



 **LUNAR4**

 **LUNAR
DIGITAL**

**Lunar Digital are
Data Center experts.**
An independent
provider of highly
secure, resilient
and carrier neutral
colocation space.

The LUNAR4 Facility

Adjacent to Leirdola hydropower station with interconnections to 3 more and powered exclusively via hydro-power, our Norwegian facility offers our clients Tier3 European colocation options with sustainability at its heart. The site has a low PUE of <1.1 as it is situated next to Jostedal glacier providing 2.5c average temperature.

Location:

Gaupne, Luster Municipality, Norway

Gross size of data center (m²):

650

Net customer space (m²):

400

Building type:

Purpose built data center building

Building tenure:

Freehold

Power

 LUNAR4 DELIVERS 15MVA OF CUSTOMER CAPACITY



A dedicated, private HV substation provides 15MVA power to the facility. 650m² is backed up by redundant N+N 2 string UPS systems, which regulate and condition the incoming supply. On site, there are N+1 diesel generators that can run for one week if necessary, alongside a 24×7 refuelling contract providing indefinite generator run time.

Received from the primary mains supply, the electrical power is then fed through the highly efficient N+N UPS systems and into the data center areas.

Should an issue with the mains supply occur, the N+N UPS systems will automatically take the entire IT load. This provides ample time for the generators to start up and seamlessly take the load of client equipment, air conditioning systems and the PDUs (Power Distribution Units). Once mains power is restored, our switchgear will automatically manage the return of incoming power from generators to UPS protected mains.

N+N UPS means that each rack is fed by two independent feeds from two diverse PDUs on diverse UPS banks. Therefore, the failure of an entire UPS bank can be endured without any impact to client service. N+N configuration also ensures diverse paths, so we can carry out maintenance on sections of the power supply without impacting IT load to customer equipment.



Cooling

Client racks are cooled with high capacity air conditioning systems which maintain a constant cold aisle temperature throughout. This keeps the servers cool and running at an optimum temperature.

Under-floor systems ensure effective distribution and management of air-flow, controlling temperature locally as demanded by higher/lower powered equipment throughout the data center.

Bespoke cold aisle containment ensures that the cold air supplied to the front of the servers is contained with maximum efficiency, contributing to Lunar Digital's industry leading PUE (Power Usage Effectiveness) of <1.1, which in turn delivers major cost advantages to clients.

All major components of the system are redundant ensuring continuity of cooling in the event of mechanical parts failure or maintenance.





Fire Protection

VESDA smoke detection systems are installed across the site to act as an early warning system to any potential fire developing. It provides the earliest possible warning of an imminent fire hazard, buying valuable time to investigate, take action and avoid the danger, damage and disruption potentially caused by a developing fire. VESDA monitors the entire progression of a fire - easily detecting it long before smoke is visible.

Sensitive smoke detectors are positioned throughout the data center and under the raised floors, ensuring that any potential fire is detected and the affected area identified.

FM200 fire extinguishing gaseous suppressants take the energy out of the fire within seconds of it developing. The suppressants used are non-destructive, environmentally friendly and safe for human exposure.

Fires are extinguished rapidly, typically knocking out class A, B and C fires in less than 10 seconds. This minimises atmospheric toxicity and the generation of smoke and soot.

24x7 Secure Client Access



Access to the Lunar Digital facility is available on a 24x7x365 basis to authorised personnel. It is gained via a combination of security checks and access procedures.

Individual visitor activity is recorded and photographic & CCTV evidence is archived. Access can be requested and authorised for third party engineers and visitors where and when required in advance.



24x7 Security

Lunar4 is a highly secure facility, with all visitor activity tracked and monitored to ensure Lunar Digital's client equipment is safe around the clock.

The building is surrounded by a 2.5m perimeter fence and access to the car park is controlled by an electronic gate. Entry scanners protect critical zones and the site is manned 24x7x365. Features and procedures are in place to meet the strictest of security standards such as PCI-DSS, ISO27001, FSA regulations and government level audits.

Support

Lunar4 is manned by fully qualified support staff 24x7, who are always ready to be responsive to client needs. Lunar Digital operates a first line remote hands service to support the quick resolution of simple emergencies, as well as providing managed firewalls, tape backups, consultation and cabling services. Our fully qualified onsite engineers and strict SLAs enable our customers to have the confidence that their servers, systems and infrastructure are being hosted in a robust, resilient and secure environment.



Connectivity

A carrier neutral approach is essential to offer full network flexibility. Lunar4 is located in a north westerly Norwegian location, which boasts plentiful renewable energy, a cool climate all year round and excellent internet connectivity. A choice of Tier1 and Tier2 networks are available, plus dark fibre circuits from multiple providers with diverse entry points into the building. Lunar Digital provides direct access to leading Internet Exchange points and direct connectivity to other data centers in the UK and Europe.





The Lunar4 data center in Norway is an enterprise grade, carrier neutral colocation facility operated and managed by Lunar Digital.











With over 650m² of premium carrier neutral data center space in our secure campus, it is the ultimate hosting environment for business critical IT infrastructure.

The data center can accommodate bespoke requirements for server racks in secure shared areas and dedicated private suites.



Carriers available in LUNAR4

On Net Carriers	
 telenor	Telenor
 ENIVEST	Eninvest
 sognoenett	Sognoenett
 GlobalConnect	Global Connect

Connected Data Centers	
	Lunar 1
	Lunar 2
	Lunar 3
	LDeX1 (London)
	LDeX2 (Manchester)
	Equinix MA1
	Equinix MA2
	Equinix MA3
	Equinix MA4
	Equinix MA5
	Telehouse North (London)
	Lumen Goswell Road (London)
Public Clouds Via Lunar Cloud Connect	
	Lunar Cloud Connect
	Amazon Web Services
	Microsoft Azure
	Google Cloud Platform
	Oracle Cloud

General Information

Number of data floors: **1**
Number of IT zones: **4**
Maximum floor load capacity (kg/m2): **1000**
Maximum raised access floor height (mm): **500**
Raised floor to ceiling height (meters): **3**
Number of passenger lifts: **N/A**
Number of goods lifts: **N/A**
Goods lift maximum load (tonnes): **N/A**
Separate delivery bays: **1**
Target PUE: **<1.1**

Security

Proximity access card & PIN security system
Staffed 24×7×365

Fire Detection and Suppression

High sensitivity detection system: **Yes**
Type of fire suppression system:
Automatic/Manual (Novec System)

Air Conditioning and Cooling

Type of cooling system: **ExCool Adiabatic Systems**
Maximum cooling capacity (MW): **15**
Cooling redundancy: **2N**
CCUs or in-row cooling: **CCU**

Power

Number of independent supplies into building: **2**
From how many substations: **2**
Total incoming feed capacity (MVA): **15**
Diverse power route: **2**
Generator fuel at full load (hours): **48**
UPS type: **Static**
UPS autonomy (minutes): **15**
UPS capacity (kW): **6000 (can scale to meet site demand)**
UPS redundancy: **2N+1**
Generator redundancy: **N+1**
Generator capacity (MVA): **10**
Electricity: **100% Renewable from Hydro Electric Power sources**

Connectivity

Number of diverse entry points into building: **2**
Number of meet me rooms: **2**

Amenities

Conference Rooms
Restrooms
Showers
Client WiFi
Crash Carts

Certifications

ISO27001
Information Security Management
ISO9001
Quality Management
Cyber Essentials
Cyber Assurance





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