

NODE4

G-Cloud 15 Service Description

Database Healthcheck
and Performance
Optimisation



ABOUT THE SERVICE

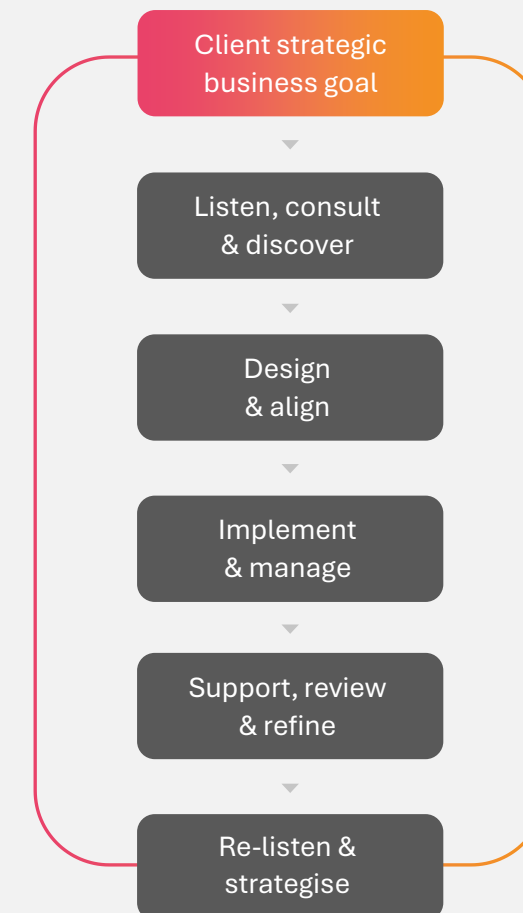
Our Database Healthcheck/Performance Optimisation service offers a focused, in-depth analysis aimed at enhancing your database performance and reliability. This short-term engagement is tailored to the project's size and complexity, involving a thorough review of database configuration and performance to identify improvement areas. The process culminates in a detailed report highlighting optimisation opportunities.

Key features include a standard 3-day health check adaptable to your needs, deep-dive analysis for performance optimisation, custom engagement duration to suit project complexity, comprehensive performance analysis and tuning, detailed reporting on findings with improvement recommendations, follow-up meetings to discuss potential actions, creation of a concise database optimisation plan, alignment with best practices for database health, and assurance of compliance with UK data governance and security standards.

The benefits of this service include enhanced database performance for efficient operations, resolution of underlying causes of performance issues, actionable insights for performance improvements, scalability for different database sizes, informed decision-making through detailed analysis reports, strengthened database reliability, foundation for ongoing database optimisation, improved IT infrastructure efficiency, risk and cost reduction associated with poor performance, and the option for customers to implement recommendations or engage further support.

However, the service's effectiveness is dependent on the engagement's duration and project complexity. Full access to your database systems is crucial for a thorough assessment, requiring collaboration with your IT team. While a comprehensive report with recommendations is provided, the implementation of these suggestions and subsequent performance enhancements depends on your organisation's readiness to undertake these changes or to seek additional consultancy support for implementation. Recognising and addressing these constraints is essential for maximising the benefits of the Database Healthcheck/Performance Optimisation service.

ON A JOURNEY TO CHANGE, WITH YOU



WORKING TOGETHER TO ACHIEVE YOUR GOALS

NODE4 ASPIRE FRAMEWORK

A delivery framework built for innovation and value creation.

Node4's ASPIRE Framework delivers a consistent customer journey across all our delivery practices and outlines our approach to delivering end-to-end, secure and transformative services.

A

Assessments &
Advisory

S

Strategy
& Business Case

P

Design & Planning

I

Implementation,
Testing & Go Live

R

Handover
to Run

E

Service Evolution
& CI/CD

One Transformation Journey – Many Pathways to Discover

DATA & AI

Analysis and Strategy

Data & Analytics
Reporting
Assessment

Data Platform
Review and
Recommendation

Data Architecture
Assessment

Data Strategy

Data Maturity
Assessment

Reporting
Outcomes Strategic
Definition

Plan and Implement

Azure Synapse
Ad-hoc
Consultancy

Database
Installation

FABRIC | Power
BI ad-hoc
Consultancy

Database
Migration (Azure
SQL DB)

Fabric Data
Warehouse

Fabric/Power BI
Reporting

Data Science
and Machine
Learning

Data Engineering

Master Data
Management

Power BI
Accelerator

Modern Data Platform and
Analytics Architecture

Run and Evolve

Database High
Availability

Database
Consolidation

Database
Performance
Tuning

DB Healthcheck
& Performance
Optimisation

DBA
Consultancy

Database
Upgrade

Data Platform Support

CLIENTS

1800 CLIENTS, 1800 INDIVIDUAL STORIES OF CHANGE. HERE ARE JUST A FEW

 Foreign, Commonwealth & Development Office	 Ministry of Defence	 Ministry of Justice	 Department for Environment Food & Rural Affairs	 UK Export Finance
 Department for Levelling Up, Housing & Communities	 Homes England	 SSRO Single Source Regulations Office	 NHS Digital	 UKSBS Shared Business Services
	 Leicestershire Police Protecting our communities	 Cheshire East Council	 West Midlands Combined Authority	 CareQuality Commission
 Locala Health & Wellbeing	 Ofsted raising standards improving lives	 HS2	 HM Land Registry	 acas working for everyone

CLIENT SUCCESS

AUTOMATING DATA PROCESSES AND ENHANCING COMPLIANCE WITH ACAS

Having worked in partnership with Acas since 2018, Node4 were on hand to provide insight, advice and a highly skilled team to help them achieve all they had set out to – and with Microsoft's Data Export Service coming to end of life in November 2022, Microsoft Azure Synapse was identified as the perfect tool to support the project.

By combining Azure Synapse Link, Azure Data Lake and Azure Synapse Analytics functionality, our Innovation team were able to leverage Microsoft Azure technology to establish a reporting and analytics system to suit Acas's needs; the end solution provides a means to store data securely at an affordable cost, and offers the opportunity to scale up and down, ticking two important boxes.

Meanwhile, Synapse Spark Pools were used to create a Delta Lake to ensure any data stored meets Acas's data persistence and masking requirements. An automated data pipeline feeds into the Delta Lake daily with the latest Insert/Update/Delete operations, and a scheduled purging data pipeline is used to automatically anonymise sensitive data within the Delta Lake, meaning compliance with both internal and GDPR regulations.

Together, these automations give Acas the ability to keep hold of data, even if the process with which it was created has since expired, and harness automation to anonymise – or 'mask' – records to make sure data allows for insight into key performance indicators without the need for personal identifiable information present.

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Given the nature of our work, it's vital our data is secure and that we're meeting GDPR obligations, as well as upholding our own internal standards when it comes to the anonymisation and archiving of data. By introducing Azure Synapse technology and automated processes, Node4 are helping reduce the burden on our team while making sure we're still handling data with the care and sensitivity required.

MICHAEL BRADSHAW
HEAD OF IT ARCHITECTURE

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CHANGE CLIENTS CAN FEEL AT EVERY LEVEL

CLIENT SUCCESS

WORKING WITH NODE4 HAS HELPED ARRIVA TO DRIVE THEIR DATABASE DESIGN FORWARDS.

Arriva asked Node4 to address two requirements.

Firstly, it asked Node4 to review a key SQL Server database running a critical EPOS application which was suffering from significant performance degradation. Node4 undertook a detailed assessment of the environment including analysis of application queries and indexing strategy coupled with infrastructure performance. This resulted in a clear set of recommendations and agreed remediation actions.

Arriva also asked Node4 to assess the entire SQL Server estate and provide recommendations for a modernised and consolidated configuration. Through detailed onsite review sessions, Node4 were able to identify four alternative architecture options for the SQL Server environment. They documented the pros and cons of each solution, taking into consideration the complexity, supportability and cost implications for each of the options. This enabled Arriva to make an informed decision on the future design of the environment.

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Arriva wanted to optimise its growing SQL Server estate, so it turned to Node4 for advice and support.

ARRIVA TEAM

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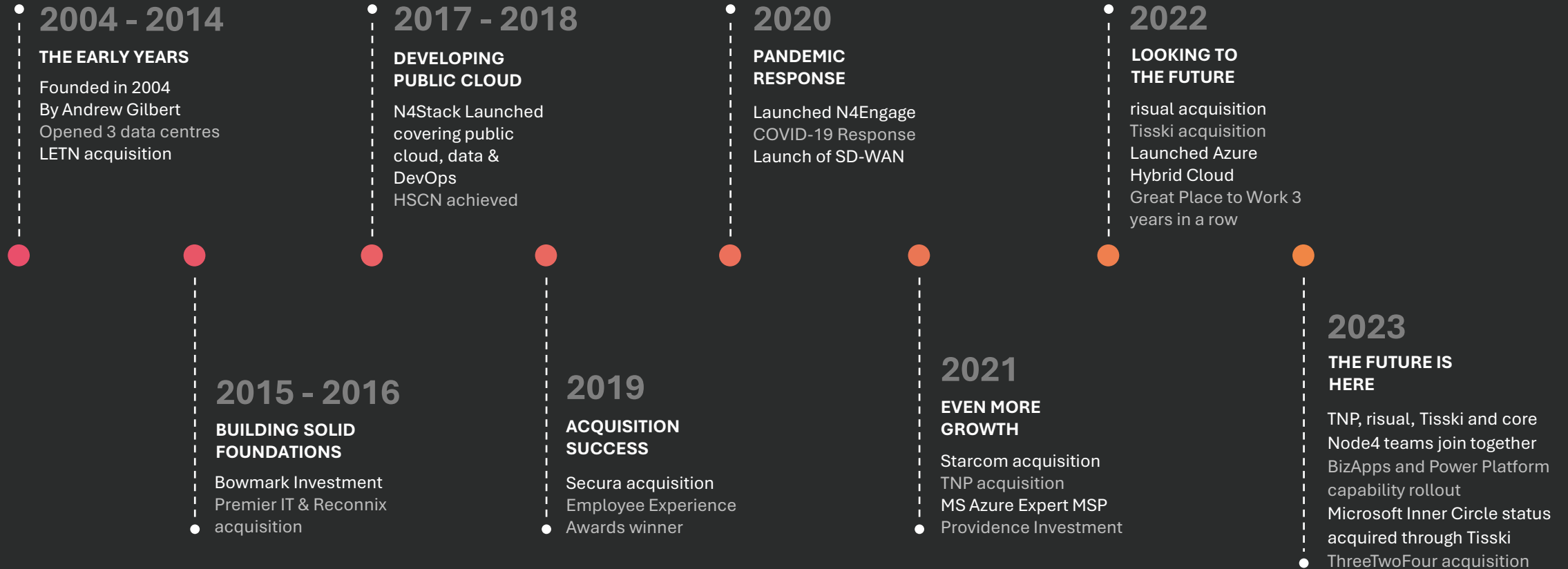
CHANGE THAT MATTERS

We empower public and private sector organisations by delivering positive outcomes through technology and innovation.

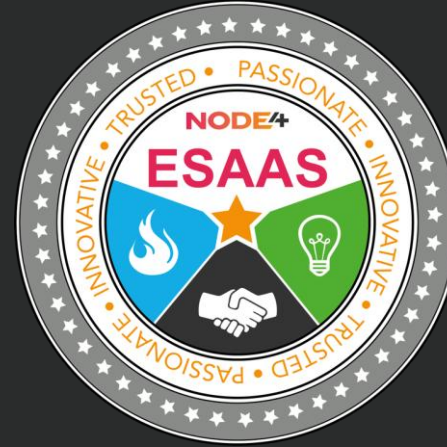
Harnessing our knowledge, passion and talent we help our clients reach their full potential.

We call it change that matters.

THE JOURNEY SO FAR...



IT'S OUR CULTURE THAT MAKES A REAL DIFFERENCE TO YOU



When it comes to ESG, our actions speak for themselves.

NET ZERO by 2030

We already power our data centres with renewable power. Beyond that, we partner with Carbon Neutral Group to offset our other emissions.

UNITED NATIONS SUSTAINABILITY DEVELOPMENT GOALS

We're continually working to align our CSR strategy and activities with the United Nations 17 Sustainable Development Goals (SDGs) at both a local and national level.

Each of our employees is fuelled by a passion for technology and what it can do to make your organisation grow.

We're vibrant, passionate and united by a dedication to delivering **EXCEPTIONAL SERVICE AS A STANDARD**, not only to our clients, but to each other too.



WHY PARTNER WITH US?

1



PROVEN

20 years delivering outcomes as the IT partner of choice for over 1800 organisations

2



CAPABLE

Utilising our expertise & knowledge from the highest IT accolades & accreditations to deliver innovative technology solutions

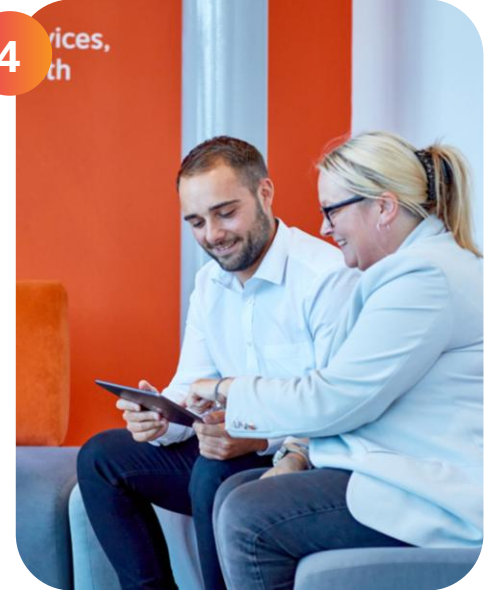
3



SCALE & AGILITY

We are big enough to deliver yet agile enough to care, always ensuring exceptional service comes as standard

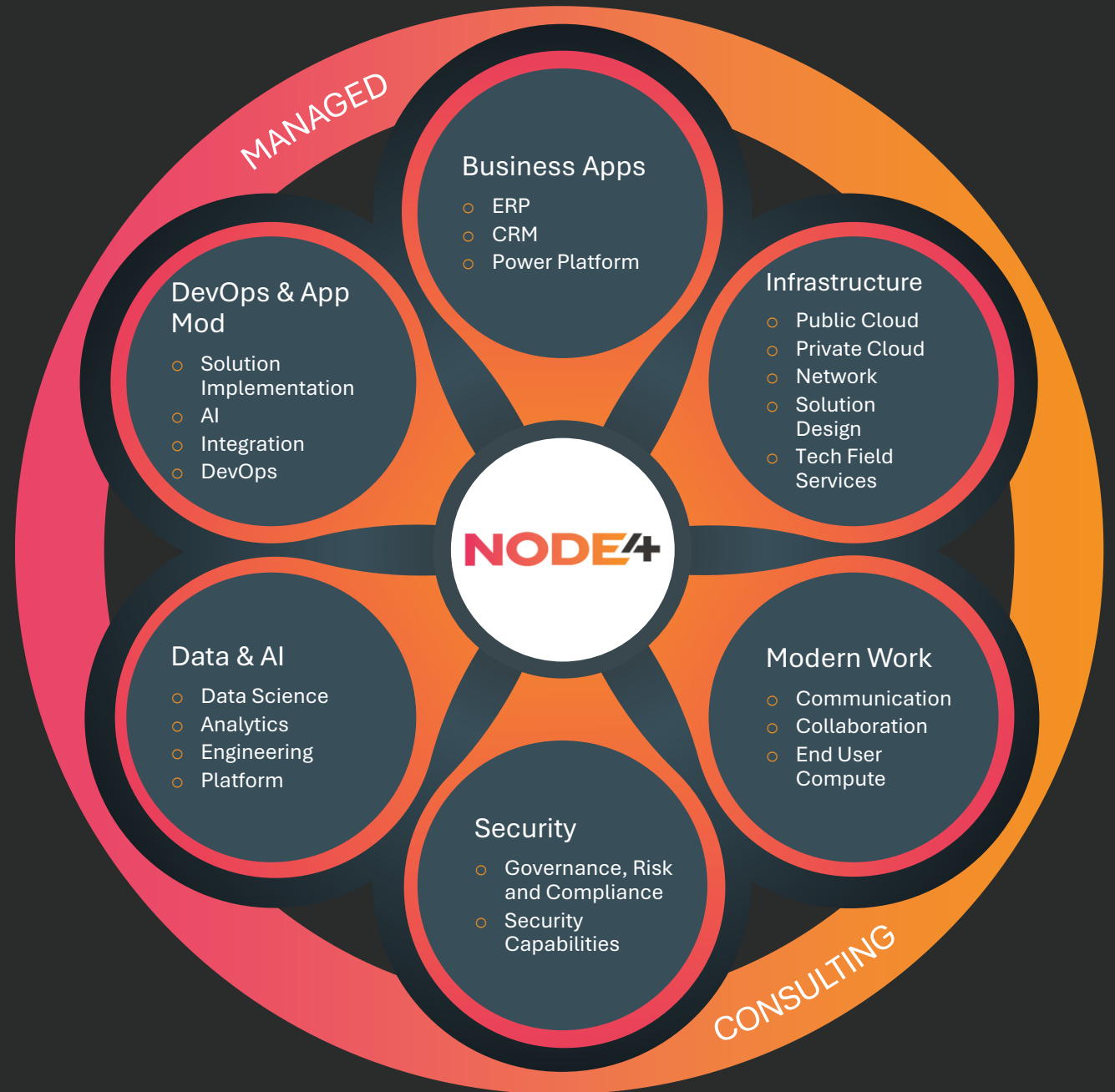
4



WE DELIVER

Everything we do is developed & executed with your outcomes in mind to ensure we deliver change that matters

NODE4 CAPABILITIES



NODE4+