Stackscale IaaS and Private Cloud solutions

Predictable performance, free of noisy neighbors.

Stackscale
Grupo Aire

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Stackscale
Cloud experts

Private cloud experts.

- High-performance, competitive solutions.
- Fault-tolerant, mission critical environments.
- Specialized technical support team.
- Hardware and network monitoring.
- Virtualization standards and open systems.
- Scalability, transparency and approachability.

2012

Foundation

2022

Incorporation to Grupo Aire

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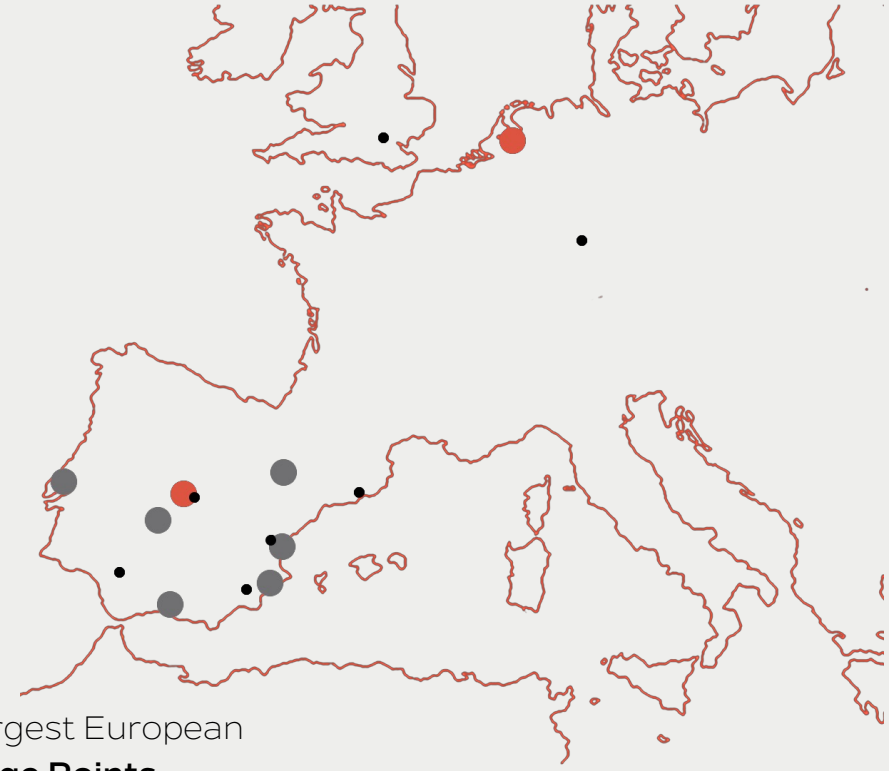
Our locations.



+ Some of the largest European **Internet Exchange Points**.

+ Several **Tier 1 upstream providers**.

8 LOCATIONS IN EUROPE

in Spain, Netherlands and Portugal

5 STACKSCALE DATA CENTERS

in Madrid and Amsterdam

6 GRUPO AIRE DATA CENTERS

in Alicante, Lisbon, Málaga, Toledo, Valencia and Zaragoza

7 POINTS OF PRESENCE

in Spain, Germany and United Kingdom

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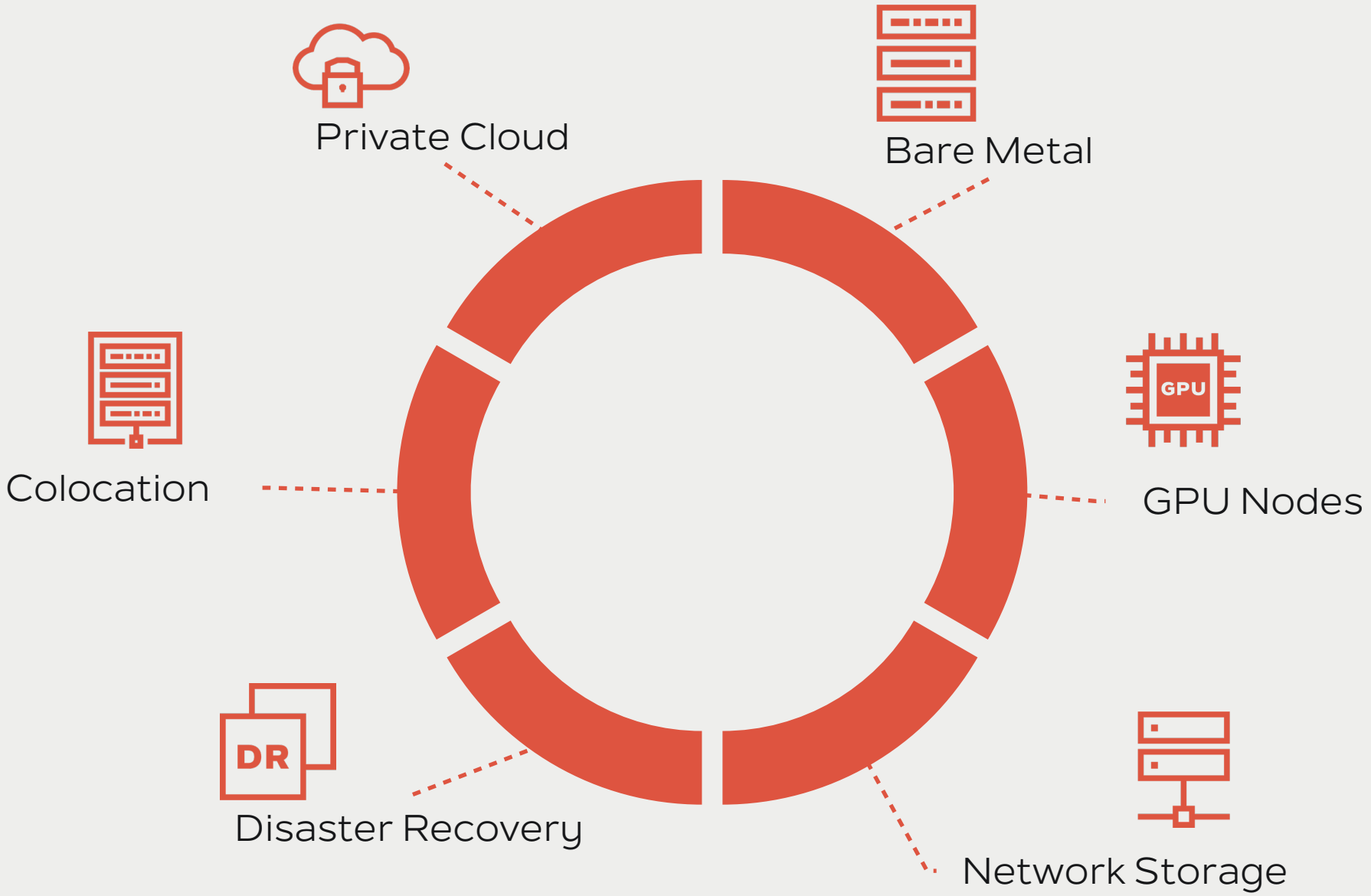
02

Products

Infrastructure and cloud

IaaS


Private Cloud
Bare Metal
Colocation
GPU
GPU Nodes
DR
Disaster Recovery
Network Storage

Private Cloud

Performance, reliability and efficiency.

We combine the benefits of **virtualization with the guarantees of a dedicated hardware** in order to offer robust, scalable and functional cloud solutions.

Computing nodes start at 128 GiB of RAM and 12 physical cores, and go up to 768 GiB of RAM and 52 physical cores.

- 2nd generation Intel® Xeon® Scalable processors.
- Connected through bottleneck-free 40 Gbps links.
- Double SSD disk and a hardware RAID controller with NVRAM.
- Dual processor models support NVMe U2 disks.

Private Cloud

Predictable performance, without noisy neighbors.

Maximum **security and privacy**.

Transparent, **predictable costs.**

Greater control over the environment.

99,90% **SLA Availability.**

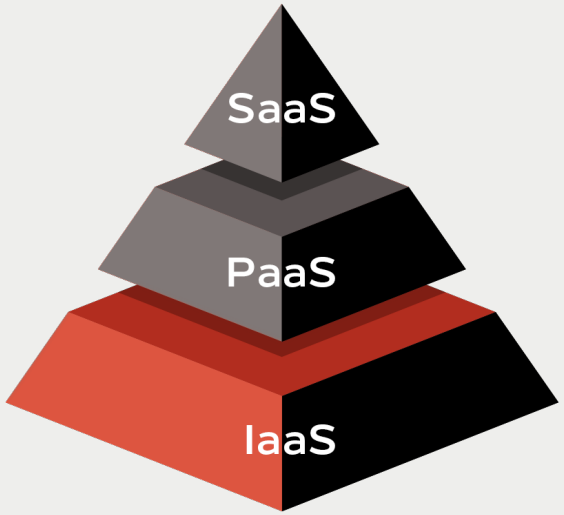
24/7 technical support and monitoring.

High Availability critical infrastructures.

High level of **redundancy and geo-replication.**

Private Cloud

Transparent pricing.



	Node 128 M	Node 192 C	Node 384 M	Node 384 C	Node 768 M	Node 768 C
Optimized usage	MEMORY	CPU	MEMORY	CPU	MEMORY	CPU
CPU	1x Silver 4214R	1x Gold 6208U	2x Silver 4214R	1x Gold 6248R	2x Gold 6230R	2x Gold 6248R
Cores (Threads)	12 (24)	16 (32)	24 (48)	24 (48)	52 (104)	48 (96)
Base speed	2,4 Ghz	2,9 Ghz	2,4 Ghz	3,0 Ghz	2,1 Ghz	3,0 Ghz
Turbo speed	3,5 Ghz	3,9 Ghz	3,5 Ghz	4,0 Ghz	4,0 Ghz	4,0 Ghz
RAM	128 GiB	192 GiB	384 GiB	384 GiB	768 GiB	768 GiB
RAM speed	2400 Mhz	2933 Mhz	2400 Mhz	2933 Mhz	2933 Mhz	2933 Mhz
Internal storage	2x 1 TB SSD	2x 1 TB SSD	2x 1 TB SSD	2x 1 TB SSD	2x 1,6 TB SSD	2x 1,6 TB SSD
Capabilities	All nodes include a hardware RAID controller with **NVRAM** Up to 8 additional **SATA/SAS** local storage disks can be installed. Dual processor models support **NVMe U2** disks.					
Usage	Virtualized nodes: the two storage disks included are exclusively used by the hypervisor. Bare-metal nodes: All local storage disks are for customer use.					
Network	**40 Gbps per node** in redundant MLAG (Multi-chassis link aggregation): 20 Gbps for storage and 20 Gbps for private interconnection and Internet access.					
Setup*	€395	€545	€795	€895	€1.395	€1.650
Monthly*	€395	€545	€795	€895	€1.395	€1.650

*Taxes not included.

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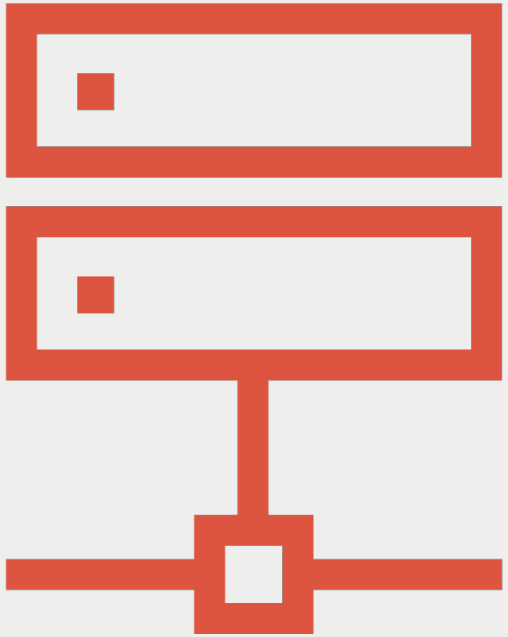
Network storage



Highly available, fault-tolerant and persistent storage.

Accessible over the multi-100 G CORE network; with non-disruptive platform maintenance and updates.

High performance at all times.

- Constant monitoring of performance metrics.
- Transparent and non-disruptive migrations between service levels.
- Thin provisioning.
- Full geo-replication included (except for Archive, intended for backups and archival).
- Backups based on snapshots and instant cloning.

Network storage

Transparent pricing.

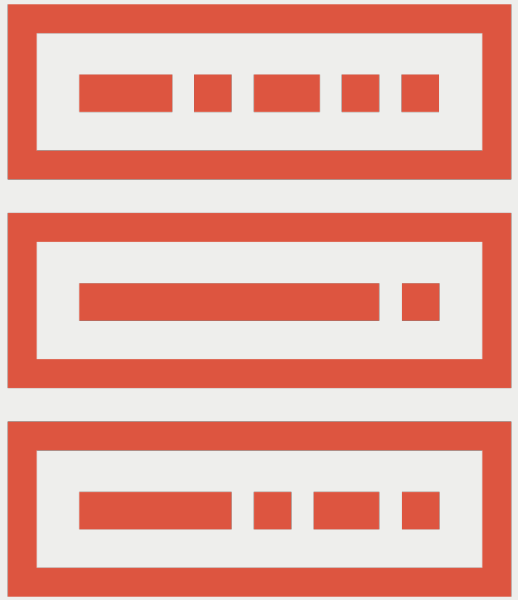
	Flash Premium	Hybrid Plus	Hybrid	Archive
Storage systems	NetApp AFF	NetApp FAS	NetApp FAS	NetApp FAS
Underlying storage	All Flash	Flash and SAS 10K rpm	Flash and SAS 10K rpm	NL-SAS 7K rpm
Expected latency	<=1 ms	1 – 10 ms	3 – 15 ms	>15 ms
IOPS SLA	>6.000 IOPS/TB	1.000 IOPS/TB	500 IOPS/TB	N/A
Minimum volume size	100 GB	250 GB	500 GB	1 TB
Maximum volume size	30 TB	100 TB	100 TB	1 PB*
Backups	One snapshot taken every 6 hours, 16 copies kept (4 days). Custom backup schedules available on request.			No**
Disaster Recovery	Full replica in a different data center. Hourly updated.			No**
Monthly***	€250/TB	€125/TB	€75/TB	€20/TB

*Archive volumes over 100 TB are not available in all locations.

**Archive doesn't include backups or replicas, but an Archive system can be requested to backup another Archive system in a different location.

***Taxes not included.

Bare Metal



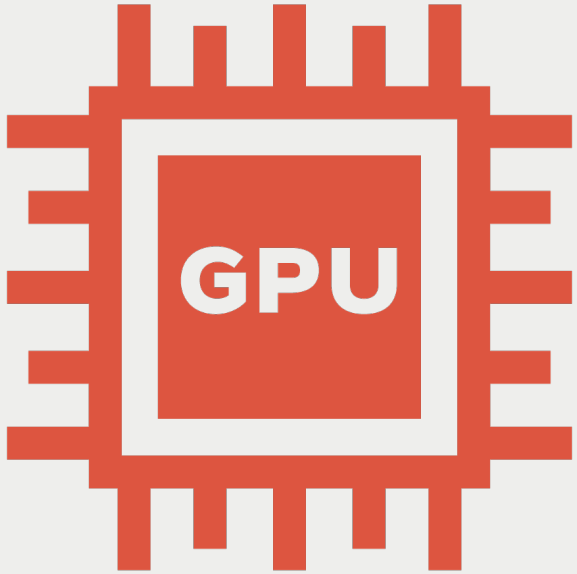
Performance, reliability and full control.

Fully configurable bare-metal servers with 24/7 monitoring, offering a level of control that matches in-house solutions.

Bare-metal servers start at 128 GiB of RAM and 12 physical cores, and go up to 768 GiB of RAM and 52 physical cores.

- Total freedom when implementing hypervisors and orchestrators.
- 2nd generation Intel® Xeon® Scalable processors.
- Connected through bottleneck-free 40 Gbps links.
- Double SSD disk and a hardware RAID controller with NVRAM.
- Dual processor models support NVMe U2 disks.

GPU Nodes



- 2nd generation Intel® Xeon® Scalable processors.
- GPU NVIDIA Tesla T4 16 GB.
- Double SSD disk and a hardware RAID controller with NVRAM.
- Dual processor models support NVMe U2 disks.
- Powered by Turing Tensor Cores and CUDA Technology.
- Connected through bottleneck-free 40 Gbps links.

High-performance computing, Artificial Intelligence and Machine Learning.

Intended for accelerating data processing, cost-efficiently and free of noisy neighbors.

Memory or CPU optimized, depending on each project's requirements.

GPU Nodes

Transparent pricing.

Specifications	
Power	70 watts
Interconnection	3GEN x16 PCIe
Performance	
Turing Tensor Cores	320
NVIDIA CUDA Cores	2,560
Single precision performance (FP32)	8.1 TFLOPS
Mixed precision (FP16/FP32)	65 FP16 TFLOPS
INT8 precision	130 INT8 TOPS
INT4 precision	260 INT4 TOPS
Memory	
Capacity	16 GB GDDR6
Bandwidth	320+ GBps

	GPU Node 384 M	GPU Node 768 M	GPU Node 768 C
Optimized usage	MEMORY	MEMORY	CPU
CPU	2x Silver 4214R	2x Gold 6230R	2x Gold 6248R
Cores (Threads)	24 (48)	52 (104)	48 (96)
Base speed	2,4 Ghz	2,1 Ghz	3,0 Ghz
Turbo speed	3,5 Ghz	4,0 Ghz	4,0 Ghz
RAM	384 GiB	768 GiB	768 GiB
RAM speed	2400 Mhz	2933 Mhz	2933 Mhz
Internal storage	2x 1 TB SSD	2x 1,6 TB SSD	2x 1,6 TB SSD
GPU	NVIDIA Tesla T4 16GB		
Capabilities	All nodes include a hardware RAID controller with **NVRAM** Up to 8 additional **SATA/SAS** local storage disks can be installed. Support for **NVMe U2** disks.		
Usage	Virtualized nodes: the two storage disks included are exclusively used by the hypervisor. Bare-metal nodes: All local storage disks are for customer use.		
Network	**40 Gbps per node** in redundant MLAG (Multi-chassis link aggregation): 20 Gbps for storage and 20 Gbps for private interconnection and Internet access.		
Setup*	€995	€1.595	€1.850
Monthly*	€995	€1.595	€1.850

*Taxes not included.

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Disaster Recovery

RPO adapted
to your business' needs.

Predictable, **guaranteed**
recovery time.

Non-invasive to the current
infrastructure.

Disaster Recovery for
mission critical applications.

"**Point-in-time**"
recovery.

Automated
backup solution.

Low consumption
of resources.

Predictable
monthly costs.

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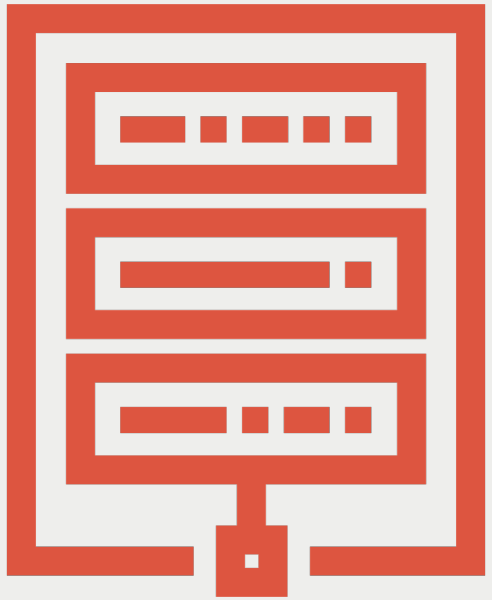
Colocation



Maximum security, connectivity and scalability in state-of-the-art data centers.

Managed colocation services to help companies reduce costs while increasing security and efficiency.

Improved competitiveness leveraging our multiple, interconnected locations available.

Multi-100 G CORE network,
completely managed and adapted to each project.

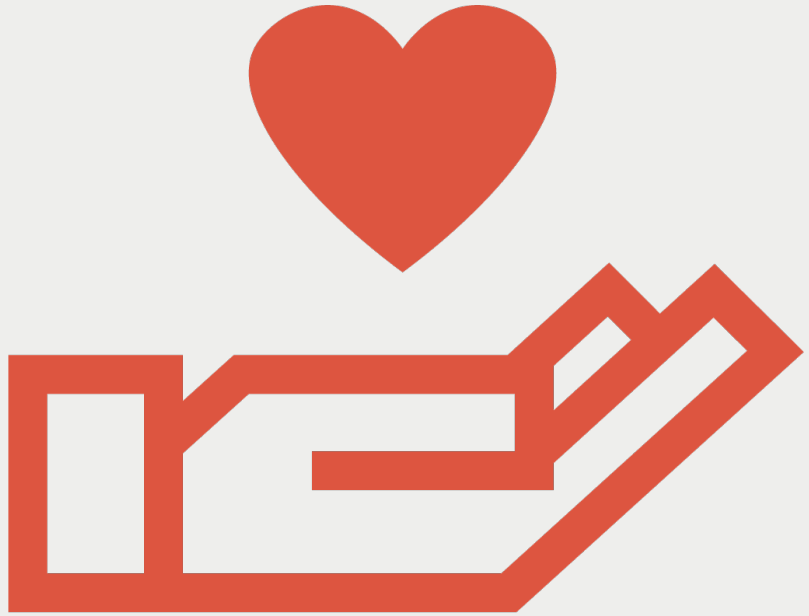
Fault tolerance and business continuity guarantees.

Strict security, efficiency, redundancy and connectivity requirements.

Technical support

24/7 Specialized technical support

Technical support



An extension of the customer's own IT department.

Direct access to a specialized technical support team, which proactively works to guarantee everything works smoothly — 24 hours a day, 7 days a week, 365 days a year.

- Real-time monitoring.
- Redundant monitoring system.
- Systems and Network Operations Center.
- Advanced Rapid Intervention Team.

04

Data centers

Madrid and Amsterdam

Stackscale data centers

Madrid and Amsterdam: our main hubs within our European datacenter network.

Selected according to strict quality, security, efficiency, redundancy and connectivity requirements.

Certified by international standards.

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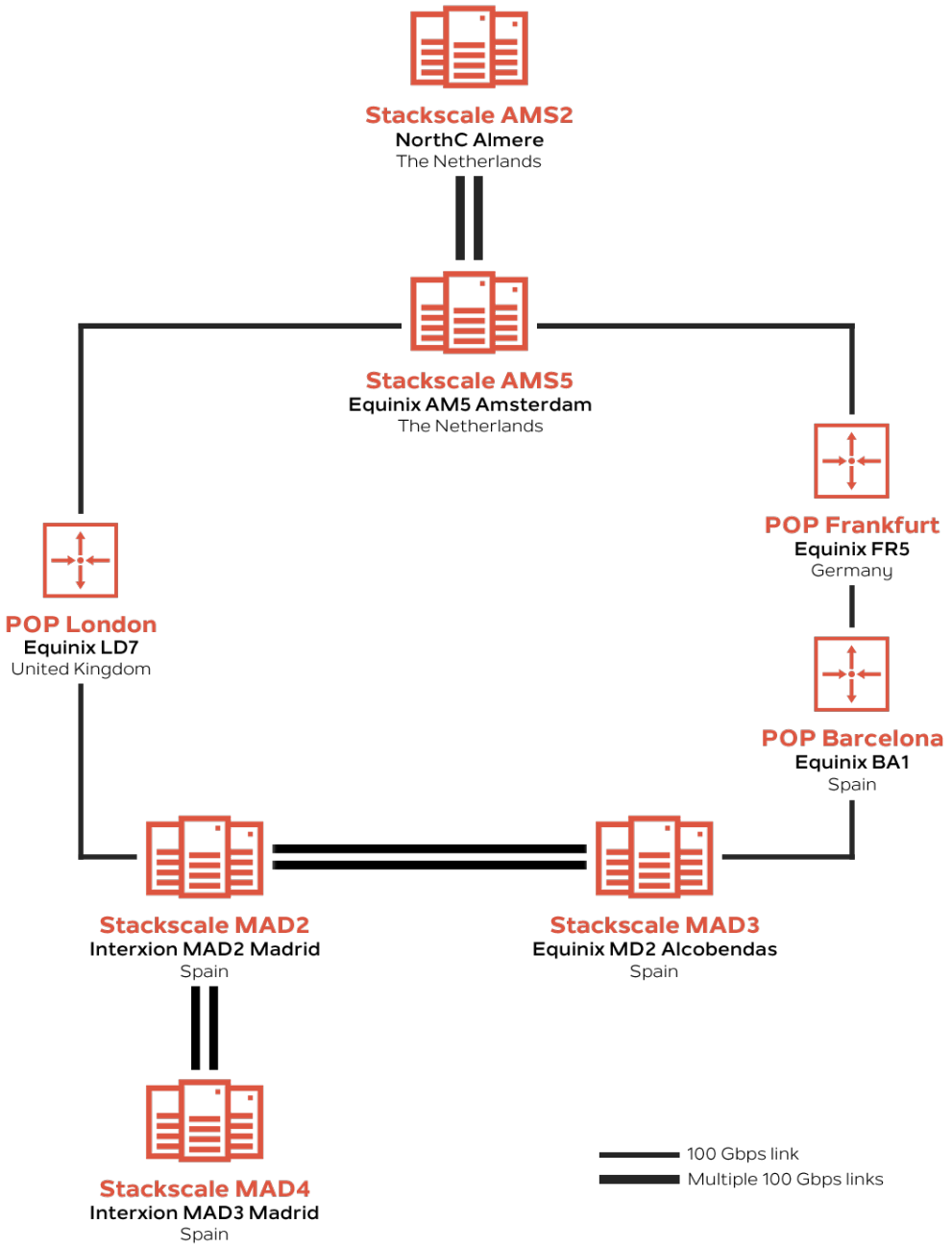


Certifications

Equinix AM5
- ISO 14001
- ISO 27001
- ISO 50001
- ISO 9001
- OHSAS 18001
- PCI-DSS
- SOC 1 Type II
- SOC 2 Type II

NorthC Almere
- ISO 27001
- ISO 9001
- ISO 14001
- ISO 22301
- PCI-DSS
- NEN 7510
- ISAE 3402

Interxion MAD2
- ISO 9011
- ISO 14001
- ISO/IEC 27001
- ISO 22301
- ISO 20000
- ITIL v3
- ENS* High certified

Equinix MD2
- ISO 9001
- ISO 14001
- ISO 22301
- ISO 27001
- ISO 50001
- ISO 20000-1
- OHSAS 18001
- PCI-DSS

Interxion MAD3
- ISO 9011
- ISO 14001
- ISO/IEC 27001
- ISO 22301
- ISO 20000
- ITIL v3
- ENS* High certified

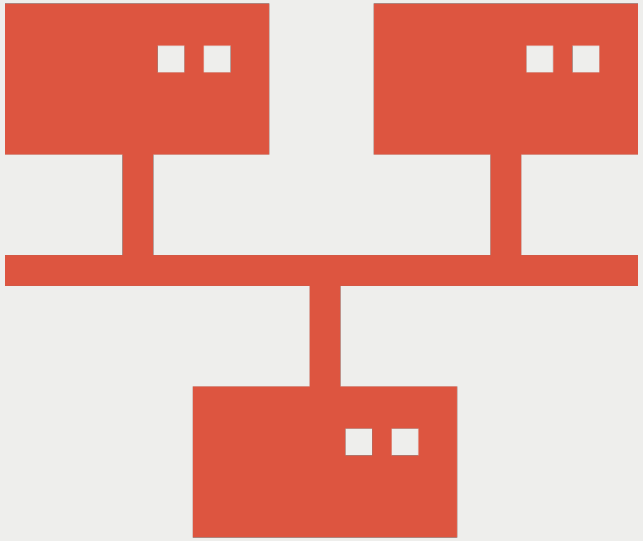
*ENS is the abbreviation of “Esquema Nacional de Seguridad” (National Security Framework).
It is a Spanish certification that establishes security standards applicable to all the public sector in Spain, as well as to its technology providers.

05

Network

Spaciously oversized, bottleneck-free

Stackscale network



Spaciously oversized, redundant at all levels and without bottlenecks.

Connected to the Internet with an **aggregated capacity of over 4 Tbps** thanks to the network of Grupo Aire.

Grupo Aire's network is one of the largest in Spain with **32.000 km** and **a growth capacity of N*400 Gbps**.

- Based on Ethernet with a minimum speed of 10 G, with 100 G aggregated ports.
- Interconnections to several IXPs.
- Tier 1 telecommunication companies.
- Private peering agreements.

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Thanks

www.stackscale.com

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