

Windows Defender Firewall: Allow Rules for Two Local Apps

Audience: IT administrators managing Windows Defender Firewall on a domain-joined workstation. Purpose: enable inbound TCP access over LAN for two internal web apps hosted on the same machine.

Summary

- Create inbound allow rules for each app's port (Domain/Private profiles). Example ports: `8050` and `8060`.
- Optionally scope by program path to the app launcher or `python.exe`.
- Confirm listeners and verify rule hit using `Test-NetConnection` and `netstat`.

1) Identify host and ports

- Host: the workstation's IPv4 address on the LAN (example: `172.16.1.155`).
- App A (Estimator): TCP `8050`.
- App B (Second App): TCP `8060`.

2) Create inbound allow rules (ports)

1. Open Windows Defender Firewall with Advanced Security
2. Inbound Rules → New Rule... → **Port** → TCP → Specific local ports: `8050` → **Allow** → Profiles: **Domain** and **Private** → Name: "*Sign Estimation App (TCP 8050)*"
3. Repeat for `8060`: Name: "*Sign Estimation App B (TCP 8060)*"

3) Optional program scoping (advanced)

Instead of a port-based rule, use a Program rule and point to the launcher or `python.exe` used to run the app. This can reduce surface area but may require updates when paths change.

4) Verification

- Ensure the apps are listening on their ports (the launcher can show this). From another LAN host:
- `Test-NetConnection 172.16.1.155 -Port 8050`
- `Test-NetConnection 172.16.1.155 -Port 8060`
- Expect `TcpTestSucceeded: True` when rules and listeners are in place.

5) Change management

- Rules apply only to Domain and Private profiles. Not exposed on Public.
- If ports or executables change, update the rules accordingly.

Appendix: netsh alternative

```
netsh advfirewall firewall add rule name="Sign Estimation App (TCP 8050)" dir=in action=allow protocol=TCP localport=8050 profile=domain,private
netsh advfirewall firewall add rule name="Sign Estimation App B (TCP 8060)" dir=in action=allow protocol=TCP localport=8060 profile=domain,private
```

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