



ASP.NET Core Minimal APIs

Christian Nagel
<https://csharp.christiannagel.com>



Professional

C# and .NET 2021 Edition

Christian Nagel

Microsoft MVP

- Training
- Coaching
- Consulting
- Development

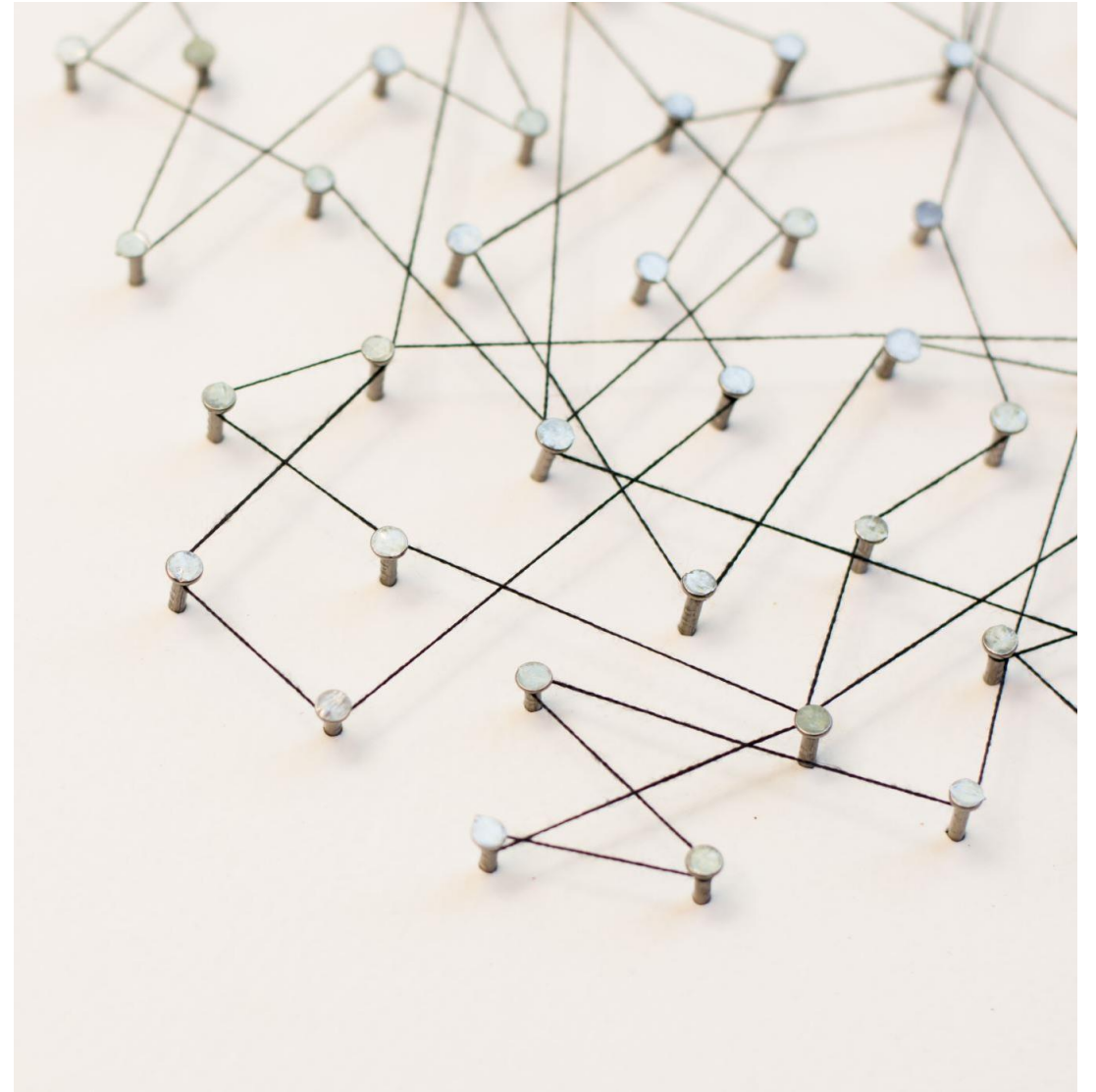
Twitter: @christiannagel

LinkedIn: <https://at.linkedin.com/in/cnagel/>

Blog: <https://csharp.christiannagel.com>

Topics

- Are Minimal APIs useful on a larger scale?
- What made the Minimal APIs possible with .NET 6?
- Minimal APIs with .NET 7
- What about .NET 8?
- Just a few slides → many demos!
- Source code available on GitHub!





Demo

Minimal API with .NET 6

What made this possible?

- Top-level statements (C# 9)
- Natural typed lambdas (C# 10)
- *WebApplication* and *WebApplicationBuilder* (.NET 6)
- *Results* factory class (.NET 6)





Demo

Minimal APIs with .NET 7



.NET 7

- Grouped endpoints
 - Group endpoints for common functionality
- Better OpenAPI Support
 - Typed results and more
- Filters
 - Exception, validation, logging filters
- Visual Studio Endpoints Explorer
- dotnet publish with Docker support

A background image showing a pair of hands holding a red string figure, which is a complex geometric shape made of string. The hands are positioned with fingers spread, and the string is looped around them to form the figure. The image is slightly blurred and has a dark, muted color palette.

Demo

.NET 8 Preview 4

Enhancements

JSON Serializer Source Generator

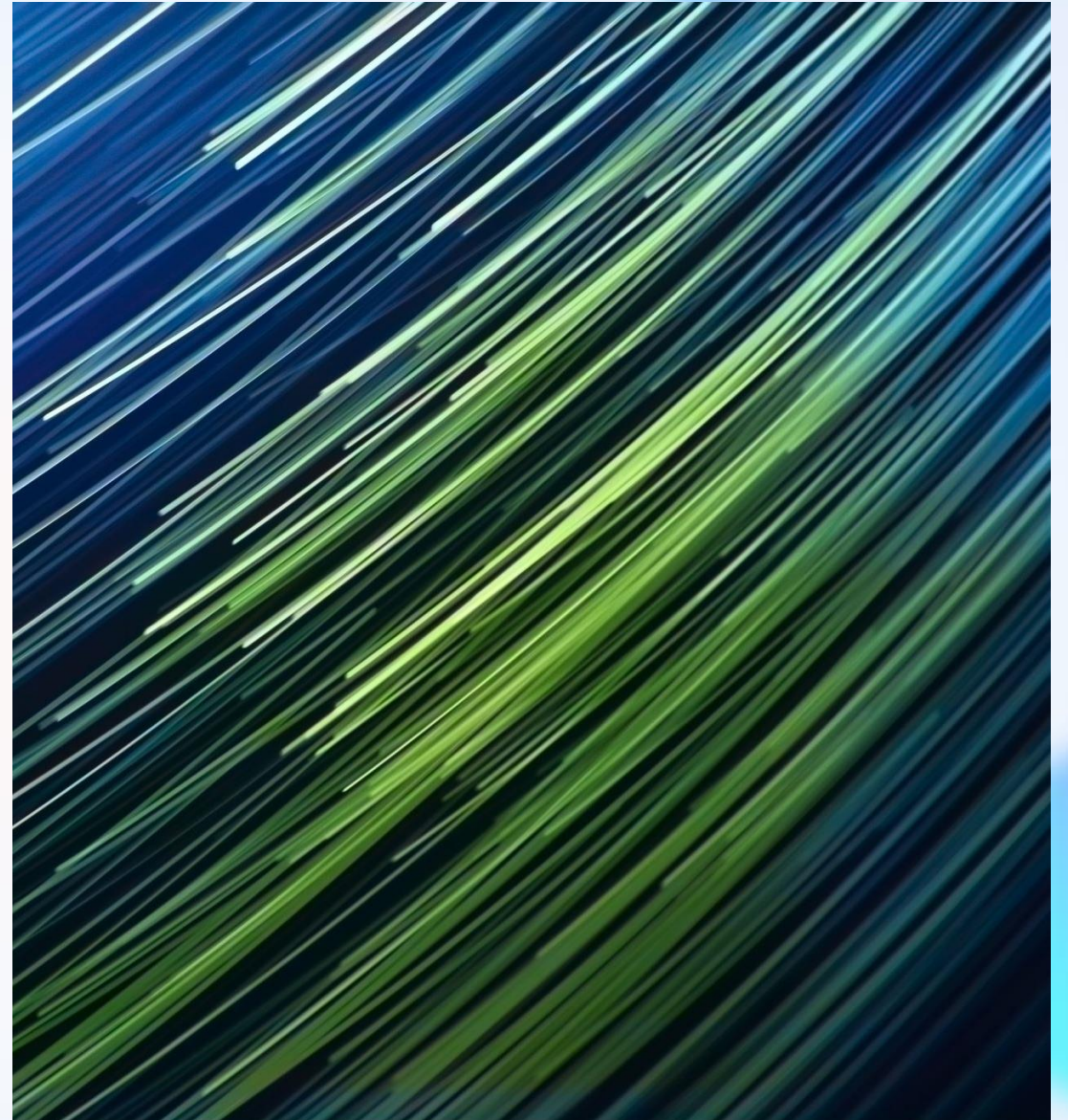
- Available since .NET 6, can be used with older .NET versions

Slim Builder

- Reduce services registered

Native AOT Deployment

- The most important .NET 8 feature





Native AOT

- Reduce startup time
- Reduce disk size requirements
- Reduce memory consumption
- <https://learn.microsoft.com/en-us/aspnet/core/fundamentals/native-aot>

Native AOT Restrictions

- No assembly loading
- No runtime code-generation
- No built-in COM
- requires trimming
- App size increased compared to framework-dependent)
- No MVC, SignalR, Blazor Server
- No Authentication (JWT coming soon)
- No session

Take away

- Minimal APIs started with .NET 6
- Minimal APIs have a bright future
- Great for small and large services
- Native AOT started with .NET 7
- Native AOT brings big changes for .NET
- Not all your services can take advantage of Native AOT with .NET 8



Thank you



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