

Christopher Law (BSc Hons)

Principal Software Architect | Platform Engineering | Kubernetes | .NET

20+ years experience designing large-scale distributed systems, Kubernetes platforms, and enterprise .NET applications across public sector and regulated industries.

Contact

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Latest Project Work

- Enterprise .NET Modernisation - iterative improvement of legacy applications and delivery workflows
- Kubernetes - K8S / K3S / RKE2 / Rancher
- Open Container Initiative - Docker / Podman / ContainerD
- CI/CD - Drone CI / GitHub Actions / Azure DevOps Pipelines
- Container Registry and Supply Chain - Harbor / image promotion / vulnerability scanning (Trivy)
- AI Assisted Software Development - LLM aided design, analysis and delivery
- Deployment Automation - GitOps, Helm, environment configuration, rollout strategies
- Virtualisation and Cloud Solutions - Azure / Proxmox / RedHat oVirt / KVM
Homelab Infrastructure Overview (2026)

A Principal Software Architect specialising in .NET architecture, application design, and enterprise modernisation, with strong platform engineering, infrastructure, and networking expertise working for one of the UK's largest digital service providers, Atos. During my 15+ years there I have led work for notable clients such as NHS Scotland, NHS, Princes MES, Travelex, the MoJ, NCP, Allianz Finance, Cineworld and the DCMS National Lottery.

In my main role as an Application Architect, I focus on building clean modern .NET solutions and modernising large legacy enterprise codebases through iterative improvement. I apply engineering approaches aligned with continuous delivery principles to make systems easier to maintain, reduce operational overhead, and create efficiency savings through CI/CD and automation.

My strongest contribution is often in solving difficult technical problems: understanding complex systems, identifying the real constraints, and shaping pragmatic solutions that improve maintainability, delivery confidence, and operational efficiency.

In the development arena I've worked heavily with Microsoft technologies; responsible for establishing good practice guidelines and patterns including CI, unit testing, coding standards, repository patterns, dependency injection, branching strategies and release management. I mentor engineers and help teams adopt modern engineering practices to increase delivery velocity and code confidence. I also work on several open source projects.

Passionate about Kubernetes and modern platform tooling. I actively work with k3s, Rancher, GitOps (Flux), Vault, CertManager, Cilium and distributed storage patterns in a private platform environment that is designed and operated more like a small enterprise estate than a typical homelab. It also hosts a small number of real production workloads for clients, alongside internal services and ongoing platform engineering work.

Recently I've also incorporated AI assisted software engineering practices into my workflow, using LLM powered development tools to accelerate delivery, support large-scale codebase analysis, improve documentation quality, and explore solution designs. I also experiment with self-hosted LLM infrastructure including model serving via vLLM and containerised deployment approaches on Kubernetes.

I'm part of the Atos Diversity and Inclusion programme, celebrating diversity in the workforce, as I believe diverse workforces are reflective of our customers and allow us to be more innovative and productive.

A graduate in Computer Science with a four year sandwich course honours degree including a year working in the industry.

Skills and Technology

Skill	Proficiency
Solution Documentation Detailed Functional Design / Detailed Technical Design / Enterprise Architecture / Modernisation Strategy	Expert
Application Design N-Tier Architecture / SOLID / DRY / DI / Modular Monolith / DDD / Microservices / DevOps	Expert
Artificial Intelligence / AI Engineering LLM Assisted Development / Prompt Engineering / AI Code Generation / vLLM Model Serving / AI Assisted Architecture Design	Advanced
Kubernetes Helm, Cilium CNI, HashiCorp Vault, Flux GitOps, CertManager, K3s, RKE2, Rancher, MetalLB, OpenEBS, Longhorn, NFS, Traefik, Sealed Secrets, Multus, CI/CD	Expert
Containers Docker / Podman / OCI Images / containerd / BuildKit	Expert
Container Registries Harbor OCI Registry / Vulnerability Scanning (Trivy) / Image Promotion / Air-gapped Deployments	Advanced
CI/CD Drone CI / GitHub Actions / Azure DevOps Pipelines / GitOps Deployments / Automated Release Pipelines	Expert
Microsoft .NET Visual Studio .NET / Core / Framework / ASP.NET / Web Forms / MVC / Web API / Visual Basic	Expert
Compiled Languages C++ / C# / QuickBASIC	Expert
Additional Languages Oz	Novice

Skill	Proficiency
Web Services REST / SOAP / WCF / gRPC	Advanced
ORM Entity Framework / Dapper / Code First / Database First	Expert
DI Containers Unity / Castle Windsor / Ninject / .NET IoC	Expert
Unit Testing NUnit / MSTest / XUnit / Integration Testing	Expert
Mark-up Languages XML / JSON / YAML	Expert
Scripting Languages JavaScript / JQuery / Python / PHP / ASP / VBScript / Bash / PowerShell	Advanced
SQL MSSQL / MySQL / PostgreSQL / SQLite / Clusters / Replication / Performance Tuning	Intermediate
Source Control Git / GitLab / DevOps / TFS / Jenkins / Gitea / Drone / GitHub	Expert
Container Orchestration Kubernetes / Docker Swarm / Docker Compose	Expert
Networks VLANs / VNETS / Routing / Site to Site VPNs / Firewalls / Load Balancing / Failover / NAT / OVN (OpenVSwitch) / Tunnels / Overlay Networks / Reverse Proxy Configuration	Advanced
System Administration WDS / AD / AD Migration / LDAP / GPO / Permission Management / Filesystem Recovery / Replication / Root and Intermediate Certificate Authority Setup	Advanced
Document Management SharePoint Development	Proficient
Linux Distributions CentOS / Gentoo / RedHat / Ubuntu / Fedora / Arch	Expert
Linux Skills BASH / SSH / Tunnels / Cron / Filesystem Recovery / LDAP / LVM / ZFS / DRBD / NGINX / Apache / HA Proxy	Expert
Automated Deployments Ansible Playbooks / PowerShell / IaC / GitOps	Advanced
Production Deployments / Zero Downtime Deployments / Automated Deployments / National and Critical System Tech Refresh	Expert
Cloud Containers / Azure / IaaS / SaaS / PaaS (.NET App Service Deployments) / ARM Templates / App Services / Worker Services / Migrations	Advanced

Skill	Proficiency
Virtualisation VM Management / VM Networking / Proxmox / Red Hat Virtualisation Manager (oVirt) / XEN / KVM / PCI Passthrough / vGPU / ARM Templates	Expert
FreeBSD TrueNAS Core / Desktop	Advanced
Storage ZFS / TrueNAS / Ceph / NFS / Distributed Storage	Advanced
VoIP Cisco Phone Configuration / Asterisk / FreePBX / SIP	Proficient
Manufacturing Systems Wonderware / Manufacturing Enterprise Systems	Novice

Projects

- NHS Scotland Workforce Systems and SSTS (2022 - Current)**
 Role: Enterprise Architect for Workforce and SSTS
 - Since joining this project I have been asked to lead the modernisation and transformation of one of the largest enterprise applications on the NHS Scotland account. This involves redirecting the solution and addressing significant technical debt, improving engineering practices, and establishing a modern delivery approach.
 - Oversee both Workforce Systems and SSTS technical direction, including tooling, DevOps, Git, CI/CD and application architecture, ensuring the technical roadmap supports long-term modernisation.
 - Workforce Systems is a payroll and expenses suite of applications. SSTS is a national time and rostering system. These are some of the largest and most business-critical enterprise applications on the account.
 - Lead modern engineering adoption such as automated pipelines, release management improvements, improved branching strategies, and platform approaches.
 - Manage development teams and provide a joined-up approach between Workforce and SSTS systems, ensuring alignment and reuse where possible across platform services, tooling and technical patterns.
- NHS Scotland Workforce Systems (2021 - 2022)**
 Role: Development Manager / Technical Architect
 - Managed a team of developers for the NHS Scotland Payroll system, a highly complex suite of applications processing payroll nationally across Scotland.
 - Involved in modernisation and transformation with a view to establish future strategic direction and improve quality gates and delivery practices.
 - Moved legacy areas toward modern architecture patterns and improved tooling and CI/CD pipelines to increase delivery confidence and throughput.
- Northumbrian Water Ltd (2020 - 2021)**
 Role: Migration Architect / Consultant
 - Phased migration of on-premise data centre to Azure cloud for this utilities company.
 - Responsible for producing the solution and migration approach from on-premise to Azure.

- **NHS Scotland eOphthalmic and eDental Systems** (2014 - Present)

Role: Architect / Designer / Developer

- Produced architecture, design documentation and work packages to feed into the development process, including critical infrastructure design for GP and Pharmacy infrastructure and supporting applications.
- Responsible for producing the architecture and design for two national medical systems written in C# MVC with code analysis, automated testing and recognised patterns such as dependency injection and Entity Framework.
- Designed and delivered changes to large scale medical systems with parallel work streams, multiple deployments and branch / merge strategies.

- **NHS Scotland Cloud Applications** (2017 - 2018)

Role: Architect / Designer / Developer

- Designed and developed national medical cloud applications built on C# .NET Core App Services.
- This involved PaaS and IaaS services, including Azure SQL, Azure DNS, Azure AD and VM / network provisioning.
- Used Azure deployment slots and configuration management to enable zero downtime deployments and environment switching between Live, Test and Staging.
- Involved in initial setup of Azure subscriptions and infrastructure including vNets, VMs, VPNs and DNS.

Open Source Projects

- **AdoScope** (2023 - Present)

- Produced AdoScope, a simple and flexible solution for managing ADO.NET connections and transactions.
- It draws inspiration from DbContextScope by Mehdi El Gueddari, adapting the pattern for lightweight Dapper-based systems while supporting scoped transactions and clean separation of concerns.

- **Proxmox and Virtualisation Platform Engineering** (2022 - Present)

- Designed, deployed and run Proxmox based virtualisation platforms including clustered compute, shared storage and mixed VM and container workloads.
- Worked extensively with GPU and PCI passthrough, vGPU style workload patterns and nested virtualisation experimentation across lab and client style environments.

- **Xen Project** (2011 - 2021)

- Involved in configuring and testing graphics card passthrough and nested virtualisation for the Xen Project.
- Heavy Xen user for many years, running Linux Xen hypervisors with LVM, RAID and distributed storage through DRBD, hosting multiple paravirtualised VMs with containerised applications and Windows CAD VMs.
- The combination of Xen and DRBD allows for high availability and failover.

- **Docker** (2018 - Present)
 - Designed, built and contributed to several open source Docker container projects.
 - WatchPage - an MVC C# .NET Core application designed and built for posting and monitoring changes to various web pages.
 - BitWallet - a Bitcoin wallet application where I contributed by improving security to the VNC UI through various code changes.

Testimonials

- **NHS Scotland**

Practitioner Counter Fraud Services

Further to my comments when I saw you in Livingston a few weeks ago, I would like to put on record my appreciation for all of Chris Law's efforts throughout the eOphthalmic project. It is fair to say that he has been central to the successful delivery of this project. He has always been extremely helpful and willing to go the extra mile to get things done. He has been a pleasure to work with.

- **NHS Scotland**

Atos Programme Manager

Chris has been vital to Iain's eOphthalmic project and it is down to his expertise and customer focus that result in Atos being given more business.

- **NHS Scotland**

Atos Project Manager

eOphthalmic, eDental and next eOrtho are regarded within the NHSS account as important and successful projects. My feedback to you is that this is largely down to the efforts of one person, Chris, who has worked tirelessly over the last 3.5 years on this series of projects.

Open Source Interests

- Kubernetes - Rancher / K3S / GitOps
- Virtualisation - Proxmox / XEN / KVM
- Microservices - Ocelot / Consul / RabbitMQ
- Cloud - OpenStack / Azure
- Containers and Container Orchestration
- Telecoms - FreePBX and Asterisk
- Linux - Gentoo, Ubuntu and Arch
- Python
- AI / LLM Tooling - model serving and automation experiments

Hobbies / Other Interests

- Competitive Rowing - Tees Rowing Club

- Gym
- Music - Flugelhorn and Cornet