

My NET.MAUI Android app is throwing SSLPeerUnverifiedException: Hostname 192.168.100.2 not verified when sending POST request to a PHP script located on my desktop's IIS localhost, as shown below.

```
```csharp
await Task.Run(() =>
{
 URL urlWebhook = new
URL("https://192.168.100.2:443/medservices/ReceiveWebhooks.php");
 HttpsURLConnection? connection = urlWebhook.OpenConnection() as
HttpsURLConnection;
 if(connection != null)
 {
 connection.DoInput = true;
 connection.DoOutput = true;
 connection.RequestMethod = "POST";
 connection.ConnectTimeout = 10000;
 connection.ReadTimeout = 10000;
 connection.SetRequestProperty("Content-Type", "application/json");
 connection.SetRequestProperty("Accept", "*/*");
 connection.SetRequestProperty("User-Agent", "SmsGateway/1.0");
 BufferedOutputStream os = new
BufferedOutputStream(connection.OutputStream);
 os.Write(Encoding.Default.GetBytes(strRequestBody));
 os.Close();
 isSent = connection.ResponseCode == HttpStatus.Ok;
 connection.Disconnect();
 }
});
```
```

To configure https binding and SSL in IIS, I used the following PowerShell script, which also exports the SSL certificate in pfx and pem formats.

```
```powershell
$cert_params =
@{
 Type = "Custom"
 DnsName = "192.168.100.2"
 FriendlyName = "IIS Express SSL Server Authentication Certificate"
 CertStoreLocation = "Cert:\LocalMachine\My"
 NotAfter = (Get-Date).AddYears(10)
 KeyAlgorithm = "RSA"
 KeyLength = 2048
 KeyUsageProperty = "All"
 KeyUsage = "KeyEncipherment", "DataEncipherment", "DigitalSignature"
 KeyExportPolicy = "Exportable"
}
```

```

 HashAlgorithm = "SHA256"
 TextExtension = @"(2.5.29.37={text}1.3.6.1.5.5.7.3.1)"
}
$cert = New-SelfSignedCertificate @cert_params
$store = [System.Security.Cryptography.X509Certificates.X509Store]::Root,
[System.Security.Cryptography.X509Certificates.StoreLocation]::LocalMachine
$store.Open([System.Security.Cryptography.X509Certificates.OpenFlags]::ReadWrite)
$store.Add($cert)
$store.Close()
$export_params =
@{
 Cert = $cert
 FilePath = "C:\Users\pnfst\Documents\IISExpress\iis_ssl_server_certificate.pfx"
 ChainOption = "EndEntityCertOnly"
 Password = ConvertTo-SecureString -String "XXXXXXXXXX" -Force -
AsPlainText
}
Export-PfxCertificate @export_params
$certBase64 = [System.Convert]::ToBase64String($cert.RawData,
[System.Base64FormattingOptions]::InsertLineBreaks)
$pem = @"
-----BEGIN CERTIFICATE-----
$certBase64
-----END CERTIFICATE-----
"@
Out-File "C:\Users\pnfst\Documents\IISExpress\iis_ssl_server_certificate.cer" -FilePath
-InputObject $pem -Encoding ascii
Import-Module WebAdministration
New-WebBinding -Name "Default Web Site" -IPAddress "192.168.100.2" -Port 443 -
HostHeader "" -Protocol "https" -SslFlags 0
$binding = Get-WebBinding -Name "Default Web Site" -Port 443 -Protocol "https"
$binding.AddSslCertificate($cert.Thumbprint, "My")
Set-WebConfiguration -Location "Default Web Site" -Filter
"system.webServer/security/access" -Value "Ssl"
Restart-WebItem -PSPath "IIS:\Sites\Default Web Site"
...

```

I then used created pem to import certificate into the Android user's truststore. I also added this pem file to my app's Platforms\Android\Resources\raw folder, set the build action AndroidResource and created AndroidResource network\_security\_config.xml in the Platforms\Android\Resources\xml folder with the build action AndroidResource and the following content.

```

```xml

```

```

<?xml version="1.0" encoding="utf-8" ?>
<network-security-config>
  <domain-config>
    <domain includeSubdomains="true">192.168.100.2</domain>
    <trust-anchors>
      <certificates src="@raw/iis_ssl_server_certificate"/>
    </trust-anchors>
  </domain-config>
</network-security-config>
```

```

And added link to this network security configuration to my AndroidManifest:

```

```xml
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android">
  <application
    android:networkSecurityConfig="@xml/network_security_config"
    android:allowBackup="true"
    android:supportsRtl="true"
    android:label="SmsGateway">
  </application>
  <!--
  ...
  -->
  <uses-permission android:name="android.permission.INTERNET" />
</manifest>
```

```

However, none of these steps resolved the issue.

When I first connect to the previously specified ip-address from the Android web browser, it reports that the connection is not secure and establish the connection after my confirmation. Subsequent connections to this ip-address were established without any prompts.

I also tested this https connection using openssl s\_client, as recommended. It returned "Verify return code: 18 (self-signed certificate)".

[This is result file](/api/attachments/7e00b46b-5f51-48e2-8ec1-ddfea6275190?platform=QnA)

I know that simplest solution of my problem is to change HttpsURLConnection.DefaultHostnameVerifier to my custom verifier that returns true for my IP address. But I want to understand why the SSL configuration isn't working correctly.

How do I resolve this issue?

[My solution repo](https://github.com/pnfstas/SmsGateway)

[My original post on StackOverflow](https://stackoverflow.com/questions/79797621/how-to-resolve-sslpeerunverifiedexception-hostname-not-verified-in-httpsurlconn)