

Evidencia Control 57

Esquemas de alta disponibilidad implementa para las actividades relacionadas con el monedero electrónico

1. Redundancia en centro de datos

Centro de datos local

La imagen muestra captura de pantalla del vcenter del centro de datos local donde se aprecian cinco hosts

The screenshot displays the vSphere Client interface for the 'Enserer-NGX' datacenter. The top navigation bar includes the 'vSphere Client' logo and a search bar. The main content area shows the 'Summary' tab for the datacenter, which lists the following metrics:

- Hosts: 3
- Virtual Machines: 91
- Clusters: 0
- Networks: 4
- Datastores: 11

A terminal window titled 'Símbolo del sistema' is open, displaying the following network configuration details:

```
Adaptador de Ethernet Ethernet 4:  
Estado de los medios. . . . . : medios desconectados  
Sufijo DNS específico para la conexión. . : gasmartcorp.local  
  
Adaptador de LAN inalámbrica Wi-Fi:  
Sufijo DNS específico para la conexión. . : gasmartcorp.local  
Dirección IPv4. . . . . : 10.255.230.239  
Máscara de subred. . . . . : 255.255.254.0  
Puerta de enlace predeterminada. . . . . : 10.255.230.1  
  
Adaptador de Ethernet Bluetooth Network Connection:  
Estado de los medios. . . . . : medios desconectados
```

On the right side of the interface, there is a 'Notificaciones' (Notifications) panel showing 'No hay nuevas notificaciones' (No new notifications). Below it is a calendar for May 2025, with the 14th of May highlighted. The bottom of the screen shows the Windows taskbar with various application icons and the system clock indicating 01:20 p.m. on 14/05/2025.

Centro de datos Remoto

La imagen muestra captura de pantalla de la consola de Vcenter del centro de datos remoto donde se aprecian 3 host

The screenshot displays the vSphere Client web interface for a vCenter appliance named 'vcenterastl.enser.com.mx'. The interface is divided into several sections:

- Left Sidebar:** A folder tree showing the hierarchy of the vCenter environment, including folders like 'Enserer-Assetel' and '10.30.113'.
- Summary Page:** The main content area shows the 'Summary' tab for the vCenter appliance. It includes fields for Version (7.0.3), Build (22837322), Last Updated (Nov 1, 2024, 11:46 PM), and Last File-Based Backup (Not scheduled). Below this, it shows Clusters (0), Hosts (3), and Virtual Machines (20).
- Health Status:** A section on the right showing the 'Overall Health' as 'Good' with a green checkmark. It also includes a 'vCenter HA' section with 'Mode' and 'State' set to '--'.
- Custom Attributes:** A table with columns 'Attribute' and 'Value'.
- Windows Taskbar:** At the bottom, a Windows taskbar is visible, showing the Start button, search bar, and several application icons. A calendar widget is open, displaying the date 'miércoles, 5 de marzo de 2025' and the time '03:42:50 p. m.'. A command prompt window is also open, showing the output of the 'ipconfig' command for the Ethernet adapter Ethernet0:

```
C:\Users\Administrator>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet0:

    Connection-specific DNS Suffix  . : 
    IPv4 Address. . . . . : 10.30.1.5
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 10.30.1.2

C:\Users\Administrator>
```

2. Proveedores de Internet redundante en

La imagen muestra captura de pantalla del firewall Fortigate 300E del centro de datos local donde se aprecian dos proveedores de internet en las interfaces WAN

- FloNetwork
- TotalPlay

The screenshot displays the FortiGate 300E web interface. The left sidebar shows the navigation menu with 'Network' and 'Interfaces' expanded. The main content area shows a table of interfaces:

Name	Type	Members	IP/Netmask	Transceiver(s)	Administrative Access	DHCP Clients
s2	Physical Interface		One-Arm Sniffer			
vw1	Physical Interface		0.0.0.0/0.0.0.0			
vw2	Physical Interface		0.0.0.0/0.0.0.0			
W1_FloNet	Physical Interface		201.174.115.7/255.255.25...		PING	
W1_TotalPla	Physical Interface		187.190.246.219/255.255...			

Below the table, there is a section for 'SD-WAN Zone' with a table showing zones and their associated interfaces:

Zone	Members
virtual-wan-li	SD-WAN Zone
W1_FloNet	port 0.0.0.0/0.0.0.0

A system information window is open, showing details for the 'Wireless LAN adapter Wi-Fi' and 'Ethernet adapter Bluetooth Network Connection'. The Wi-Fi section shows the connection-specific DNS suffix as 'gasmartcorp.local', IPv4 address as '10.255.230.241', subnet mask as '255.255.254.0', and default gateway as '10.255.230.1'. The Ethernet section shows the media state as 'Media disconnected' and connection-specific DNS suffix as empty.

The bottom of the screen shows the Windows taskbar with the system clock at 11:31 AM on 5/14/2025.

La imagen muestra captura de pantalla del firewall Fortigate 200F del centro de datos Remoto donde se aprecian dos proveedores de internet en las interfaces WAN

- FloNetwork
- NGX Network

The screenshot displays the FortiGate 200F web interface. The left sidebar shows the navigation menu with categories like Dashboard, Network, Interfaces, DNS, IPAM, FortiExtenders, SD-WAN, Static Routes, Policy Routes, RIP, OSPF, BGP, Routing Objects, Multicast, Diagnostics, Policy & Objects, Security Profiles, VPN, User & Authentication, WiFi & Switch Controller, System, Security Fabric, and Log & Report. The main content area shows the 'Physical Interface' configuration table. The table has columns for Name, Type, Members, IP/Netmask, Transceiver(s), Administrative Access, and DHCP. The table lists three interfaces: FloNetworks (port1), ha, and mgmt. The FloNetworks (port1) interface is highlighted in blue. The NGX_Network (port17) interface is also listed. A system status window is open in the foreground, showing network configuration details for the Wireless LAN adapter Wi-Fi and Ethernet adapter Bluetooth Network Connection. The system status window shows the connection-specific DNS suffix as gasmartcorp.local, the IPv4 address as 10.255.230.241, the subnet mask as 255.255.254.0, and the default gateway as 10.255.230.1. The Ethernet adapter Bluetooth Network Connection shows the media state as Media disconnected and the connection-specific DNS suffix as . The system status window also shows the command prompt C:\Users\jcuevas>.

Name	Type	Members	IP/Netmask	Transceiver(s)	Administrative Access	DHCP
FloNetworks (port1)	Physical Interface		201.174.13.154/255.255.255.248		PING HTTPS HTTP	
ha	Physical Interface		0.0.0.0/0.0.0.0			
mgmt	Physical Interface		192.168.1.99/255.255.255.0		PING HTTPS SSH	
NGX_Network (port17)	Physical Interface		45.185.241.66/255.255.255.248	FS SFP-GE-BX	PING HTTPS HTTP	

System Status Window:

```
Símbolo del sistema
Wireless LAN adapter Wi-Fi:
Connection-specific DNS Suffix . : gasmartcorp.local
IPv4 Address. . . . . : 10.255.230.241
Subnet Mask . . . . . : 255.255.254.0
Default Gateway . . . . . : 10.255.230.1

Ethernet adapter Bluetooth Network Connection:
Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . :
C:\Users\jcuevas>
```

4. Servidores Redundantes

La imagen muestra captura de pantalla de la consola de Vcenter del centro de datos local y remoto donde se aprecian 5 y 3 hosts respectivamente, configurados en un clúster lo que permite prescindir de uno de ellos y seguir operando.

The screenshot displays the vSphere Client interface for a vCenter instance named 'Ener-ser-NGX'. The 'Summary' tab is active, showing the following statistics:

- Hosts: 3
- Virtual Machines: 91
- Clusters: 0
- Networks: 4
- Datastores: 11

A terminal window titled 'Símbolo del sistema' is open, displaying the following network configuration details:

```
Adaptador de Ethernet Ethernet 4:  
Estado de los medios. . . . . : medios desconectados  
Sufijo DNS específico para la conexión. . : gasmartcorp.local  
  
Adaptador de LAN inalámbrica Wi-Fi:  
Sufijo DNS específico para la conexión. . : gasmartcorp.local  
Dirección IPv4. . . . . : 10.255.230.239  
Máscara de subred. . . . . : 255.255.254.0  
Puerta de enlace predeterminada. . . . . : 10.255.230.1  
  
Adaptador de Ethernet Bluetooth Network Connection:  
Estado de los medios. . . . . : medios desconectados
```

On the right side of the interface, there is a 'Tags' section with a table for assigning tags to objects. Below it, a notification pop-up states 'No hay nuevas notificaciones'. At the bottom right, a calendar for May 2025 is visible, with the 14th of May highlighted. The system tray at the bottom shows the date and time as 01:20 p.m. on 14/05/2025.

5. Almacenamiento Redundante

Las imágenes muestran capturas de pantalla del sistema de almacenamiento HPE MSA 2060 donde se aprecian múltiples discos redundantes en arreglos Raid 6 y controladores redundantes

