

# MobileDeviceRegistrationCli

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Small .NET 10 console app that sends signed WebEPS requests for:

- Mobile device registration
- Purchase session initialization used for testing the mobile device registration

It supports:

- `MobileRegistration : Hmac` only
- `Purchase : Rsa` only

## What It Does

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- Builds request JSON for the selected flow
- Signs the raw JSON body and sets `X-Signature`
- Sends POST to the proper WebEPS endpoint
- Prints request/response details
- In `Purchase ( Rsa )` mode, verifies signature locally before sending

## Requirements

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- .NET 10 SDK
- Network access to WebEPS host
- API key (and API secret for HMAC)
- PEM files for key-based operations

## Build

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```
dotnet build .\MobileDeviceRegistrationCli\MobileDeviceRegistrationCli.csproj
```

## Folder Publishing (Visual Studio)

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Want a local publish output you can run directly? This profile creates:

-  `publish\mdrccli.exe`

## Create the Folder Publish Profile

1. In Visual Studio, right-click `src\MobileDeviceRegistrationCli` and select

1. In Visual Studio, right-click `src\mobiledeviceregistrationcli.csproj`.
2. Click **Publish**.
3. Choose **Folder** as the target.
4. Click **Finish**.
5. Open profile settings and apply the values below.

## Optimal Publish Setting

- ☒ Configuration : `Release`
- ☒ Platform : `Any CPU`
- ☒ PublishDir : `..\publish`
- ☒ PublishProtocol : `FileSystem`
- ☒ \_TargetId : `Folder`
- ☒ TargetFramework : `net10.0`
- ☒ RuntimeIdentifier : `win-x64`
- ☒ SelfContained : `true`
- ☒ PublishSingleFile : `true`
- ☒ PublishReadyToRun : `true`
- ☒ PublishTrimmed : `true`

## Publish from CLI Using This Profile

```
dotnet publish .\src\MobileDeviceRegistrationCli.csproj -c Release /p:PublishProfile=Folder
```

## Run the Published App (Visual Studio 2026)

If you publish with Visual Studio 2026 using this Folder profile, run the generated EXE directly:

```
.\publish\mdrcli.exe --help
```

 In this flow, use `mdrcli.exe` instead of `dotnet run`.

## Help

```
dotnet run --project .\MobileDeviceRegistrationCli\MobileDeviceRegistrationCli.csproj -- -
```

## Parameters

| Parameter                            | Required | Notes                                                                                                              |
|--------------------------------------|----------|--------------------------------------------------------------------------------------------------------------------|
| <code>--WebEpsType</code>            | Yes*     | <code>MobileRegistration</code> or <code>Purchase</code> . Prompted if missing.                                    |
| <code>--AuthMode</code>              | No       | <code>MobileRegistration</code> allows <code>Hmac</code> only. <code>Purchase</code> allows <code>Rsa</code> only. |
| <code>--SignatureEncoding</code>     | No       | <code>Hex</code> only. <code>Base64</code> is not supported.                                                       |
| <code>--ApiBaseUrl</code>            | No       | Default: <code>https://WIN-7WNVHL3/WebEPS/v1.4</code> . Alias: <code>--BaseUrl</code> .                            |
| <code>--PublicPEMPath</code>         | Yes**    | Required for <code>MobileRegistration</code> . Validated as an existing file.                                      |
| <code>--PrivatePEMPath</code>        | Yes***   | Required for <code>Purchase</code> ( <code>Rsa</code> ) signing. Validated as an existing file.                    |
| <code>--Password</code>              | Yes***   | Required for encrypted private PEM in <code>Purchase</code> ( <code>Rsa</code> ) signing.                          |
| <code>--ClientApiKey</code>          | Yes      | Sent as <code>X-Key</code> .                                                                                       |
| <code>--ClientApiSecret</code>       | Yes****  | Required for <code>MobileRegistration</code> ( <code>Hmac</code> ) signing.                                        |
| <code>--DeviceId</code>              | Yes      | Sent as <code>X-DeviceId</code> .                                                                                  |
| <code>--CompanyNumber</code>         | Yes      | Sent as <code>X-CompanyNumber</code> .                                                                             |
| <code>--StoreNumber</code>           | Yes      | Sent as <code>X-StoreNumber</code> .                                                                               |
| <code>--LaneNumber</code>            | Yes      | Sent as <code>X-LaneNumber</code> .                                                                                |
| <code>--ClientApplicationName</code> | Yes      | Sent as <code>X-Client-Application-Name</code> .                                                                   |

Notes:

- \* Prompted interactively when omitted.
- \*\* Optional for `Purchase` , required for `MobileRegistration` .
- \*\*\* Required for `Purchase` requests.
- \*\*\*\* Required for `MobileRegistration` requests.

Unknown command-line keys are ignored.

## Endpoints

- `MobileRegistration` -> `/EndpointAdministration/RegisterMobileDevice`

- `Purchase` -> `/PaymentTransactionManagement/InitializeSession`

## ✓ Supported Combinations

- `MobileRegistration` + `Hmac` : supported
- `MobileRegistration` + `Rsa` : not supported (returns an error)
- `Purchase` + `Rsa` : supported
- `Purchase` + `Hmac` : not supported (returns an error)

## ⚠ Prerequisite

- To run `Purchase`, you must first successfully register the device using `MobileRegistration`.

## 🧪 Examples

### 🧩 MobileRegistration (HMAC)

```
dotnet run --project .\MobileDeviceRegistrationCli\MobileDeviceRegistrationCli.csproj -- `
  --WebEpsType MobileRegistration `
  --AuthMode Hmac `
  --ApiBaseUrl https://YOUR-HOST/WebEPS/v1.4 `
  --PublicPEMPath ..\certificates\YOUR_DEVICE.Public.pem `
  --ClientApiKey YOUR_API_KEY `
  --ClientApiSecret YOUR_API_SECRET `
  --DeviceId YOUR_DEVICE_ID `
  --CompanyNumber 949 `
  --StoreNumber 13 `
  --LaneNumber 1 `
  --ClientApplicationName CSharp-TestApp
```

### 💳 Purchase (RSA)

```
dotnet run --project .\MobileDeviceRegistrationCli\MobileDeviceRegistrationCli.csproj -- `
  --WebEpsType Purchase `
  --AuthMode Rsa `
  --ApiBaseUrl https://YOUR-HOST/WebEPS/v1.4 `
  --PrivatePEMPath ..\certificates\YOUR_DEVICE.Private.pem `
  --Password YOUR_PEM_PASSWORD `
  --ClientApiKey YOUR_API_KEY `
  --DeviceId YOUR_DEVICE_ID `
  --CompanyNumber 949 `
  --StoreNumber 13 `
  --LaneNumber 1 `
  --ClientApplicationName CSharp-TestApp
```



## Runtime Notes

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- `X-Client-Application-Version` is always set to `v1.4` .
- TLS certificate validation is disabled by default in this simulator.
- In `Hmac` mode, the secret may be interpreted as hex bytes when it is valid even-length hex; otherwise UTF-8 bytes are used.



## Exit Codes

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- `0` : HTTP success ( `2xx` )
- `1` : request failed or runtime error