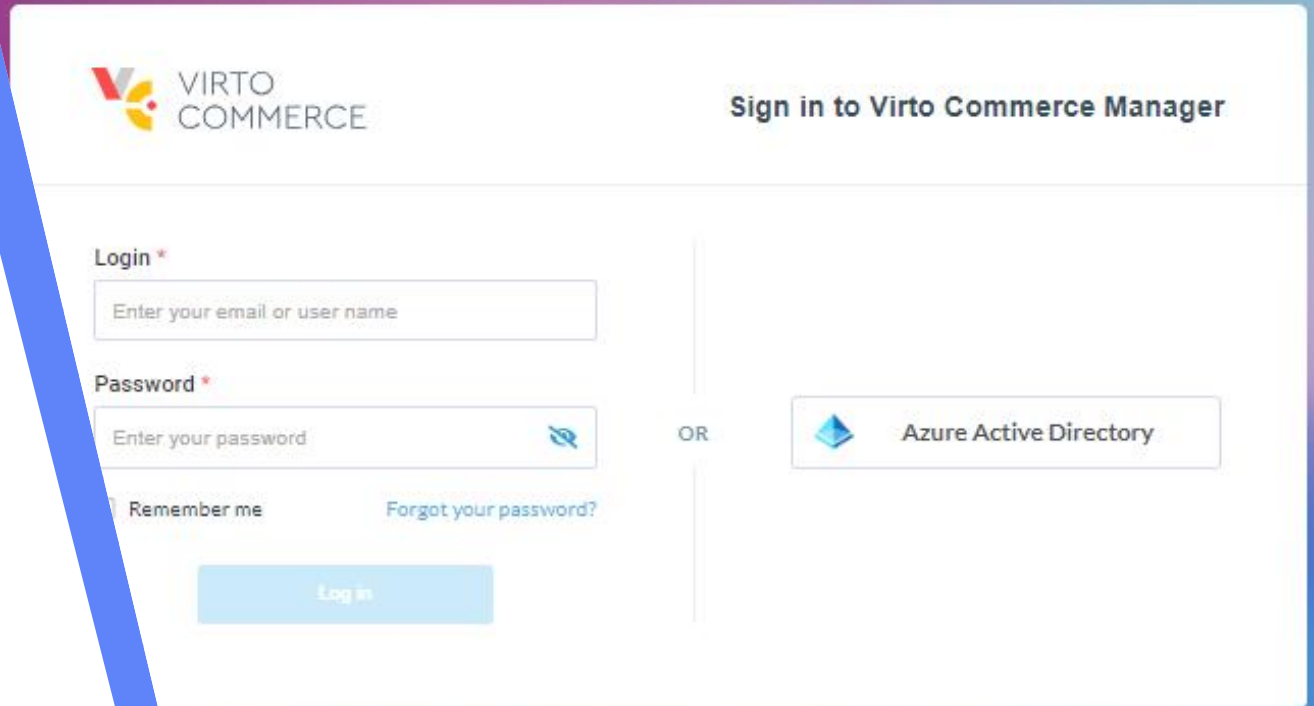



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# Virto Commerce .NET 8

Oleg Zhuk - CTO  
Virto Commerce Webinar




 VIRTO  
COMMERCE

Sign in to Virto Commerce Manager

Login \*

Enter your email or user name


Password \*

Enter your password 

☐ Remember me [Forgot your password?](#)

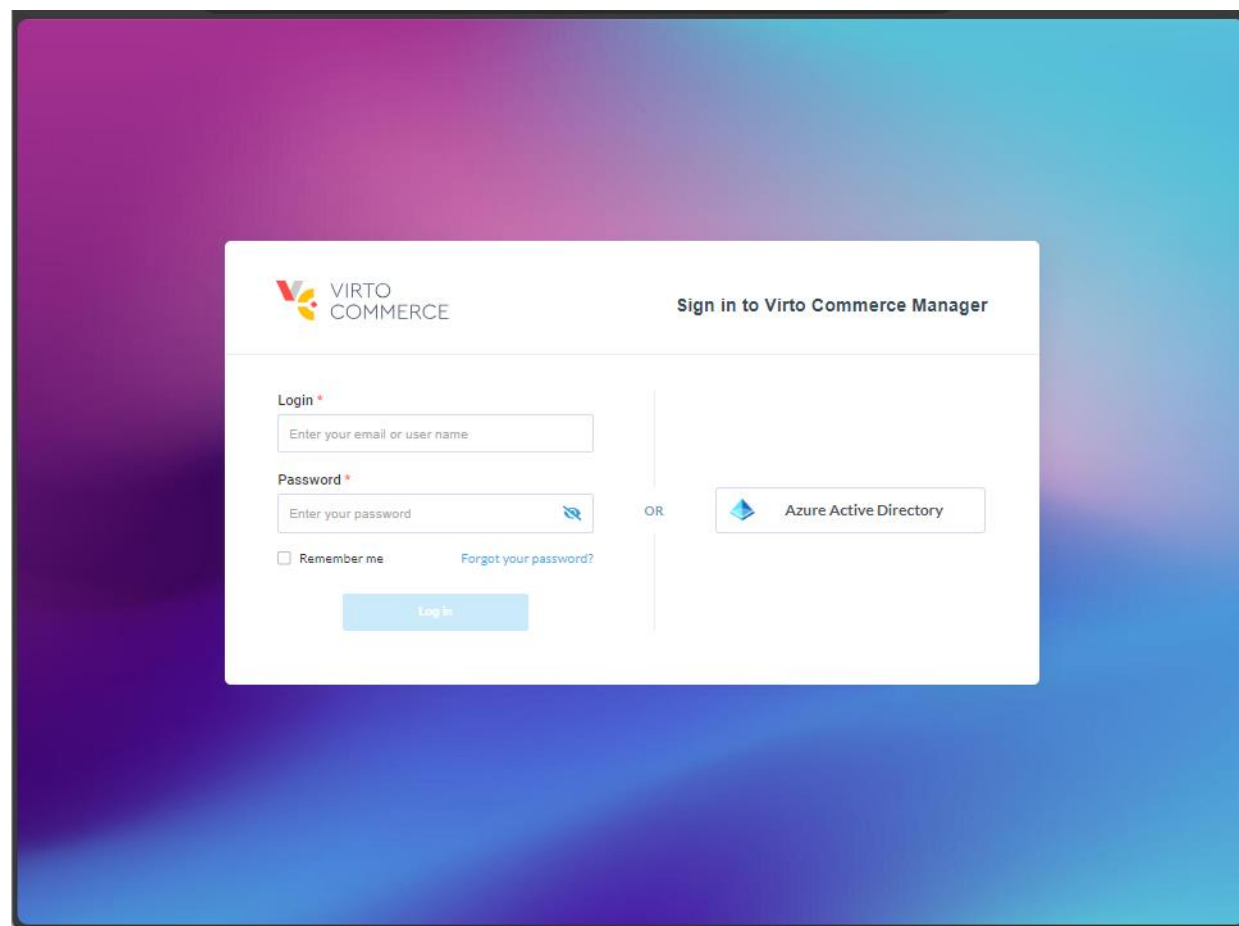
[Log in](#)

OR

 Azure Active Directory

# Today's Agenda

- What's New in .NET 8
- Performance Comparison
- Update Strategy
- Feedback & Known Limitations
- Q&A



	VirtoCommerce.Shipping 3.800.0
	VirtoCommerce.Sitemaps 3.800.0
	VirtoCommerce.Store 3.800.0
	VirtoCommerce.Subscription 3.801.0
	VirtoCommerce.TaskManagement 3.800.0
	VirtoCommerce.Tax 3.800.0
	VirtoCommerce.WebHooks 3.801.0
	Environment mode
	Production
	CLR version
	8.0.1
	64-bit operating system
	true
	64-bit process
	true
Contacts	
Pricing	
Inventory	
Orders	
Marketing	
Content	
Security	

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# What's New in .NET 8

VC .NET8 / VC 3.800

# .NET 8 Benefits

## Enhanced Performance

The upgrade to .NET 8 brings substantial improvements in **performance**, resulting in **faster response times** and optimized resource utilization. This ensures a smoother and more efficient e-commerce experience for both customers and administrators.

## Improved Stability

Stability is a cornerstone of this update. By leveraging the advancements in .NET 8, Virto Commerce offers **enhanced system reliability** and robustness. This translates to fewer disruptions, improved error handling, and increased overall system stability.

## Optimized EF Operations

With the transition to .NET 8, **bulk operations** such as select, update, and delete are optimized for efficiency. This improvement is particularly beneficial for scenarios involving large datasets, providing a noticeable boost in processing speed and resource efficiency.

## LTS

Virto Team updated:

1. NET8 LTS
2. Node 20 LTS
3. All 3<sup>rd</sup> party libraries to latest version, except GraphQL that we plan to update in next stable release.

# .NET 8 References

## NET8

[What's new  
in NET8](#)

## EF Core

[What's new in EF8  
Core](#)

## ASP.NET Core

[What's new in  
ASP.NET Core 8](#)

## Virto Commerce

[Virto Commerce on .Net8](#)

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# Performance Comparison

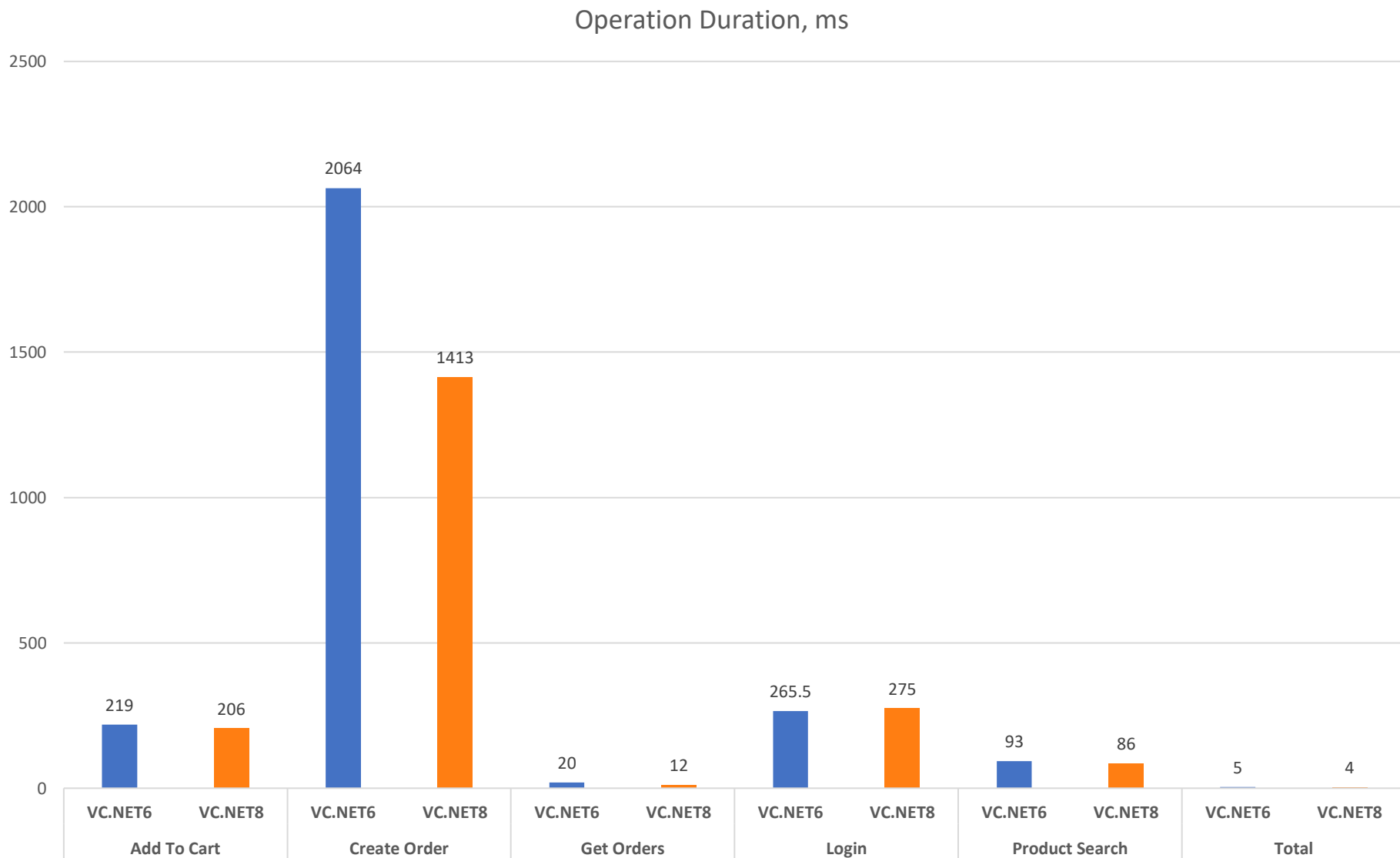
VC .NET6 vs VC .NET8  
PostgreSQL Vs SqlServer

# Environment Setup

1. Virto Cloud / 2 instances – 1 Core & 2Gb RAM
2. Linux
3. 500-750 customers on site / Google Analytics
4. B2B customer experience with 40 items in cart
5. Platform: VC .NET 6 and VC .NET8
6. Database Providers: SqlServer and PostgreSQL

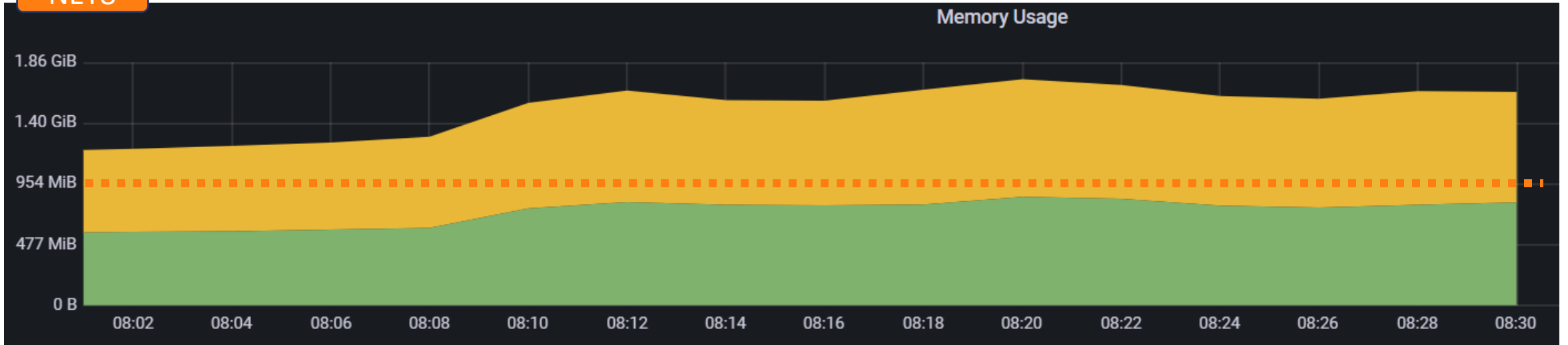


# .NET6 vs.NET8 on SqlServer: 10%–35% improvements

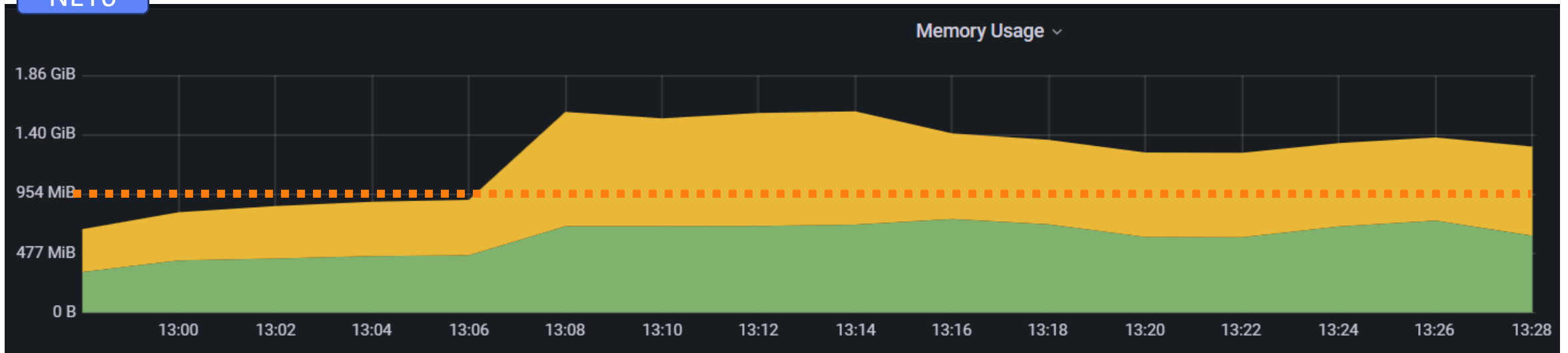


# Memory Usage – doesn't changed

NET8

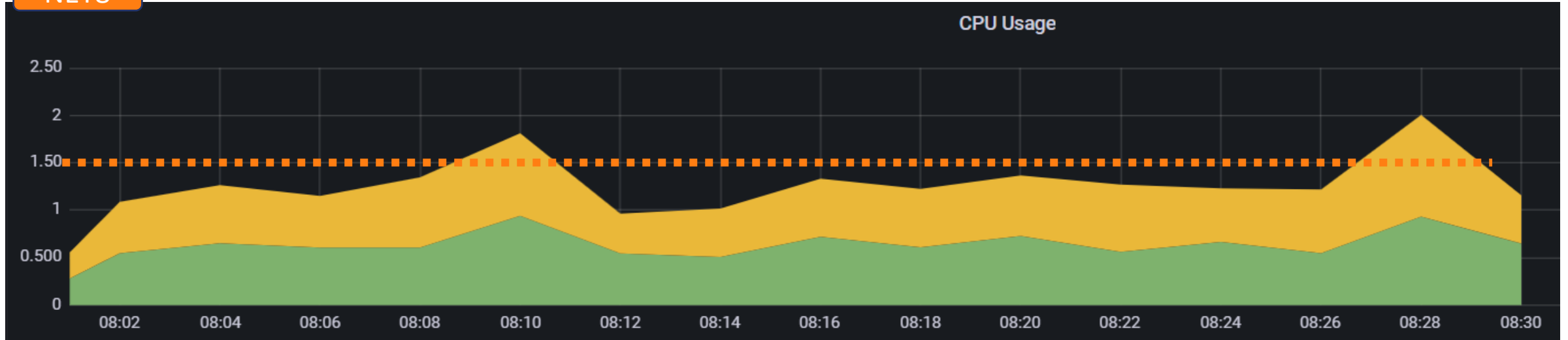


NET6

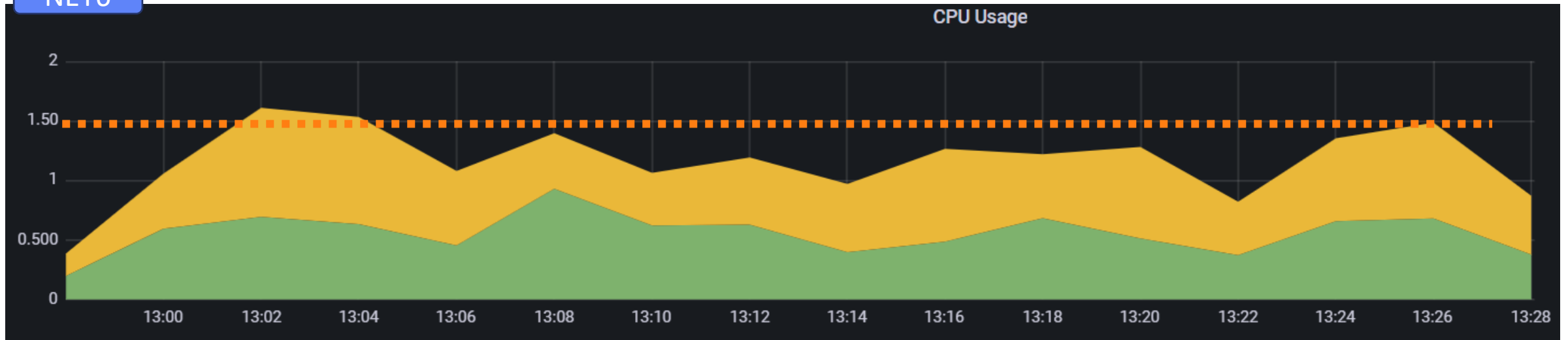


# CPU Usage – doesn't changed

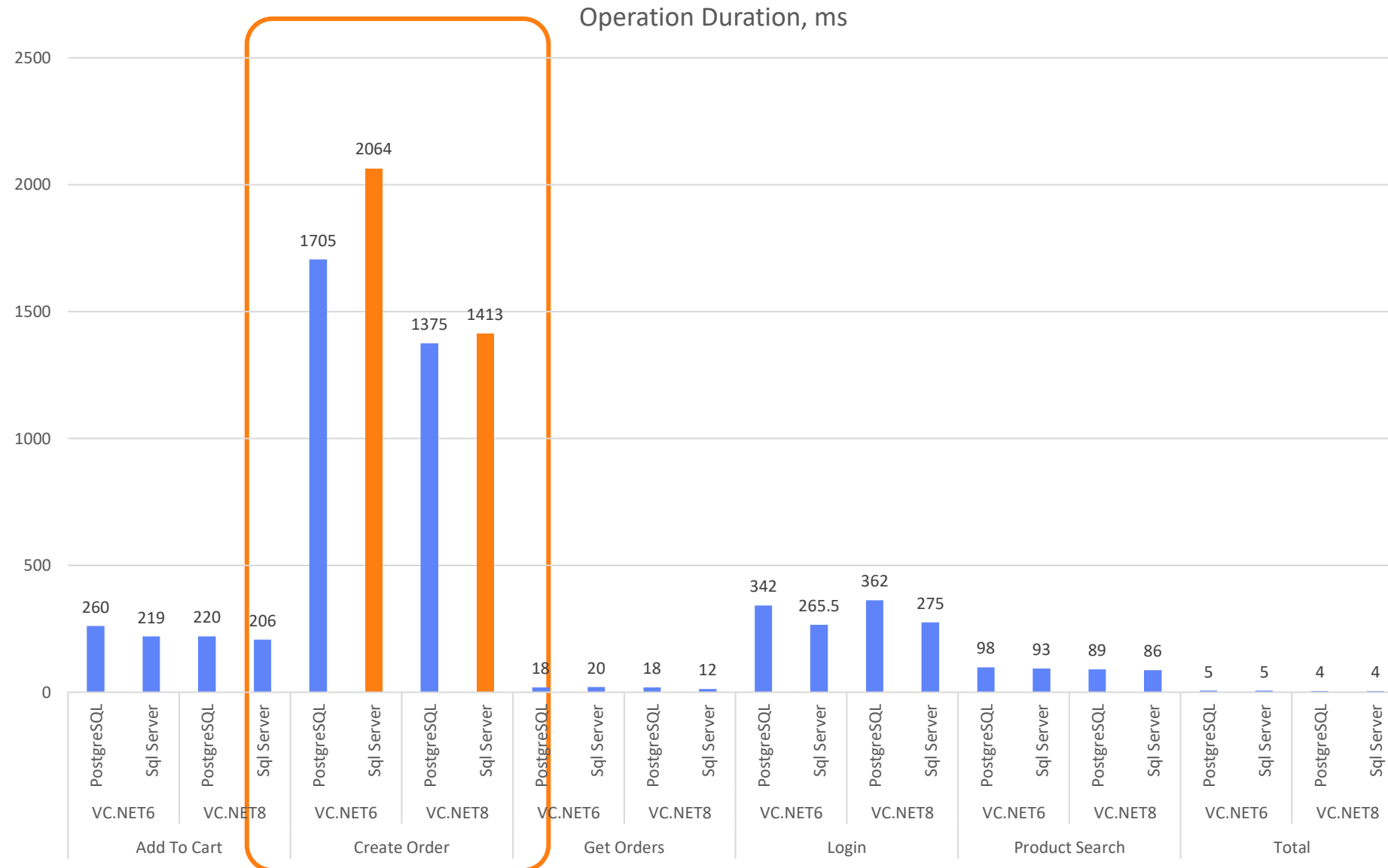
NET8



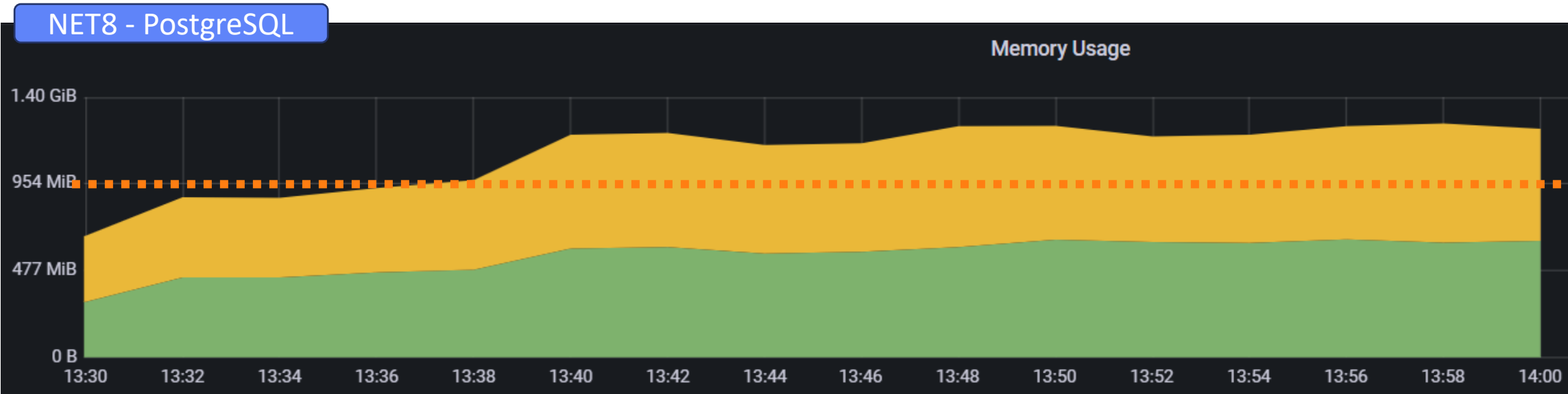
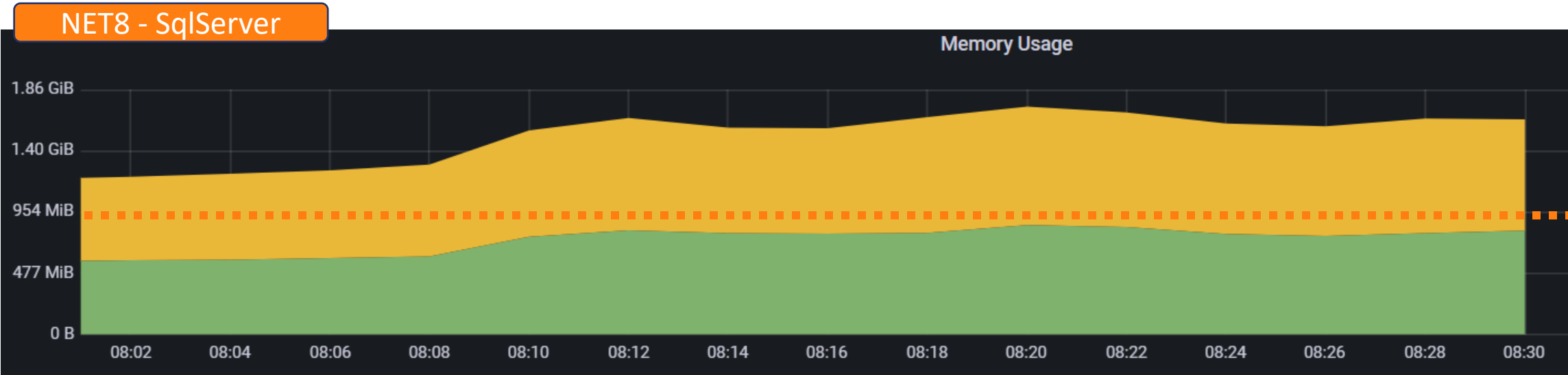
NET6



# VC with PostgreSQL provides more performance

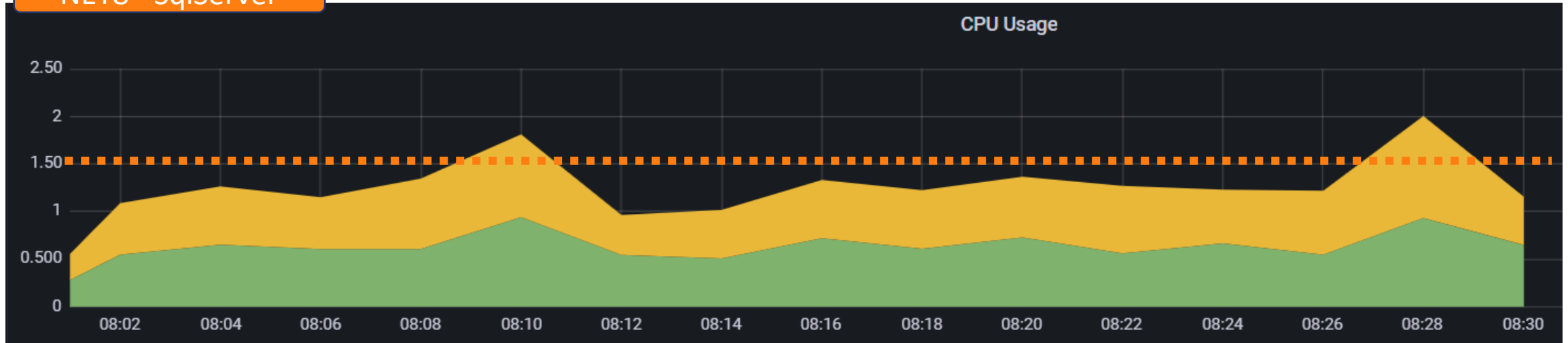


# Memory Usage – VC with PostgreSQL uses less memory

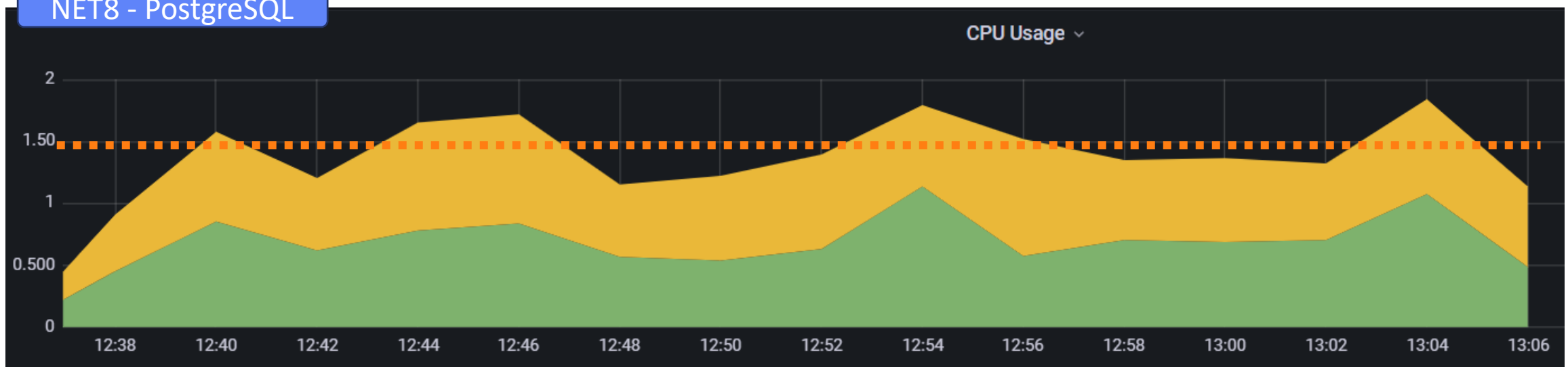


# CPU Usage – same

NET8 - SqlServer



NET8 - PostgreSQL

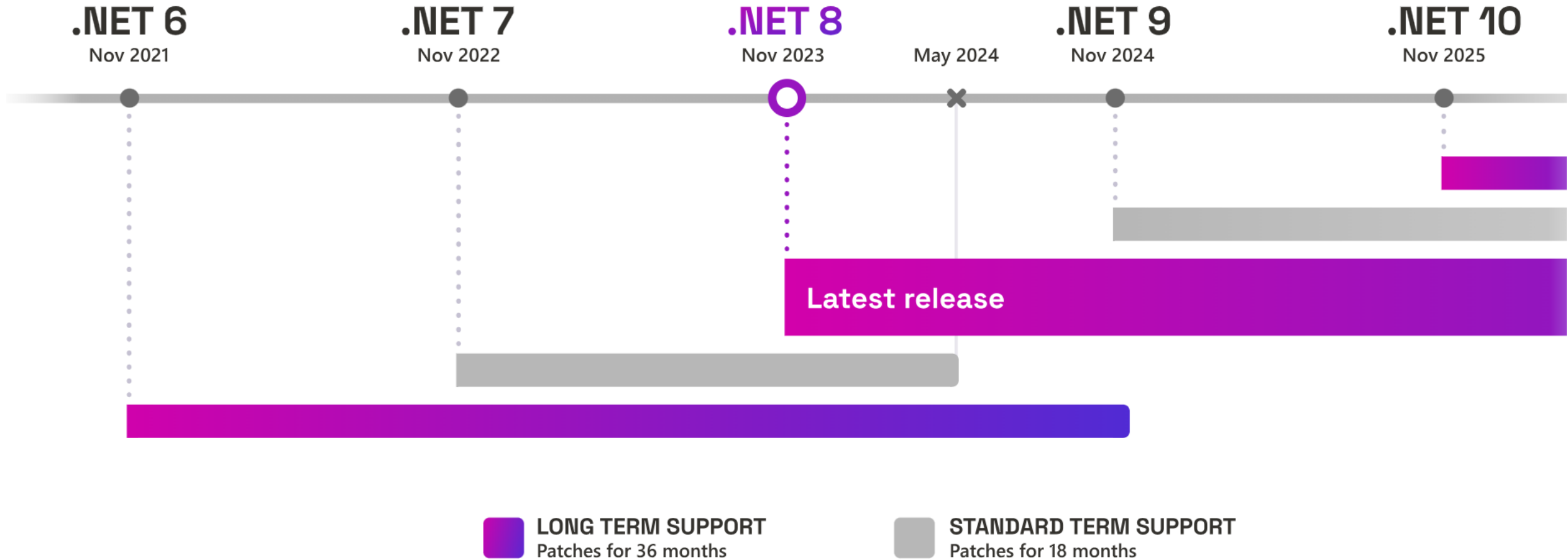


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# Update Strategy

to VC 3.800

# .NET Release Schedule





Select your pill, Virto released 2 Stable Releases:

Stable 7 Release  
.NET 6

Stable 8 Release  
.NET8

# Update Path

5 steps to enjoy Virto Commerce on .NET 8

- 1 • Install .NET8 and Update Visual Studio 2022
- 2 • Update Virto Commerce Platform and Modules to 3.800
- 3 • Update Custom Modules via Update Power Shell Script
- 4 • Compile, Test and Deploy
- 5 • Enjoy Virto Commerce on .NET 8

```
Windows PowerShell

PS C:\Projects\git\VirtoCommerce\vc-module-customer-review> c:\Users\OlegZhuk\OneDrive\Projects\Vcf\Workshops\2024-01-Net8-Release-Webinar\vc-net8-update.ps1
"VirtoCommerce.CustomerReviews.Core.csproj"
Updating TargetFramework
filename: C:\Projects\git\VirtoCommerce\vc-module-customer-review\src\VirtoCommerce.CustomerReviews.Core\VirtoCommerce.CustomerReviews.Core.csproj
Updating other packages to the latest version
Microsoft.EntityFrameworkCore.Design: 6.0.0 ==> 8.0.0
Microsoft.SourceLink.GitHub: 1.0.0 ==> 8.0.0
VirtoCommerce.Platform.Core: 3.800.0 ==> 3.800.0
VirtoCommerce.NotificationsModule: 3.800.0 ==> 3.800.0
VirtoCommerce.CustomerModule.Core: 3.800.0 ==> 3.800.0
VirtoCommerce.OrdersModule.Core: 3.800.0 ==> 3.800.0
VirtoCommerce.StoreModule.Core: 3.800.0 ==> 3.800.0
filename: C:\Projects\git\VirtoCommerce\vc-module-customer-review\src\VirtoCommerce.CustomerReviews.Data\VirtoCommerce.CustomerReviews.Data.csproj
Updating other packages to the latest version
Hangfire: 1.8.18 ==> 1.8.18
Microsoft.EntityFrameworkCore: 6.0.0 ==> 8.0.0
Microsoft.EntityFrameworkCore.Design: 6.0.0 ==> 8.0.0
Microsoft.EntityFrameworkCore.SqlServer: 6.0.0 ==> 8.0.0
Microsoft.EntityFrameworkCore.Tools: 6.0.0 ==> 8.0.0
Microsoft.SourceLink.GitHub: 1.0.0 ==> 8.0.0
VirtoCommerce.Platform.Core: 3.800.0 ==> 3.800.0
VirtoCommerce.Platform.Data: 3.800.0 ==> 3.800.0
```

The screenshot displays the Visual Studio IDE with the following components:

- Left Pane (PowerShell):** Shows the execution of the `vc-net8-update.ps1` script. It updates the `TargetFramework` to `net8.0` and updates various packages to their latest versions, including `Microsoft.EntityFrameworkCore.Design`, `Microsoft.SourceLink.GitHub`, and `VirtoCommerce` modules.
- Main Editor:** Displays the `module.manifest` file. The left side shows the original XML content, and the right side shows the updated content. Key updates include:
  - `TargetFramework` from `net8.0` to `net8.0`.
  - `platformVersion` from `3.800.0` to `3.800.0`.
  - Dependencies updated to their latest versions, such as `VirtoCommerce.Catalog` from `3.401.0` to `3.800.0`.
- Right Pane (Git Changes):** Shows the commit message `Repository updated to commit ecfb0bab.` and the commit options (Commit All, Amend).

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# Known Limitations

VC .NET8 / VC 3.800

# Known limitations

1. **Entity Framework Packages Update:** To prevent "System.MissingMethodException: Method not found errors" when call `MigrationBuilder.CreateIndex`, it is essential to update Entity Framework packages from version 6 to version 8.
2. **Kestrel HTTPS Binding:** Note that the default HTTPS binding has been removed. Refer to Microsoft Learn for more details.
3. **Pomelo.EntityFrameworkCore.MySql** is 8.0.0-beta.2

If you find any new breaking changes, submit a question on [Virto Commerce Community](#).

# Current Status

## Virto Commerce

- Updated All Modules
- Updated all internal environments

## Now on the .NET 8

- 4 client projects
- Most of the process automated by update script.
- Average duration from 1 day to 1 week.

## Feedback



## Next

Ready for NET10 on Nov 25



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# Contact Us

[sales@virtocommerce.com](mailto:sales@virtocommerce.com)

<https://virtocommerce.com/request-demo>

Oleg Zhuk

<https://www.linkedin.com/in/olegzuk/>

[oleg@virtoworks.com](mailto:oleg@virtoworks.com)





# Thank You

[www.virtocommerce.com](http://www.virtocommerce.com)

[sales@virtocommerce.com](mailto:sales@virtocommerce.com)

