# Reliable data connectivity for international businesses in the Netherlands

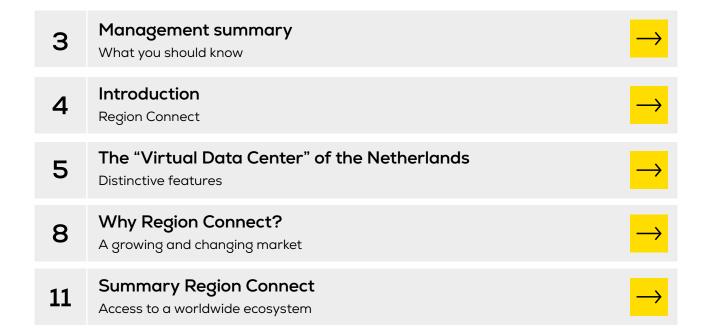


NorthC creates a nationwide virtual data center via reliable fiber optic connections

North@

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## **Management summary**

The Netherlands is a very popular country for international organizations doing business in Europe. Throughout virtually all of the regions in the Netherlands there is a strong growth in both international and national business activity. This has led to a growing demand for regional data centers. At the same time, there is an increasing demand for data connectivity between various regions in The Netherlands – together with major internet hubs in Amsterdam and Rotterdam/The Hague. Region Connect connects NorthC's regional data centers with high-speed, redundant connections.

Organizations have two key requirements. Firstly, the need for data centers and the applications running in those data centers to be as close to the source of data (and new data) as possible in order to ensure rapid processing. And secondly, the need for this data to be quickly available for multi and hybrid cloud solutions, which may run or be accessible elsewhere in the country. Region Connect forms a nationwide 'virtual data center' in which data, applications, data connections and other services in the connected data centers are available to customers in any of the other NorthC data centers. This makes Region Connect the ultimate solution for international organizations who work with partners, prospects, clients, and suppliers in the different regions of the Netherlands. Additionally, Region Connect is the ideal solution for customers with multiple locations who need fast, reliable and scalable connectivity to securely access data and applications from any of these locations.

Region Connect is based on a redundant fiber ring, which offers substantial benefits in terms of flexibility, guaranteed availability, short delivery times and security. And because NorthC also manages the services end-to-end, customers benefit from more convenience and a single point of contact.

## Introduction

NorthC is the largest regional data center company in the Netherlands. NorthC serves and supports large organizations and government institutions as well as national and international cloud and IT service providers, and smaller companies. To do this, NorthC offers a comprehensive range of connectivity services provided by national and international carriers.

NorthC serves clients nationwide with high-quality, certified data center services, custom connectivity and hybrid cloud solutions. There is, however, growing demand for interregional connectivity, for example between the economic hubs of Amsterdam, Rotterdam/The Hague, and Eindhoven, as well as connectivity between different branch locations, clients, partners, and other parties elsewhere in the country. With this level of connectivity, organizations connected to one data center can quickly and easily access services provided in a data center located in another region. To respond to this growing demand for interregional connectivity, NorthC data centers have been interconnected by means of a dedicated fiber ring, offering clients connections with guaranteed bandwidths of 100 Mbit/s, 1 Gbit/s, and 10 Gbit/s, with the option for 100 Gbit/s or more available upon request.

With the addition of the fiber ring, the connected data centers constitute a next-generation infrastructure with unique connectivity options and a comprehensive range of cloud providers and services. In addition, the fiber ring gives clients access to a complete ecosystem of Dutch and international partners, carriers, hosting providers, and other service providers.

# 1. The 'Virtual Data Center' of the Netherlands

Region Connect provides fast and reliable data connections between NorthC data centers in different regions.

## Who can benefit from Region Connect?

Region Connect is the solution for organizations seeking to collaborate with partners, other clients, and suppliers, such as access providers to the Google, AWS, and Microsoft Azure clouds, etc. It is also ideal for international businesses with offices in the Netherlands who require flexible, reliable, and scalable connectivity with key partners, such as the Amsterdam Internet Exchange (AMS-IX), one of the biggest internet nodes in the world. Via Region Connect, international businesses operating anywhere in the Netherlands have access to a direct, high-speed connection with AMS-IX or other important nodes, such as the Rotterdam Internet Exchange (R-iX). Additionally, Region Connect is an excellent solution for clients with two or more data centers that need a reliable connection for backup and redundancy.

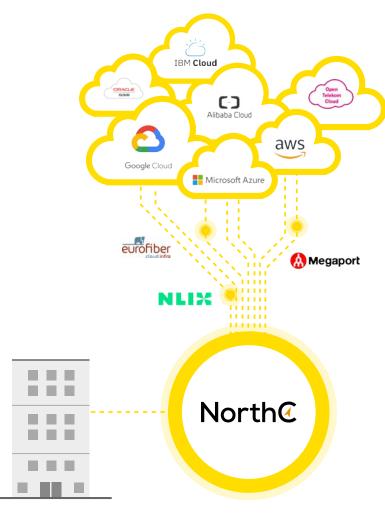


Figure 1: The NorthC data centers are the centerpiece of a worldwide ecosystem of cloud services and providers.

#### DISTINCTIVE FEATURES

#### A fully secured and redundant network of dedicated lines

NorthC provides connections with bandwidths of 100 Mbit/s, 1 Gbit/s, and 10 Gbit/s, with the option for 100 Gbit/s or more available upon request. Thanks to redundancy, clients can purchase connections without a single point of failure offering a very high degree of reliability. Each location has its own geographically separated backup connection. In the event that the main route fails – perhaps due to damage to a fiber optic cable sustained during construction works – the connection will automatically switch to the backup route, without any disruption for the client. The entire ring connection is managed end-to-end by NorthC, offering considerable benefits in terms of flexibility, delivery times, and security.

#### Single point of contact

With Region Connect, clients have a single point of contact for all their data center and connectivity needs between NorthC data centers. This makes inquiries, consultation, changes, expansion, etc. much more straightforward – and much faster – than having to work with multiple providers. In all this, NorthC is entirely carrier, cloud, and partner-neutral.

#### Wide bandwidth

A further important benefit of the NorthC Region Connect is the guaranteed bandwidth. Data needs to be transported as quickly as possible, and with scalable bandwidth options tailored to demand, clients can rest assured that their data is available as quickly as possible at the location at which it will ultimately be processed, stored, and analyzed. Many of today's data connections are technically limited to just 1 Gbit/s, which is no longer sufficient for many applications. Region Connect is a solution for the ever-increasing demand for bandwidth and gives organizations the data capacity that they need – not just now, but in the future as well.

#### DISTINCTIVE FEATURES

#### Flexibility

Flexibility might be the biggest advantage of Region Connect. A key aspect of digital transformation is the need for organizations to be able to respond to current market developments with speed and agility. The cloud and the "as-a-service" model offer great capabilities for this. But that same flexibility also needs to apply to the infrastructure and for the bandwidth provided by the connections. Region Connect offers this flexibility. With the well-known Dutch directness and transparency, clients can count on open and direct communication with their NorthC teams. Region Connect is fully managed by NorthC, offering a single point of contact for all connectivity-related questions and requests. This also allows for very fast response times: a new connection can be up and running in just a few days.

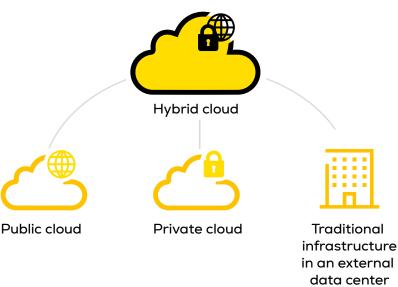
#### Ease of use

It is essential that users have full and direct insight into the current status of any key connections. An easy to use client portal provides a clear status overview, including the current bandwidth, allowing for quick upscaling if needed.

## 2. Why Region Connect?

#### Digital transformation

Almost all businesses are going through a <u>digital transformation</u>. This means new operations, new processes, and a strong emphasis on data, applications, and digital services. This is coupled with a transition from traditional computing and data centers managed in-house, to a cloud-based infrastructure and hybrid cloud environments. This often involves multiple clouds or a combination of private and public clouds (hybrid clouds), which are primarily clouds from SaaS, PaaS, and laaS providers, as well as private clouds hosted in external data centers. International organizations doing business in the Netherlands or Europe also need a reliable and secure location for their data centers. With Brexit and its consequences on trade with other European countries, many international businesses have decided to move their operations from the UK to a European country. The Netherlands is a favored location, due to its excellent digital infrastructure and geographical location. Also, EU legislation requires data from European citizens to be hosted in Europe, which means a European data center. The Netherlands has a high density of advanced data centers in several regions of the country. The data in these data centers must not only be fully protected and secured, but it also has to be accessible for rapid processing and analysis – as a result, the demand for high-speed data connectivity between regions is growing.



#### A GROWING AND CHANGING MARKET

#### Connectivity with major internet hubs (Amsterdam and Rotterdam/The Hague)

Although the large metropolitan areas around Amsterdam and Rotterdam/The Hague continue to be key economical centers, other regions in the Netherlands are growing as business locations. Eindhoven, Delft, Almere and Groningen are seeing accelerated economic growth, with both national and international high-tech businesses. However, many of the businesses in these areas require reliable and high-speed connectivity with the major internet hubs in Amsterdam and The Hague/Rotterdam, with their choice of key international internet connections. Region Connect offers businesses in these and other regions of the Netherlands the benefits of direct connectivity with the Amsterdam and Rotterdam/The Hague metropolitan areas.



## Interconnectivity between regions

Besides connectivity with major internet hubs, there is a growing demand for interconnectivity between regions. As an example, businesses are looking to collaborate with suppliers, partners, and clients in other regions. Also, many international businesses consider the Netherlands a prime location, because of its excellent digital and road infrastructure, and because Schiphol is one of the world's major hubs for international (business) travel and air cargo transport.

#### A GROWING AND CHANGING MARKET

All of these (and other) benefits make the Netherlands a very attractive country for international businesses. These business activities are distributed over many regions of the country. This requires excellent and reliable data connectivity between these regions, which is precisely the service that Region Connect delivers. Additionally, there is growing demand for custom solutions and greater flexibility, for which interregional connectivity is essential – connecting multiple sites of the same organization operating out of multiple NorthC regional data centers.

### The emergence of data gravity/edge computing/IoT/5G and increasing data volumes

The volume of data that is generated and analyzed by organizations is growing very fast. At the same time, that same data must be quickly available where it is needed for further processing, analysis, and storage. Delays of several ms are no longer acceptable. For example, banks are required to store payment details in at least two separate locations. If one of these two locations were to fail for whatever reason, the important data is still available and accessible at the second location. A key requirement for this is that data transport between locations experiences the lowest possible latency, in order to rule out the risk of the payment details being lost.

In May 2020, NorthC – in collaboration with the Dutch Datacenter Association (DDA) and research agency Pb7 Research – published a report entitled <u>"The impact of data gravity on IT" (in Dutch)</u>. The report showed that the rise of data gravity, the internet of Things (IoT), Artificial Intelligence (AI), and 5G will increase the value of regional data centers, and in turn, will lead to a growing demand for interconnectivity between these regional data centers.

## 3. Summary Region Connect

Access to the services and national/international partners in other NorthC data centers: when combined, the NorthC data centers form a nationwide "virtual data center"



Fully compatible and transparent ethernet connections



Reserved and guaranteed broadband capacity that can be quickly scaled up



Connections and services are configured to be ultra-fast, thus boosting availability



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