

# 第06期-使用Grpc编写Dapr服务

2022年6月28日 10:08

## 服务端实现

```
<ItemGroup>
    <PackageReference Include="Grpc.AspNetCore" Version="2.40.0" />
    <PackageReference Include="Dapr.AspNetCore" Version="1.7.0" />
</ItemGroup>
```

## 定义并引用通信协议

### Protobuf3 语言指南

[https://github.com/kingofzihua/protocol-buffers-docs-protobuf3\\_ZH\\_CN](https://github.com/kingofzihua/protocol-buffers-docs-protobuf3_ZH_CN)

```
syntax = "proto3";

option csharp_namespace = "HelloGreet";

package greet;

// The request message containing the user's name.
message HelloRequest {
    string name = 1;
}

// The response message containing the greetings.
message HelloReply {
    string message = 1;
}
```

## 实现服务业务逻辑

```
public class HelloService : AppCallback.AppCallbackBase
{
    private readonly ILogger<HelloService> _logger;

    public HelloService(ILogger<HelloService> logger)
    {
        _logger = logger;
    }
}
```

```

    public override async Task<InvokeResponse> OnInvoke(InvokeRequest request,
ServerCallContext context)
    {
        return request.Method switch
        {
            "sayhello" => await SayHello(request, context),
            _ => throw new NotImplementedException(),
        };
    }

    public async Task<InvokeResponse> SayHello(InvokeRequest request,
ServerCallContext context)
    {
        _logger.LogInformation(context.Method);

        var helloRequest = request.Data.Unpack<HelloRequest>();

        var helloReply = new HelloReply
        {
            Message = "Hello " + helloRequest.Name
        };

        var response = new InvokeResponse();

        response.Data = Any.Pack(helloReply);

        return await Task.FromResult(response);
    }
}

```

## 在 Dapr 中运行服务端

```

dapr run --app-id helloserver --dapr-http-port 3500 --dapr-grpc-port 50001 --
app-port 7285 --app-protocol grpc --app-ssl dotnet run

```

## 客户端调用实现

```

<ItemGroup>
    <PackageReference Include="Dapr.Client" Version="1.7.0" />
    <PackageReference Include="Grpc.Tools" Version="2.47.0">
        <PrivateAssets>all</PrivateAssets>
        <IncludeAssets>runtime; build; native; contentfiles; analyzers;
buildtransitive</IncludeAssets>
    </PackageReference>
</ItemGroup>

using var daprClient = new
DaprClientBuilder().UseHttpEndpoint("http://localhost:4500").Build();

var result = await daprClient.InvokeMethodGrpcAsync<HelloRequest, HelloReply>
("helloserver", "sayhello", new HelloRequest { Name = "lingdu" });

Console.WriteLine(result.Message);

```

## 在 Dapr 中运行客户端

```
dapr run --app-id helloclient --dapr-http-port 4500 --dapr-grpc-port 60001  
dotnet run
```