## colocation

Futureproof, cost-effective data center services



firstcolo

03



# Your data services and IT services through colocation

Save on space, resources and spending – while ensuring optimum availability, high-performance connections and maximum security.

### Contents

What does colocation mean?	04
Quality and sustainability	06
Our data centers	08
Colocation – what we offer	10
Networks	14
Why firstcolo	18

### Brochure overview

01	firstcolo	State-of-the-art data centers in Frankfurt am Main
02	firstkube	Simplified use of Kubernetes at every touchpoint
03	colocation	Futureproof, cost-effective data center services
04	cloud	Fast, flexible and secure
05	managed services	Secure, professional, fast, 24/7



Has your location reached its limit in terms of space and resources? Is it impossible to meet your requirements for performance and connectivity there, or do you need a second IT location for security and capacity utilization reasons?

Whatever your situation, firstcolo colocation can handle these matters for you, giving you the freedom you need to focus on your business.

## What is colocation?

Colocation involves outsourcing a company's own IT infrastructures to an external data center, which brings a wealth of benefits. You save on space, resources and spending for hardware and infrastructure. firstcolo also guarantees optimum reachability and network connectivity, including physical and data-driven protection for your hardware.

Thanks to our managed services, you can go back to focusing on your business without having to operate a data center of your own.

## Why colocation?

Building and operating your own data center requires capital and resources. On top of that, it isn't always possible to create optimum overall conditions at your company's location. Those are the main reasons that more and more companies are turning to firstcolo colocation services. We are continuously further developing and refining these services. Thanks to geo-redundancy and optional backup locations in the Netherlands, Austria and Switzerland, you can rest assured that your critical data are optimally protected at all times and always accessible.

In practically any scenario, we offer you advantages that far outweigh the potential challenges that outsourcing your IT infrastructure might involve. Thanks to our managed services, you can go back to focusing on your business without having to operate a data center of your own.

## Quality

At our high-performance data centers, equipped with state-of-the-art technology, we are relentless in realizing our customers' individually desired solutions.

- Sustainably efficient with a PUE of < 1.3</p>
- 24/7 on-site support
- Multi-terabit connections
- ISO 27001 / ISO 9001 / PCI-DSS & TÜV Level 3+ certified
- Fully redundant power, network, and cooling infrastructure
- Air-cooled up to 40 kW per rack and liquid-cooled up to 130 kW\*
- Up to 100G bandwidth per rack, 400G available upon request

## Sustainability 🖺

Our in-house data centers are 100% powered by renewable energy.

<sup>\*</sup> Availability upon request



## Our data centers

At the heart of the Internet: Frankfurt am Main

We operate most of our infrastructure at our state-ofthe-art data centers in Frankfurt. Thanks to our network, though, we are present in many locations across Europe, where we carry out IT projects for our business partners from an array of different industries.

## Werkhaus data center



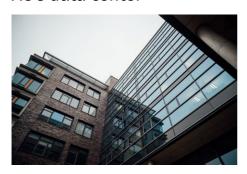
firstcolo's Werkhaus data center, located on Kruppstraße in Frankfurt, has capacity for about 1,200 racks or about 20,000 server systems.

Redundant UPS systems, an emergency generator, and high-efficiency climate control featuring n+2 all make this a safe home for sophisticated applications, leaving nothing to be desired in terms of security and availability.

Our employees serve this location on-site 24 hours a day, seven days a week, so we can respond extra-fast when questions or issues crop up.

- Certified according to T3+ standard
- Capacity: 1,200+ server racks
- About 20,000 server systems

## AOC data center



Firstcolo's AOC data center, located on Hanauer Landstraße in Frankfurt, currently has capacity for 500 racks, which works out to about 8,000 server systems. The infrastructure is state-of-the-art.

Redundant UPS systems and an emergency generator guarantee that the power supply is not interrupted. The climate control is designed to be fault-tolerant, ensuring consistent operating conditions.

Company employees are on site 24 hours a day, seven days a week, so we can identify and resolve any disruption right away.

- Certified according to T3+ standad
- 500 server racks
- About 8,000 server systems



### Certification? Of course!

The high-quality implementation of our data centers has paid off: Our locations in Frankfurt hold TÜV Saarland certification as high-availability Level 3 data centers, so they guarantee perfect-quality operation of the approximately 20,000 server systems currently used by our customers in the form of colocation or as dedicated rental servers.



We offer your company high-quality IT space, crossbrand hardware and IT infrastructure at our own high-performance data centers in Frankfurt am Main and at redundant locations elsewhere in Europe.

When you work with us, you can count on a powerful, flexible and scalable infrastructure or your servers, storage or backup systems, cloud computing environments or AI applications.

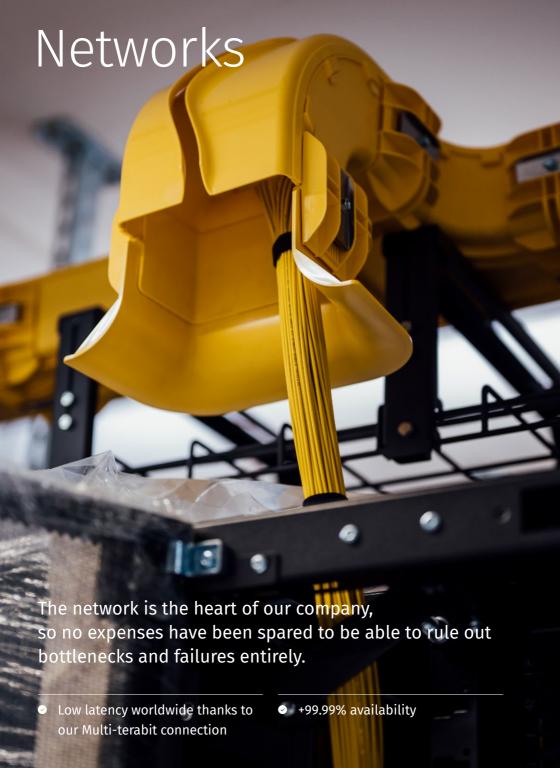
This guarantees the availability and quality of your data optimally. Building on our data center infrastructure, we provide additional IT services for you – from securely connecting your systems and locations to managed services and CDN and beyond to full IT outsourcing and relentless DDoS protection at a level otherwise only available to global players.

## What we offer

- Provision of racks and space
  From a private quarter rack to your own cages, we provide capacity on short notice and without complications.
- High-performance connections
   with multiple redundancies
   You will use our global network, with Multi-terabit connection and numerous Internet exchange points.
- Maximum efficiency for your individual needs Thanks to our highly scalable infrastructure, we enable the deployment of high-performace high-density racks with up to 130 kW power capacity.
- Multiple-redundancy security We offer the very highest security standards for electricity, climate control, access, fire protection and all other technical systems and equipment.
- 24/7 service for your digital landscape Our highly qualified specialists are always available to provide personalized care around the clock.
- Maximum scalability and strong synergies
  In all our services, we are always at your side to
  guarantee optimum conditions.

## **Features**

- Redundant Internet access handover possible in the customer rack
- Geo-redundancy in Frankfurt and via external locations in Germany & elsewhere in Europe
- Redundant climate control
- Cold aisle containment
- Power consumption can be viewed online in real time
- Connect to almost any carrier based in Frankfurt
- Racks with up to 130 kW of current consumption possible
- Novec 1230/Argon fire extinguishing system
- 24/7/365 on-site Remote Hands services
- Rack connection options: n\*100
   Gbit (1G up to 100G)
- Racks can be secured with alarms
- Switch/network management
- Redundant USP and diesel generator support
- Carrier-neutral racks possible
- 16A and 32A circuits at 230V and 400V (three-phase)
- Early fire detection



Optimum connectivity to any endpoint: Our traffic mix is made up of 100% tier-1 carriers. Our direct connection to the world's largest Internet node, DE-CIX, allows us to realize the very lowest latencies within our infrastructure. It also lets us enable a direct connection and optimum connectivity to over 1,000 networks.

To be able to offer our customers the very best possible protection from cybercrime such as DDoS attacks, we have upgraded our backbone (Multi-terabit connection). This makes it possible to shrug off even large-scale DDoS attacks with ease.

At the same time, we can realize much higher connectivity for customer racks than you are accustomed to seeing from other service providers: In addition to redundant 10 Gbit uplinks by default, we also offer up to N\*100 Gbit uplinks for our customers' racks.

The wide range of IP transit services is also no issue at our points of presence. That means you can benefit from our backbone regardless of location.

## Our uplinks to carriers

The selection of carriers plays a crucial role in reliability, connection quality and latency.

	Deutsche Telekom (DTAG)
<b>②</b>	DE-CIX
<b>•</b>	Frys-IX
<b>⊘</b>	Peering.cz
<b>⊘</b>	GTT
<b>⊘</b>	Cogent
<b>②</b>	NTT

Telia



## DWDM network

In addition to our high-quality carrier network, we operate an own DWDM network throughout Frankfurt. In this way, we connect our in-house data centers with our external locations within Frankfurt, so we can transport critical business data at high speeds and with the lowest possible latency. Our existing DWDM route supports transmission rates from 1 to 400 Gbit/s and is already designed for future technological developments. This ensures that we continue to meet the high demands of our customers.

With our Layer 1 transport services, we also offer dedicated bandwidth on our DWDM routes.

### Redundant dark fiber

To realize an appropriate data center interconnect (DCI), we established a redundant dark fiber connection between our data centers in Frankfurt some time ago. This means optimum connectivity and low latency between our locations.

To minimize the risk of failure, we deliberately configured the dark fiber connection to be redundant. In addition to geo-redundant backup concepts and encrypted data transfer, this means we can even offer you dedicated wavelengths on our DWDM equipment. But don't just take our word for it. Put our dark fiber to work for you and see for yourself!

### **Guaranteed performance**

Our entire network is designed for full redundancy. We maintain at least one extra unit of every component beyond what is needed for live operation so we can respond right away if necessary and maintain availability at all times. Our network is also not overbooked, and we make sure we do not use more than 50 percent of any uplink's capacity. This is how we prevent short-term bandwidth squeezes, so heavy traffic and peaks are not an issue, and neither are ad-hoc expansions. Your infrastructure with us remains highly available at all times.

## Why firstcolo

firstcolo has been advising and serving customers with all kinds of server and network questions since 2004. We currently have two data center locations in Frankfurt am Main, and we are continuing to grow.

The secret to our success is consistency – from using the most advanced and most efficient technologies to continuously expanding on our capabilities and unlimited flexibility and through to a rigorous focus on the customer and on service.

## What drives us

The Internet is the beating heart of the economy – and our lives. More and more products and services are moving online. Having a website is an integral part of the business model of practically any company today. Thanks to cloud computing, we can access our data from anywhere in the world. But a digital society has to be able to rely on the IT infrastructure to be available at all times – that's important to our customers, too.

## A strong partner right from the start

Outsourcing IT resources is a big step, and one that requires careful consideration. With that in mind, we can support you right from the start, working with you to ensure that all your requirements and wishes are accommodated. In the process, we do more than just guarantee a highly available infrastructure that meets your needs. Our outstanding technical points of contact are here to help with whatever you may need – including 24/7 in emergencies.

### Expertise is our business

We set high standards for ourselves, performing all our tasks accurately, securely and efficiently. That's why our technicians are prepared and trained for all requirements in the area of servers and infrastructure. And if there's ever a time when we don't have the right specialist on the team for a specific job, we have an extensive pool of experts who have been working with us for years.



For further information about firstcolo, please see brochure 01 | firstcolo – data centers in Frankfurt am Main. Thank you.



In its role as an operator of data centers in Germany, Frankfurt-based firstcolo GmbH offers its customers the utmost in service quality.

Alongside classic colocation and rental of server systems, our service spectrum also extends to security solutions, cloud services and managed services.

## firstcolo