

MAJTeQ Documentation

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Cut Sheets

IPv4 Scheme

VLAN #	VLAN Name	*IPv4 Address	*IPv4 Gateway	Description
10	Servers	10.site.10.0/24	10.site.10.1	Virtualized Servers / Services (DC, FS, NMS)
12	Server Management	10.site.12.0/24	10.site.12.1	Cluster / Physical Servers
20	CORP WIFI	10.site.20.0/24	10.site.20.1	Employee WiFi - access to file server
30	GUEST WIFI	10.site.30.0/24	10.site.30.1	Guest WiFi - straight to internet, not touching our network
40	VOIP	10.site.40.0/24	10.site.40.1	CORP Phones - used with Physical phones
50	Network Management	10.site.50.0/24	10.site.50.1	Physical network devices (Switches, Routers, Fortigate)
60	Accounting	10.site.60.0/24	10.site.60.1	Department
70	Engineering	10.site.70.0/24	10.site.70.1	Department
80	IT	10.site.80.0/24	10.site.80.1	MAJTeQ IT Team - Admin workstations
90	Logistics	10.site.90.0/24	10.site.90.1	Department
100	Management Team	10.site.100.0/24	10.site.100.1	Department
110	MANUSecure (OT)	10.site.110.0/24	10.site.110.1	"Private" OT clients - need to be segregated, VDI clients
120	Operations	10.site.120.0/24	10.site.120.1	Department

VLAN #	VLAN Name	*IPv4 Address	*IPv4 Gateway	Description
130	QA	10.site.130.0/24	10.site.130.1	Department
140	Sales	10.site.140.0/24	10.site.140.1	Department
150	Students	10.site.150.0/24	10.site.150.1	Department
400	CCTV	10.site.200.0/24	10.site.200.1	CCTV Network
666	Blackhole	---	---	NULL
999	Native	---	---	Native VLAN for networking devices

*Site refers to Site ID

Site Name	Code Name	Site ID
Headquarters	HQ	100
Manufacturing Plant	MP	110
Materials Warehouse	MW	120
Outbound Warehouse	OW	130

IPv6 Scheme

Site	Assigned Internal IPv6 Network	External ISP Connected Global IPv6 Interface	Link-Local IPv6 Address
HQ	2620:fc:0:d3e0::/64	2620:fc:0:d307::98/64	FE80::98
MP	2620:fc:0:d3e1::/64	2620:fc:0:d307::9C/64	FE80::9C
MW	2620:fc:0:d3e2::/64	2620:fc:0:d307::A8/64	FE80::A8
OW	2620:fc:0:d3e3::/64	2620:fc:0:d307::AC/64	FE80::AC

Headquarters Network

Hostname	Mgmt IP Address	Role	Hardware Type	System Version	Notes
HQ-FW-01	10.100.50.1	Primary Firewall / Distribution Router	Fortigate 70F	v7.0.14 build0601	Active High Availability
HQ-FW-02	10.100.50.2	Secondary Firewall / Distribution Router	Fortigate 70F	v7.0.14 build0601	Passive High Availability
HQ-L3SW-01	10.100.50.3	Core Layer 2 Switch - Infrastructure Distribution	Cisco WS-C3650-24PS	IOS 16.3.5b	
HQ-L3SW-02	10.100.50.4	Core Layer 2 Switch - Infrastructure Distribution	Cisco WS-C3650-24PS	IOS 16.3.5b	
HQ-L2SW-01	10.100.50.5	Department Access Layer 2 Switch	Cisco WS-C2960-24TT-L	IOS 15.0(2)SE10a	
HQ-L2SW-02	10.100.50.6	Department Access Layer 2 Switch	Cisco WS-C2960-24TT-L	IOS 15.0(2)SE10a	

Manufacturing Plant Network

Hostname	Mgmt IP Address	Role	Hardware Type	System Version	Notes
MP-FW-01	10.110.50.1	Primary Firewall / Distribution Router	Fortigate 100D	v7.0.14 build0601	Active High Availability

Hostname	Mgmt IP Address	Role	Hardware Type	System Version	Notes
MP-FW-02	10.110.50.2	Secondary Firewall / Distribution Router	Fortigate 100D	v7.0.14 build0601	Passive High Availability
MP-L3SW-01	10.110.50.3	Core Layer 2 Switch - Infrastructure Distribution	Cisco WS-C3560X-24	IOS 15.2(4)E7	
MP-L3SW-02	10.110.50.4	Core Layer 2 Switch - Infrastructure Distribution	Cisco WS-C3560X-24	IOS 15.2(4)E7	
MP-L2SW-01	10.110.50.5	Department Access Layer 2 Switch	Cisco WS-C2960-24TT-L	IOS 15.0(2)SE10a	
MP-L2SW-02	10.110.50.6	Department Access Layer 2 Switch	Cisco WS-C2960-24TT-L	IOS 15.0(2)SE10a	

HQ Firewall

VDOMs

Name	Management	NGFW Mode	Operation Mode	Status	Interfaces	Notes
Guest_VDOM	No	Profile-based	NAT	Enabled	INT 2	
HQ_VDOM	No	Profile-based	NAT	Enabled	INT 3-4	
Man_VDOM	Yes	Profile-based	NAT	Enabled	INT 5	

Name	Management	NGFW Mode	Operation Mode	Status	Interfaces	Notes
WAN_VDOM	No	Profile-based	NAT	Enabled	WAN 1-2	
root	No	Profile-based	NAT	Enabled	HA A-B	

Guest_VDOM

Name	Type	Members	IPv4 Address	Admin Access
TBD				

HQ_VDOM

Name	Type	Members	IPv4 Address	Admin Access
Management	Loopback	Internal	10.1.1.1/32	ALL
HQ-WAN	VDOM Link	Internal	172.16.100.10/30	PING
Man-HQ	VDOM Link	Internal	172.16.10.10/30	PING
Servers_VLAN	VLAN	HQ VLAN Switch (INT 3-4)	10.100.10.1/24	PING
Cluster_VLAN	VLAN	HQ VLAN Switch (INT 3-4)	10.100.12.1/24	PING
CORP-WIFI_VLAN	VLAN	HQ VLAN Switch (INT 3-4)	10.100.20.1/24	PING
VoIP_VLAN	VLAN	HQ VLAN Switch (INT 3-4)	10.100.40.1/24	PING
Accounting_VLAN	VLAN	HQ VLAN Switch (INT 3-4)	10.100.60.1/24	PING

Name	Type	Members	IPv4 Address	Admin Access
Engineer_VLAN	VLAN	HQ VLAN Switch (INT 3-4)	10.100.70.1/24	PING
IT_VLAN	VLAN	HQ VLAN Switch (INT 3-4)	10.100.80.1/24	PING
Logistics_VLAN	VLAN	HQ VLAN Switch (INT 3-4)	10.100.90.1/24	PING
MGMTeam_VLAN	VLAN	HQ VLAN Switch (INT 3-4)	10.100.100.1/24	PING
MANUSecure_VLAN	VLAN	HQ VLAN Switch (INT 3-4)	10.100.110.1/24	PING
Operations_VLAN	VLAN	HQ VLAN Switch (INT 3-4)	10.100.120.1/24	PING
QA_VLAN	VLAN	HQ VLAN Switch (INT 3-4)	10.100.130.1/24	PING
Sales_VLAN	VLAN	HQ VLAN Switch (INT 3-4)	10.100.140.1/24	PING
Students_VLAN	VLAN	HQ VLAN Switch (INT 3-4)	10.100.150.1/24	PING

Man_VDOM

Name	Type	Members	IPv4 Address	Admin Access
internal5	Physical Interface	INT 5	10.100.50.1/24	PING, HTTPS, SSH, SNMP
Man-WAN	VDOM Link	Internal	172.16.5.10/30	PING
Man-HQ	VDOM Link	Internal	172.16.10.9/30	PING

WAN_VDOM

Name	Type	Members	IPv4 Address	Admin Access
wan1	Physical Interface	WAN 1	10.10.76.0/20	PING

Name	Type	Members	IPv4 Address	Admin Access
wan2	Physical Interface	WAN 2	0.0.0.0/0	PING
Guest-WAN	VDOM Link	Internal	172.16.30.10/30	PING
HQ-WAN	VDOM Link	Internal	172.16.100.9/30	PING
Man-WAN	VDOM Link	Internal	172.16.5.9/30	PING

MP Firewall

VDOMs

Name	Management	NGFW Mode	Operation Mode	Status	Interfaces	Notes
Guest_VDOM	No	Profile-based	NAT	Enabled	INT 2	
MP_VDOM	No	Profile-based	NAT	Enabled	INT 3-4	
Man_VDOM	Yes	Profile-based	NAT	Enabled	INT 5	
WAN_VDOM	No	Profile-based	NAT	Enabled	WAN 1-2	
root	No	Profile-based	NAT	Enabled	HA 1-2	

Guest_VDOM

Name	Type	Members	IPv4 Address	Admin Access
TBD				

MP_VDOM

Name	Type	Members	IPv4 Address	Admin Access
MP-Man	VDOM Link Interface	Internal	172.16.10.14/30	PING
MP-WAN_L0	VDOM Link Interface	Internal	172.16.100.14/30	PING
Servers_VLAN	VLAN	MP VLAN Switch (INT 3-4)	10.110.10.1/24	PING
CORP-WIFI_VLAN	VLAN	MP VLAN Switch (INT 3-4)	10.110.20.1/24	PING
VoIP_VLAN	VLAN	MP VLAN Switch (INT 3-4)	10.110.40.1/24	PING
Accounting_VLAN	VLAN	MP VLAN Switch (INT 3-4)	10.110.60.1/24	PING
Engineer_VLAN	VLAN	MP VLAN Switch (INT 3-4)	10.110.70.1/24	PING
IT_VLAN	VLAN	MP VLAN Switch (INT 3-4)	10.110.80.1/24	PING, HTTPS, HTTP
Logistics_VLAN	VLAN	MP VLAN Switch (INT 3-4)	10.110.90.1/24	PING
MANUSecure_VLAN	VLAN	MP VLAN Switch (INT 3-4)	10.110.110.1/24	PING
MGMTeam_VLAN	VLAN	MP VLAN Switch (INT 3-4)	10.110.100.1/24	PING
Operations_VLAN	VLAN	MP VLAN Switch (INT 3-4)	10.110.120.1/24	PING
QA_VLAN	VLAN	MP VLAN Switch (INT 3-4)	10.110.130.1/24	PING

Name	Type	Members	IPv4 Address	Admin Access
Sales_VLAN	VLAN	MP VLAN Switch (INT 3-4)	10.110.140.1/24	PING
Students_VLAN	VLAN	MP VLAN Switch (INT 3-4)	10.110.150.1/24	PING

Man_VDOM

Name	Type	Members	IPv4 Address	Admin Access
Management	Physical Interface	INT 5	10.110.50.1/24	PING, HTTPS, SSH, SNMP
Man-WAN	VDOM Link	Internal	172.16.5.14/30	PING
MP-Man	VDOM Link	Internal	172.16.10.13/30	PING

WAN_VDOM

Name	Type	Members	IPv4 Address	Admin Access
wan1	Physical Interface	WAN 1	10.10.77.0/20	PING
wan2	Physical Interface	WAN 2	0.0.0.0/0	PING
Guest-WAN	VDOM Link	Internal	172.16.30.13/30	PING
MP-WAN	VDOM Link	Internal	172.16.100.13/30	PING
Man-WAN	VDOM Link	Internal	172.16.5.13/30	PING

Hardware

Hostname	VLAN	IP Address	Role	Hardware Type	Operating System
HQ-HV-01	12	10.100.12.9/30	Server Node 1	Dell PowerEdge R730	Windows Server 2022 Datacenter

Hostname	VLAN	IP Address	Role	Hardware Type	Operating System
HQ-HV-02	12	10.100.12.10/30	Server Node 2	Dell PowerEdge R730	Windows Server 2022 Datacenter
AidanAdminWS	80	10.100.80.17/24	Aidan's Admin workstation	VMWare Workstation	Windows 11 Pro
JamieAdminWS	80	10.100.80.18/24	Jamie's Admin workstation	VMWare Workstation	Windows 11 Pro
QuinnAdminWS	80	10.100.80.19/24	Quinn's Admin workstation	VMWare Workstation	Windows 11 Pro
MattAdminWS	80	10.100.80.20/24	Matt's Admin workstation	VMWare Workstation	Windows 11 Pro
TaqiAdminWS	80	10.100.80.22/24	Taqi's Admin workstation	VMWare Workstation	Windows 11 Pro

Servers

Hostname	VLAN	IPv4 Address	IPv6 Address	Description
HQ-RD-01	10	10.100.10.5/24		RADIUS Server
HQ-ISCI-QUO	10	10.100.10.7/24		Cluster Quorum Storage Server
HQ-DC-01	10	10.100.10.10/24		Domain Controller 1 on HQ side
HQ-RMM-01	10	10.100.10.16/24		For RMM tool
HQ-BU-01	10	10.100.10.15/24		Backup Server on HQ Side

Hostname	VLAN	IPv4 Address	IPv6 Address	Description
HQ-PKI-01	10	10.100.10.19/24		PKI Certificates - Enterprise Root CA
HQ-FS-01	10	10.100.10.13/24		File Server on HQ side
HQ-DS-01	10	10.100.10.150/24		Windows Deployment Server
HQ-CLUSTER	12	10.100.12.12/24		Cluster of both Hypervisors
HQ-NM-01	50	10.100.50.50/24		Network Monitoring Server (TFTP and PRTG)
MP-DC-02	10	10.110.10.11/24		Domain Controller 2 on MP side
MP-FS-01	10	10.110.10.14/24		Secondary File Server on MP side (IP WILL BE UPDATED TO 110)

Virtual Machines

HQ-RD-01

Overview

The HQ-RD-01 is the RADIUS Server responsible for managing network access authentication.

Notes:

- Provides secure access to the network.
- Ensures only authorized users can connect to the network.
- Logs and tracks network access attempts for security purposes.

Credentials

Accounts	Password	Permissions
team5\AdminAccounts	☐	DOMAIN ADMIN

Configuration

VM Hostname	IP Address	Subnet Network	VLAN	Role	OS	Notes
HQ-RD-01	10.100.10.5	10.100.10.0/24	10	RADIUS Server	Windows Server 2022	

HOST	RAM	CPU	Storage	NIC
VMware Workstation	8 GB	2	80 GB	1

HQ-ISCI-QUO

Overview

The HQ-ISCI-QUO is the Cluster Quorum Storage Server for high availability and fault tolerance.

Notes:

- Provides shared storage for clustered servers.
- Ensures continuous operation in case of server failures.
- Maintains data integrity and availability.

Credentials

Accounts	Password	Permissions
team5\AdminAccounts	␣	DOMAIN ADMIN

Configuration

VM Hostname	IP Address	Subnet Network	VLAN	Role	OS	Notes
HQ-ISCI- QUO	10.100.10.7	10.100.10.0/24	10	Cluster Quorum Storage Server	Windows Server 2022	

HOST	RAM	CPU	Storage	NIC
VMware Workstation	8 GB	2	80 GB	1

HQ-DC-01

Overview

The HQ-DC-01 is the Domain Controller 1 on the HQ side, responsible for domain management and authentication.

Notes:

- Centralizes user account management.
- Authenticates users and computers in the domain.
- Manages group policies and security settings.

Credentials

Accounts	Password	Permissions
team5\AdminAccounts	[REDACTED]	DOMAIN ADMIN

Configuration

VM Hostname	IP Address	Subnet Network	VLAN	Role	OS	Notes
HQ-DC-01	10.100.10.10	10.100.10.0/24	10	Domain Controller	Windows Server 2022	

HOST	RAM	CPU	Storage	NIC
VMware Workstation	8 GB	2	80 GB	1

HQ-RMM-01

Overview

The HQ-RMM-01 is for the RMM tool.

Notes:

- Provides remote monitoring and management of network devices.
- Helps in troubleshooting and maintaining network performance.

- Ensures network security and compliance.

Credentials

Accounts	Password	Permissions
tacticaladmin	[REDACTED]	Administrator

Configuration

VM Hostname	IP Address	Subnet Network	VLAN	Role	OS	Notes
HQ-RMM-01	10.100.10.16	10.100.10.0/24	10	RMM Tool	Windows Server 2022	

HOST	RAM	CPU	Storage	NIC
VMware Workstation	8 GB	2	80 GB	1

HQ-BU-01

Overview

The HQ-BU-01 is the Backup Server on the HQ side, responsible for data backup and recovery.

Notes:

- Ensures data integrity and availability through regular backups.
- Facilitates quick recovery in case of data loss or disaster.
- Implements backup policies and procedures.

Credentials

Accounts	Password	Permissions
team5\AdminAccounts	[REDACTED]	DOMAIN ADMIN

Configuration

VM Hostname	IP Address	Subnet Network	VLAN	Role	OS	Notes
HQ-BU-01	10.100.10.15	10.100.10.0/24	10	Backup Server	Windows Server 2022	

HOST	RAM	CPU	Storage	NIC
VMware Workstation	8 GB	2	80 GB	1

HQ-PKI-01

Overview

The HQ-PKI-01 is the PKI Certificates - Enterprise Root CA server responsible for managing digital certificates for secure communication.

Notes:

- Provides secure access to network resources.
- Ensures trust and authenticity in digital transactions.
- Manages digital certificates for encryption and authentication purposes.

Credentials

Accounts	Password	Permissions
team5\AdminAccounts	[REDACTED]	DOMAIN ADMIN

Configuration

VM Hostname	IP Address	Subnet Network	VLAN	Role	OS	Notes
HQ-PKI-01	10.100.10.19	10.100.10.0/24	10	PKI Certificates - Root CA	Windows Server 2022	

HOST	RAM	CPU	Storage	NIC
VMware Workstation	8 GB	2	80 GB	1

HQ-FS-01

Overview

The HQ-FS-01 is the File Server on the HQ side, providing file storage and sharing services.

Notes:

- Stores critical data and files for the organization.
- Facilitates collaboration and file sharing among users.
- Implements security measures to protect data integrity.

Credentials

Accounts	Password	Permissions
team5\AdminAccounts	[REDACTED]	DOMAIN ADMIN

Configuration

VM Hostname	IP Address	Subnet Network	VLAN	Role	OS	Notes
HQ-FS-01	10.100.10.13	10.100.10.0/24	10	File Server	Windows Server 2022	

HOST	RAM	CPU	Storage	NIC
VMware Workstation	8 GB	2	80 GB	1

HQ-DS-01

Overview

The HQ-DS-01 is the Windows Deployment Server for deploying Windows operating systems over the network.

Notes:

- Automates the deployment of Windows OS to new devices.
- Reduces deployment time and effort for IT administrators.
- Supports network-based installations of Windows OS.

Credentials

Accounts	Password	Permissions
team5\AdminAccounts	[REDACTED]	DOMAIN ADMIN

Configuration

VM Hostname	IP Address	Subnet Network	VLAN	Role	OS	Notes
HQ-DS-01	10.100.10.150	10.100.10.0/24	10	Windows Deployment Server	Windows Server 2022	

HOST	RAM	CPU	Storage	NIC
VMware Workstation	8 GB	2	80 GB	1

HQ-CLUSTER

Overview

The HQ-CLUSTER is a cluster of both Hypervisors for high availability and load balancing.

Notes:

- Provides virtualization capabilities for the organization.
- Ensures high availability of virtual machines.
- Optimizes resource utilization and performance.

Credentials

Accounts	Password	Permissions
team5\AdminAccounts	[REDACTED]	DOMAIN ADMIN

Configuration

VM Hostname	IP Address	Subnet Network	VLAN	Role	OS	Notes
HQ-CLUSTER	10.100.12.12	10.100.12.0/24	12	Hypervisor	Windows Server 2022	

HOST	RAM	CPU	Storage	NIC
VMware Workstation	8 GB	2	80 GB	1

HQ-NM-01

Overview

The HQ-NM-01 is the Network Monitoring Server responsible for monitoring network performance and managing network devices.

Notes:

- Provides TFTP and PRTG services for network monitoring.
- Facilitates network troubleshooting and diagnostics.
- Ensures network security and compliance.

Credentials

Accounts	Password	Permissions
team5\AdminAccounts	[REDACTED]	DOMAIN ADMIN

Configuration

VM Hostname	IP Address	Subnet Network	VLAN	Role	OS	Notes
HQ-NM-01	10.100.50.50	10.100.50.0/24	50	Network Monitoring Server	Windows Server 2022	

HOST	RAM	CPU	Storage	NIC
VMware Workstation	8 GB	2	80 GB	1