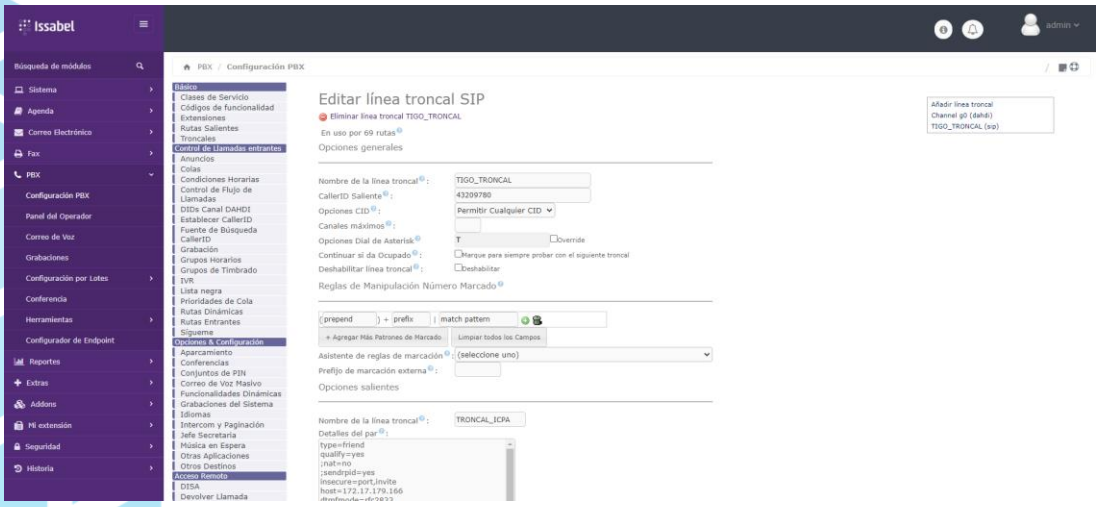
Se hace backup antes de instalar en el nuevo servidor

- Nuevo servidor de planta telefónica Issabel



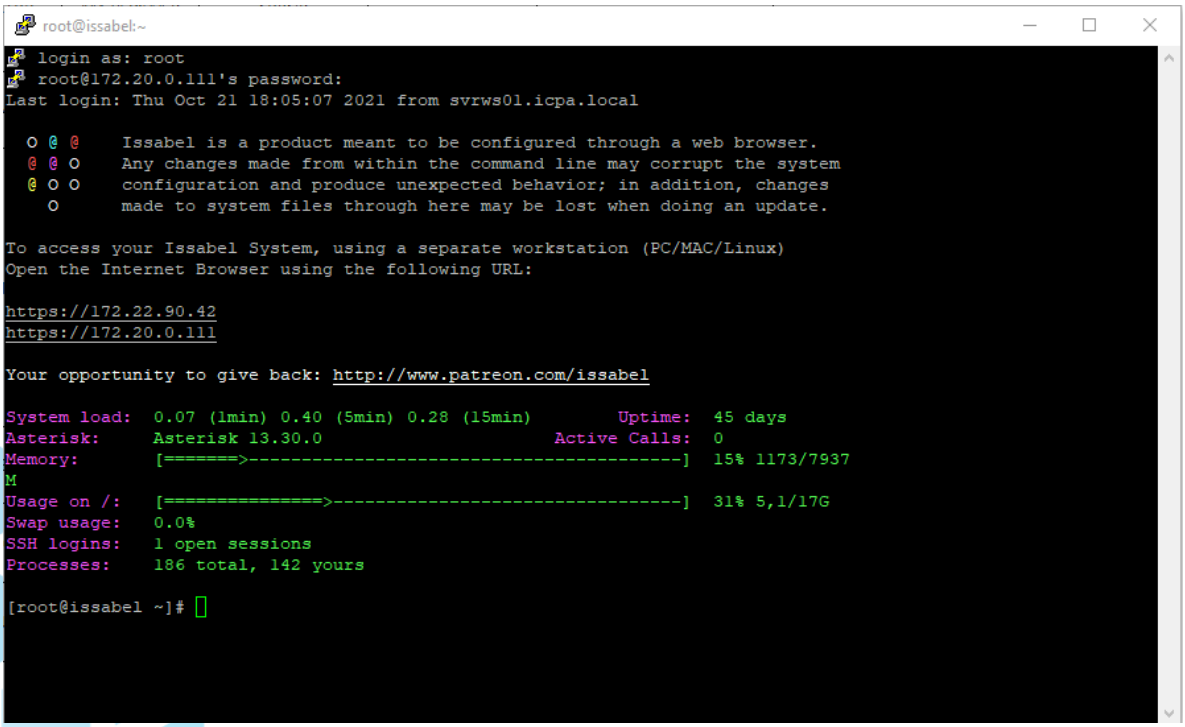






Nombre Paquete	Arquitectura	Información Paquete	Versión Actual	Versión Disponible	Repositorio	Estado
GeoIP	x86_64	Library for country/city/organization to IP address or hostname mapping	1.5.0-14.el7	(not available)	(unknown)	[Desinstalar]
ModemManager-glib	x86_64	Libraries for adding ModemManager support to applications that use glib.	1.6.10-3.el7_6	(not available)	(unknown)	[Desinstalar]
MySQL-python	x86_64	An interface to MySQL	1.2.5-1.el7	(not available)	(unknown)	[Desinstalar]
NetworkManager-glib	x86_64	Libraries for adding NetworkManager support to applications (old API).	1.18.0-5.el7	(not available)	(unknown)	[Desinstalar]
NetworkManager-libnm	x86_64	Libraries for adding NetworkManager support to applications (new API).	1.18.0-5.el7	(not available)	(unknown)	[Desinstalar]
NetworkManager-tui	x86_64	NetworkManager curses-based UI	1.18.0-5.el7	(not available)	(unknown)	[Desinstalar]
NetworkManager	x86_64	Network connection manager and user applications	1.18.0-5.el7	(not available)	(unknown)	[Desinstalar]
RoundCubeMail	noarch	RoundCube Webmail is a browser-based multilingual IMAP client	0.3.1-13	(not available)	(unknown)	[Desinstalar]
acl	x86_64	Access control list utilities	2.2.51-14.el7	(not available)	(unknown)	[Desinstalar]
aic94xx-firmware	noarch	Adaptec SAS 44300, 48300, 58300 Sequencer Firmware for AIC94xx driver	30-6.el7	(not available)	(unknown)	[Desinstalar]
alsa-firmware	noarch	Firmware for several ALSA-supported sound cards	1.0.28-2.el7	(not available)	(unknown)	[Desinstalar]
alsa-lib	x86_64	The Advanced Linux Sound Architecture (ALSA) library	1.1.8-1.el7	(not available)	(unknown)	[Desinstalar]
alsa-tools-firmware	x86_64	ALSA tools for uploading firmware to some soundcards	1.1.0-1.el7	(not available)	(unknown)	[Desinstalar]
apr-util	x86_64	Apache Portable Runtime Utility library	1.5.2-6.el7	(not available)	(unknown)	[Desinstalar]
apr	x86_64	Apache Portable Runtime library	1.4.8-5.el7	(not available)	(unknown)	[Desinstalar]
asterisk-codec-g729	x86_64	G729 Codec for Asterisk	1.0-0	(not available)	(unknown)	[Desinstalar]
asterisk-es-sounds	x86_64	Spanish language sound files for asterisk	1.0.0-0.el7.centos	(not available)	(unknown)	[Desinstalar]
asterisk-fr-sounds	x86_64	French language sound files for asterisk	1.0.0-0.el7.centos	(not available)	(unknown)	[Desinstalar]
asterisk-perl	noarch	A perl agi interface module for asterisk	1.03-1.el7.centos	(not available)	(unknown)	[Desinstalar]
asterisk-pr-sounds	noarch	Persian Sound Files for Asterisk PBX	1.0-0	(not available)	(unknown)	[Desinstalar]
Nombre Paquete	Arquitectura	Información Paquete	Versión Actual	Versión Disponible	Repositorio	Estado

- Ingreso por Putty



Se verifica correcto funcionamiento con llamadas entrantes y salientes.

6. DISCO DURO SSD PARA SERVIDOR DE CÁMARAS, PARA HACER ARREGLO RAID

Los discos duros suministrados corresponden a la siguiente descripción

EQUIPO:	Disco duro SSD (Unidad de Estado Sólido)
MARCA:	HPE
REFERENCIA:	866614 - 002
CANTIDAD:	Tres (3)
DESCRIPCIÓN:	Software de planta telefónica, con software compatible con versiones anteriores (incluido Elastix)
SERIALES:	S3EBNX0J809501 - S3EBNX0J809068 - S3EBNX0J809343

- **Suministro e instalación de discos duros de estado sólido**

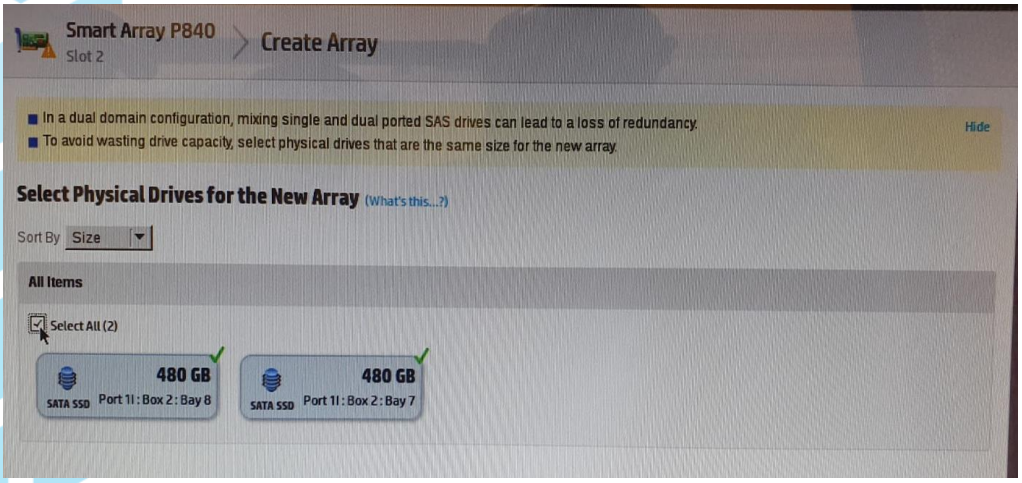


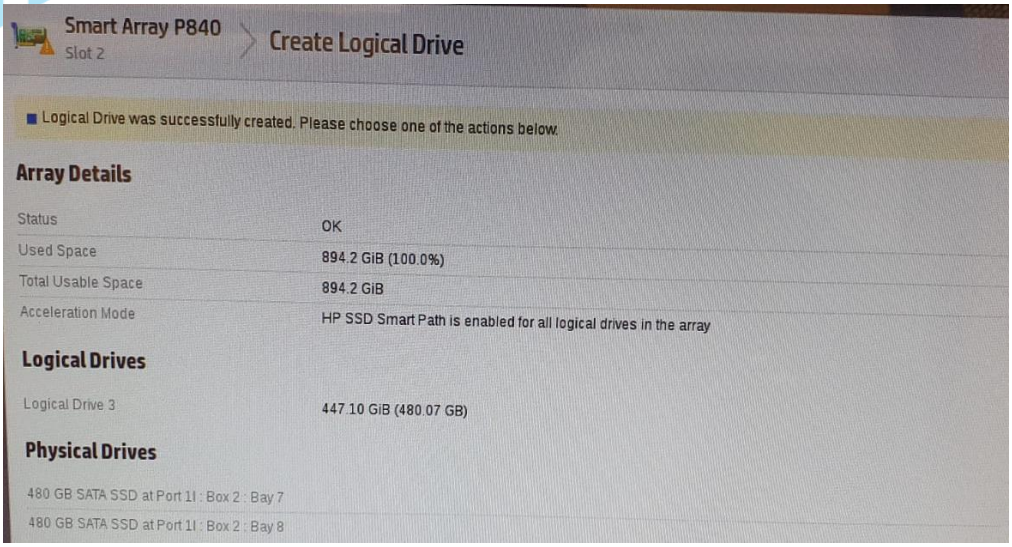


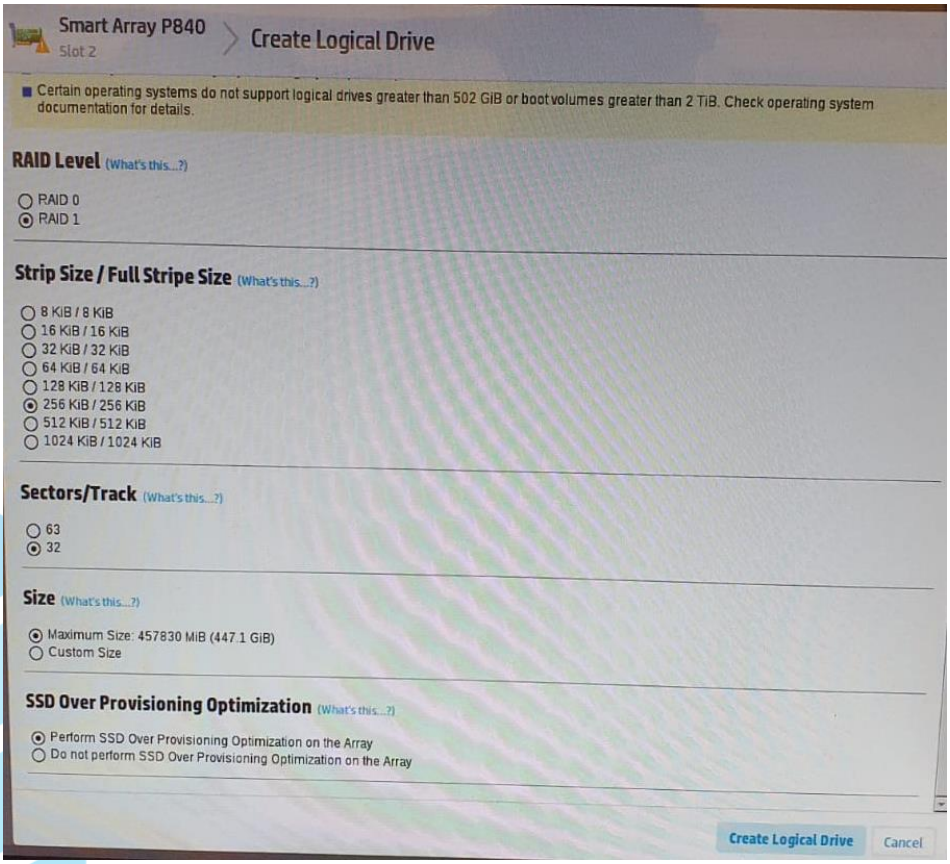
Se habilitan 2 bahías que estaban desocupadas en el servidor y luego se procede a instalar los discos en los espacios habilitados

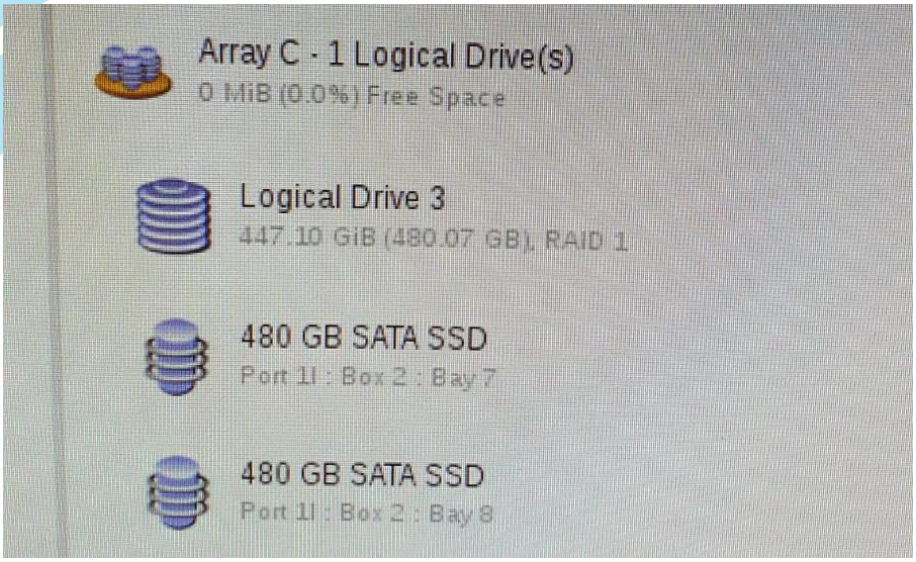


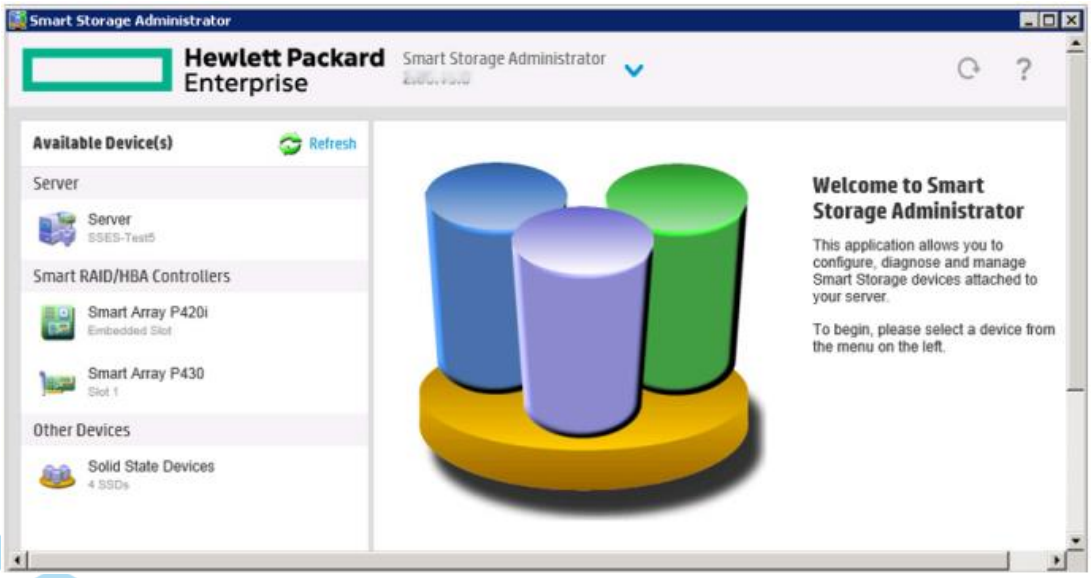
- **Configuración del arreglo RAID 1**





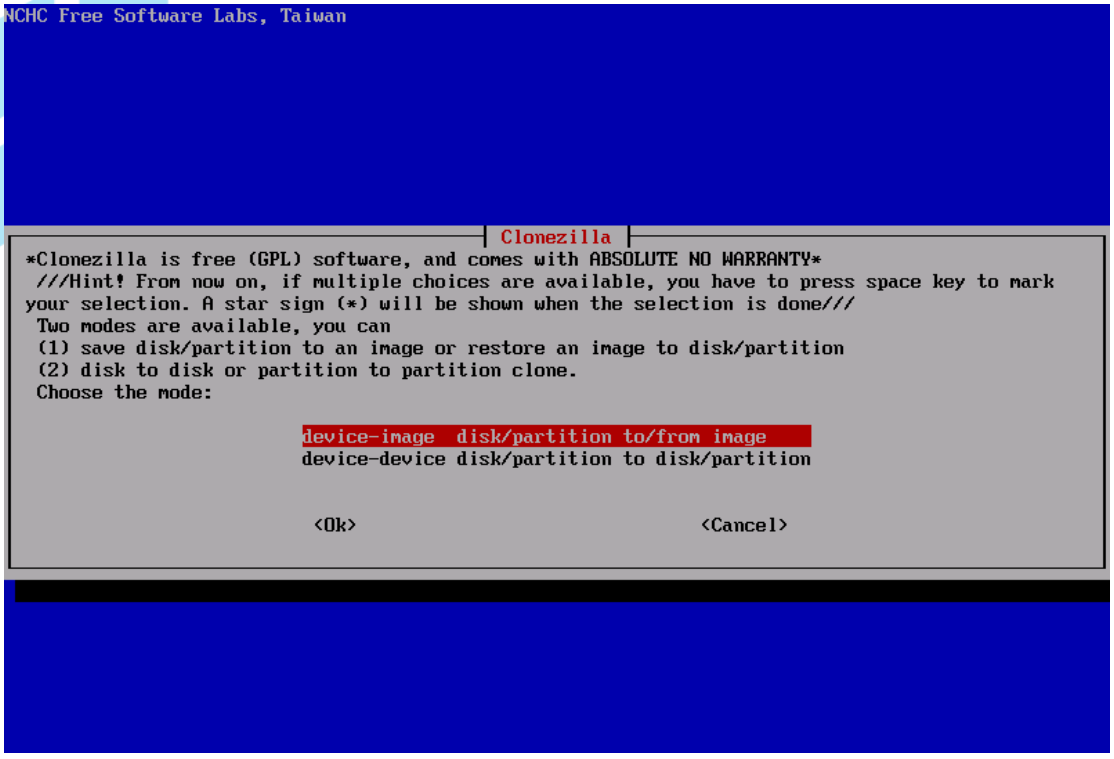

Smart Array P840
Slot 2
Create Logical Drive
Certain operating systems do not support logical drives greater than 502 GiB or boot volumes greater than 2 TiB. Check operating system documentation for details.
RAID Level (What's this...?)
RAID 0
RAID 1
Strip Size / Full Stripe Size (What's this...?)
8 KiB / 8 KiB
16 KiB / 16 KiB
32 KiB / 32 KiB
64 KiB / 64 KiB
128 KiB / 128 KiB
256 KiB / 256 KiB
512 KiB / 512 KiB
1024 KiB / 1024 KiB
Sectors/Track (What's this...?)
63
32
Size (What's this...?)
Maximum Size: 457830 MiB (447.1 GiB)
Custom Size
SSD Over Provisioning Optimization (What's this...?)
Perform SSD Over Provisioning Optimization on the Array
Do not perform SSD Over Provisioning Optimization on the Array
Create Logical Drive
Cancel

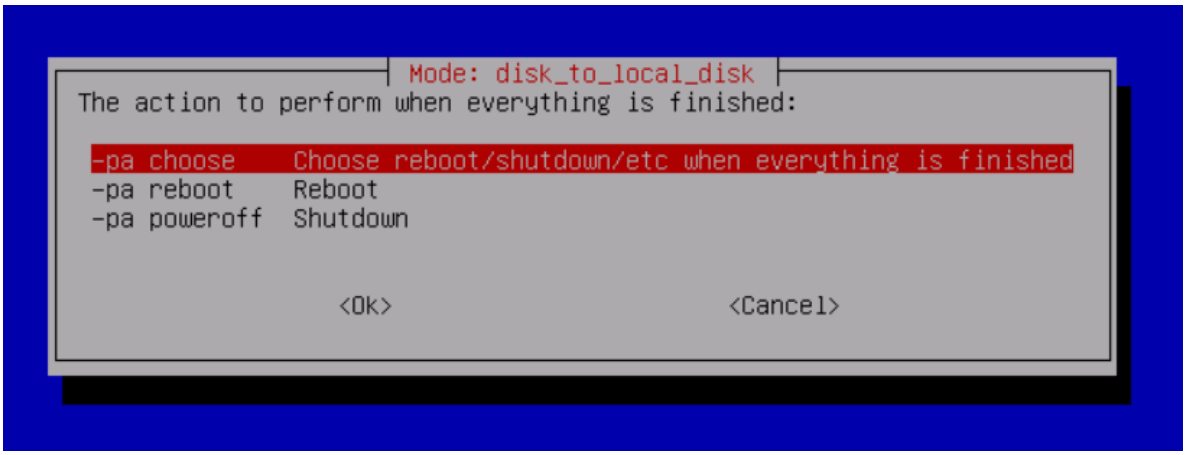

Array C - 1 Logical Drive(s)
0 MiB (0.0%) Free Space
Logical Drive 3
447.10 GiB (480.07 GB), RAID 1
480 GB SATA SSD
Port 1I : Box 2 : Bay 7
480 GB SATA SSD
Port 1I : Box 2 : Bay 8



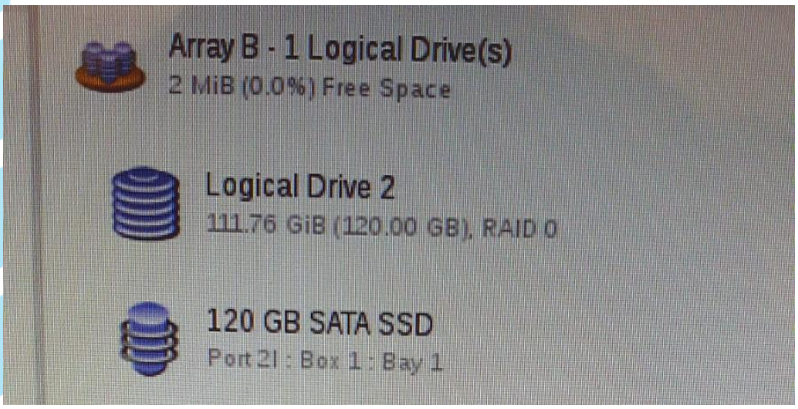
7. MIGRACIÓN DEL SISTEMA LINUX Y PLATAFORMA EXACVISION A NUEVO ARREGLO DE DISCOS RAID

Después de la instalación y configuración de los discos para el sistema LINUX asociado al Circuito Cerrado de Televisión, se procede a clonar el sistema operativo para migrarlo al nuevo arreglo de discos.





Por último se elimina el arreglo simple que tenía el disco original del sistema y se hace que el servidor bootee desde el nuevo arreglo de discos RAID 1, de manera que tengamos la seguridad de un sistema de CCTV respaldado por un sistema de discos redundantes

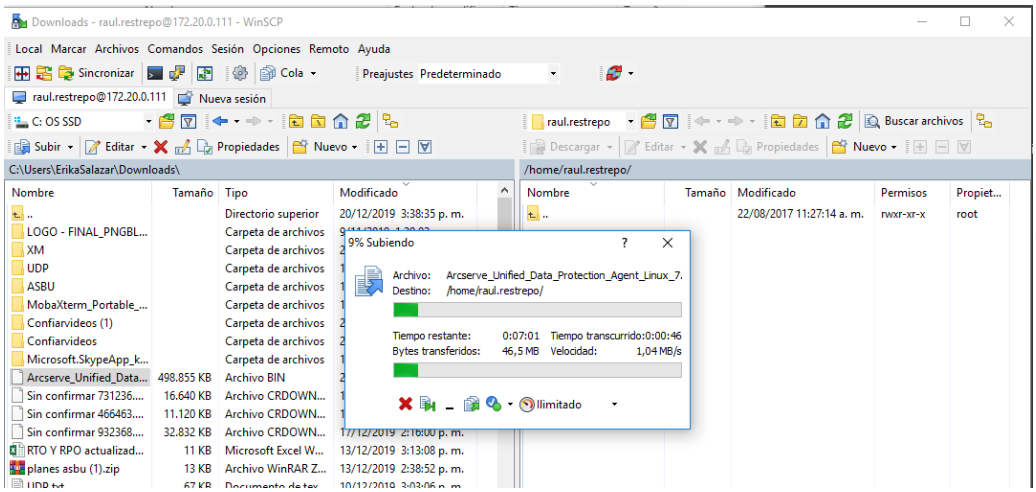


8. LICENCIA ARCSERVE SOPORTE PLATAFORMA ARCSERVE

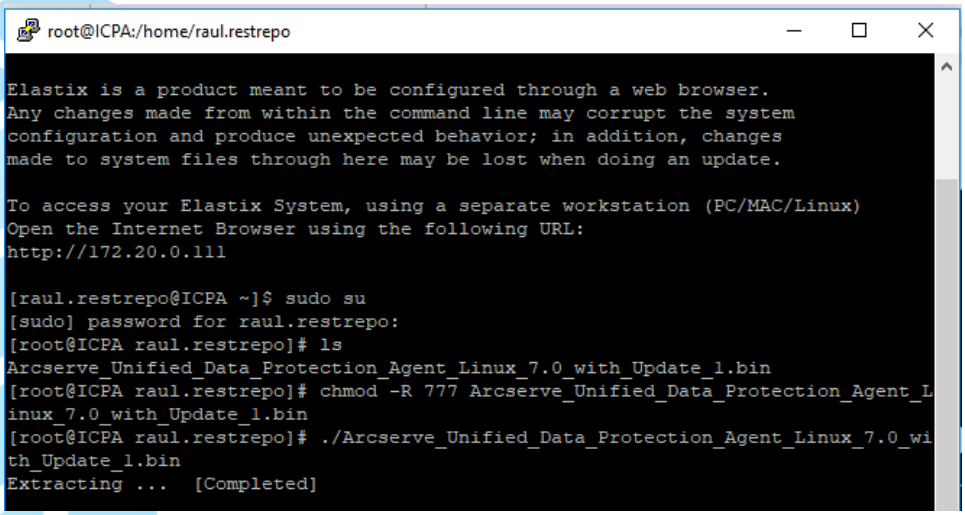
Descripción de actividades:

Se hace la solicitud del licenciamiento de acuerdo al sistema propuesto para el ICPA

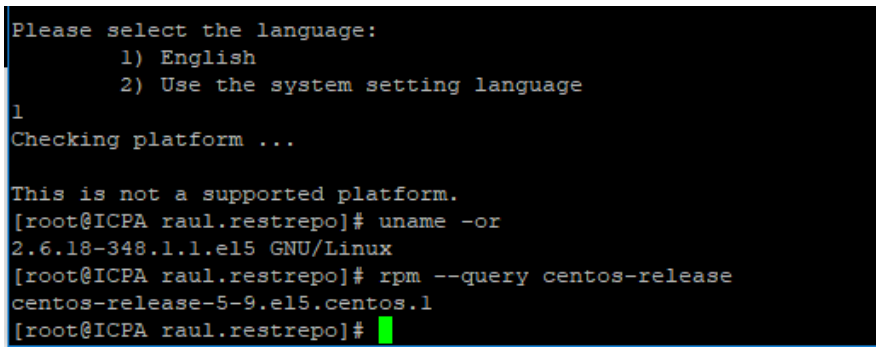
Se descargan los archivos previamente y se copian al servidor por medio de WinSCP



Se procede asignar los permisos necesarios para su ejecución.



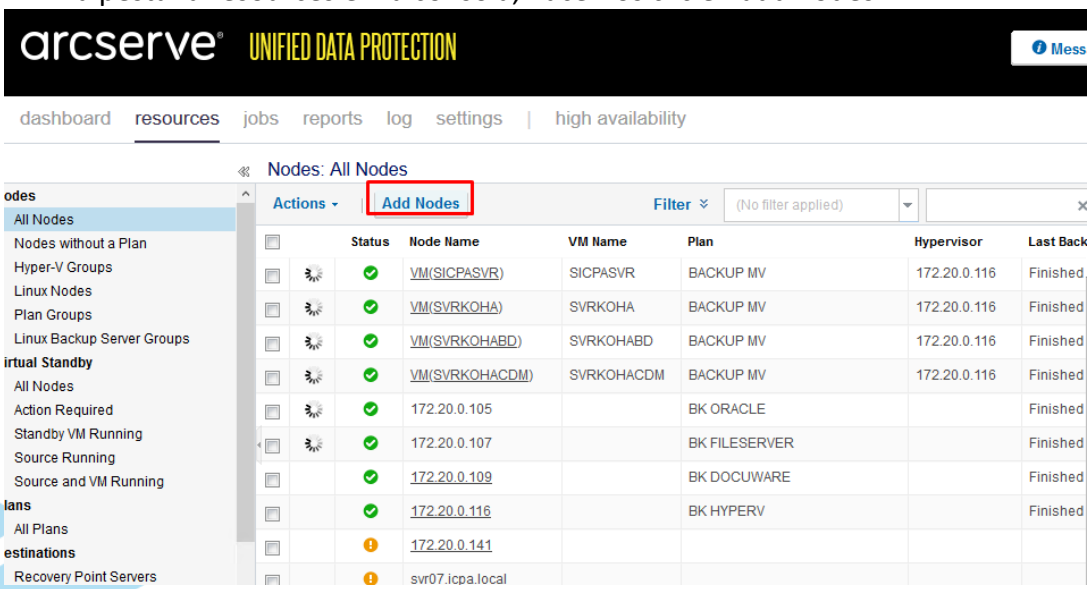
Se ejecuta el instalador



No es posible realizar esta instalación ya que la versión de Centos no es compatible con el agente de udp.

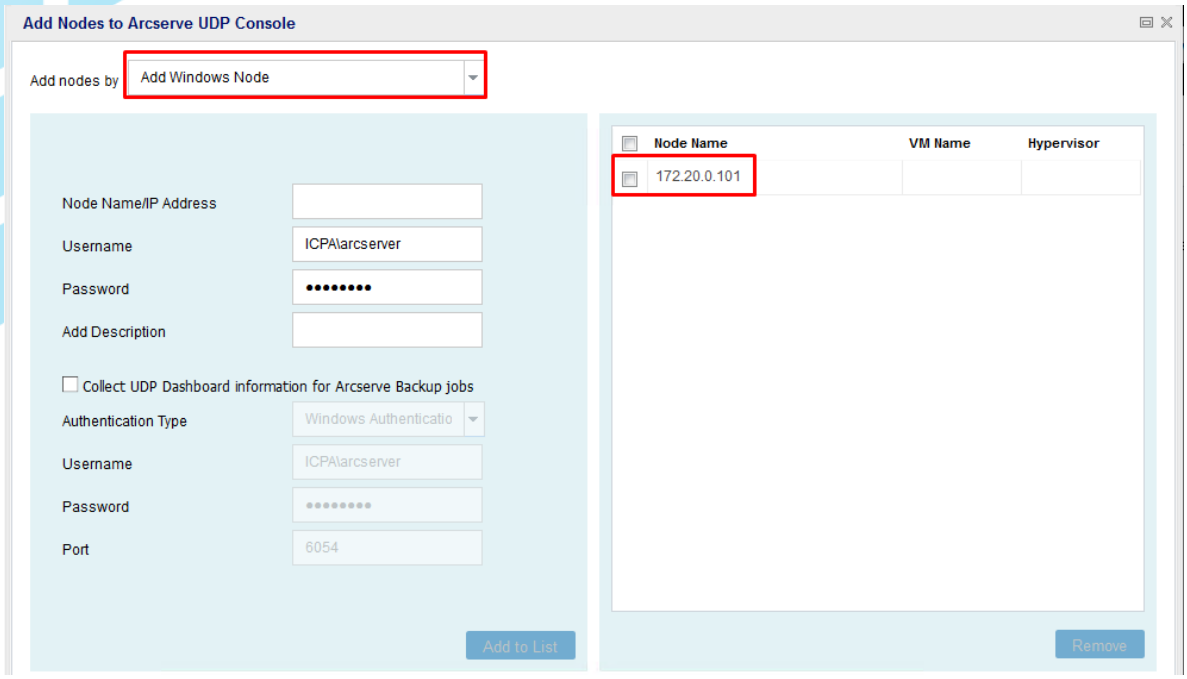
Adición de nodo Windows

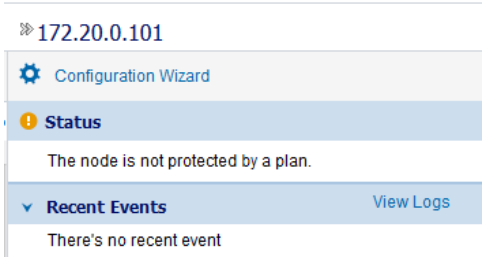
1.En la pestaña resources en la consola, hacemos clic en add nodes



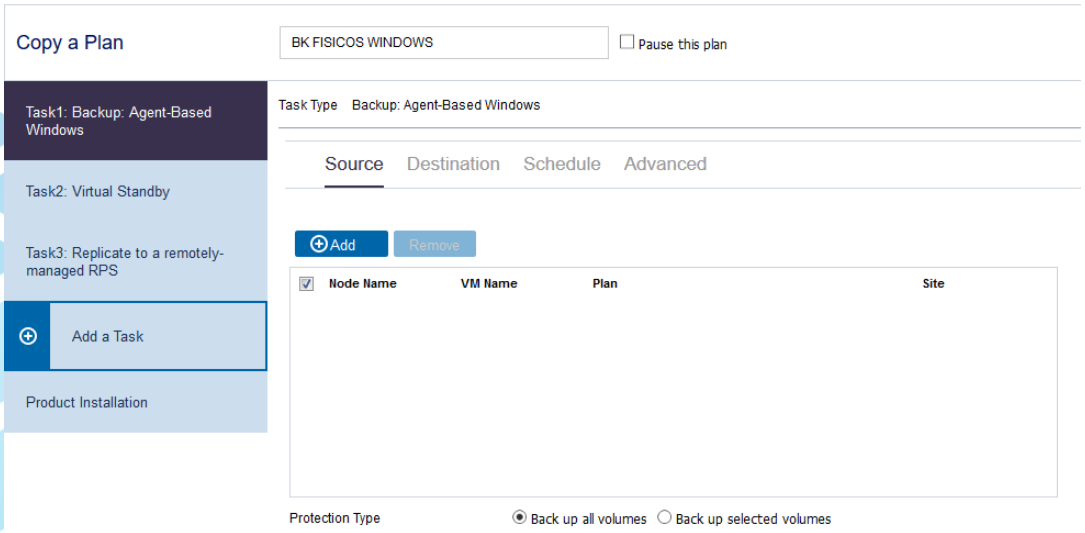
Se abrirá una ventana emergente y en ella seleccionamos el tipo de nodo adicionar, en este caso, Windows node.

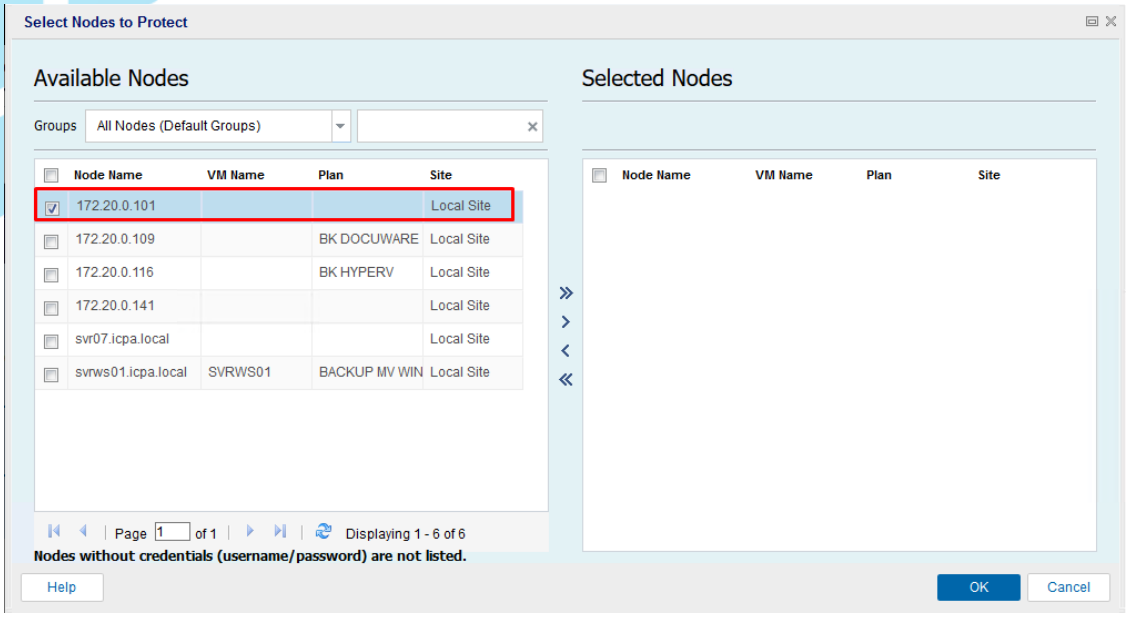
Se diligencia la información, nombre o IP del nodo, usuario y contraseña y clic en aceptar.



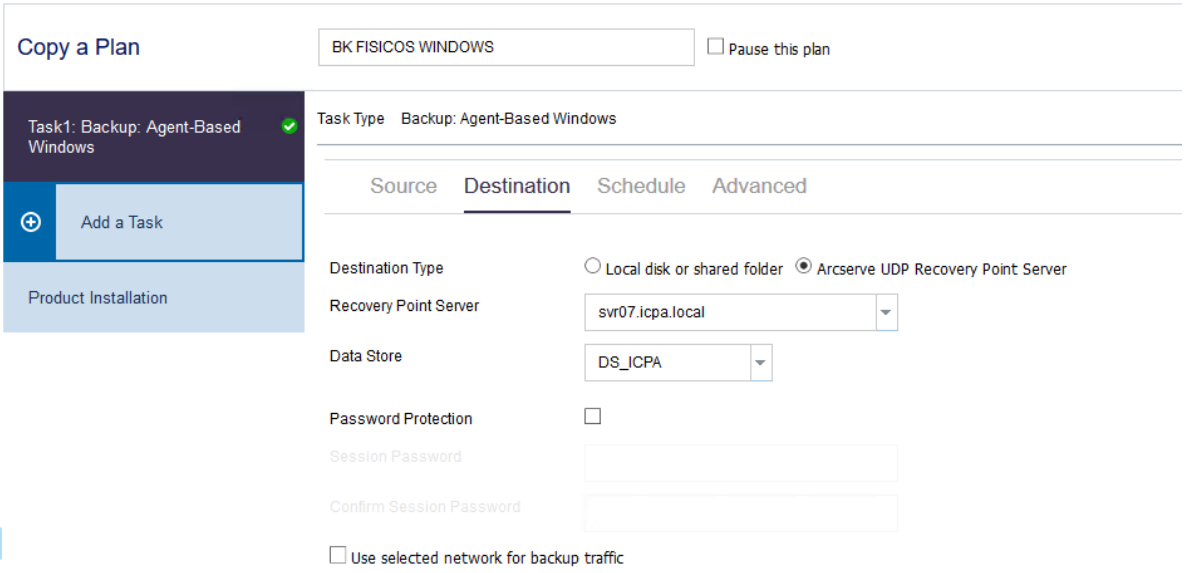


Adicionamos la tarea independiente de máquinas físicas Windows para el nuevo nodo. Se adiciona el nodo que recién se ingresó a la consola.

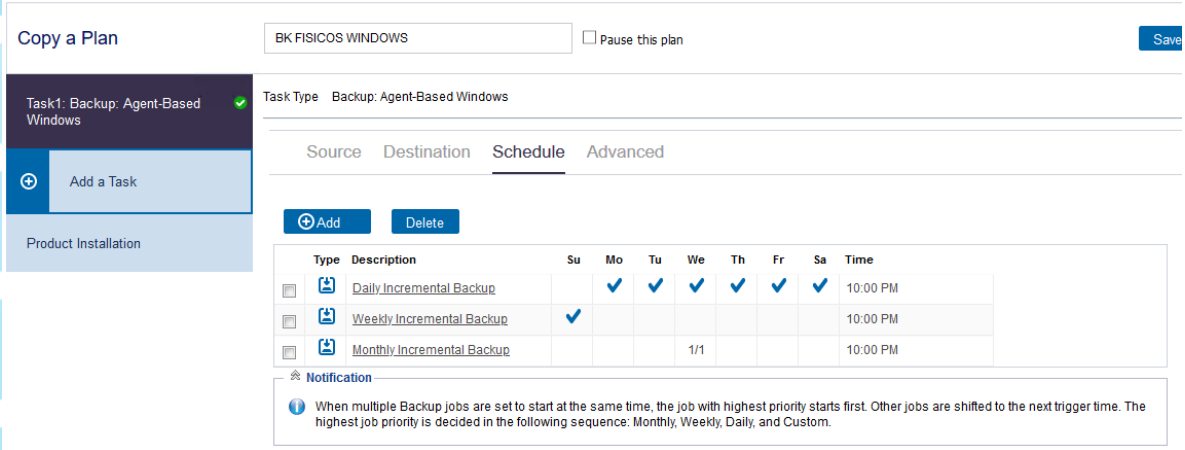




Como destino seleccionamos el Datastore que se encuentra funcional para ICPA.



Dejamos la programación que se encuentra configurada en los otros planes, guardamos y ejecutamos el job.



9. SWITCHE DE CORE

- Se suministra un switche de Core para Alta disponibilidad en la red del ICPA

EQUIPO:	Switche de Core
MARCA:	HPE ARUBA
REFERENCIA:	ARUBA CX 6300 -
CANTIDAD:	Uno (1)

DESCRIPCIÓN:	Switche de Core, Cuenta con 24 puertos SFP+, y 4 puertos 4 SFP56 (No inclye fuentes)
SERIAL:	JL658A



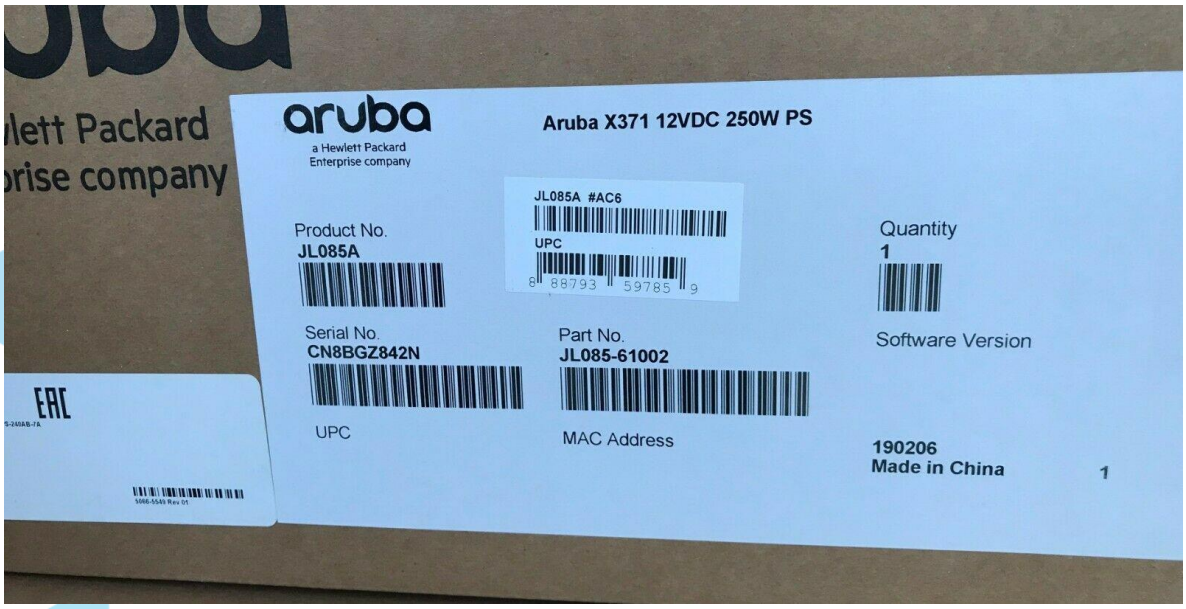


10. FUENTE REDUNDANTE PARA SWITCHE DE CORE

- Se suministra un switche de Core para Alta disponibilidad en la red del ICPA

EQUIPO:	Fuente redundante para switche de Core
MARCA:	HPE ARUBA
REFERENCIA:	ARUBA X371 12VDC 250W POWER SUPPLY

CANTIDAD:	Dos (2)
DESCRIPCIÓN:	Fuente redundante para switche de Core 12VDC 250W Power Supply. Aruba
SERIAL:	CN8BGZ842N - CN8BGT47A



Se procede a desembalar e instalar las fuentes en el swtiche de Core de Backup, para luego proceder con su instalación y configuración



11. TARJETA DE MÓDULOS DE FIBRA ÓPTICA, SFP+ COMPATIBLE CON EL SWITCHE DE CORE HP PROCURVE 5412ZL

- Se suministra un switche de Core para Alta disponibilidad en la red del ICPA

EQUIPO:	Tarjeta de 8 Puertos de Fibra para Switche de Core Principal
MARCA:	HPE ARUBA
REFERENCIA:	ARUBA 8 PORTS 1/10 GBPS SFP+
CANTIDAD:	Uno (1)
DESCRIPCIÓN:	Tarjeta de módulos de Fibra Óptica, SFP+ compatible con el switche de Core HP 5412zl, 8 Puertos SFP+
SERIAL:	J9993A

Se procede a desembalar e instalar la tarjeta en el actual switche de Core HP Proliant 5412zl









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12. INSTALACIÓN Y CONFIGURACIÓN DEL SWITCHE DE CORE EN ALTA DISPONIBILIDAD JUNTO AL SWITCHE DE CORE ACTUAL

- Para poder configurar el sistema de alta disponibilidad en los switches de core, se habilita el spanning Tree Protocol, en su versión MSTP en ambos switches

- Se designa el switche root como el switch Principal HP Proliant 5412zl

- Se designa el switche de backup root el nuevos switche Aruba 6300 CX

El script de configuración del switche de core es el siguiente:

```
SW-CORE-CULTURANTIOQUIA# show running-config

Running configuration:

; J8698A Configuration Editor; Created on release #K.15.06.0017
; Ver #02:10.0d:1f

hostname "SW-CORE-CULTURANTIOQUIA"
module 1 type J9537A
module 2 type J9550A
module 3 type J9537A
module 4 type J9550A
module 5 type J9550A
interface A1
```

```
   name "[TO_CC_006_SW1_PTO:25-LACP]"
exit
interface A2
   name "[TO_CC_006_SW1_PTO:26-LACP]"
exit
interface A3
   name "[TO_CC_006_SW1_PTO:27-LACP]"
exit
interface A4
   name "[TO_CC_009_SW1_PTO:GE1]"
exit
interface A5
   name "[TO_CC_023_PEN_ANT]"
exit
interface A6
   name "[TO_CC_AH_SW1_PTO:GE1]"
exit
interface A7
   name "[TO_CC_119_SW1_PTO:GE1]"
exit
interface A8
   name "[TO_CC_122_SW1_PTO:25-LACP]"
exit
interface A9
   name "[TO_CC_122_SW1_PTO:26-LACP]"
exit
interface A10
   name "[TO_CC_122_SW1_PTO:27-LACP]"
exit
interface A11
   name "[TO_CC_108_SW1_PTO25]"
exit
interface A12
   name "[TO_CC_110_SW1_PTO:GE1]"
exit
interface A13
   name "[TO_CC_213_SW1_PTO:25-LACP]"
exit
interface A16
   name "[TO_CC_220_SW1_PTO:49-LACP]"
exit
interface A19
   name "[TO_CC_208_SW1_PTO:GE1]"
exit
interface A20
   name "[TO_CC_205_SW1_PTO:GE1]"
exit
interface A21
   name "[TO_CC_315_SW1_PTO:49-LACP]"
exit
interface A24
```

```
   name "[TO_CC_316_SW1_PTO:49-LACP]"
exit
interface B1
   name "TO_SVRAD01_ILO"
exit
interface B2
   name "[TO_SVRAD01_ETH1-LACP]"
exit
interface B3
   name "[TO_SVRAD01_ETH2-LACP]"
exit
interface B4
   name "[TO_SVRAD01_ETH3-LACP]"
exit
interface B5
   name "[TO_SVRAD01_ETH4-LACP]"
exit
interface B6
   name "TO_SVRHF01_ILO"
exit
interface B7
   name "[TO_SVRHF01_ETH1]"
exit
interface B8
   name "[TO_SVRHF01_ETH2-LACP]"
exit
interface B9
   name "[TO_SVRHF01_ETH3-LACP]"
exit
interface B10
   name "[TO_SVRHF01_ETH4-LACP]"
exit
interface B11
   name "TO_SVRFLS_ILO"
exit
interface B12
   name "[TO_SVRFLS_ETH1-LACP]"
exit
interface B13
   name "[TO_SVRFLS_ETH2-LACP]"
exit
interface B14
   name "[TO_SVRFLS_ETH3-LACP]"
exit
interface B15
   name "[TO_SVRFLS_ETH4-LACP]"
exit
interface B16
   name "TO_ICPAOC01_ILO"
exit
interface B17
```

```
   name "[TO_ICPAOC01_ETH1-LACP]"
exit
interface B18
   name "[TO_ICPAOC01_ETH2-LACP]"
exit
interface B19
   name "[TO_ICPAOC01_ETH3-LACP]"
exit
interface B20
   name "[TO_ICPAOC01_ETH4-LACP]"
exit
interface B21
   name "TO_SVRSIP_ILO"
exit
interface B22
   name "TO_SRVSIP_ETH1"
exit
interface B23
   name "TO_SRVDCW_ETH0"
exit
interface B24
   name "TO_SRVDCW_ETH1"
exit
interface C3
   name "[TO_CC_307_SW1_PTO:49-LACP]"
exit
interface C6
   name "[TO_CC_308_SW1_PTO:49-LACP]"
exit
interface C9
   name "TO_CC_413_SW1_PTO_GE1"
exit
interface C10
   name "TO_CC_P4_SALA_DANZA_SW1_PTO_GE1"
exit
interface C11
   name "[TO_CC_P4_OCCIDENTE_PTO:GE1]"
exit
interface C12
   name "[TO_CC_P4_ORIENTE_PTO:GE1]"
exit
interface C13
   name "TO_CC_211_SW1"
exit
interface C14
   name "CC110_TEST"
exit
interface C15
   name "[InActive]"
exit
interface C16
```

```
   name "[InActive]"
exit
interface C17
   name "[InActive]"
exit
interface C18
   name "[InActive]"
exit
interface C19
   name "[InActive]"
exit
interface C20
   name "[InActive]"
exit
interface C21
   name "[InActive]"
exit
interface C22
   name "[InActive]"
exit
interface C23
   name "[InActive]"
exit
interface C24
   name "[InActive]"
exit
interface D1
   name "TO_FORT_P01"
exit
interface D5
   name "TO_iLO_NAS"
exit
interface D8
   name "TO_SW_CORE_PENSIONES"
exit
interface D9
   name "TO_RO_BECAS_PORT2"
exit
interface D10
   name "TO_CCTV_SRV"
exit
interface D11
   name "TO_CCTV_SRV"
exit
interface D12
   name "TO_CCTV_WORKSTATION1"
exit
interface D13
   name "TO_RO_PPAL_PTO11"
exit
interface D14
```

```
   name "TO_RO_WLAN_PTO3"
exit
interface D15
   name "TO_SW_UNE_ICPA"
exit
interface D16
   name "TO_RO_WLAN_PTO1"
exit
interface D17
   name "TO_RO_PPAL_PTO2"
exit
interface D18
   name "TO_SW_UNE_L2L_GOBANT"
exit
interface D19
   name "TO_RO_PTO7"
exit
interface D20
   name "TO_RO_PORT8"
exit
interface D21
   name "TO_RO_PTO9"
exit
interface D22
   name "TO_RO_PTO10"
exit
interface D23
   name "TO_RO_PTO11"
exit
interface D24
   name "TO_RO_PTO12"
exit
interface E1
   name "ARC SERVER 2"
exit
interface E6
   name "ACC_RED_GESTION"
exit
interface E7
   name "ACC_RED_GESTION"
exit
interface E13
   name "[TO_SVRXX03_ETH1-LACP]"
exit
interface E14
   name "[TO_SVRXX03_ETH2-LACP]"
exit
interface E15
   name "[TO_SVRXX03_ETH3-LACP]"
exit
interface E16
```

```
   name "[TO_SVRXX03_ETH4-LACP]"
exit
interface E17
   name "[TO_SVRXX02_ETH1-LACP]"
exit
interface E18
   name "[TO_SVRXX02_ETH2-LACP]"
exit
interface E19
   name "[TO_SVRXX02_ETH3-LACP]"
exit
interface E20
   name "[TO_SVRXX02_ETH4-LACP]"
exit
interface E21
   name "[TO_SVRXX01_ETH1-LACP]"
exit
interface E22
   name "[TO_SVRXX01_ETH2-LACP]"
exit
interface E23
   name "[TO_SVRXX01_ETH3-LACP]"
exit
interface E24
   name "[TO_SVRXX01_ETH4-LACP]"
exit
trunk A1-A3 Trk1 LACP
trunk A4 Trk2 Trunk
trunk A5 Trk3 Trunk
trunk A6 Trk4 Trunk
trunk A7 Trk5 Trunk
trunk A8-A10 Trk6 LACP
trunk A11 Trk7 Trunk
trunk A12 Trk8 Trunk
trunk A13 Trk9 LACP
trunk A16 Trk10 LACP
trunk A19 Trk11 Trunk
trunk A20 Trk12 Trunk
trunk A21 Trk13 LACP
trunk A24 Trk14 LACP
trunk C3 Trk15 LACP
trunk C6 Trk16 LACP
trunk C9 Trk17 Trunk
trunk C10 Trk18 Trunk
trunk C11 Trk19 Trunk
trunk C12 Trk20 Trunk
trunk C13 Trk21 Trunk
trunk B1 Trk25 Trunk
trunk B2-B5 Trk26 LACP
trunk B6 Trk27 Trunk
trunk B7 Trk28 Trunk
```

```
trunk B8-B10 Trk29 LACP
trunk B11 Trk30 Trunk
trunk B12-B15 Trk32 LACP
trunk B16 Trk33 Trunk
trunk B17-B20 Trk34 LACP
trunk B21 Trk36 Trunk
trunk B22 Trk37 Trunk
trunk B23 Trk38 Trunk
trunk B24 Trk39 Trunk
trunk D8 Trk40 Trunk
trunk C14 Trk41 Trunk
trunk E21-E24 Trk45 LACP
trunk E17-E20 Trk46 LACP
trunk E13-E16 Trk47 LACP
ip default-gateway 172.20.0.1
vlan 1
   name "GESTION_RED"
   untagged A14-A15,A17-A18,A22-A23,C1-C2,C4-C5,C7-C8,C15-C24,D1-D4,Trk9-
Trk16,Trk2
1,Trk40-Trk41
   ip address 172.20.2.10 255.255.255.0
   ipv6 enable
   ipv6 address dhcp full
   tagged D20,Trk1,Trk4,Trk17-Trk20
   no untagged D5-D7,D9-D19,D21-D24,E1-E12,Trk2-Trk3,Trk5-Trk8,Trk25-
Trk30,Trk32-Tr
k34,Trk36-Trk39,Trk45-Trk47
   exit
vlan 30
   name "GESTION"
   untagged D5-D7,D10,D14,D24,E1-E5,E7-E8,Trk25-Trk30,Trk32-Trk34,Trk36-
Trk39,Trk45
-Trk47
   ip address 172.20.0.10 255.255.255.0
   ipv6 enable
   ipv6 address autoconfig
   tagged C15-C24,Trk1-Trk21
   exit
vlan 10
   name "TELEFONIA"
   untagged D22
   tagged C15-C24,Trk1-Trk2,Trk4-Trk21,Trk25-Trk28,Trk32,Trk34,Trk36
   no ip address
   exit
vlan 20
   name "VISITANTES"
   untagged D23
   tagged C15-C24,D11,Trk1-Trk20,Trk25-Trk28,Trk32,Trk34,Trk36
   no ip address
   exit
vlan 11
```

```
   name "LAN_ICPA"
   untagged D20
   tagged D18,Trk1,Trk4-Trk21,Trk25-Trk28,Trk32,Trk34,Trk36,Trk38-Trk39
   no ip address
   exit
vlan 40
   name "L2L_GOBANT"
   untagged D18
   tagged Trk1-Trk4,Trk17-Trk20,Trk40
   no ip address
   exit
vlan 12
   name "WLAN_ICPA"
   untagged D19
   tagged Trk1-Trk6,Trk8-Trk20
   no ip address
   exit
vlan 13
   name "WLAN_SALA_COMPUTO"
   untagged D21
   tagged Trk10
   no ip address
   exit
vlan 50
   name "INET_2_TIGO_120M"
   untagged D15-D17,E6
   no ip address
   exit
vlan 15
   name "CCTV"
   untagged D11-D13
   tagged Trk1-Trk21
   no ip address
   exit
vlan 60
   name "CORPORACION_BECAS"
   no ip address
   exit
vlan 70
   name "LAN_BECAS"
   untagged D9
   tagged Trk17-Trk20
   no ip address
   exit
vlan 51
   name "INET_1_TIGO_300M"
   untagged E9-E12
   no ip address
   exit
console inactivity-timer 5
fault-finder bad-driver sensitivity high
```

```
fault-finder bad-transceiver sensitivity high
fault-finder bad-cable sensitivity high
fault-finder too-long-cable sensitivity high
fault-finder over-bandwidth sensitivity high
fault-finder broadcast-storm sensitivity high
fault-finder loss-of-link sensitivity high
fault-finder duplex-mismatch-hdx sensitivity high
fault-finder duplex-mismatch-fdx sensitivity high
fault-finder link-flap sensitivity high
no telnet-server
interface D18
   flow-control
   exit
snmp-server community "public" unrestricted
snmp-server contact "ICPA" location "MEDELLIN"
spanning-tree
spanning-tree Trk1 priority 4
spanning-tree Trk2 priority 4
spanning-tree Trk3 priority 4
spanning-tree Trk4 priority 4
spanning-tree Trk5 priority 4
spanning-tree Trk6 priority 4
spanning-tree Trk7 priority 4
spanning-tree Trk8 priority 4
spanning-tree Trk9 priority 4
spanning-tree Trk10 priority 4
spanning-tree Trk11 priority 4
spanning-tree Trk12 priority 4
spanning-tree Trk13 priority 4
spanning-tree Trk14 priority 4
spanning-tree Trk15 priority 4
spanning-tree Trk16 priority 4
spanning-tree Trk17 priority 4
spanning-tree Trk18 priority 4
spanning-tree Trk19 priority 4
spanning-tree Trk20 priority 4
spanning-tree Trk21 priority 4
spanning-tree Trk25 priority 4
spanning-tree Trk26 priority 4
spanning-tree Trk27 priority 4
spanning-tree Trk28 priority 4
spanning-tree Trk29 priority 4
spanning-tree Trk30 priority 4
spanning-tree Trk32 priority 4
spanning-tree Trk33 priority 4
spanning-tree Trk34 priority 4
spanning-tree Trk36 priority 4
spanning-tree Trk37 priority 4
spanning-tree Trk38 priority 4
spanning-tree Trk39 priority 4
spanning-tree Trk40 priority 4
```

```
spanning-tree Trk41 priority 4
spanning-tree Trk45 priority 4
spanning-tree Trk46 priority 4
spanning-tree Trk47 priority 4
spanning-tree forward-delay 4 hello-time 1 maximum-age 6 priority 0
primary-vlan 30
no autorun
no dhcp config-file-update
no dhcp image-file-update
password manager
password operator
```

Para verificar la configuración en el switche de core se corre el siguiente comando

#show spanning-tree

```
SW-CORE-CULTURANTIOQUIA# show spanning-tree

Multiple Spanning Tree (MST) Information

STP Enabled   : Yes
Force Version : MSTP-operation
IST Mapped VLANs : 1-4094
Switch MAC Address : 2c59e5-70e500
Switch Priority    : 0
Max Age  : 6
Max Hops : 20
Forward Delay : 4

Topology Change Count  : 1129
Time Since Last Change : 17 hours

CST Root MAC Address : 2c59e5-70e500
CST Root Priority    : 0
CST Root Path Cost   : 0
CST Root Port        : This switch is root

IST Regional Root MAC Address : 2c59e5-70e500
IST Regional Root Priority    : 0
IST Regional Root Path Cost   : 0
IST Remaining Hops            : 20

Root Guard Ports     :
Loop Guard Ports     :
TCN Guard Ports      :
BPDU Protected Ports :
BPDU Filtered Ports  :
PVST Protected Ports :
PVST Filtered Ports  :

                 |          Prio                | Designated    Hello
Port   Type      | Cost     rity State          | Bridge        Time PtP Edge
------ --------- + -------- ---- ------------ + ------------- ---- --- ----
A14    1000SX    | Auto     128  Disabled       |
A15    1000SX    | Auto     128  Disabled       |
```

A17	1000SX	Auto	128	Disabled			
A18	1000SX	Auto	128	Disabled			
A22	1000SX	Auto	128	Disabled			
A23	1000SX	Auto	128	Disabled			
C1	1000SX	Auto	128	Disabled			
C2	1000SX	Auto	128	Disabled			
C4	1000SX	Auto	128	Disabled			
C5	1000SX	Auto	128	Disabled			
C7	1000SX	Auto	128	Disabled			
C8	1000SX	Auto	128	Disabled			
C15		Auto	128	Disabled			
C16		Auto	128	Disabled			
C17		Auto	128	Disabled			
C18		Auto	128	Disabled			
C19		Auto	128	Disabled			
C20		Auto	128	Disabled			
C21		Auto	128	Disabled			
C22		Auto	128	Disabled			
C23		Auto	128	Disabled			
C24	1000SX	20000	128	Forwarding	2c59e5-70e500 1	Yes	No
D1	100/1000T	20000	128	Forwarding	2c59e5-70e500 1	Yes	No
D2	100/1000T	Auto	128	Disabled			
D3	100/1000T	Auto	128	Disabled			
D4	100/1000T	Auto	128	Disabled			
D5	100/1000T	20000	128	Forwarding	2c59e5-70e500 1	Yes	Yes
D6	100/1000T	20000	128	Forwarding	2c59e5-70e500 1	Yes	Yes
D7	100/1000T	20000	128	Forwarding	2c59e5-70e500 1	Yes	Yes
D9	100/1000T	20000	128	Forwarding	2c59e5-70e500 1	Yes	Yes
D10	100/1000T	20000	128	Forwarding	2c59e5-70e500 1	Yes	Yes
D11	100/1000T	20000	128	Forwarding	2c59e5-70e500 1	Yes	Yes
D12	100/1000T	20000	128	Forwarding	2c59e5-70e500 1	Yes	Yes
D13	100/1000T	20000	128	Forwarding	2c59e5-70e500 1	Yes	No
D14	100/1000T	20000	128	Forwarding	2c59e5-70e500 1	Yes	Yes
D15	100/1000T	20000	128	Forwarding	2c59e5-70e500 1	Yes	Yes
D16	100/1000T	20000	128	Forwarding	2c59e5-70e500 1	Yes	Yes
D17	100/1000T	20000	128	Forwarding	2c59e5-70e500 1	Yes	Yes
D18	100/1000T	200000	128	Forwarding	2c59e5-70e500 1	Yes	Yes
D19	100/1000T	20000	128	Forwarding	2c59e5-70e500 1	Yes	Yes
D20	100/1000T	20000	128	Forwarding	2c59e5-70e500 1	Yes	Yes
D21	100/1000T	20000	128	Forwarding	2c59e5-70e500 1	Yes	Yes
D22	100/1000T	20000	128	Forwarding	2c59e5-70e500 1	Yes	Yes
D23	100/1000T	20000	128	Forwarding	2c59e5-70e500 1	Yes	No
D24	100/1000T	20000	128	Forwarding	2c59e5-70e500 1	Yes	Yes
E1	100/1000T	20000	128	Forwarding	2c59e5-70e500 1	Yes	Yes
E2	100/1000T	20000	128	Forwarding	2c59e5-70e500 1	Yes	Yes
E3	100/1000T	20000	128	Forwarding	2c59e5-70e500 1	Yes	Yes
E4	100/1000T	20000	128	Forwarding	2c59e5-70e500 1	Yes	Yes
E5	100/1000T	20000	128	Forwarding	2c59e5-70e500 1	Yes	Yes
E6	100/1000T	Auto	128	Disabled			
E7	100/1000T	Auto	128	Disabled			
E8	100/1000T	Auto	128	Disabled			
E9	100/1000T	Auto	128	Disabled			
E10	100/1000T	Auto	128	Disabled			
E11	100/1000T	Auto	128	Disabled			
E12	100/1000T	Auto	128	Disabled			
Trk1		20000	64	Forwarding	2c59e5-70e500 1	Yes	No
Trk2		20000	64	Forwarding	2c59e5-70e500 1	Yes	Yes
Trk3		20000	64	Forwarding	2c59e5-70e500 1	Yes	Yes
Trk4		20000	64	Forwarding	2c59e5-70e500 1	Yes	Yes
Trk5		20000	64	Forwarding	2c59e5-70e500 1	Yes	Yes
Trk6		20000	64	Forwarding	2c59e5-70e500 1	Yes	No

```
Trk7            | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes Yes
Trk8            | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes Yes
Trk9            | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes No
Trk10           | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes No
Trk11           | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes No
Trk12           | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes No
Trk13           | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes No
Trk14           | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes No
Trk15           | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes No
Trk16           | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes No
Trk17           | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes Yes
Trk18           | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes Yes
Trk19           | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes Yes
Trk20           | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes Yes
Trk21           | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes No
Trk25           | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes Yes
Trk26           | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes Yes
Trk27           | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes Yes
Trk28           | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes Yes
Trk29           | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes Yes
Trk30           | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes Yes
Trk32           | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes Yes
Trk33           | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes Yes
Trk34           | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes Yes
Trk36           | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes Yes
Trk37           | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes Yes
Trk38           | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes Yes
Trk39           | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes Yes
Trk40           | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes No
Trk41           | Auto      64   Disabled     |
Trk45           | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes Yes
Trk46           | 20000     64   Forwarding   | 2c59e5-70e500 1    Yes Yes
Trk47           | Auto      64   Disabled     |
```

13. SWITCHE DE BORDE 48 PUERTOS PoE+, 4 SFP+, 370W

- Se suministran 13 switches de borde de acuerdo a las características y marcas ofertadas

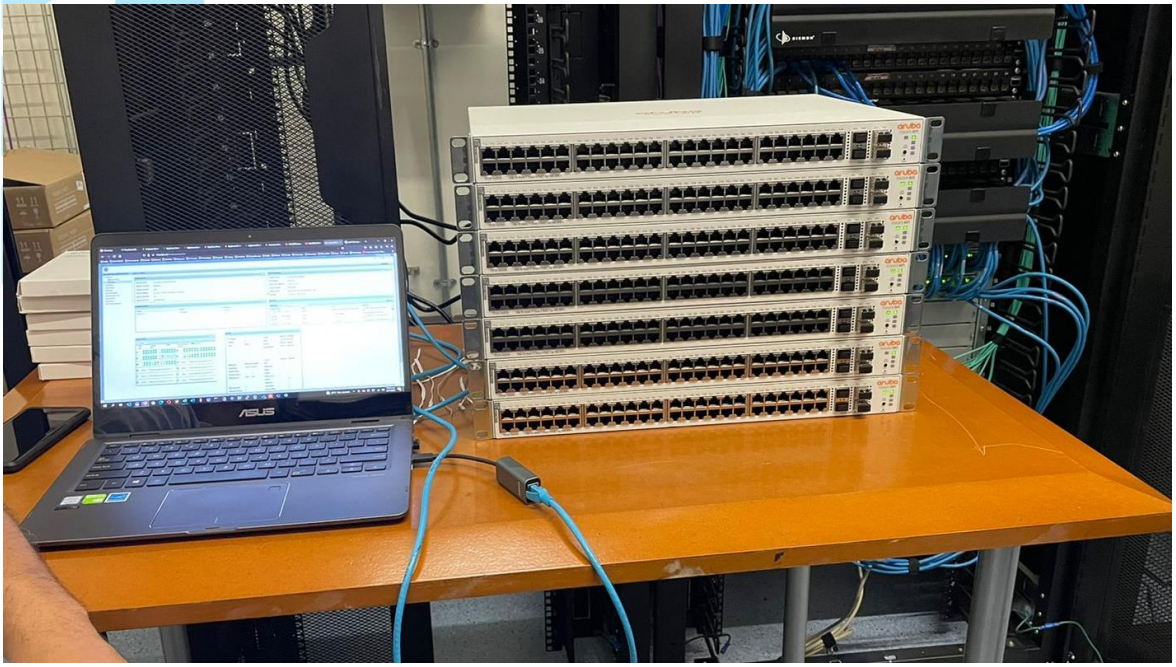
EQUIPO:	Switche de Borde
MARCA:	HPE ARUBA
REFERENCIA:	ARUBA INSTAN ON 1930 (JL686A)
CANTIDAD:	Trece (13)
DESCRIPCIÓN:	Switche De Borde, 48 puertos PoE+, 4 SFP+, 370W,
SERIAL:	CN19KPJ200 - CN19KPJ37T - CN19KPJ3JG - CN19KPJ1CX - CN19KPJ3P5 - CN19KPJ3HC - CN19KPJ3B3 - CN19KPJ3G7 -

	CN19KPJ20M - CN19KPJ3LB - CN19KPJ34H - CN19KPJ1Q6 - CN19KPJ33Z

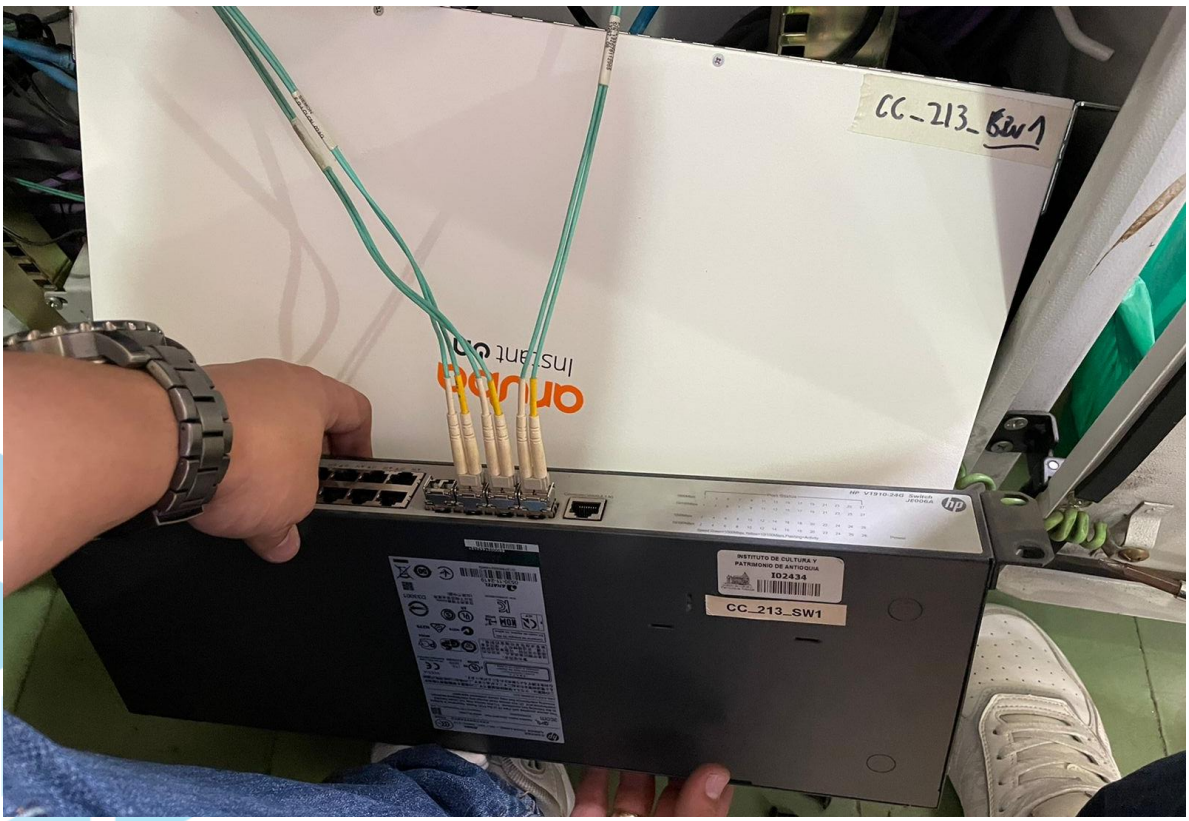
- Proceso de desembalaje



- Proceso de Configuración



- **Proceso de reemplazo de viejos switches por nuevos**







14. MÓDULO SFP+, VELOCIDAD 10 GBPS

- Se suministran los módulos SFP+ que nos van a permitir tener conexiones más rápidas en el Backbone del ICPA

EQUIPO:	Módulo Transciever SFP+
MARCA:	FLUXLIGHT
REFERENCIA:	J9150D

CANTIDAD:	Sesenta (60)
DESCRIPCIÓN:	Módulo SFP+, velocidad 10 Gbps, Para switche de Borde y Core de Backup
SERIAL:	MS16BA00971 - MS16BA00972 - MS16BA00973 - MS16BA00974 - MS16BA00975 - MS16BA00976 - MS16BA00977 - MS16BA00978 - MS16BA00979 - MS16BA00980 - MS16BA01051 - MS16BA01052 - MS16BA01053 - MS16BA01054 - MS16BA01055 - MS16BA01056 - MS16BA01057 - MS16BA01058 - MS16BA01059 - MS16BA01060 - MS16BA01071 - MS16BA01072 - MS16BA01073 - MS16BA01074 - MS16BA01075 - MS16BA01076 - MS16BA01077 - MS16BA01078 - MS16BA01079 - MS16BA01080 - MS16BA01091 - MS16BA01092 - MS16BA01093 - MS16BA01094 - MS16BA01095 - MS16BA01096 - MS16BA01097 - MS16BA01098 - MS16BA01099 - MS16BA01100 - MS16BA01121 - MS16BA01122 - MS16BA01123 - MS16BA01124 - MS16BA01125 - MS16BA01126 - MS16BA01127 - MS16BA01128 - MS16BA01129 - MS16BA01130 - MS16BA01131 - MS16BA01132 - MS16BA01133 - MS16BA01134 - MS16BA01135 - MS16BA01136 - MS16BA01137 - MS16BA01138 - MS16BA01139 - MS16BA01140

Suministro e instalación de los módulos de fibra óptica





15. ACCESS POINT PARA WIFI DE ÚLTIMA GENERACIÓN

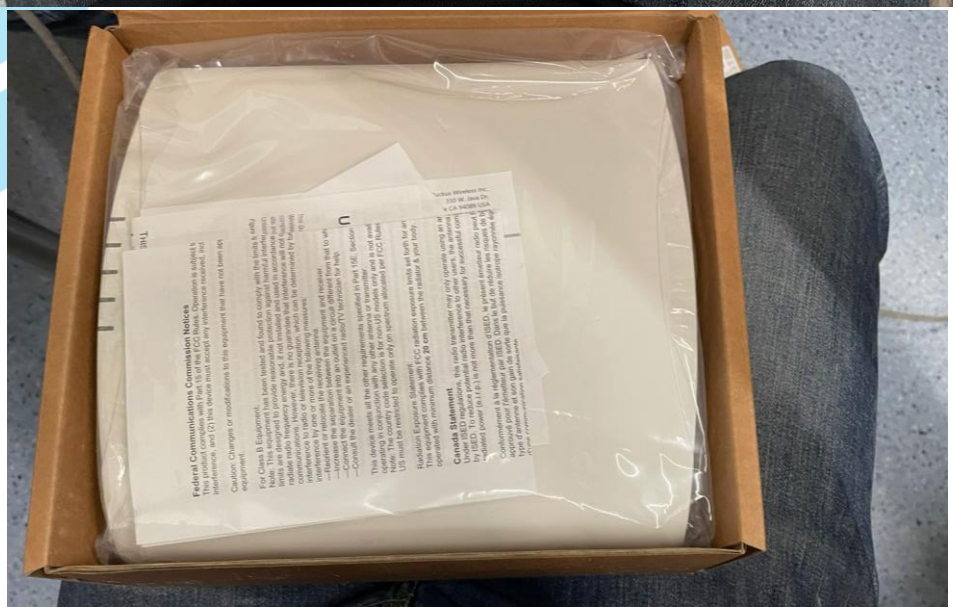
- Se suministra los Access Points para modernizar la red WiFi del instituto. Con esta nueva tecnología se pasa de 54 Mbps a 1.7Gbps para los equipos que soporten dicha velocidad

EQUIPO:	ACCESS POINT
MARCA:	RUCKUS
REFERENCIA:	R720
CANTIDAD:	Diecisiete (17)
DESCRIPCIÓN:	Access Point para WiFi de última generación, Banda Dual dual-band 802.11abgn/ac (WiFi 5) Wireless Access Point, 4x4:4 streams, BeamFlex+, dual ports, 802.3af/at PoE support
SERIAL:	242172002034 – 242172002040 - 242172002432 – 242172002440 – 242172002472 – 242172002767 – 242172002796 – 242172002816 – 242172002819 - 242172002834 – 242172002841 – 242172002847 –

	242172002856 - 291803003716 – 971803007690 – 321803001426 - 291803002390

Se proceden a desembalar y a hacer el montaje en las diferentes zonas establecidas







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(+57) 317 433 6568

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(+57) 317 433 6568

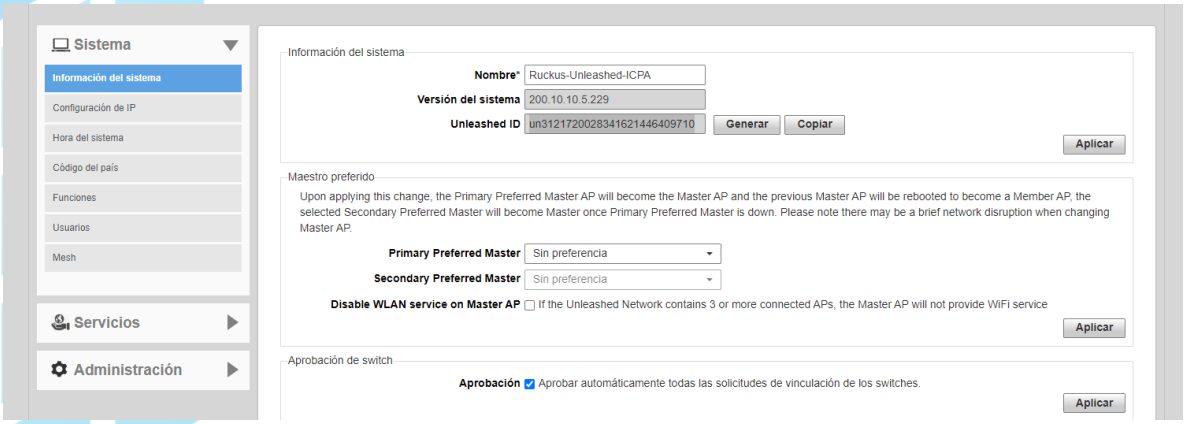
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16. LICENCIA RED SIN CONTROLADORA HASTA 25 AP'S

- Se suministra y se configura la licencia sin controladora para el sistema de WiFi marca Ruckus.

EQUIPO:	Licencia Ruckus
MARCA:	Ruckus
REFERENCIA:	Ruckus Unleashed
CANTIDAD:	Uno (1)
DESCRIPCIÓN:	Licencia Red Sin Controladora hasta 25 Access Points
SERIAL:	un312172002834162144640971O



COMMSCOPE®

Dear Valued Customer:

Thank you for purchasing a Ruckus Wireless Unleashed Network license.

What is this?

This is the support activation for your new license purchase, please review the information below and proceed to activate.

Support Contract Details

Distributor:	VAR:	End User:
Tech Data Corporation	Innovar IT SAS	Instituto de Cultura y Patrimonio de Antioquia

Coverage Start Date	Coverage End Date	Quantity	Product	Serial Numbers	Primary Controller Serial Number
You purchased: WatchDog End User/Direct support which entitles you to direct access to all of our support resources and activation of your unleashed network (up to 25 Zoneflex AP). Our web support portal provides a wealth of technical resources including Software Updates, Knowledge Base, Online Case Management, Forums and Live Chat.					
7/10/2021	7/10/2121	1	800-RUNL-3U00	91518069016601	N/A

You only have to complete your registration to activate the unleashed network

Activation Code: un3121720028341621446409710

Note: If there are renewals in your order, they are automatically activated.

Best Regards,
Ruckus, an Arris company

Connect with Us:

Contact Info:

New to Ruckus? Get Started: New Customer

Support Contact: Contact-Us

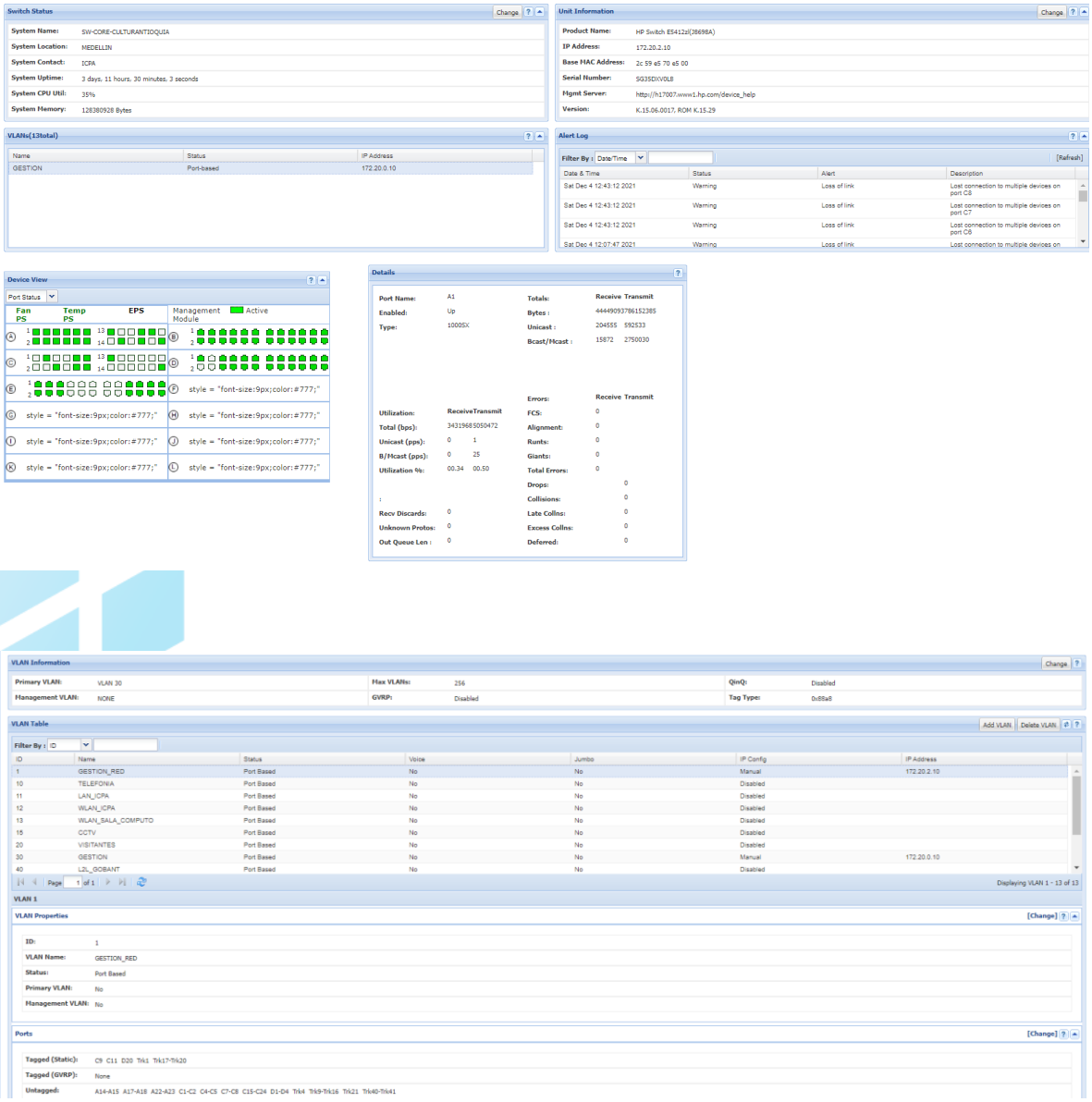
Support Web: http://support.ruckuswireless.com

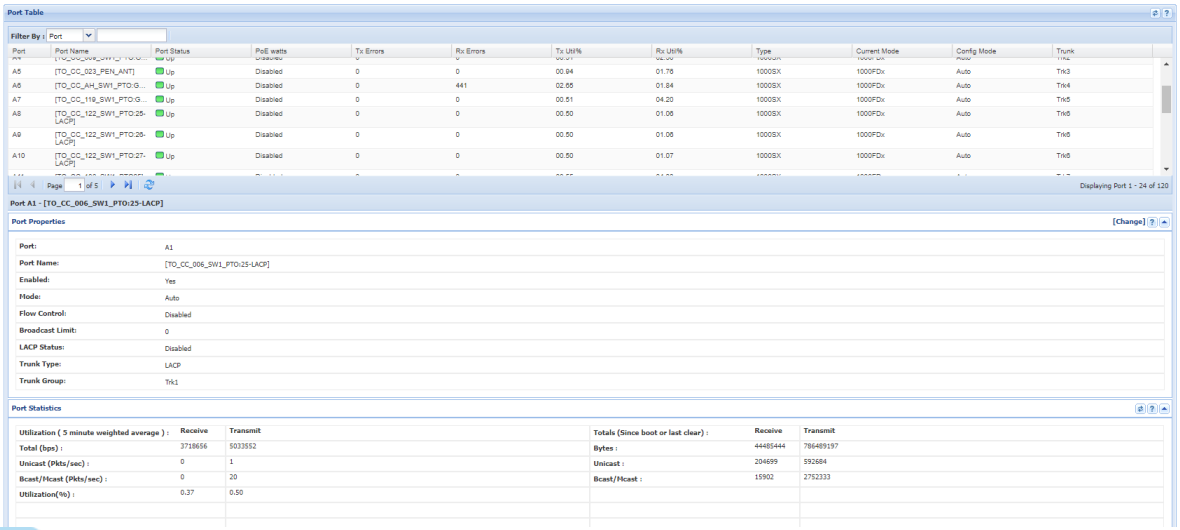
Terms Of Use | Privacy Policy

17. INSTALACIÓN, CONFIGURACIÓN Y PUESTA A PUNTO DE LA RED DE DATOS CORPORATIVA

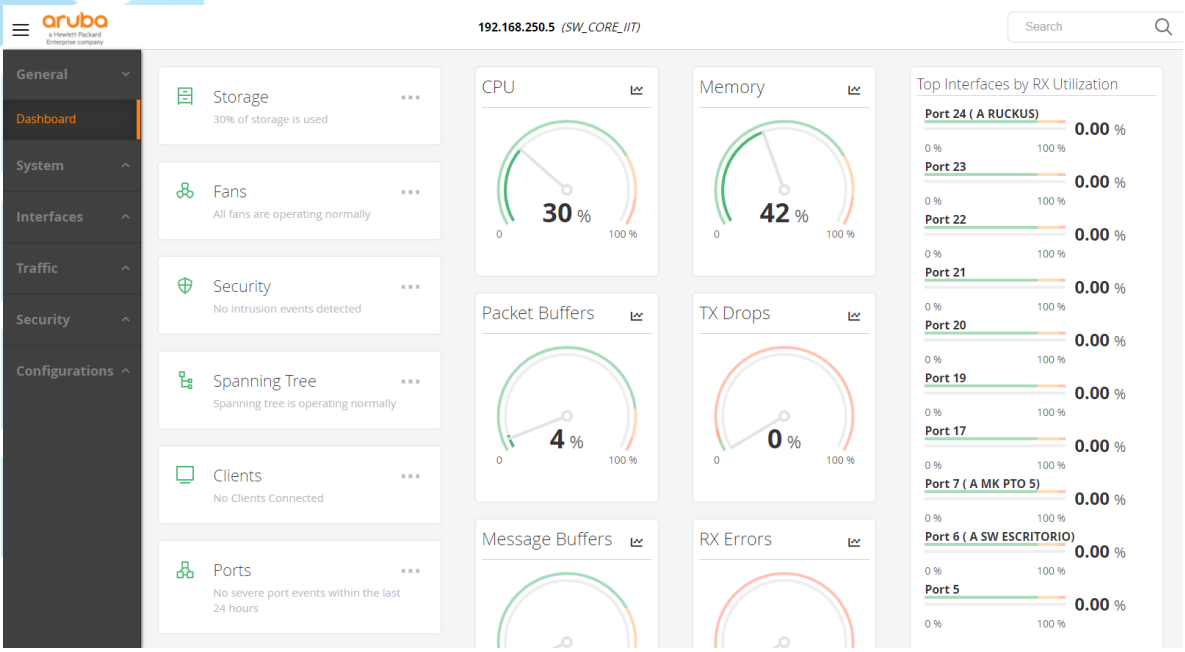
Se procedió a configurar de acuerdo a las instrucciones del personal de informática y de sistemas del ICPA los siguientes elementos:

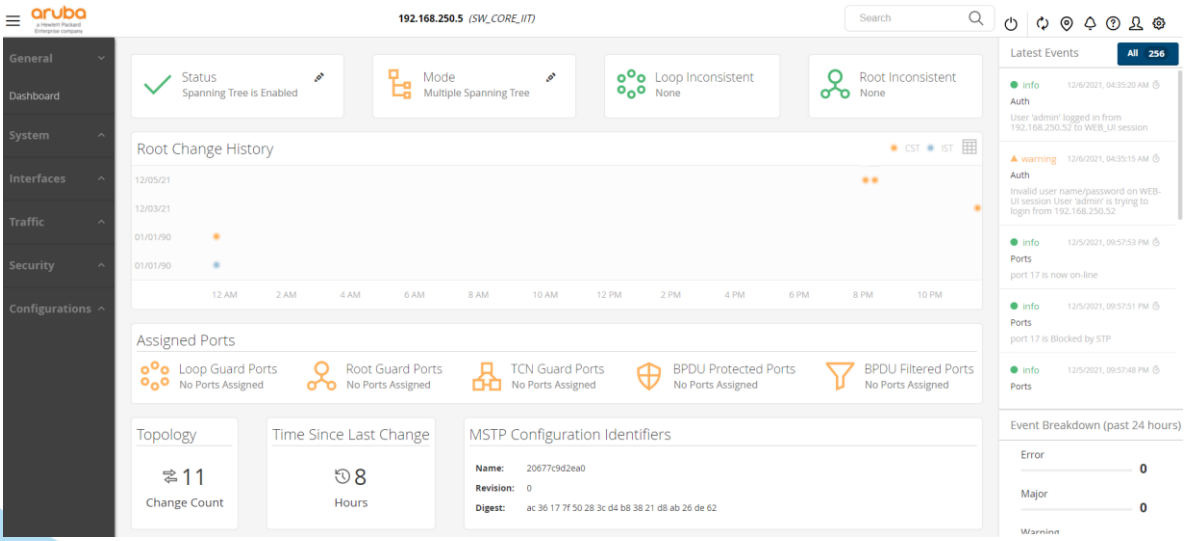
- Switche de Core Principal

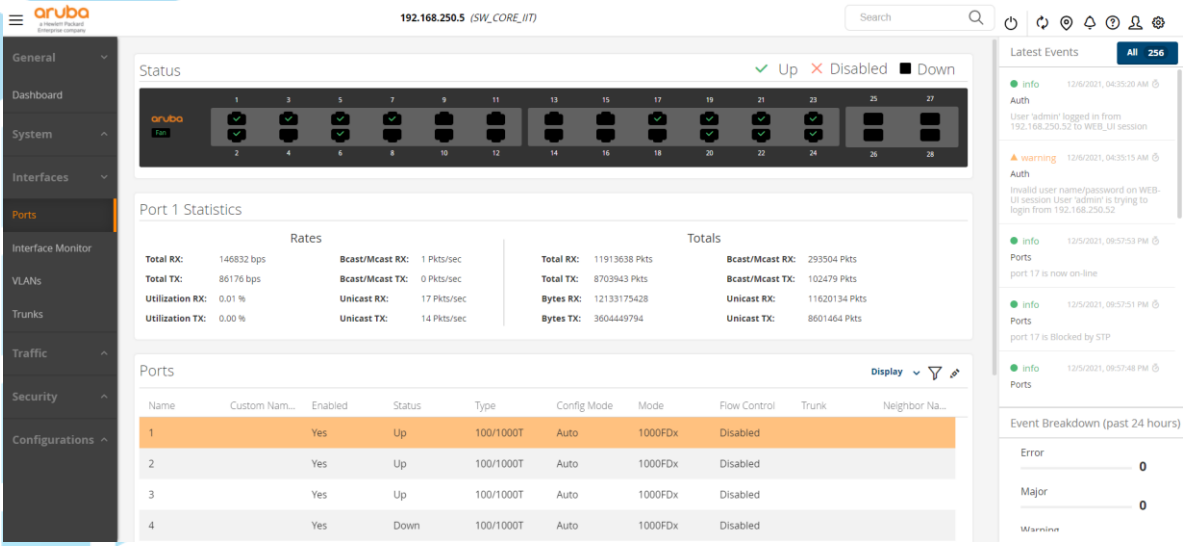


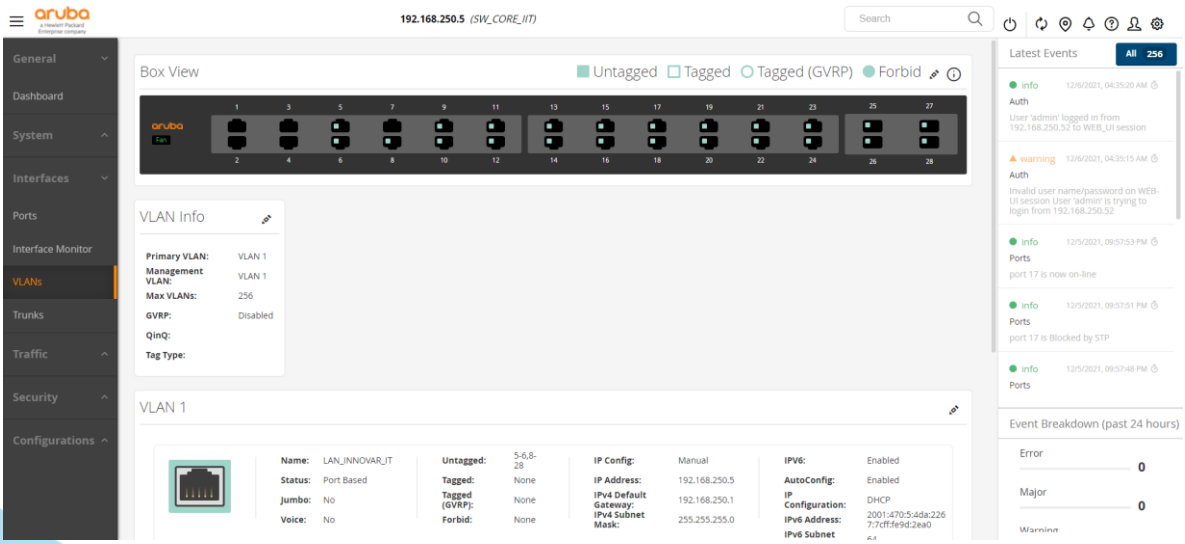


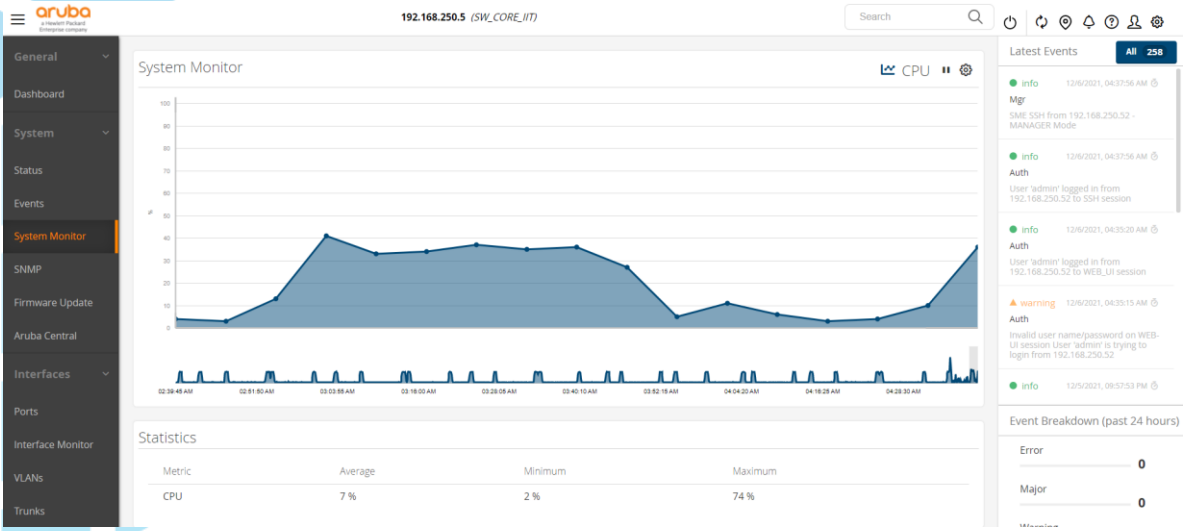
- Switche de Core Secundario



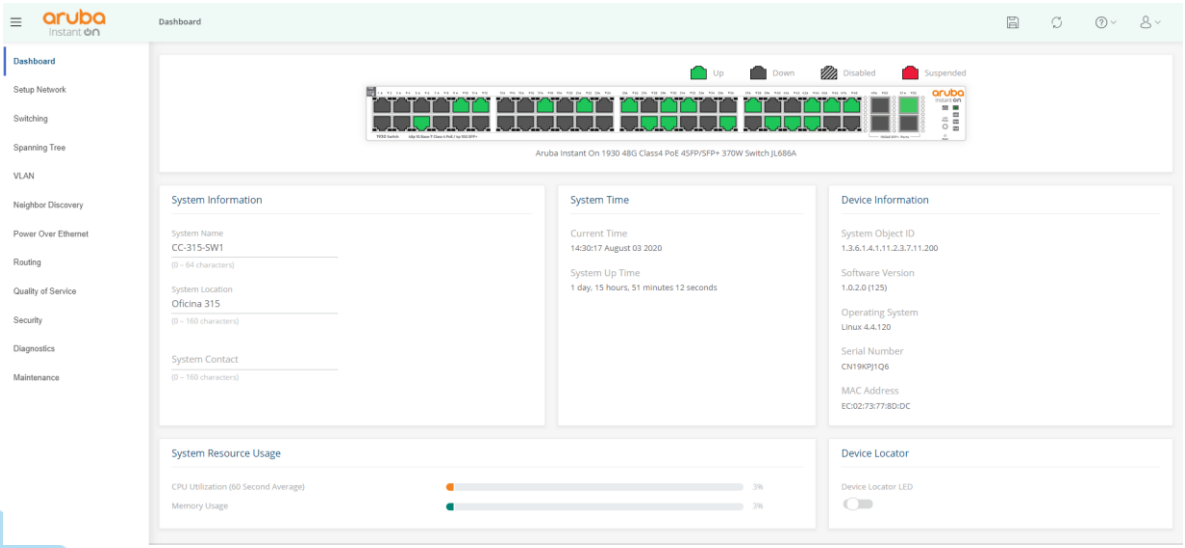

192.168.250.5 (SW_CORE_IIT)
Search
General
Dashboard
System
Interfaces
Traffic
Security
Configurations
Status
Spanning Tree is Enabled
Mode
Multiple Spanning Tree
Loop Inconsistent
None
Root Inconsistent
None
Root Change History
CST
IST
12/05/21
12/03/21
01/01/90
01/01/90
12 AM
2 AM
4 AM
6 AM
8 AM
10 AM
12 PM
2 PM
4 PM
6 PM
8 PM
10 PM
Assigned Ports
Loop Guard Ports
No Ports Assigned
Root Guard Ports
No Ports Assigned
TCN Guard Ports
No Ports Assigned
BPDU Protected Ports
No Ports Assigned
BPDU Filtered Ports
No Ports Assigned
Topology
11
Change Count
Time Since Last Change
8
Hours
MSTP Configuration Identifiers
Name: 20677c9d2ea0
Revision: 0
Digest: ac 36 17 7f 50 28 3c d4 b8 38 21 d8 ab 26 de 62
Latest Events
All 256
info 12/6/2021, 04:35:20 AM
Auth
User 'admin' logged in from 192.168.250.52 to WEB_UI session
warning 12/6/2021, 04:35:15 AM
Auth
Invalid user name/password on WEB-UI session User 'admin' is trying to login from 192.168.250.52
info 12/5/2021, 09:57:53 PM
Ports
port 17 is now on-line
info 12/5/2021, 09:57:51 PM
Ports
port 17 is Blocked by STP
info 12/5/2021, 09:57:48 PM
Ports
Event Breakdown (past 24 hours)
Error 0
Major 0

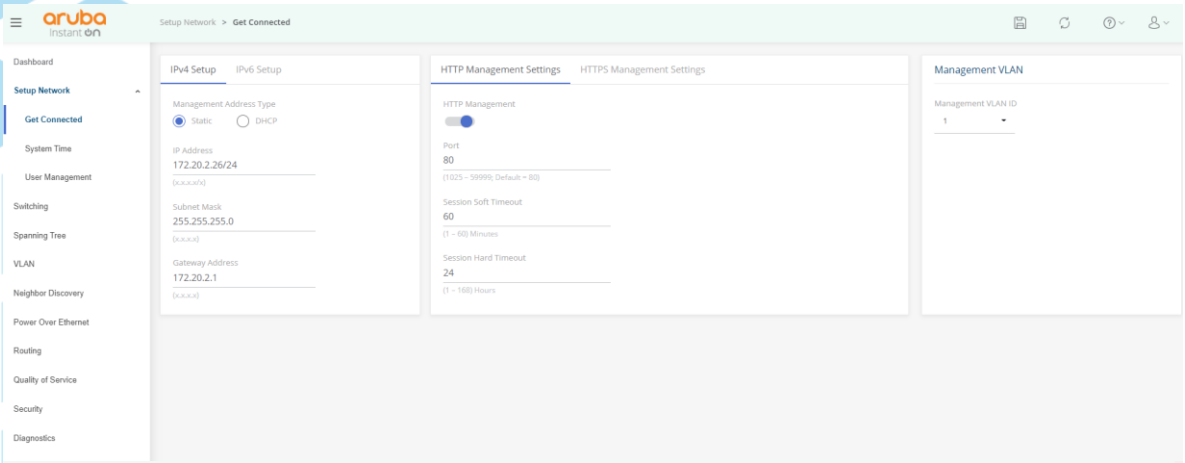

192.168.250.5 (SW_CORE_IIT)
Search
General
Dashboard
System
Interfaces
Ports
Interface Monitor
VLANs
Trunks
Traffic
Security
Configurations
Status
Up
Disabled
Down
Port 1 Statistics
Rates
Total RX: 146832 bps
Total TX: 86176 bps
Utilization RX: 0.01 %
Utilization TX: 0.00 %
Bcast/Mcast RX: 1 Pkts/sec
Bcast/Mcast TX: 0 Pkts/sec
Unicast RX: 17 Pkts/sec
Unicast TX: 14 Pkts/sec
Totals
Total RX: 11913638 Pkts
Total TX: 8703943 Pkts
Bytes RX: 12133175428
Bytes TX: 3604449794
Bcast/Mcast RX: 293504 Pkts
Bcast/Mcast TX: 102479 Pkts
Unicast RX: 11620134 Pkts
Unicast TX: 8601464 Pkts
Ports
Display
Name
Custom Nam...
Enabled
Status
Type
Config Mode
Mode
Flow Control
Trunk
Neighbor Na...
1 Yes Up 100/1000T Auto 1000FDx Disabled
2 Yes Up 100/1000T Auto 1000FDx Disabled
3 Yes Up 100/1000T Auto 1000FDx Disabled
4 Yes Down 100/1000T Auto 1000FDx Disabled
Latest Events
All 256
Event Breakdown (past 24 hours)
Error 0
Major 0

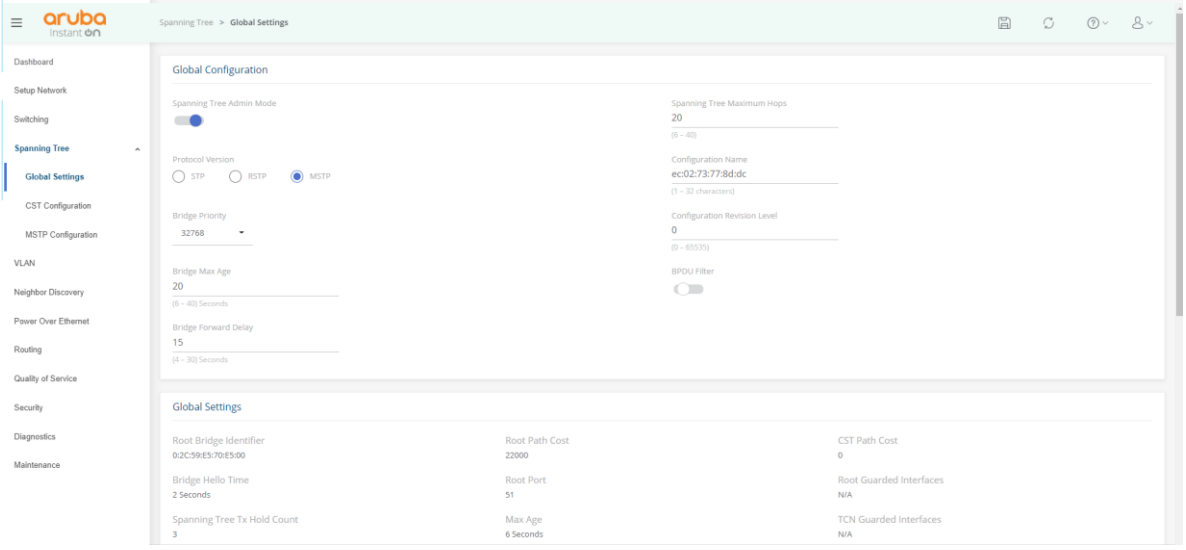




- Switches de Borde



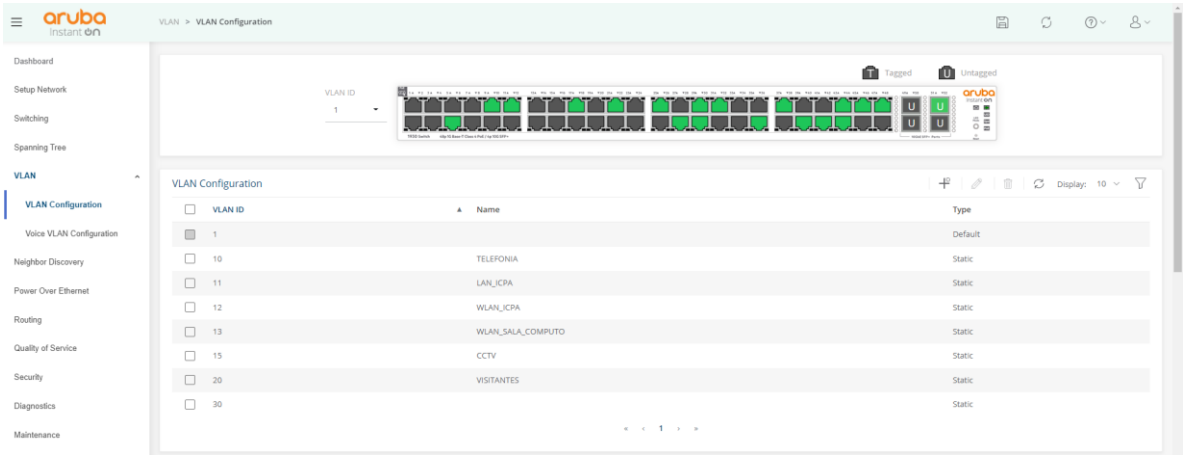


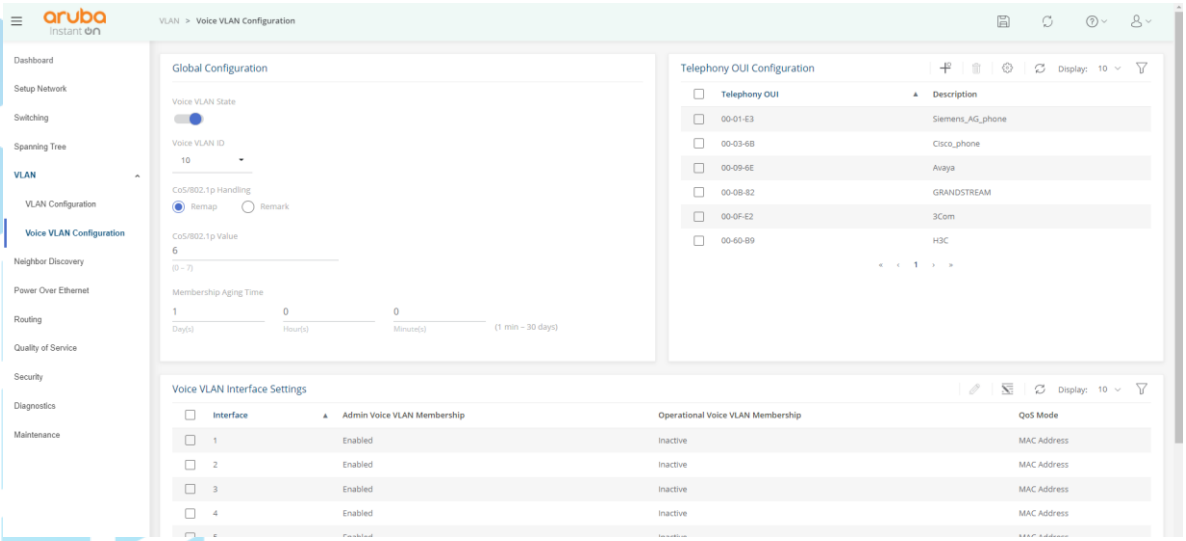


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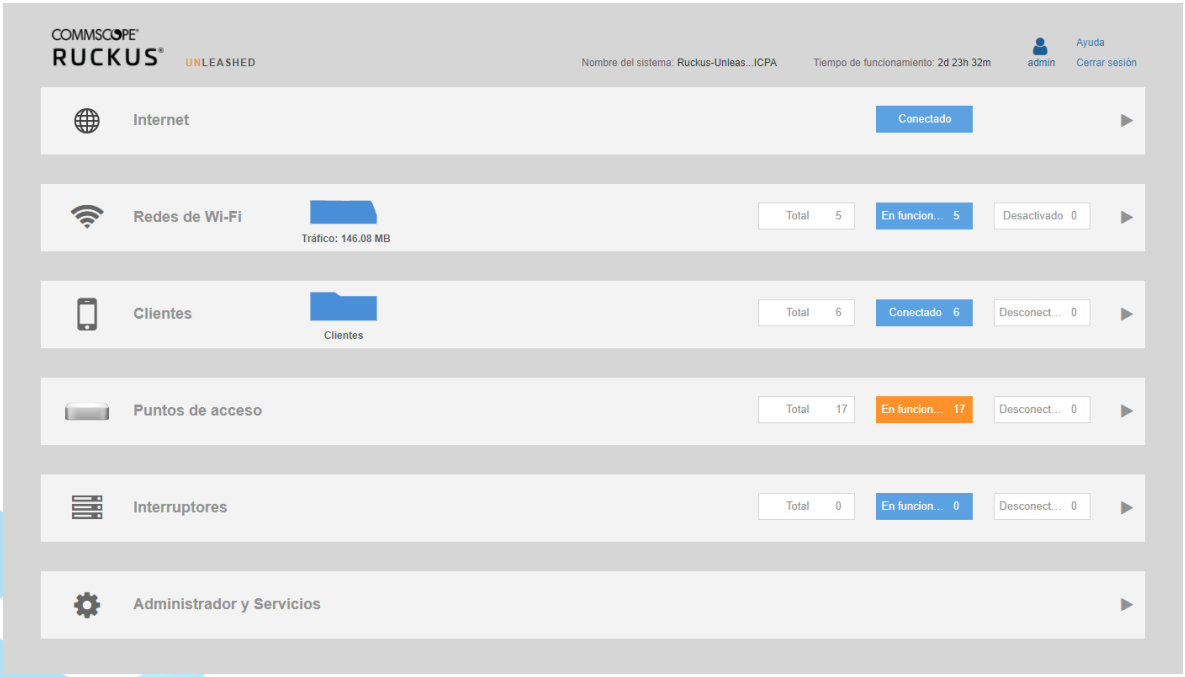
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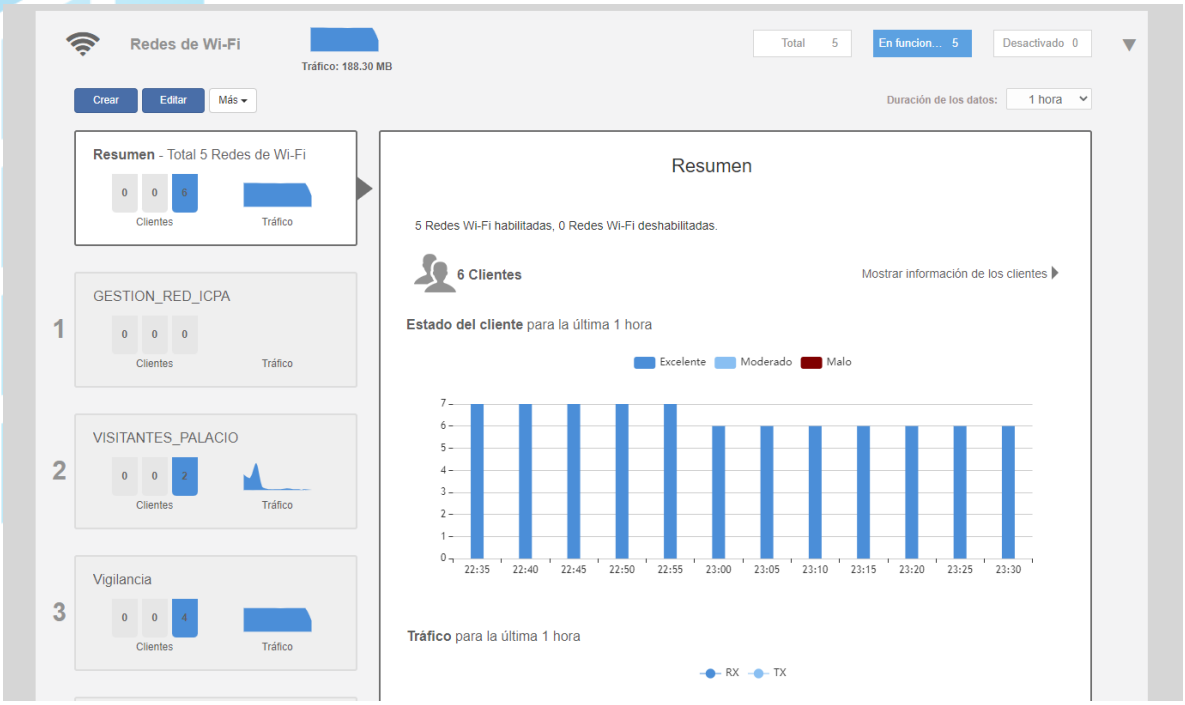
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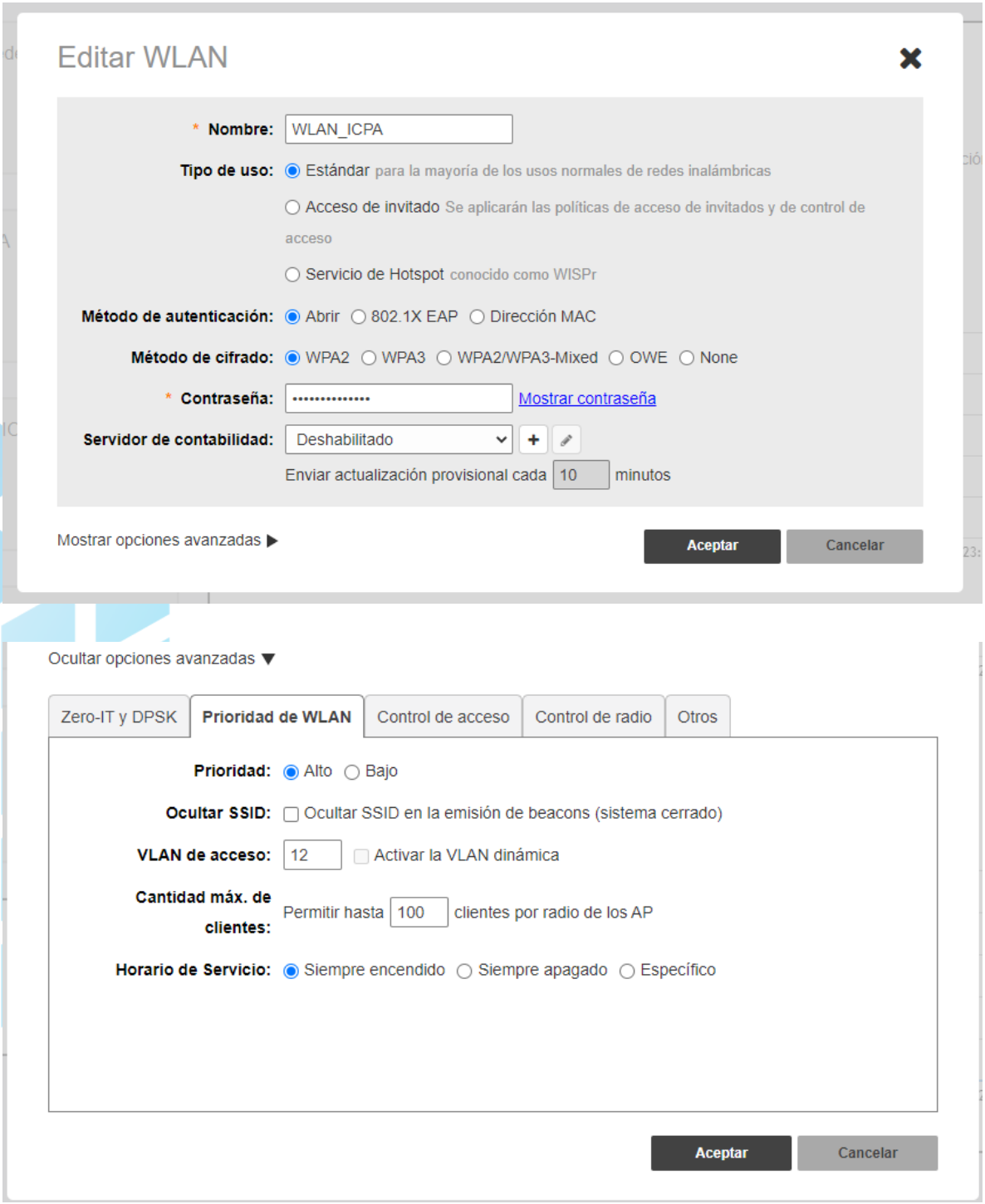




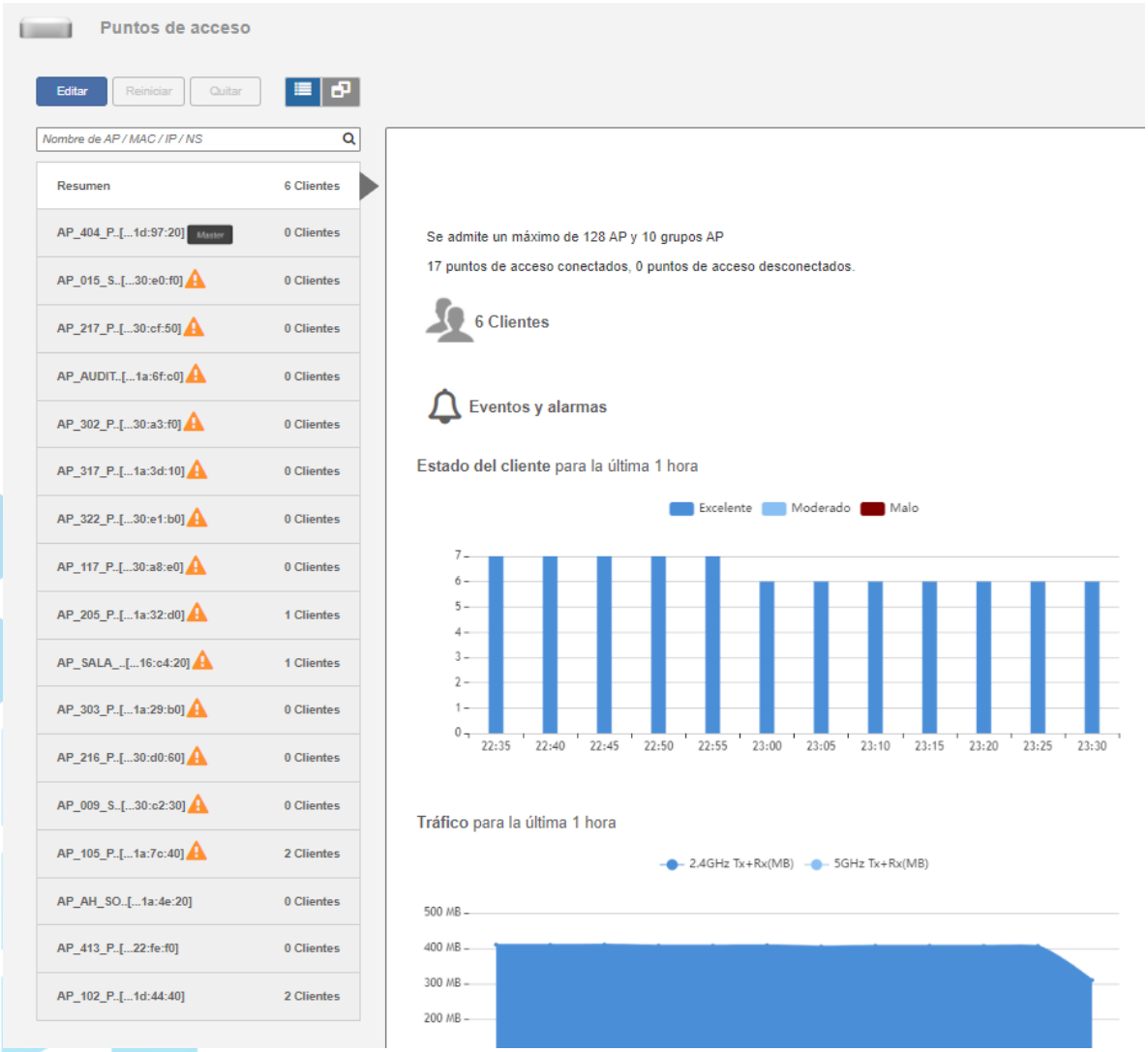
- Sistema de Red WiFi Ruckus


COMMSCOPE
RUCKUS UNLEASHED
Nombre del sistema: Ruckus-Unleas...ICPA
Tiempo de funcionamiento: 2d 23h 32m
admin
Ayuda
Cerrar sesión
Internet
Conectado
Redes de Wi-Fi
Tráfico: 146.08 MB
Total 5
En funcion... 5
Desactivado 0
Clientes
Clientes
Total 6
Conectado 6
Desconect... 0
Puntos de acceso
Total 17
En funcion... 17
Desconect... 0
Interruptores
Total 0
En funcion... 0
Desconect... 0
Administrador y Servicios


Redes de Wi-Fi
Tráfico: 188.30 MB
Total 5
En funcion... 5
Desactivado 0
Crear
Editar
Más
Duración de los datos: 1 hora
Resumen - Total 5 Redes de Wi-Fi
Clientes
Tráfico
GESTION_RED_ICPA
VISITANTES_PALACIO
Vigilancia
Resumen
5 Redes Wi-Fi habilitadas, 0 Redes Wi-Fi deshabilitadas.
6 Clientes
Mostrar información de los clientes
Estado del cliente para la última 1 hora
Excelente
Moderado
Malo
22:35
22:40
22:45
22:50
22:55
23:00
23:05
23:10
23:15
23:20
23:25
23:30
Tráfico para la última 1 hora
RX
TX



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18. COMPUTADOR PORTÁTIL

- Se suministran 4 equipos portátiles incluidos dentro proceso

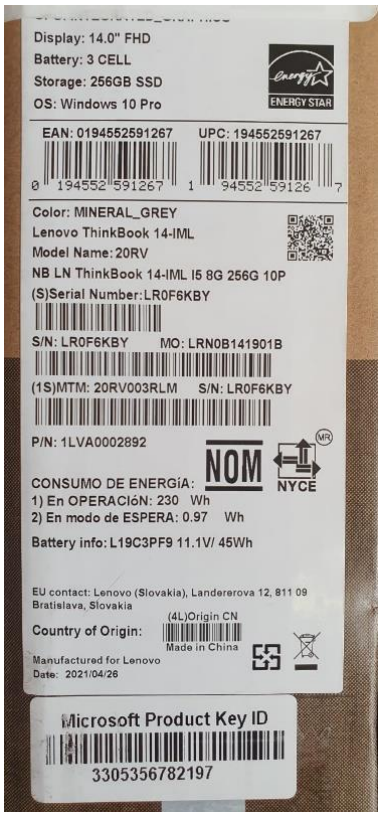
EQUIPO:	COMPUTADOR PORTÁTIL
MARCA:	LENOVO
REFERENCIA:	THINBOOK 14 ILM
CANTIDAD:	Cuatro (4)

DESCRIPCIÓN:	Computador Portátil Procesador Intel Core i5-1035G1, RAM 8GB, SSD 256 GB, Sistema Operativo Windows 10 Pro, WiFi ac, Webcam 720p, Garantía 12 Meses.
SERIAL:	SERIALES: LR0F6KAF - LR0F6KBY - LR0F6K7Q - LR0F6K93

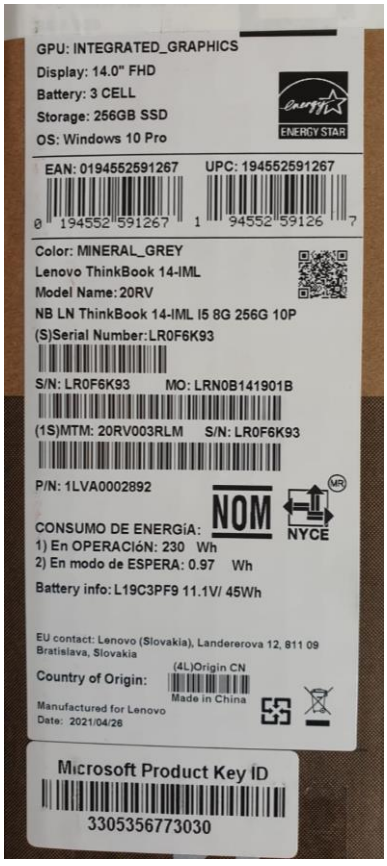
Los equipos suministrados corresponden a las siguientes imágenes




RAM: 8GB
GPU: INTEGRATED_GRAPHICS
Display: 14.0" FHD
Battery: 3 CELL
Storage: 256GB SSD
OS: Windows 10 Pro
ENERGY STAR
EAN: 0194552591267
UPC: 194552591267
0 194552 591267 1 94552 59126 7
Color: MINERAL_GREY
Lenovo ThinkBook 14-IML
Model Name: 20RV
NB LN ThinkBook 14-IML I5 8G 256G 10P
(S)Serial Number:LR0F6KAF
S/N: LR0F6KAF MO: LRN0B141901B
(1S)MTM: 20RV003RLM S/N: LR0F6KAF
P/N: 1LVA0002892
NOM
NYCE
CONSUMO DE ENERGÍA:
1) En OPERACIÓN: 230 Wh
2) En modo de ESPERA: 0.97 Wh
Battery info: L19C3PF9 11.1V/ 45Wh
EU contact: Lenovo (Slovakia), Landererova 12, 811 09 Bratislava, Slovakia
Country of Origin:
(4L)Origin CN
Made in China
Manufactured for Lenovo
Date: 2021/04/26
Microsoft Product Key ID
3305356782148


Display: 14.0" FHD
Battery: 3 CELL
Storage: 256GB SSD
OS: Windows 10 Pro
ENERGY STAR
EAN: 0194552591267
UPC: 194552591267
0 194552 591267 1 94552 59126 7
Color: MINERAL_GREY
Lenovo ThinkBook 14-IML
Model Name: 20RV
NB LN ThinkBook 14-IML I5 8G 256G 10P
(S)Serial Number:LR0F6KBY
S/N: LR0F6KBY MO: LRN0B141901B
(1S)MTM: 20RV003RLM S/N: LR0F6KBY
P/N: 1LVA0002892
NOM
NYCE
CONSUMO DE ENERGÍA:
1) En OPERACIÓN: 230 Wh
2) En modo de ESPERA: 0.97 Wh
Battery info: L19C3PF9 11.1V/ 45Wh
EU contact: Lenovo (Slovakia), Landererova 12, 811 09 Bratislava, Slovakia
Country of Origin:
(4L)Origin CN
Made in China
Manufactured for Lenovo
Date: 2021/04/26
Microsoft Product Key ID
3305356782197


GPU: INTEGRATED_GRAPHICS
Display: 14.0" FHD
Battery: 3 CELL
Storage: 256GB SSD
OS: Windows 10 Pro
ENERGY STAR
EAN: 0194552591267
UPC: 194552591267
0 194552 591267 1 94552 59126 7
Color: MINERAL_GREY
Lenovo ThinkBook 14-IML
Model Name: 20RV
NB LN ThinkBook 14-IML I5 8G 256G 10P
(S)Serial Number:LR0F6K7Q
S/N: LR0F6K7Q MO: LRN0B141901B
(1S)MTM: 20RV003RLM S/N: LR0F6K7Q
P/N: 1LVA0002892
NOM
NYCE
CONSUMO DE ENERGÍA:
1) En OPERACIÓN: 230 Wh
2) En modo de ESPERA: 0.97 Wh
Battery info: L19C3PF9 11.1V/ 45Wh
EU contact: Lenovo (Slovakia), Landererova 12, 811 09 Bratislava, Slovakia
Country of Origin:
(4L)Origin CN
Made in China
Manufactured for Lenovo
Date: 2021/04/26
Microsoft Product Key ID
3305356772985


GPU: INTEGRATED_GRAPHICS
Display: 14.0" FHD
Battery: 3 CELL
Storage: 256GB SSD
OS: Windows 10 Pro
ENERGY STAR
EAN: 0194552591267
UPC: 194552591267
0 194552 591267 1 94552 59126 7
Color: MINERAL_GREY
Lenovo ThinkBook 14-IML
Model Name: 20RV
NB LN ThinkBook 14-IML I5 8G 256G 10P
(S)Serial Number:LR0F6K93
S/N: LR0F6K93 MO: LRN0B141901B
(1S)MTM: 20RV003RLM S/N: LR0F6K93
P/N: 1LVA0002892
NOM
NYCE
CONSUMO DE ENERGÍA:
1) En OPERACIÓN: 230 Wh
2) En modo de ESPERA: 0.97 Wh
Battery info: L19C3PF9 11.1V/ 45Wh
EU contact: Lenovo (Slovakia), Landererova 12, 811 09 Bratislava, Slovakia
Country of Origin:
(4L)Origin CN
Made in China
Manufactured for Lenovo
Date: 2021/04/26
Microsoft Product Key ID
3305356773030

19. TABLETA DE ÚLTIMA GENERACIÓN

- Se suministran tabletas de última generación, de acuerdo un switche de Core para Alta disponibilidad en la red del ICPA

EQUIPO:	Tableta de última generación
MARCA:	SAMSUNG
REFERENCIA:	GALAXY TAB S6 LITE
CANTIDAD:	Dos (2)
DESCRIPCIÓN:	Tableta de última generación con Pantalla 10.5", Capacidad 64 GB, Lapiz S-PEN, Display Tipo Super AMOLED, Batería hasta 15 horas de Uso, WiFi, Bluetooth
SERIAL:	R52R90HH14J -

- Suministro de tabletas





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