Sunward Portal Management System

DOCUMENT INFORMATION

Prepared by	Appcentric Technologies
Client	Sunward
Project Name	Sunward Portal Management System
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Pages	7

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This document is a technical reference prepared by Appcentric Technologies for the Sunward Portal Management System project. It provides detailed information on the system architecture, technical approach, implementation methodology, and related technical specifications.

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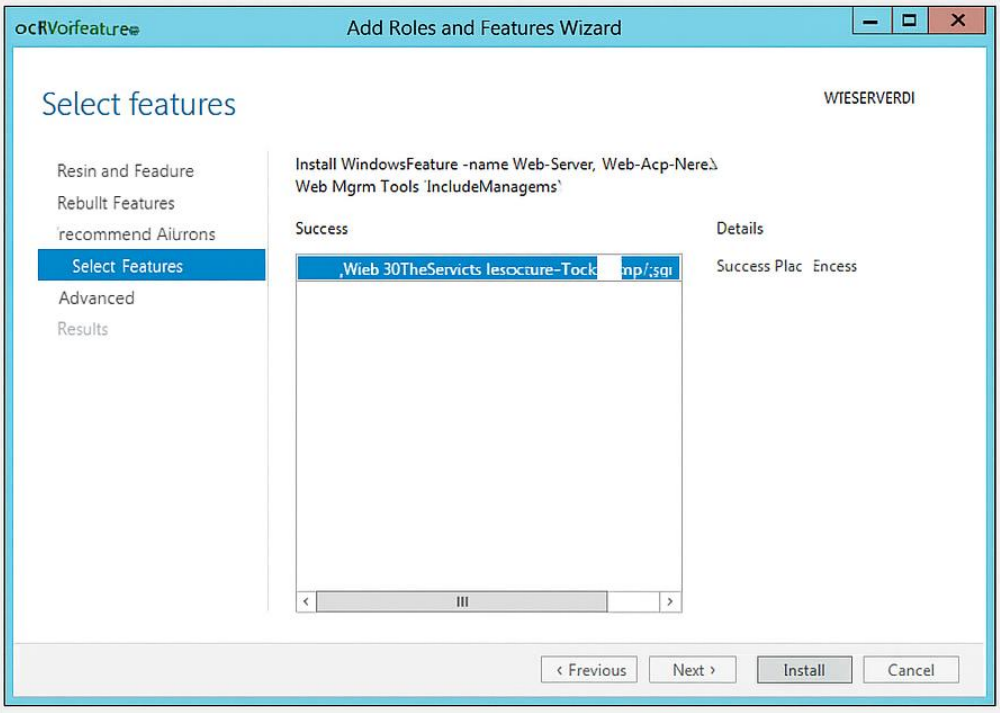
1. Preliminaries (what you need)

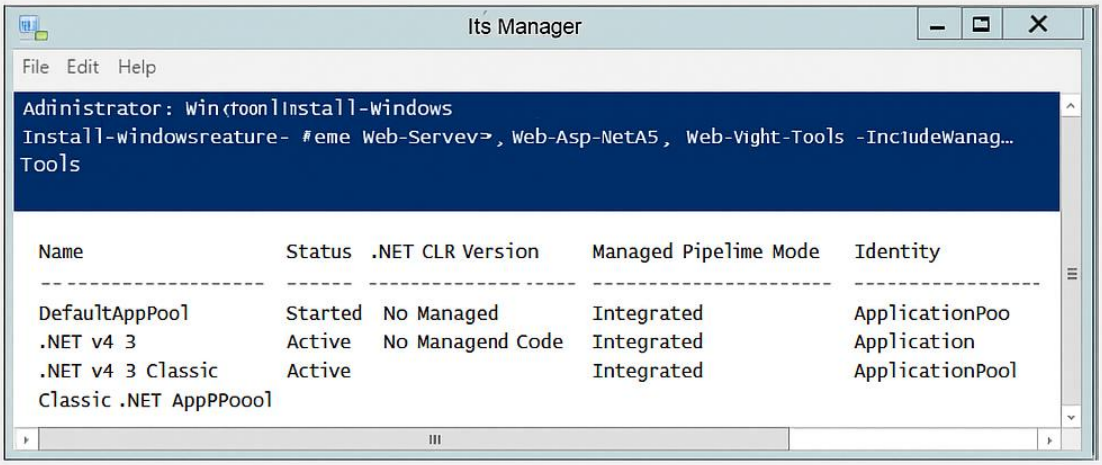
1. A Windows server (Windows Server 2016/2019/2022) with IIS installed OR access to an IIS server.
2. Administrator access on server.
3. Build/publish output of your web app (for ASP.NET Core publish folder or .NET Framework compiled site). Typical output folder: `C:\Temp\Publish\SunwardPortal`.
4. A DNS entry pointing `portal.example.com` → server IP (for production or test).
5. SSL certificate if using HTTPS.

2. Install IIS & required features (if not already installed)

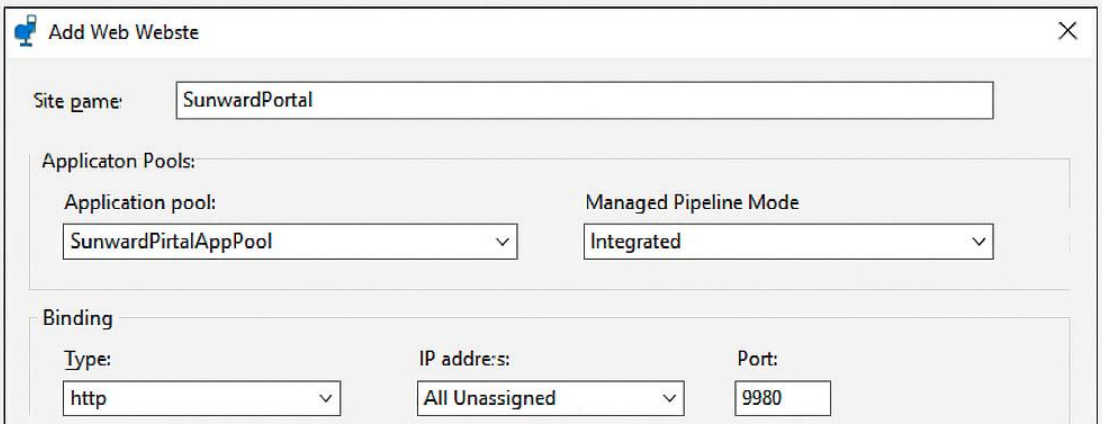
1. Open **Server Manager → Add Roles and Features**.
2. Select **Web Server (IIS)** and include:
3. Web Server → Application Development → **.NET Extensibility**, **ASP.NET**, **ISAPI Extensions**, **ISAPI Filters**
4. Management Tools → **IIS Management Console**
5. Install and reboot if required.
   Screenshot: capture Server Manager after selecting features.
6. Install-WindowsFeature -name Web-Server, Web-Asp-Net45, Web-Mgmt-Tools -IncludeManagementTools

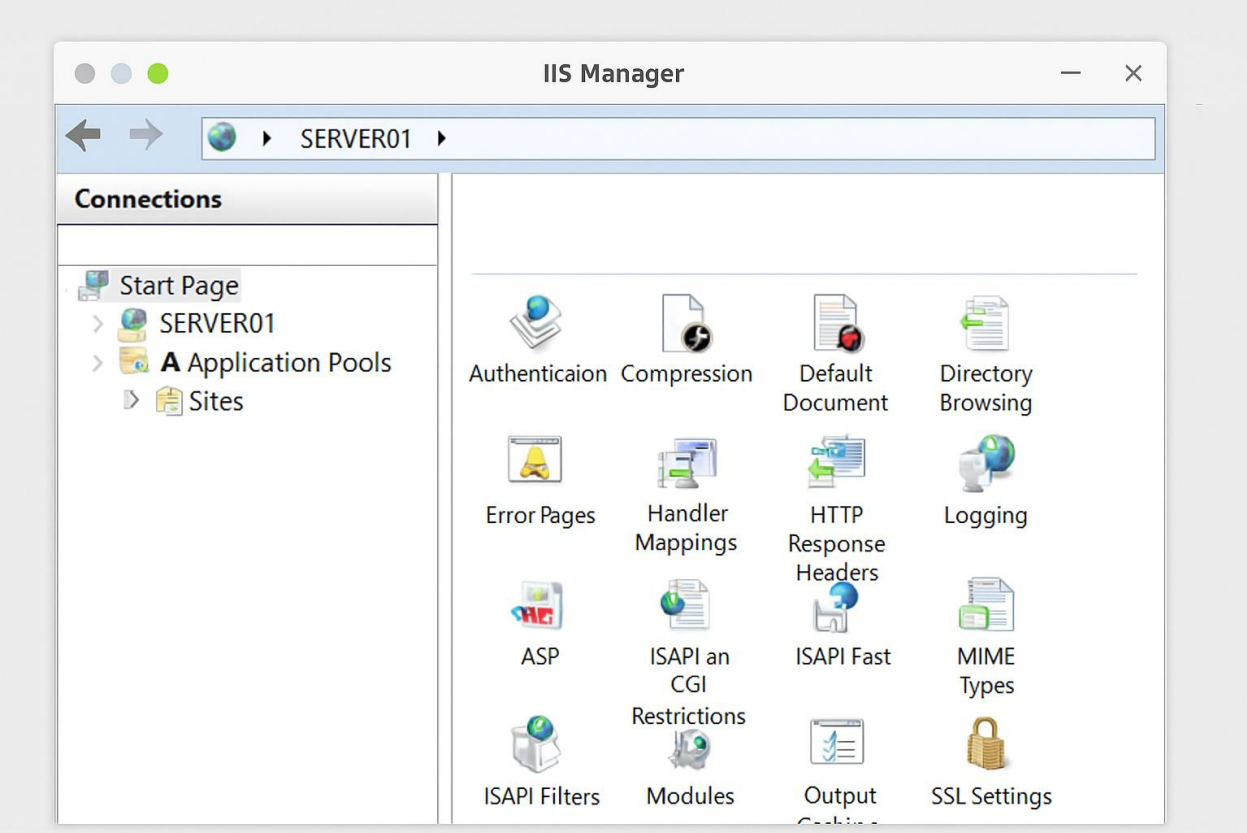


2. Install: ISNN. ImpTool\webawpp–eamd –Ile : All Fкgure 1. sourcesstholl



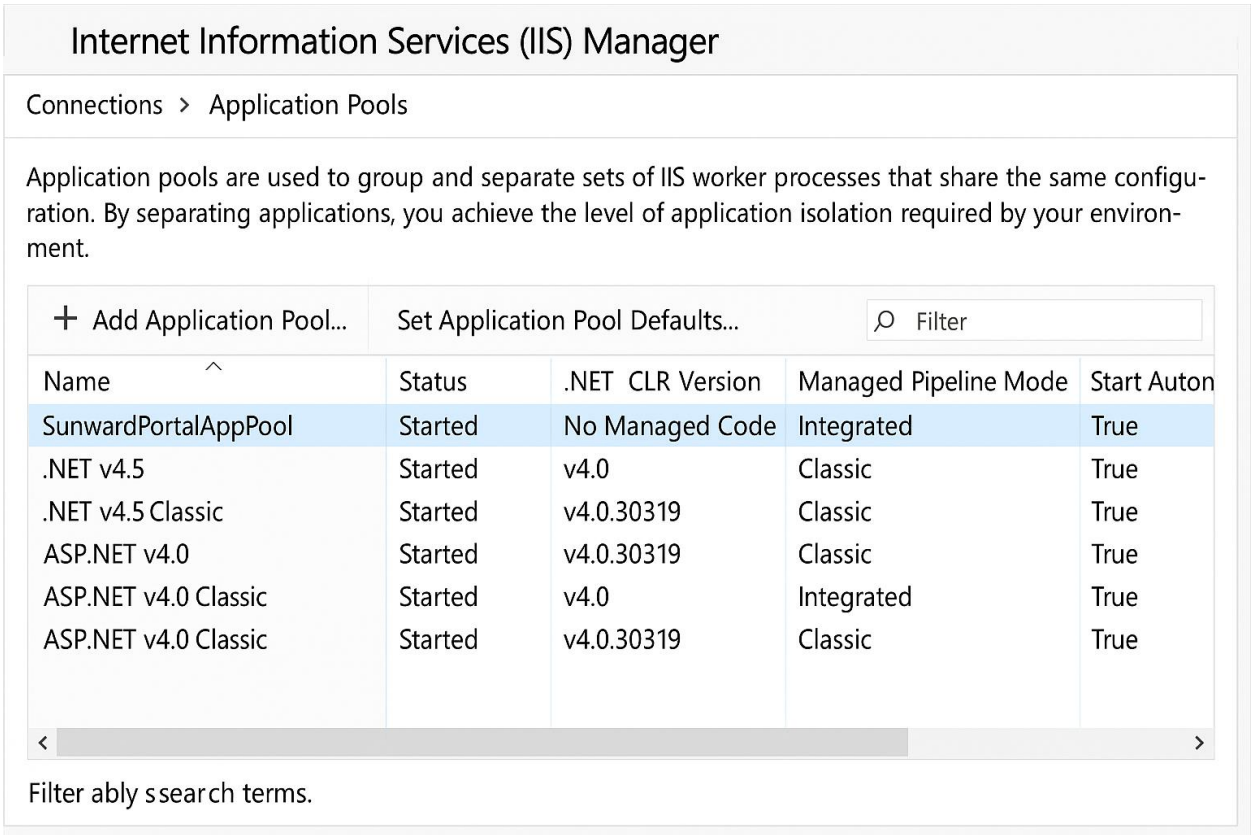
3. SunwardPortalAppPoo1 Aad SumwardPortal added

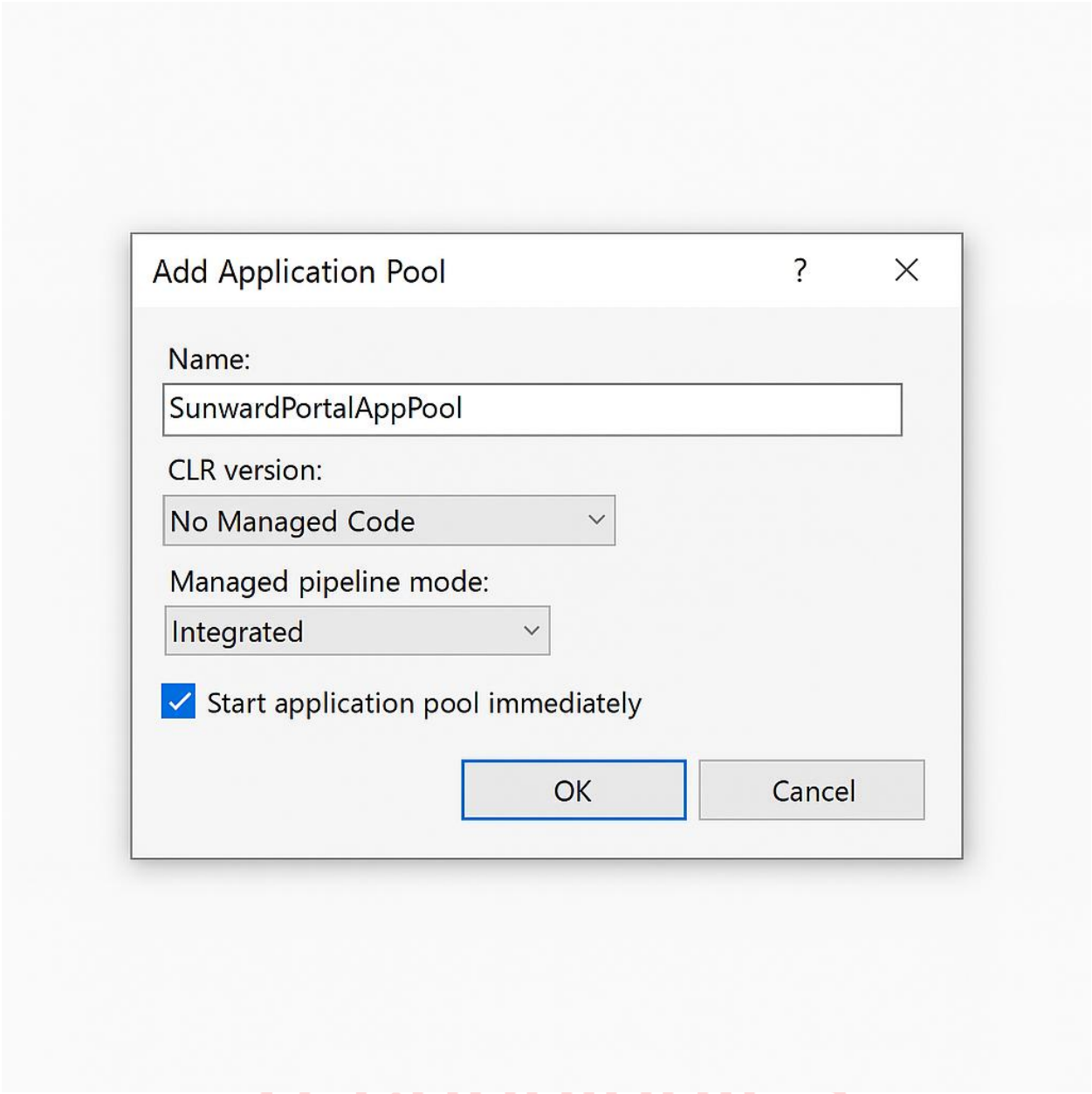




3. Create Application Pool

1. Open **IIS Manager** (inetmgr).
2. Select **Application Pools → Add Application Pool...**
3. Name: SunwardPortalAppPool
4. .NET CLR Version: No Managed Code (for ASP.NET Core) or v4.0 for .NET Framework
5. Managed pipeline: Integrated
6. Click **OK**.
   Screenshot: new App Pool highlighted.





Import-Module WebAdministration

New-WebAppPool -Name "SunwardPortalAppPool"

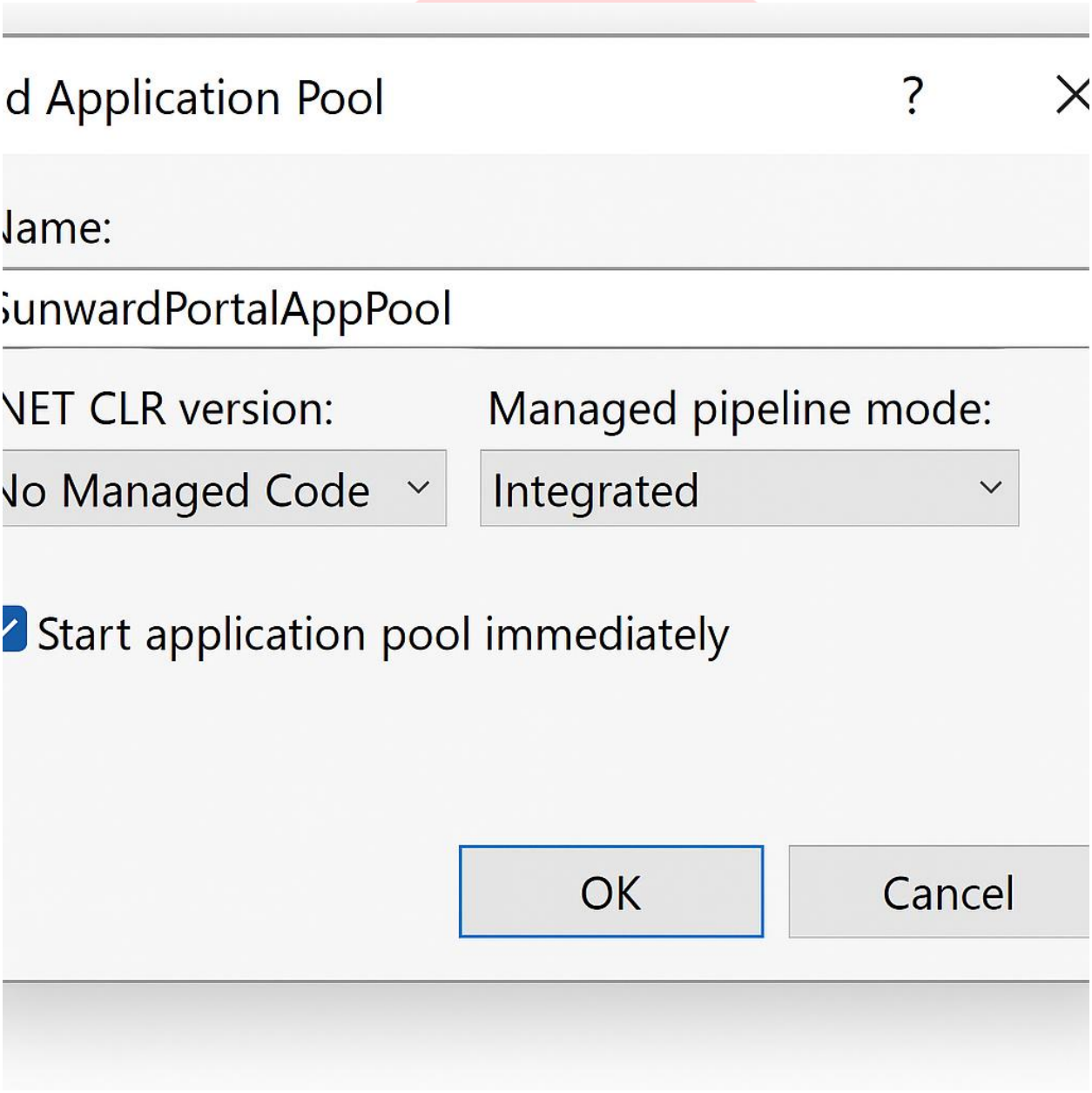
Set-ItemProperty IIS:\AppPools\SunwardPortalAppPool -Name processModel.identityType -Value "ApplicationPoolIdentity"

If .NET Framework site:

Set-ItemProperty IIS:\AppPools\SunwardPortalAppPool -Name managedRuntimeVersion -Value "v4.0"

4. Create Physical Folder & Copy Files

1. On the server create folder: `C:\inetpub\wwwroot\SunwardPortal`.
2. Copy your published web app files there (index, web.config, bin, wwwroot, etc). For ASP.NET Core, ensure the `web.config` is present (or configure reverse-proxy).
3. **Tip:** If files are coming from CI, you can use FTP, SMB, or copy over via RDP.

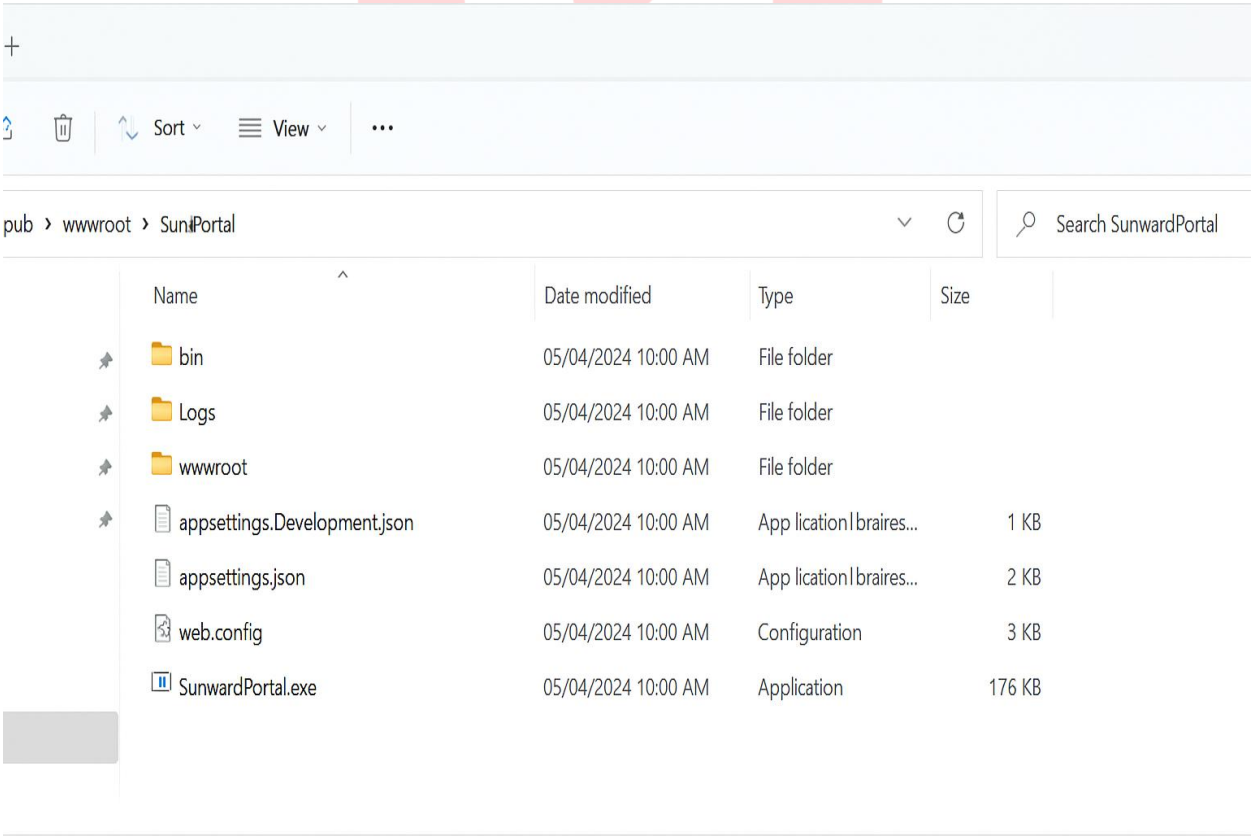


5. Create Site in IIS

5.1. In IIS Manager → right-click Sites → Add Website

Site name: `SunwardPortal`

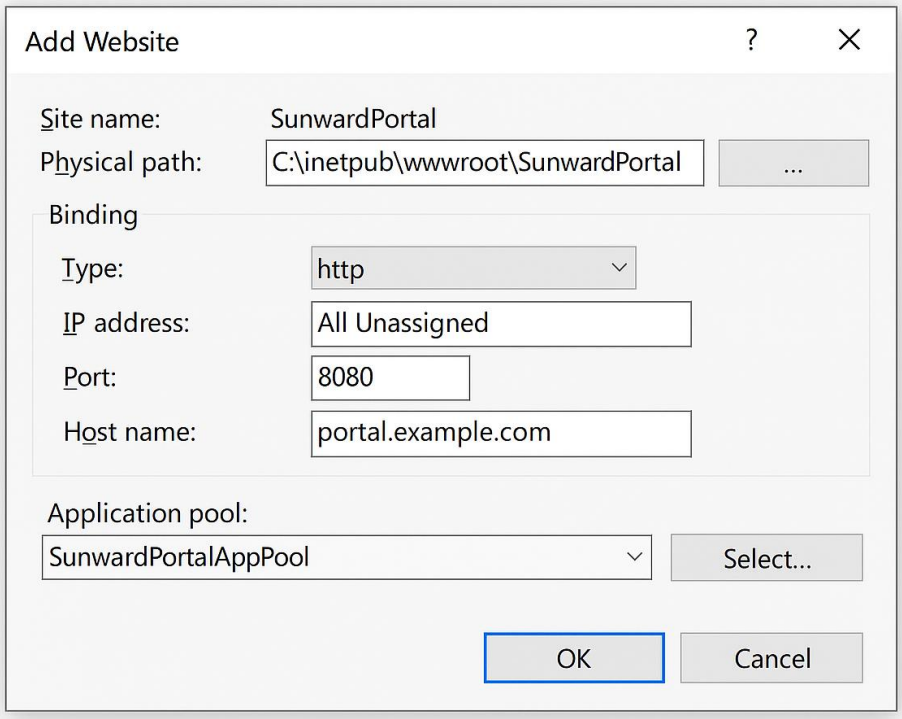
1. Physical path: `C:\inetpub\wwwroot\SunwardPortal`
2. Application pool: `SunwardPortalAppPool`
3. Binding:
   - Type: `http` (or https)
   - IP address: `All Unassigned` (or specific)
   - Port: `8080`
   - Host name: `portal.example.com`
   - Click **OK**.



5.2.(Optional) Create Virtual Directory / Application under an existing site

Expand Sites → select the site (e.g., Default Web Site) → right-click → **Add Application** (or Add Virtual Directory).

1. Alias: SunwardPortal
2. Physical path: C:\inetpub\wwwroot\SunwardPortal
3. Application pool: SunwardPortalAppPool
   - Click **OK**.



6. Set Folder Permissions (important)

1. • Right click `C:\inetpub\wwwroot\SunwardPortal` → **Properties** → **Security** → **Edit** → **Add**.

2. • Add user: `IIS AppPool\SunwardPortalAppPool` and give **Read & execute**, **List folder contents**, **Read**. Add write only if app writes to folder.
3. • Click OK.

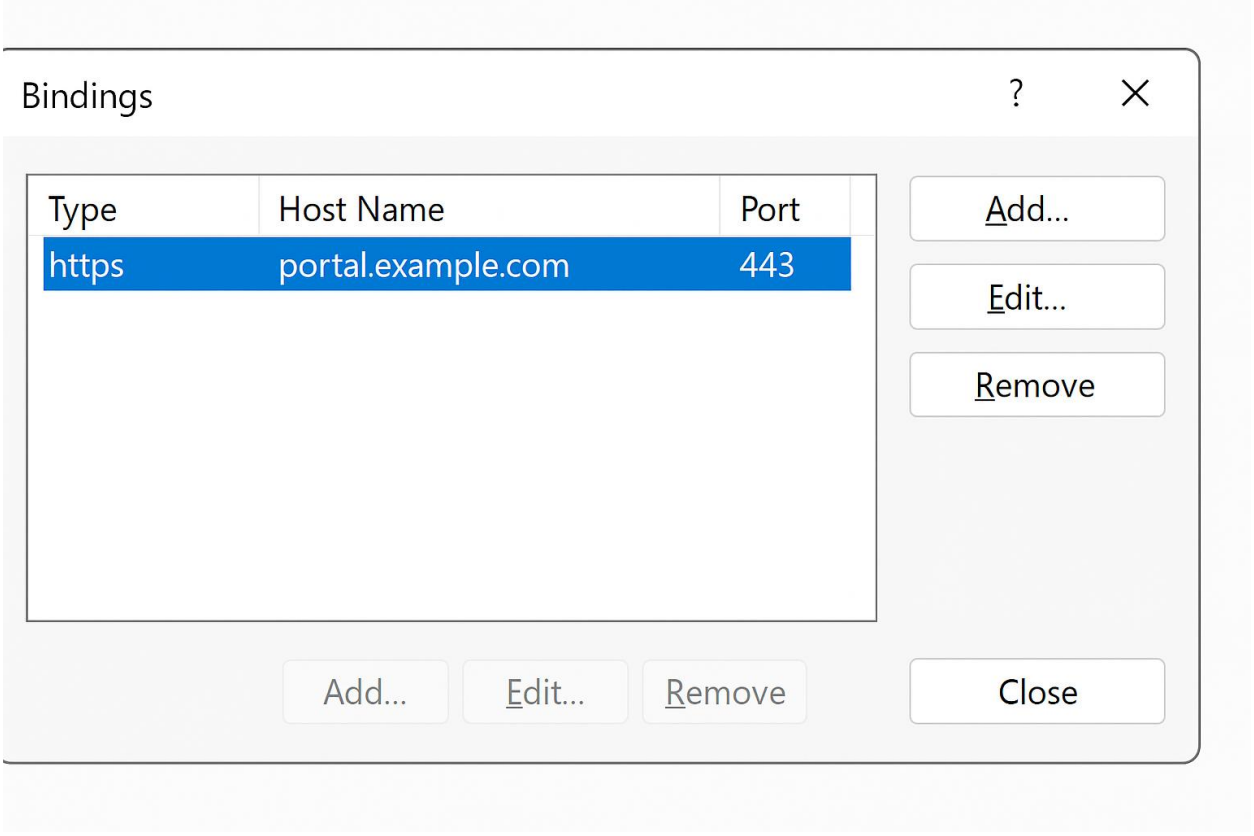
7. Bind Domain & (Optional) Configure HTTPS

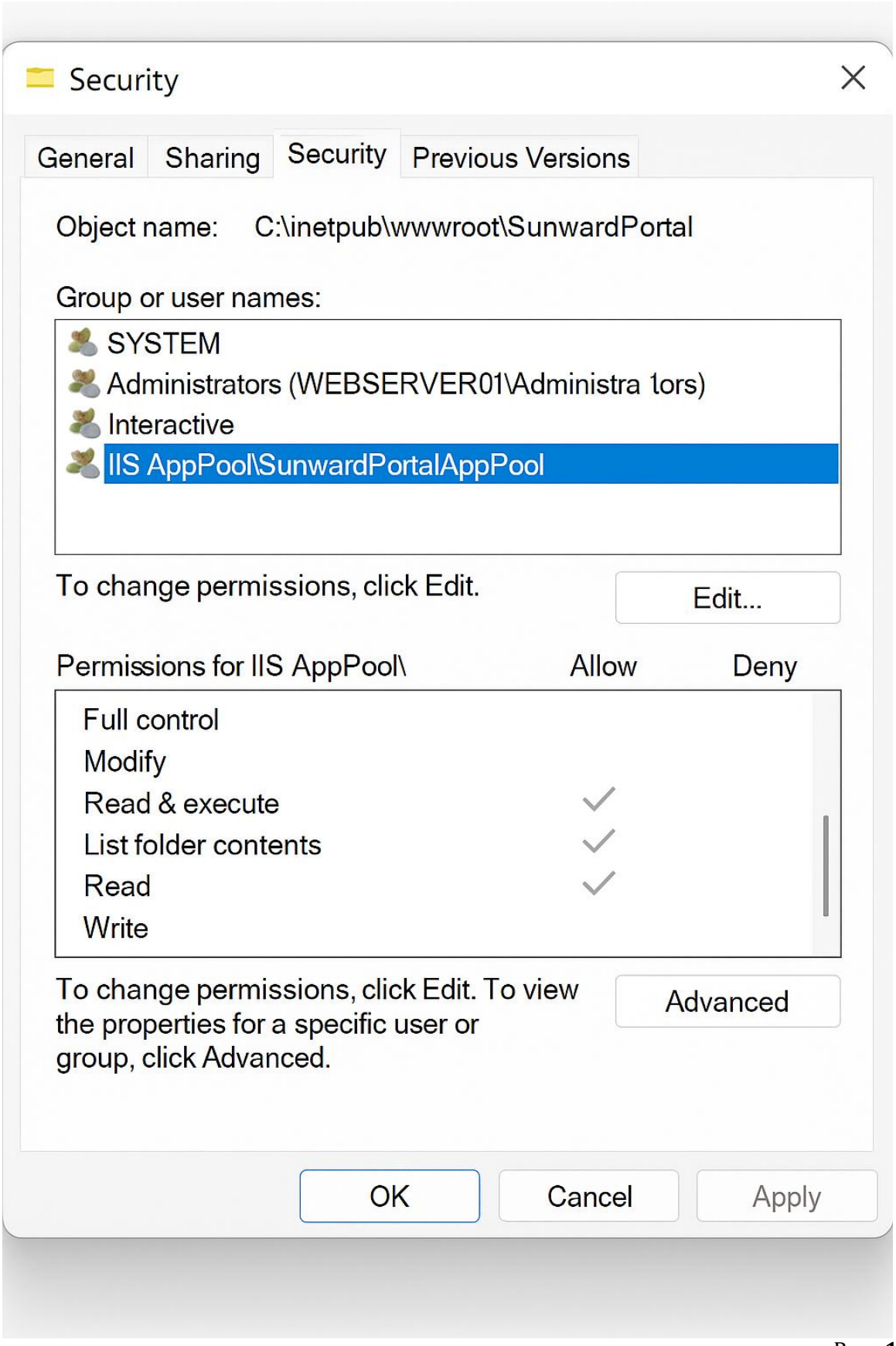
For HTTP:

Site binding set in step 4. Ensure DNS portal.example.com points to server IP.

For HTTPS:

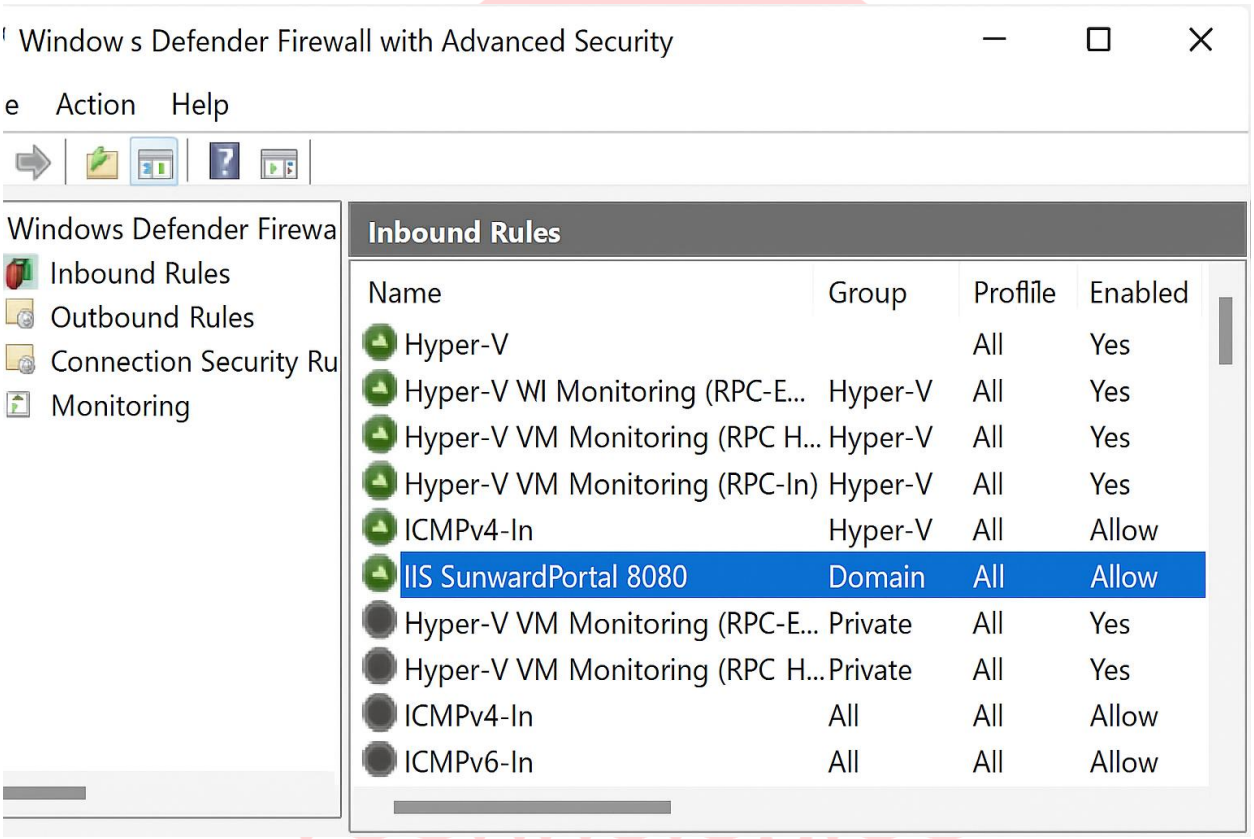
1. Obtain certificate (from CA or internal).
2. In **IIS Manager** select the site → **Bindings** → **Add** → Type: https → IP/Host/Port 443 → select SSL cert.
3. If using a firewall, open port 443.




Security
General
Sharing
Security
Previous Versions
Object name: C:\inetpub\wwwroot\SunwardPortal
Group or user names:
SYSTEM
Administrators (WEBSERVER01\Administra 1ors)
Interactive
IIS AppPool\SunwardPortalAppPool
To change permissions, click Edit.
Edit...
Permissions for IIS AppPool\
Allow
Deny
Full control
Modify
Read & execute
List folder contents
Read
Write
To change permissions, click Edit. To view the properties for a specific user or group, click Advanced.
Advanced
OK
Cancel
Apply

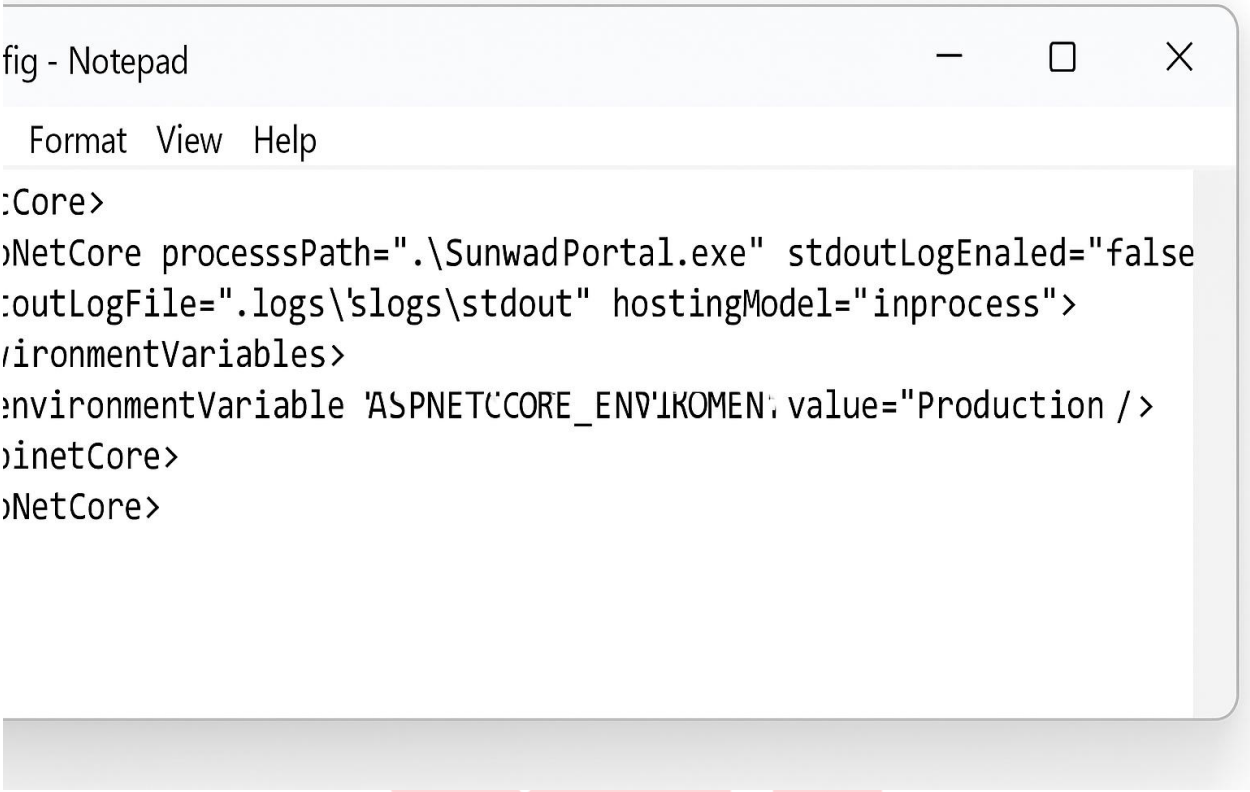
8. Application Settings & web.config (for ASP.NET / .NET Core)

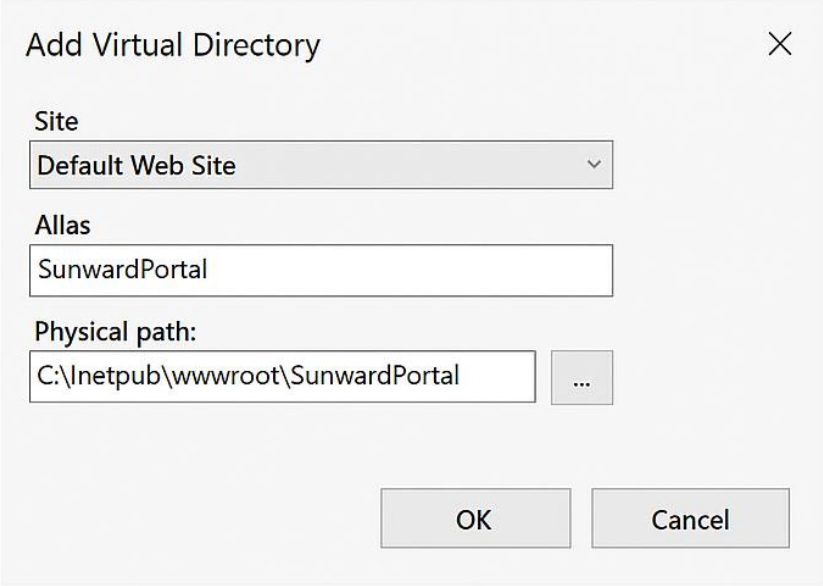
1. Ensure `web.config` exists and has correct processPath & arguments for ASP.NET Core (if using ANCM module).
2. For connection strings or app settings, either put them in `appsettings.Production.json` or App Settings in Azure / environment variables. For IIS, you can set environment variables in system settings or in `web.config`.



9. Firewall / Network

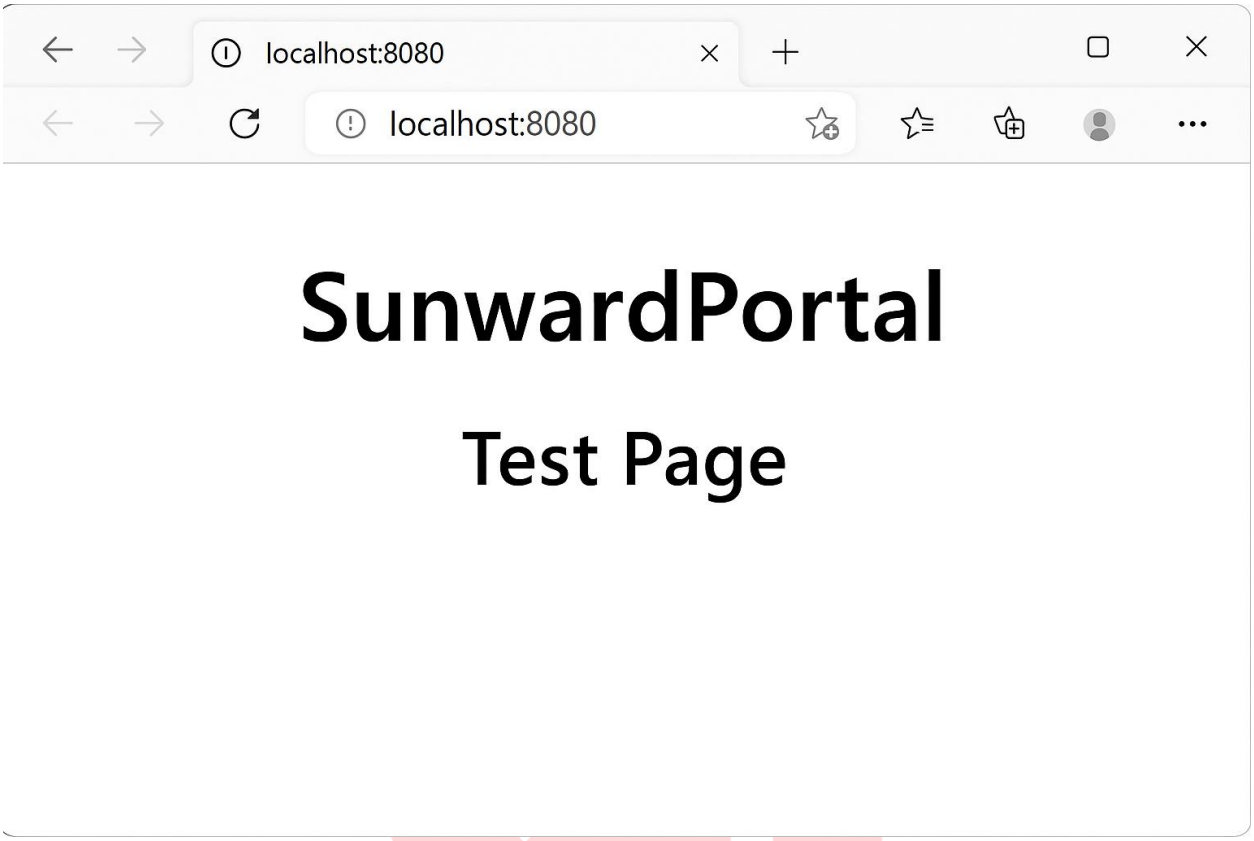
1. Open port `8080` (or port used) on server firewall and network firewall.
2. Windows firewall example (PowerShell):

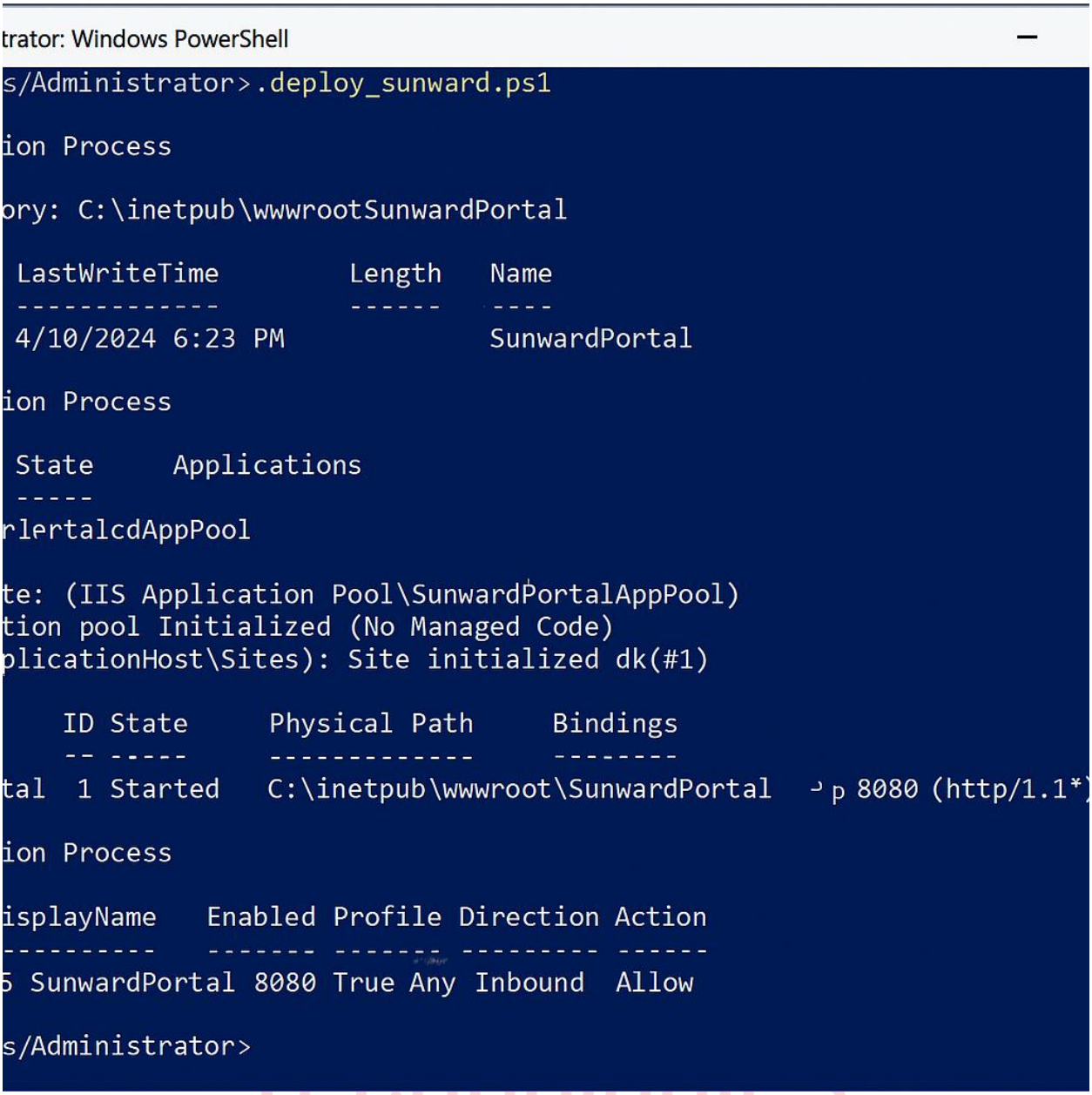




10. Start / Restart & Smoke Test

1. In IIS Manager select site → **Start** (if not started) or **Restart**.
2. From server browser: `http://localhost:8080` (or `http://portal.example.com:8080`)
3. From remote machine: `http://portal.example.com:8080`
4. Check for expected home page and verify logs (Event Viewer or application logs).





11. Common Issues & Troubleshooting

1. **HTTP 500** → check web.config and application logs. Turn on stdoutLog temporarily for ASP.NET Core.
2. **HTTP 502** (Bad Gateway) → ANCM could not start .NET Core process — check event log.
3. **Permission denied errors** → re-check folder ACLs and app pool identity.
4. **Host name binding not working** → ensure DNS is properly pointed and port is open.
5. **SSL handshake error** → certificate mismatch, check CN/SAN and certificate chain.

12. Example PowerShell Script (all-in-one, adapt values)