

MSP Network Documentation SOP

Document no.	SOP-MSP-009
Revision	1.0
Owner	Network Engineering Lead
Effective date	October 15, 2026
Review cycle	Every 12 months

1. Purpose

To give every technician an accurate picture of each client's network, so outages are diagnosed quickly, changes are planned safely and no one has to rediscover the network on site.

2. Scope

Applies to the networks the MSP manages for clients at every site: internet circuits, firewalls, VPNs, switches, wireless, IP addressing and the documentation and configuration backups for each.

Definitions

Physical diagram	A drawing of the network equipment at a site and how it is cabled and connected.
Logical diagram	A drawing of subnets, VLANs, routing, VPN tunnels and how traffic flows between them.
IP address plan	The list of subnets, gateways, DHCP scopes, reservations and static addresses for a client.
Circuit ID	The internet provider's reference for a connection, needed when reporting a fault.

3. Responsibilities

Network Engineer	Gathers network information, draws the diagrams, documents each component and updates documentation with every change.
NOC Technician	Sets up and monitors automated configuration backups and flags documentation that does not match what monitoring shows.
Documentation Lead	Owns the network documentation template and runs the quarterly review.
Technical Account Manager	Gets client input on sites, providers and planned changes and shares the diagrams with the client.

RACI matrix

Activity	Network Engineer	NOC Technician	Documentation Lead	Technical Account Manager
Document the network	R	C	A	C
Back up device configurations	A	R	I	-
Update documentation after changes	R/A	I	I	I

Activity	Network Engineer	NOC Technician	Documentation Lead	Technical Account Manager
Review network documentation	R	C	R/A	I

R = Responsible, A = Accountable, C = Consulted, I = Informed

4. Materials and PPE

Materials, tools and systems

- Network documentation template
- Diagramming tool
- Network monitoring and discovery tools
- Firewall, switch and wireless management consoles
- Configuration backup tool
- Password manager with a vault per client
- ISP contracts and circuit details

5. Procedure

Step	Task	Owner	Done
5.1	Gather existing network information The Network Engineer collects what already exists: old diagrams, provider contracts, device exports and discovery scan results for each site.	Network Engineer	☐
5.2	Draw the physical diagram The Network Engineer draws each site's physical diagram showing the internet circuits, firewall, switches, access points and key servers and how they connect.	Network Engineer	☐
5.3	Draw the logical diagram The Network Engineer draws the logical diagram showing subnets, VLANs, routing, site-to-site VPN tunnels and remote access.	Network Engineer	☐
5.4	Document the IP address plan The Network Engineer records every subnet with its gateway, VLAN, DHCP scope, reservations, static addresses and DNS servers.	Network Engineer	☐
5.5	Document internet circuits and providers The Network Engineer records each internet provider, circuit ID, speed, public IP addresses, support number and contract end date.	Network Engineer	☐
5.6	Document firewalls, VPNs and remote access The Network Engineer documents each firewall's model, firmware, management access, VPN tunnels, remote access method and links the client's rule register.	Network Engineer	☐
5.7	Document wireless networks The Network Engineer documents each SSID with its VLAN, authentication method and access point locations, with Wi-Fi keys kept in the client vault. Warning: Never write Wi-Fi keys or device admin passwords in the network document. Link to the vault entries instead.	Network Engineer	☐
5.8	Map switch ports and patch panels The Network Engineer records which switch port serves each patch panel port, uplink, server, printer and access point, including port VLANs.	Network Engineer	☐

Step	Task	Owner	Done
5.9	Schedule configuration backups The NOC Technician sets up automated configuration backups for every firewall, switch and wireless controller and alerts on any backup that fails. Checkpoint: Every managed network device has a configuration backup less than seven days old.	NOC Technician	☐
5.10	Verify the documentation on site On the next site visit the Network Engineer checks the diagrams and port map against the actual equipment and corrects anything that differs.	Network Engineer	☐
5.11	Update documentation with every change The Network Engineer updates the diagrams, IP plan and component pages as part of every network change ticket, before the ticket is closed. Checkpoint: Every closed network change ticket links the documentation it updated.	Network Engineer	☐
5.12	Review network documentation quarterly The Documentation Lead reviews each client's network documentation every quarter with the Network Engineer and assigns fixes for gaps and stale pages.	Documentation Lead	☐

6. Quality checks

- Every client site has a current physical and logical diagram.
- The IP address plan matches what monitoring and DHCP show.
- Every internet circuit has its provider, circuit ID and support number recorded.
- Every managed network device has a recent configuration backup.
- No passwords or Wi-Fi keys appear in network documents.

7. Records

- Physical and logical network diagrams
- IP address plan
- Internet circuit and provider list
- Configuration backup history
- Quarterly documentation review log

8. KPIs

- Percentage of client sites with current network diagrams
- Percentage of network devices with a configuration backup under seven days old
- Percentage of network change tickets with documentation updated

9. Common mistakes

- Drawing a diagram once and never updating it after changes.
- Missing the circuit ID and provider support number when an outage hits.
- Writing Wi-Fi keys and admin passwords into the network document.
- Relying on a device's running configuration with no backup.

10. Revision history

Revision	Date	Description	Reviewed by
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1.0	October 15, 2026	Initial release	Iliia Pirozhenko

Approval

Prepared by	Approved by	Date

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