

## Press Release

### **New study finds 350 million end-users to be within 30 milliseconds of Stockholm**

Stockholm, 11 December 2019 – **In a whitepaper released today, Stockholm is identified as a prime location for data centers. From the capital of Sweden, data center operators and service providers can reach a market of 350 million users within 30 milliseconds of round-trip delay.**

By targeting northern Europe and western Russia from Stockholm, data centers can also benefit from low-carbon electricity, the lowest electricity prices in the EU and an opportunity to receive payment for excess heat, which is used for residential heating in the city. The study has been produced by Telia Carrier, Invest Stockholm and Stockholm Data Parks.

In the whitepaper, the population of northern Europe was mapped and visualised. With the major metropolitan areas identified, the authors measured the round-trip delay (RTD) from Stockholm to various northern European Points-of-Presence (PoPs) within Telia Carrier's #1 ranked global IP backbone, which connects the region's major cities with minimal delay. All measurements were made using the carrier's dedicated, multi-path fiber network and professional telecom equipment (providing more exact data than a simple "ping" measurement). By combining the data, it was possible to estimate the market size reachable from Stockholm expressed as a function of the round-trip delay.

The whitepaper also explores how sensitive different applications are to network delay. It found that, with the exception of financial trading and software mirroring, there are few applications for which the user experience will be adversely affected by additional latency from remote server location in Stockholm. It concludes that for the northern European market, most applications can be efficiently served from data centers in the Swedish capital.

In short, it was found that data center relocation to Sweden, and Stockholm in particular, presents a compelling and sustainable opportunity for an energy-intensive industry to source cheap electricity with a low carbon footprint, whilst operating within acceptable latency limits. It is possible to implement a site location strategy for Northern Europe, whereby a significant share of users' applications are hosted remotely in Stockholm - with competitive OPEX, real estate costs and mitigation of negative environmental effects through the use of renewable electricity sources and payment for reuse of excess heat. Significantly, this approach can deliver significant annual cost savings for data center operators and their customers.

The full whitepaper can be downloaded here: <https://www.teliacarrier.com/knowledge-hub/whitepapers/stockholm-latency.html>



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### **About Telia Carrier**

Telia Carrier owns and operates one of the world's most extensive fiber backbones. Our mission is to provide exceptional network infrastructure and services – empowering individuals, businesses and societies to execute their most critical activities. By working close to our customers, we make big ideas happen at the speed of fiber. Discover more at [teliacarrier.com](http://teliacarrier.com).

### **About Stockholm Data Parks and heat recovery**

Stockholm Exergi has been promoting heat recovery since 1979, with IBM's data center as the first supplier of excess heat. Starting 2012, the work was intensified and a heat recovery offering named Open District Heating was launched. In 2017, it was decided, in cooperation with the City of Stockholm, Invest Stockholm, grid provider Ellevio and dark fiber operator Stokab, to launch Stockholm Data Parks to encourage major data center operators to locate in Stockholm with a view to performing heat recovery on a large scale. Examples of data center operators already supplying excess heat to Stockholm Exergi are Interxion, Ericsson and Bahnhof. <https://stockholmdataparks.com/>

### **About Invest Stockholm**

Invest Stockholm is the official investment promotion agency of Stockholm. We work with the marketing and development of the Stockholm region as a business destination under the brand Stockholm – The Capital of Scandinavia. Invest Stockholm is a subsidiary of Stockholm Business Region, owned by the city of Stockholm. [www.investstockholm.com](http://www.investstockholm.com)