Gary Lynch

Software Developer | Data Analyst | Infrastructure Engineer
Systems Admin | Oracle DBA | IT Manager

PERSONAL SUMMARY

A multi-skilled IT professional with good all-round technical expertise, interested in new technologies and motivated by a desire to implement new, business changing systems. Very capable with a proven ability to provide IT systems and services that will improve the efficiency and performance of a company. Extensive practical knowledge of enterprise resource planning (ERP) systems across an entire organisation.

CURRENT ROLE

Data & Systems Support Analyst, AerFin – since November-2023

Supporting the Quantum ERP system with a focus on data integration and optimisation projects.

CONTRACT JOBS

Java Developer, BSG (Biozone Scientific Group) – December-2022 onwards

Employed on a contract basis to add several new features and performance improvements to a Java desktop application performing UV Germicidal Irradiation calculations to select and configure products.

CAREER WITH NUAIRE

Nuaire, Caerphilly – May-1990 to July-1992 and May-1993 to July-2022

Initially employed as a programmer to redevelop the company's ERP systems. With the introduction of new technologies my role expanded to encompass network management, server, systems and database administration.

1998 to 2001, seconded to the *Nuaire Ltd* division of the Group as *IT Manager* primarily responsible for the development of the Fan Selector software.

2001, spent 6 months in Australia and the Far East developing systems for businesses in the region.

2012, became the Group IT Manager.

Highlights:

- Significant role in the redevelopment of Nuaire's bespoke ERP systems, allowing for continued improvement and rapid roll-out of new features. Developed using the CQCS 4GL.

- Created an industry leading Fan Selector application, used internally and by customers worldwide. It is the main tool for providing quotations and technical information with integration into ERP for quotation efficiency and bill of materials (BOM) management. Developed with Java and Swing GUI.

- Created the software for Nuaire's automated test facilities; these are accredited reverberant chambers for testing aerodynamic and acoustic performance of fans, recognised throughout the industry. Developed in Visual Studio C#.

- Won an achievement award for the introduction of a new dynamic pricing system aimed at maintaining margin whilst staying competitive despite volatile costs in the supply chain.

ERP DEVELOPER (NUAIRE)

With responsibility for the *full development life cycle*, from requirement analysis through to planning, design, development, testing and finally deployment; part of a team that *developed a full set of ERP modules* across finance/accounting, purchasing, manufacturing, sales and customer service.

- 1990 employed as an Analyst/Programmer to improve the business ERP system.
- Existing screens/forms written in **COBOL** extended to added new features.
- Using the **CQCS 4GL** from Cyberscience (cyberscience.com), **Cyberquery (CQ)** used to provide business information and reports, **Cyberscreen (CS)** allowed rapid application development (RAD) of new screens/systems. The RAD nature of CQCS, along with the *Lean* manufacturing thinking of Nuaire, naturally led to a form of **Agile** development methodology.
- For Y2K compliance, all ERP modules completely rewritten with CQCS, providing a bespoke and fully in-house developed system, which continues to be developed and extended.
- In 2010, **Oracle Database Standard** introduced, allowing the use of and integration with other systems beyond CQCS; **Java**, **PL/SQL** and **PHP** now used too.

JAVA DEVELOPER (NUAIRE)

Using Java with **Swing** components, created an industry leading Fan Selector application used internally and by customers worldwide for product selection and generation of technical data sheets. Integrates with ERP systems for quotation efficiency and creation of items and BOM's when a never-before-built unit is selected. Further integration with third-party customer systems was developed using XML file transfers. *See https://cv.garylyn.ch for sample Fan Selector screen shots.*

Used **Java SE** extensively to create utilities and applications to enhance business processes, often for Oracle DB integration where standard PL/SQL wasn't sophisticated enough. Examples:

- Integrated with customer **EDI** system for the automated creation of sales orders from an electronic purchase order. Utilised **JDBC**, **XML**, **SFTP** and **IMAP**.
- Created a utility to take output from **Autodesk Inventor** and generate full Bill of Materials (BOM) in the ERP system; including new purchased components, subassemblies and finished goods, along with their production method.
- Integrated with a **Paxton Net2** access control system to automatically generate muster-point-specific fire roll call lists on POS receipt printers positioned at different fire exits, when the fire alarm sounded.
- Created a system to monitor and audit all changes to users and groups within **Windows Active Directory**, along with file system access permissions to enforce appropriate access controls to files and applications.

C# DEVELOPER (NUAIRE)

Created software for Nuaire's automated test facilities; industry accredited reverberant chambers for testing aerodynamic and acoustic performance of fans. Using **Advantech** data acquisition and digital I/O cards linked to a variety of controls and sensors, the system automated changing environmental conditions of the fan under test whilst gathering power, noise and performance data.

Created remote diagnostic, monitoring and data logging software for solar hot air panels. Using wireless RS232, the software allowed real-time monitoring and the downloading of logged data to replay the systems operation over a period to verify correct operation and efficiency of the system.

ORACLE DBA (NUAIRE)

2010 to 2022, was the database administrator for 3 (production, development, and DR) *Oracle Database 11g R2 Standard* servers. Recently migrating to *19c*. All instances used physical on-premises RHEL servers.

Responsibilities include:

- Installation and maintenance of Oracle Database software.
- Monitoring and resolution of performance issues, using custom scripts and SQL along with *Solarwinds Database Performance Analyser* (www.solarwinds.com/database-performance-analyzer).
- Defining suitable database storage structures and tablespaces.
- Maintenance of database schema tables and views for ERP system.
- Creation of stored procedures and triggers to enhance ERP function.
- Creation of data migration jobs and scripts.
- Creation of data backup and disaster recovery jobs and procedures.
- Tools used:

  - *Oracle Enterprise Manager*
  - *RMAN*
  - *SQL*Developer*
  - *SQL*Plus*
  - *Solarwinds DPA*

WINDOWS / UNIX SYSTEMS ADMINISTRATOR (NUAIRE)

30 years of experience being responsible for a variety of Windows and Unix/Linux based systems, nowadays mostly virtualised on VMware ESXi hosts and clusters.

Responsibilities included:

- Defining hardware requirements and procuring. Typically, *Dell PowerEdge* servers with *Dell SCv2000* and *Dot Hill AssureSAN 2000* series SAN's.
- Installation and maintenance of OS.
- Create backup, restore and disaster recovery processes. Utilised *Veeam Backup & Recovery* and *Veritas Backup Exec*.
- Managing email through on-premises *Exchange Server* (2000 to 2013), *GFI Archiver* and hosted *Mimecast* email gateway.
- Managing Windows *Active Directory (AD)*.
- Maintain security through patch management, firewalls and user maintenance.
- Filesystem housekeeping and storage management.
- Application installation and configuration.
- Shell scripting, PowerShell and batch file programming.
- Use of standard network and server monitoring and diagnostic tools.
- *ManageEngine Endpoint Central* used for much of the Windows server and workstation management, including patch management, software deployment, OS deployment, USB device management and end-user support through remote desktop sharing.

INFRASTRUCTURE ENGINEER (NUAIRE)

Together with the Systems Administrator role, I designed, built and maintained the wired/wireless network and structured cabling infrastructure across three sites, connected through BT Ethernet Connect and Short Haul Data Services. Each with its own data centre for resilience, failover and disaster recovery.

Technologies used include:

- **Dell PowerConnect** 5000 and N1500 series switches for core data and telephony.
- **Ubiquiti UniFi** switches for CCTV and wireless networks.
- **Ubiquiti EdgeMAX** switches and routers for edge switching and DMZ.
- Ubiquiti UniFi OS Consoles, wireless access points and camera security products.
- BTNet leased lines for Internet connectivity.
- **Smoothwall UTM** and **Sophos WSA** appliances for Internet access and content filtering.
- **DrayTek Vigor 3910** series and **Barracuda CloudGen** firewall's used remote access home working through **IPsec** and **SSLVPN** tunnels.
- **pfSense** routers for inter-LAN/VLAN security.

CYBERSECURITY (NUAIRE)

Responsible for all aspects of Nuaire cybersecurity, including:

- Complying with audits and implementing recommendations
- Policies and procedures
- Education, training and awareness of users
- Access control management - physical and logical
- Network and application security
- Continuity management
- Legal and regulatory compliance

Cybersecurity best efforts and practises forefront in all IT processes, despite this, I have an extraordinary first-hand experience of a ransomware attack and the devastation it brings. Led a team of dedicated IT professionals in swiftly recovering the business back to a business-as-usual state. This process was a unique learning experience.

IT MANAGER (NUAIRE) – 2012 to 2022

Promoted to Group IT Manager in 2012, managing 10 other staff, covering development, infrastructure and support. In addition to typical management tasks, duties included:

- Managing the internal, external and hosted network infrastructure including cabling, servers, switches, wired and wireless, network security including firewalls, VPN's, anti-malware, content monitoring and filtering.
- Oversee the security, backups, archiving and disaster recovery of all systems.
- Introduction of new telephony, unified-communications and contact centre systems.
- Ensuring that IT activities are within the limits of applicable laws, codes and regulations. Specifically, DPA, GDPR, RIPA, CMA and HRA.
- Implement IT policies and procedures in accordance with auditing requirements.
- Managing the IT Help Desk (**Spiceworks**).

TECHNICAL SKILLS SUMMARY

Development:	Java (J2SE, Swing, JDBC), PL/SQL, C# (VS .NET), CQCS 4GL, HTML, CSS, PHP, Perl, JavaScript, Borland Pascal, COBOL
Database:	Oracle 11g & 19c, MySQL, Microsoft SQL Server, Access, C-ISAM
Networking:	TCP/IP, Wifi 802.1, Structured cabling, DNS, DHCP, SMTP, SMB
Telephony:	Atos Unify OpenScape Enterprise
Security/Firewalls:	Darktrace Network and Email Antigena, Smoothwall UTM, Sophos WSA, ISA, Fortigate, Barracuda CloudGen, Mimecast, Draytek, pfSense, Webroot
Virtualisation:	VMware ESXi, vSphere, vCenter, Microsoft Hyper-V
Servers:	Exchange (to 2013), ManageEngine Endpoint Central, ManageEngine AD Self Service Plus, GFI Archiver, IIS, Apache
OS:	Windows Server (to 2019), Active Directory, Linux (RHEL, Ubuntu, Debian), AIX, Dynix/ptx, Netware, Windows (to 10), macOS, MS-DOS

OTHER EMPLOYMENT

Working trip to Canada and the US – July-1992 to May-1993

I took time away from Nuaire travelling throughout Canada and the US, during which I held several positions including security guard, telemarketer, tile setter and running the evening front-of-house for a guesthouse. Was also a volunteer for the Northwest Wildlife Preservation Society in Vancouver, helping with the organisation of the prestigious Canadian Marine Life Conference.

PROFESSIONAL QUALIFICATIONS

MBCS

ILM Level 3 Award in Leadership & Management

ACADEMIC QUALIFICATIONS

BTEC HND:	Computer Studies	O' Level/CSE: Maths, Physics, Geology, Economics, Technical Drawing, Photography, English Language, English Literature
A' Level:	Computer Science	

PERSONAL DETAILS

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Driving Licence:	Yes
Nationality:	British

PASTIMES AND INTERESTS

- Traveling
- Cooking, food and drink
- Computational mathematics
- Chess
- Photography
- Parakarting
- Scuba diving