# .NET SDK for WA Digital Wallet

This library enables C# applications to interact with the WA Digital Wallet service. It supports credential issuance, status checks, presentation verification and tenant administration. The SDK targets .NET 6 and later.

## Installation

Install via NuGet:

dotnet add package WA.DigitalWallet --version 1.0.0

## Configuration

Add the following configuration to your appsettings.json:

{  
 "WalletOptions": {  
 "ApiBaseUrl": "https://wallet.api.gov.wa.au/api/v1",  
 "ClientId": "your-client-id",  
 "ClientSecret": "your-client-secret",  
 "TenantId": "tenant-id"  
 }  
}

Register the client in your service container:

using Wa.DigitalWallet;  
  
builder.Services.AddDigitalWallet(options =>  
{  
 configuration.GetSection("WalletOptions").Bind(options);  
});

## Issuing a credential

var request = new IssueCredentialRequest  
{  
 SchemaId = "mDL",  
 SubjectDid = "did:example:12345",  
 Attributes = new Dictionary<string, object>  
 {  
 ["familyName"] = "Citizen",  
 ["givenName"] = "Jane",  
 ["expiry"] = "2030-12-31"  
 }  
};  
var response = await \_walletClient.IssueCredentialAsync(request);  
Console.WriteLine($"Credential issued: {response.CredentialId}");

## Verifying a presentation

var result = await \_walletClient.VerifyPresentationAsync(new VerifyPresentationRequest  
{  
 Presentation = jwtPresentation  
});  
if (result.Verified)  
{  
 Console.WriteLine($"Subject DID: {result.SubjectDid}");  
}

## Tenant onboarding

var tenantResponse = await \_walletAdminClient.CreateTenantAsync(new CreateTenantRequest  
{  
 Name = "Department of Transport",  
 Region = "AustraliaEast"  
});

## Logging & telemetry

The SDK integrates with Microsoft.Extensions.Logging and emits structured logs. It also exposes diagnostic events for OpenTelemetry tracing.

## Support

Refer to the documentation and API specification for detailed information. Issues and feature requests can be submitted via the project’s issue tracker.