Melvin Kusters
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Fluent in **Dutch** and **English**
See my LinkedIn profile for more: https://www.linkedin.com/in/melvin-kusters/

SUMMARY

Hi, thanks for checking out my profile! I'm a .NET specialist with 6 years of experience in designing and developing enterprise distributed systems with .NET and Angular being my tools of expertise. My most prominent role to date is that of Software Architect at Stichting Fibula, where I was responsible for the greenfield development of a complex system servicing the Dutch national palliative consultation line for 450+ concurrent users. I excel especially in projects where integrating systems and making these integrations maintainable and future-proof is a priority. I am proficient in managing and maintaining deployments and debugging in all stages. My previous employers describe me as a curious and driven team player with a broad knowledge of his work, who loves to get to the bottom of a problem. I have a strong attention to detail and a passion for problem-solving, and I'm always looking for ways to improve my workflow and increase efficiency. One of the most important skills I've learnt over the years is to adapt to any situation and work with whatever tools are best for the job. I work best in an environment where asking questions and sharing knowledge is encouraged; we can always learn from each other and become more efficient on the job once we're unafraid to ask. I'm always open for a chat!

SPECIALIZATIONS

- Designing, developing and deploying enterprise distributed systems in .NET.
- Designing, developing, deploying and taking a leading role in customized VOIP-solutions projects.
- Working closely with stakeholders to refine user requirements and project strategy.
- Bridging non-technical and technical business units as a reliable communicator.
- Managing project strategy, internal resource allocation, timelines, and project realization.

Languages & Frameworks/Libraries: C#, .NET 3.0+, Angular 8+, Typescript, Javascript, LINQ, SQL, MSSQL, HTML, CSS, Git, XUnit, Node.js, Entity Framework Core, RxJS, NgRx, NGXS, SIP, SDP, RTP, gRPC, SignalR, Microsoft Orleans, Rebus, MassTransit (ASB/RabbitMQ).

Practices: CI, CD, TDD (Test-Driven Development), UML, Agile, Scrum, MVC, SOA, DevOps, Containerization, State management, Enterprise Application Integration, Remote Method Invocation (with RPC), Virtual Actor Model, Enterprise Service Bus.

Platforms: Azure (DevOps, Resource management), Docker, GitHub.

Databases: MSSQL, MongoDB, Azure Cosmos, Azure Table Storage, MySQL.

Applications: Kubernetes, Docker, VMWare, VirtualBox Kamailio, RTPEngine, SIPSorcery, OpenSIPS, Asterisk, 3CX (Certified), MikroTik (Certified), RouterOS, SSMS, Visual Studio, VS Code, Wireshark, VoIPMonitor, Oracle EOM, Postman, Rider, Git Extensions, Azure Data Studio, Robo-3T, Azure Storage Explorer, Service Bus Explorer, Fiddler, NSwag.

Environments: Windows-based, GNU/Linux-based.

WORK EXPERIENCE

.NET Developer Apr 2022 – Nov 2022

Quotation Factory B.V. - Eindhoven

Tech stack: .NET 6, Microsoft Orleans, Azure

Role Summary:

.NET engineer for Rhodium24, Quotation Factory's cloud-based on-demand metalworking quotes generation and integration app based on the Microsoft Orleans framework. Responsible for development of new features and bugfixing for backend-related work. Also, independent (product) development of standalone integrations with external parties.

References:

Wibe van Klaveren (Lead Developer, Customer Success Manager & Co-owner);

Wim Dijkgraaf (CEO & Co-owner);

Remco Ros (Software Architect).

.NET Developer Oct 2021 - Apr 2022

Selfcare B.V. - Breda

Tech stack: .NET 5, Angular 11, Azure

Role Summary:

.NET engineer for the Selfcare web application, consisting of development of new features and bugfixing for both backend and frontend, managing cloud infrastructure and contributing to architectural decision-making.

References:

Nicholas Lievens (Frontend Developer);

Jeroen Cornelissen (Chief Operations Officer);

Stijn Ceunen (Lead .NET Developer).

CTO & Co-founder Oct 2021 - **Present**

Steep Software B.V. - Eindhoven

Tech stack: .NET Core 3.1 > 7, Angular, Azure

Role Summary:

Self-employed as chief technical officer of startup in charge of:

- Developing (new) SaaS solutions and managing cloud infrastructure, and;
- Advising customers in approaching both technical and social challenges.

References:

Lucas J. Hovestadt (CEO & Co-founder)

Software Architect Feb 2020 - Apr 2022

Stichting Fibula - Utrecht

Tech stack: .NET Core 3.1, Angular 12 (Ivy), Azure, SIPSorcery

Role Summary:

Architect and developer for Slimroosteren, a SaaS built with C# ASP.NET Core 3.1 and Angular SPA, providing context-specific scheduling and call routing functionality for Stichting Fibula's palliative consultation line.

Project Description:

Agile/Scrum development and national implementation of Slimroosteren in close collaboration with stakeholders. The aim of this project was to let the 400 consultants within palliative care, schedule their own availability. These consultants are largely nurses, general practitioners and home care workers specializing in palliative care.

This innovative and optimized way of scheduling guarantees the availability of palliative staff by telephone.

The implementation took place in approximately 25 regions, so that ultimately one national, overarching availability definition could be created monthly.

Role Description:

As lead developer for Slimroosteren, I was ultimately responsible for the design, development and deployment of the system. My role in the early phase was to form the bridge between the user requirement definition process and the technical implementation. I worked in close collaboration with the scrum team, and occasionally interviewed domain experts to provide the most optimal form of refinement.

After reaching an initial project definition, I designed the system architecture from the ground up and developed the first iteration of Slimroosteren in monthly sprints.

Fibula conducted a review and thorough inspection of my work. Upon approval I deployed the final solution to a redundant setup in the cloud.

Next, I took on the operational responsibility of the project. This meant having to support the 25 regions of users, and completing feature requests on demand for the remainder of the system’s lifetime.

The development and implementation process is guided by a pipeline, automating building, testing and deployment.

Primary System Process Description:

The distributed system contains two interoperating components modelled as microservices. These two services handle the entire process of assessing availability to setting up & routing VoIP calls.

The first component is responsible for creating an availability definition for a collection of consultants, grouped inside a Team.

Planners create a provisional week template existing of variable time slots with custom properties. Based on this template, they generate a monthly schedule populated with concrete time slots. Consultants conditionally submit their availability for these time slots in a dynamically generated agenda-like view. Slimroosteren processes all availability records continuously and in real-time to provide an on-demand preview of the autonomously generated definition. At any given point in time, a planner can mark a schedule as definitive and progress to the review phase, wherein they can manually modify the definition and finalize the schedule for production usage.

The second component is responsible for accepting and answering telephone calls from the public domain. Subsequently, it routes the calls through actively updated IVRs to an on-duty consultant - effectively functioning as an advanced domain-specified call server.

Upon accepting an incoming call, the component selects the appropriate routing logic based on the caller's and dialed phone numbers. By collecting user input, the caller is routed to the correct on-duty consultant. This is done by querying the currently active definition.

Lastly a third off-site component operates as a monitoring service. It is responsible for checking and reporting on system-wide usage.

References:

Jan Wieringa (former Product Owner);

Debby Visser (current Product Owner).

CTO & Lead Developer Mar 2019 – July 2021

IP Central - Zwolle

Tech stack: .NET Core 3.0 > .NET 5, Angular 8 > 12 (Ivy), Azure

Role Summary:

Responsible for operations and further development of technology within firm, which primarily includes (custom in-house developed) VoIP related software and networking solutions.

Project 1 (Matrix) Description:

In-house development and implementation of Matrix, a software-driven wide area network management system, made in C# ASP.NET Core 3.1 and Angular SPA, that automates initial configuration of an ISP's MikroTik-based network core and CPE management with turn-key settings made available in a partner portal.

The goal for this system is to abstract and automate configuration of an entire networking backbone and on-site equipment, through which plug-&-play installation and easy management for both the ISP and the customer is achieved.

To facilitate this, Matrix tracks information about a network's members and manages configurations by sending commands to routers over the RouterOS API.

Developed on behalf of Blue Fiber B.V.

References:

Matthijs Platvoet (Blue Fiber, Founder);

Lex Nicolai (Blue Fiber, Founder);

Roelof Daleboudt (IP Central, Owner).

Project 2 (Clarity) Description:

In-house development and implementation of Clarity, a wallboarding and reporting system, made with C# ASP.NET Core 3.1 and Angular SPA, that extracts information from the BroadWorks XSI API (Private Business Exchange) and displays it on-demand and real-time in an asynchronous web interface.

Developed on behalf of Fudura B.V.

Reference: Roelof Daleboudt (IP Central, Owner).

Technical Support Engineer Feb 2016 – Jan 2017

Motto Communications – Nuth

Tech stack: Asterisk, 3CX, Python, PHP

Role Summary:

Second-line technical support of business partners on VoIP cloud products in a team of 6, and paralleled my first steps in software development. Migration process of legacy systems (Asterisk) guided with scripting in **Python** and **PHP**.

References:

Kevin Gielen (former Technical Support Team Lead);

Eric Kochen (former Technical Support Team Manager).

EDUCATION

Bachelor HBO-ICT | Software Engineering & Cyber Security 2017 – 2020

Fontys Hogescholen Eindhoven

Propedeuse achieved. Average score of 10/10 achieved for last three semesters. Specialization in Cyber Security completed.

Niveau 4 MBO-ICT Management 2014 – 2017

ROC Leeuwenborgh

Completed studies and obtained practical experience in customer relations and technical support work through internships.

VWO/VMBO 2010 – 2014

Sophianum Gulpen/Nijswiller

Completed 3 years in VWO, achieved diploma in VMBO.