

The logo for 2COMMIT, featuring the text '2COMMIT' in a bold, white, sans-serif font. The background is a dark teal color with several large, light teal, rounded rectangular shapes that overlap and create a sense of depth and movement.

2COMMIT

Aspire to be a better .NET developer

Tom Eraerts | 2commit

Tom Eeraerts

- 2commit
- Microsoft Certified Trainer
- .NET
- Azure



.NET Aspire



Aspire

.NET Aspire is an opinionated stack for building resilient, observable, and configurable cloud-native applications with .NET. It includes a curated set of components enhanced for cloud native by including service discovery, telemetry, resilience, and health checks by default.

Aspire (shorter)

.NET Aspire is an opinionated “stack” that aims to make cloud native development easier for .NET developers.

Aspire Stack

- Composition & Orchestration
 - A runtime to for running and connecting multi-project applications and their dependencies
 - Modeling language for defining the system resources and their dependencies


```
var IDistributedApplicationBuilder? builder = DistributedApplication.CreateBuilder(args);

var IResourceBuilder<RedisResource>? cache = builder.AddRedis(name: "cache");

var IResourceBuilder<ProjectResource>? apiService = builder.AddProject<Projects.AspriseAppP5_ApiService>(name: "apiservice");

builder.AddProject<Projects.AspriseAppP5_Web>(name: "webfrontend")
    .WithReference(cache)
    .WithReference(apiService);

builder.Build().Run();
```


Aspire Stack

- Components
 - Packages of commonly used services
 - Standardized interfaces and capabilities
 - Observability / Telemetry
 - Health Checks
 - Resiliency

owner:Aspire tags:component



Include prerelease



Prerelease

Aspire.StackExchange.Redis by Microsoft, **44,4K** downloads

A generic Redis® client that integrates with Aspire, including health checks, logging, and telemetry.

9.0.0- preview.2.24162.2



Prerelease

Aspire.RabbitMQ.Client by Microsoft, **25,7K** downloads

A RabbitMQ client that integrates with Aspire, including health checks, logging, and telemetry.

9.0.0- preview.2.24162.2



Prerelease

Aspire.Npgsql by Microsoft, **24,7K** downloads

A PostgreSQL® client that integrates with Aspire, including health checks, metrics, logging, and telemetry.

9.0.0- preview.2.24162.2



Prerelease

Aspire.Npgsql.EntityFrameworkCore.PostgreSQL by Microsoft, **37,1K** downloads

A PostgreSQL® provider for Entity Framework Core that integrates with Aspire, including connection pooling, health checks, logging, and telemetry.

9.0.0- preview.2.24162.2



Prerelease

Aspire.StackExchange.Redis.OutputCaching by Microsoft, **18,9K** downloads

A Redis® implementation for ASP.NET Core Output Caching that integrates with Aspire, including health checks, logging, and telemetry.

9.0.0- preview.2.24162.2



Prerelease

Aspire.Azure.Storage.Blobs by Microsoft, **8,99K** downloads

A client for Azure Blob Storage that integrates with Aspire, including health checks, logging and telemetry.

9.0.0- preview.2.24162.2



Prerelease

Aspire.StackExchange.Redis.DistributedCaching by Microsoft, **9,48K** downloads

A Redis® implementation for IDistributedCache that integrates with Aspire, including health checks, logging, and telemetry.

9.0.0- preview.2.24162.2



Prerelease

Aspire.Azure.AI.OpenAI by Microsoft, **6,11K** downloads

A client for Azure OpenAI that integrates with Aspire, including logging and telemetry.

9.0.0- preview.2.24162.2

Aspire Stack

- Tools
 - Dashboard
 - Distributed App support
 - Service Defaults
 - Publishing utils

Dashboard

AspireAppP5 🔗 ? ⚙️

Resources

🔍 Filter...

Type	Name	State	Start time	Source	Endpoints	Logs	Details
Container	cache	✔️ Running	4:01:38 PM	redis:7.2.4	tcp://localhost:63104	View	View
Project	apiservice	✔️ Running	4:01:38 PM	AspireAppP5.ApiService.csproj	https://localhost:7397/weatherforecast +1	View	View
Project	webfrontend	✔️ Running	4:01:38 PM	AspireAppP5.Web.csproj	https://localhost:7008 , http://localhost:5041	View	View

Resources | Console | Structured | Traces | Metrics

Service Defaults

- Added to every Aspire enabled project
 - AddServiceDefaults()
 - MapDefaultEndpoints()
 - If web
- Includes setup for
 - OpenTelemetry
 - Default Health Checks
 - Service Discovery
 - HttpClient Standard Resiliency configuration

Service Defaults

Standardizing how a service should behave

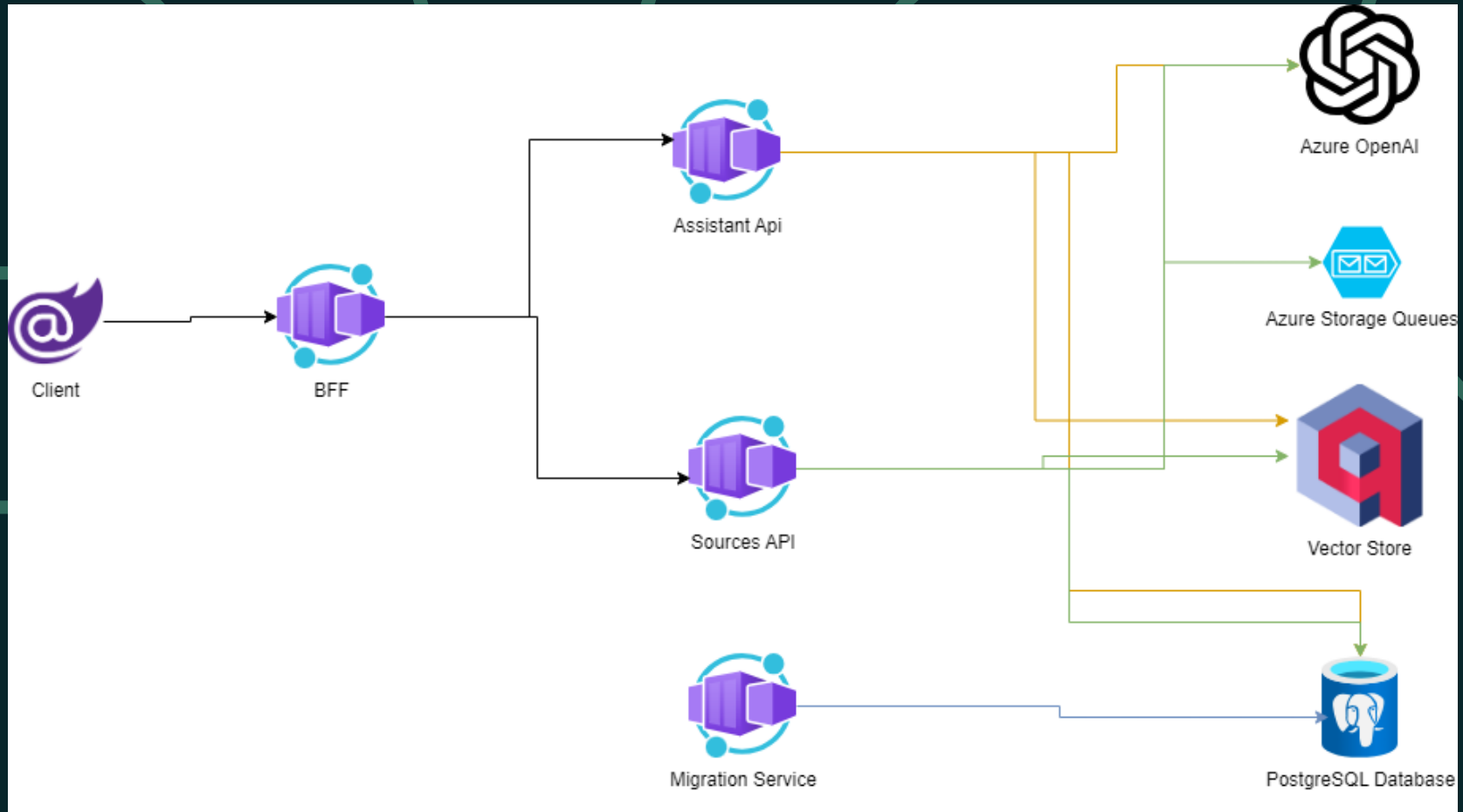
```
namespace Microsoft.Extensions.Hosting;

0 references
public static class Extensions
{
    2 references
    ... public static IHostApplicationBuilder AddServiceDefaults(this IHostApplicationBuilder builder)
    ... {
    ...     builder.ConfigureOpenTelemetry();
    ...     builder.AddDefaultHealthChecks();
    ...     builder.Services.AddServiceDiscovery();
    ...     builder.Services.ConfigureHttpClientDefaults(IHttpClientBuilder http =>
    ...     {
    ...         // Turn on resilience by default
    ...         http.AddStandardResilienceHandler();
    ...         // Turn on service discovery by default
    ...         http.AddServiceDiscovery();
    ...     });
    ...     return builder;
    ... }
}
```


Time for the fun stuff



DotAssistant application






QA

2COMMIT

Get In Touch

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