



Case study

Built for Decentralization.

How DCENT scaled Europe's leading Web3 and AI infrastructure with nLighten's close, coupled and connected edge data center in London.

DCENT B.V.

Founded in the Netherlands, DCENT builds the foundation for a decentralized internet providing edge data center infrastructure powering artificial intelligence (AI), Web3, and decentralized physical infrastructure networks (DePIN) across Europe.

Operating a modular, solar-powered edge facility near Amsterdam, DCENT runs net-neutral for most of the year.

As the company expanded, it sought to extend its network into London, a strategic location for low-latency access and global connectivity.

DCENT



Key Requirements.

To expand its decentralized storage and compute network, DCENT required a certified, high-performance data center partner. The goal was to deploy large-scale storage and graphics processing unit (GPU) infrastructure close to major network hubs for low latency and reliable global access.

The principle requirements included:

- A Tier III+ certified, environmentally sustainable colocation facility.
- Redundant 100G uplinks and low-latency connectivity.
- Direct access to major cloud and Web3 networks.
- Reliable power for dense compute and storage workloads.
- Fast deployment capability to meet rising customer demand.

The Solution:

DCENT selected nLighten's London data center to extend its edge network beyond the Netherlands. The facility meets Tier III+ design standards, offers direct access to nLighten's low-latency connectivity, and aligns with DCENT's sustainability goals. The deployment included 16 pebibytes (PiB) of storage capacity, scalable to over 40 PiB, with 40+ high-performance GPU and storage servers supporting AI and Web3 workloads.

// We're delighted that our London edge data center has become a key part of DCENT's European infrastructure strategy. Their focus on sustainable, high-performance compute aligns perfectly with our mission to provide connected, efficient, and environmentally responsible facilities."

Justin Nesbitt
nLighten UK
Managing Director



About nLighten UK.

nLighten UK is the UK division of nLighten. nLighten is a digital infrastructure platform focused on developing and operating innovative edge data centers across Europe's key economic hubs.

Its strategically distributed data centers deliver best-in-class network access to enterprises, private users, and the mobile workforce. nLighten is working towards establishing a pan-European presence in all major cities and smaller business hubs.

Its edge data centers are close, coupled, and connected: By being closer to customers and users, nLighten ensures low-latency access and high availability for businesses, mobile workforces, and private users. With a strong commitment to sustainability,

nLighten's data centers will be coupled with the local community, contributing to grid stability while minimizing environmental impact.

Connected to an extensive network of carriers and service providers, nLighten empowers seamless, real-time data connectivity throughout Europe.

Sustainable, Scalable, and Connected Infrastructure:

DCENT expanded its decentralized infrastructure by adding an additional region in London to support real-world workloads across cloud storage, AI, and DePIN networks. The site enables verifiable data integrity for Filecoin, scalable decentralized cloud services for Impossible Cloud, GPU-powered compute through io.net and Aethir, and on-chain staking for GLIF.

Integrated with their Netherlands and Frankfurt facility, the deployment provides:

- Scalable storage capacity beyond 16 pebibytes (PiB).
- High-performance graphics processing unit (GPU) and compute nodes.
- Low-latency access to AI, cloud, and Web3 ecosystems.
- Redundant 100G connectivity for stable, long-running operations.

By partnering with nLighten, DCENT achieved a resilient, future-ready infrastructure that supports the growth of decentralized and AI-driven applications — all while staying true to their environmental and operational goals.

Benefits:



- Low-latency connectivity and redundant 100G uplinks.



- Efficient operations supporting sustainability targets



- Tier III+ reliability for mission-critical workloads

- Rapid time-to-deploy — 800+ HDDs online in weeks.
- Scalable from 16 to 40+ PiB for future expansion.
- Enhanced ecosystem performance for partners like Filecoin and Impossible Cloud.



Hidde Hoogland
CEO and Founder
of DCENT B.V.



nLighten's London facility gave us the speed, efficiency, and sustainability we needed. It's a perfect partner for scaling our decentralized infrastructure across Europe."

Find out more about nLighten's leading Edge Data Center Solutions:

www.nLighten.com