

TechRepair Office Deployment – Sample Solution

1. Network Design & Addressing Plan

Segment	Subnet	Mask	Gateway	Hosts
Office	192.168.10.0	255.255.255.0	192.168.10.1	~30
Workshop	192.168.20.0	255.255.255.0	192.168.20.1	~20
DMZ	192.168.30.0	255.255.255.240	192.168.30.1	~6

2. File & Inventory Server Configuration

Shares created:

- \FILESRV\Parts
- \FILESRV\Invoices
- \FILESRV\Technicians

Permissions:

Share	Access Groups
Parts	Office Staff + Technicians
Invoices	Office Staff
Technicians	Technicians Only

3. Application Web Server

Server IP: 192.168.30.10

Index page displays: 'TechRepair Online Booking System'

Accessible internally and via simulated public NAT.

4. Firewall / ACL Rules

Source	Destination	Port/Protocol	Action
Any	192.168.30.10	80/443 TCP	Allow
192.168.10.0/24	192.168.20.0/24	SMB/NFS	Allow
192.168.20.0/24	192.168.30.0/28	Any	Deny
Admin 192.168.10.50	Network Devices	SSH/RDP	Allow

5. Verification Results

- Ping Office → Workshop: Success
- Ping Office → DMZ: Success

- Ping Workshop → DMZ: Fail (expected)
- Web Access Internal: Success
- Web Access Simulated Public: Success

Conclusion

All functional requirements were met including subnetting, server deployment, firewall rules, and access validation. Documentation demonstrates correct implementation and verification.