



Case study

A Model of Success.

The GRID Factory leverages nLighten's Swindon edge data centre to make immersive virtual experiences a reality.



The GRID Factory.

Founded in 2019, The GRID Factory, is a leading provider of Immersive Technology and Generative Artificial Intelligence (AI) Platforms, High-Performance Virtual Desktop Infrastructure (VDI) and Cloud Infrastructure Services.

The company has delivered a variety of Virtual and Augmented Reality experiences for Partners and Clients including NVIDIA, Autodesk, Cavnus, BT, EE, Vodafone, Coventry University, Ericsson, Hyperbat and DivisionX.

In July 2021, the company approached nLighten to provide the critical UK data centre infrastructure support it required on behalf of a 3-D mapping Client. They wanted a new approach to delivering highly accurate City models to Architects, Planning Consultants, Urban Planners and Construction Engineers.



Key Requirements.

To enable highly performant, real time, 3-D, and immersive experiences, The GRID Factory platform uses a combination of high performance, low latency, edge networking provided by its partner BT, which connects customers to NVIDIA RTX 8000 and NVIDIA A40 data centre GPUs.

To deliver such exceptional levels of compute performance presents significant data centre infrastructure requirements:

- The GRID Factory's 25 kW high density racks – supported by a highly efficient climate control – use a three-stage cooling system to ensure IT equipment performs efficiently. This requires high levels of power (25 kW) in a single rack as well as cooling in a secure environment. Power requirements of this level are still very rare in the data centre market and are challenging to deliver cost effectively
- Secure, resilient environment with significant power to rack availability (up to 50 kW)
- Diverse, low latency fibre connectivity
- On-site engineering excellence



The demand for cutting-edge technology is growing rapidly, and we're delighted to continue supporting The GRID Factory in providing the high-power and high-cooling infrastructure needed to drive the future of AI, immersive tech, and beyond."

Justin Nesbitt
nLighten
UK Sales Director



About nLighen UK.

nLighen UK is the UK division of the nLighen Group. nLighen is a digital infrastructure platform of I Squared Capital through its ISQ Global Infrastructure Fund III. We are developing innovative edge data centers distributed across European key economic hubs to provide best-in-class network access to regional, national and global enterprises, private users and the mobile workforce.

With the strategic distribution of its edge data centers, nLighen is working towards a pan-European presence in all major cities and providing customers and partners access to low latency and proximity to end users across Europe. The nLighen edge data centers are designed to meet the increasing demand for faster and more reliable data processing and storage, while also being mindful of environmental impacts.

nLighen was founded in 2021 by a core team with many years of experience and wide-ranging expertise in the data center sector. The team's main motivation was to create the next step for the data center industry and align edge data centers with the green transition.

The Solution:

nLighen and The GRID Factory worked closely to develop the required 3-D mapping solution at nLighen's data centre in Swindon. Successfully implemented in May 2022, it allows users to work from a variety of remote locations, enabling a building to be conceived, co-designed, engineered and deployed as a 3-D model – both off and on site – saving time and money.

A modular and flexible blade room design ensures the platform's future expansion, continuity of power, and high levels of cooling while being aligned to both companies' ongoing commitment to sustainability.

Furthermore, due to the modern design of its Swindon data centre, nLighen has been able to create an extremely comprehensive package that not only supported The GRID Factory's 3-D and immersive workloads, but also supports resource intensive computational workloads such as Blockchain, AI & Machine Learning (ML) on The GRID Factory platform.

Benefits:



→ pivotal to deliver
Edge-based
Immersive VR &
AR experiences



→ renewably
sourced, scalable
power & energy-
efficient cooling



→ low latency

The innovative partnership between the two companies has continued to flourish, underscored by The GRID Factory's recent signing of a multi-year data centre services contract with nLighen UK. It comes at a time when demand for large amounts of power and cooling capabilities are already at an all time high, and still set to increase, driven by the fast paced evolution of CPU and GPU hardware designed for AI, Digital Twins, Rendering and HPC workloads.



Ben Jones
Founder and CTO
of The GRID Factory



Our partnership has been instrumental in delivering exceptional services. We are excited to continue leveraging our combined expertise to drive innovation and excellence in the industry. nLighen has ticked all the boxes when it comes to power availability, scalability, low latency, and on-site support."

To find out more about nLighen's leading Edge Data Centre Solutions:

www.nlighten.eu or call +44 (0)3300 250 138