

## Satisfying massive demand for Cloud-based services with Cloud Xpress 2 from Infinera

Within the Telco industry, we can see a massive demand for Cloud-based services. This forces cloud service providers (cloud SPs) to heavily invest in their data centre and network infrastructures to keep pace with this development. Evolving the capacity scaling within providers' data centre interconnections (DCI) leads to many challenges. One of these difficulties is to reduce costs while having enlarged equipment density.

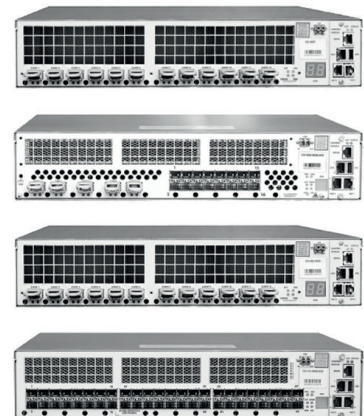
Operational efficiency must improve continuously to grow networks without growing staff and operational costs. And to address growing security concerns, all data leaving the data centre must be encrypted in flight without impacting network performance or complexity. The Infinera Cloud Xpress 2 is designed to meet these challenges, enabling cloud service providers to build and efficiently scale their secure metro cloud fabrics.

### Infinera's Cloud Xpress uses super-channels

Infinera's Cloud Xpress Family is purpose-built to handle massive traffic between metro data centres over wavelength-division multiplexing (WDM) super-channels, which makes the Cloud Xpress unique in the industry's market of data centre interconnect systems. A super-channel combines multiple individual optical dense wavelength-division multiplexing (DWDM) channels. The device creates a composite signal of the desired capacity which uses only a single pair of optical fibres. This functionality underlines that the Cloud Xpress is designed for data centre interconnection networks while providing high capacity at ultra-low latency. At the same time, it comes with a low-power consumption design which helps saving costs.

The Cloud Xpress family consists of the Cloud Xpress in 4 different models and the latest-generation the Cloud Xpress 2. While the Cloud Xpress can support a maximum client-side capacity of 500 gigabits per second (Gb/s), Infinera massively improved this with their new Cloud Xpress 2 allowing up to 1.2 terabits per second (Tb/s). At the same time, Infinera could reduce the CX chassis height with the Cloud Xpress 2 from 3 rack units to 1 rack unit. This improvement results in enormous space-saving opportunities for data centre interconnection infrastructures.

### Infinera Cloud Xpress family



#### Cloud Xpress

**Models:**

CX-10E-500S  
CX-40E-500SCX-100E-500S  
CX-100E-500F

**Height:**

3 rack units

**Client Interfaces:**

10 GbE, 40 GbE, 100 GbE

**Maximum Client-side capacity:**

500 Gb/s

#### Cloud Xpress 2

**Model:**

CX-100E-1200F

**Height:**

1 rack unit

**Client Interfaces:**

12 x 100 GbE (QSFP28)

**Maximum Client-side capacity:**

1.2 terabit per second (Tb/s)



## Cloud Xpress fits into your network operations

The Cloud Xpress family supports command line interface (CLI) and API-driven control via NETCONF and YANG which allows implementing the device in your automated service-cycle and management systems. On the other hand, you can use Infinera's Digital Network Administrator (DNA) which is a feature-rich management platform providing equipment inventory, alarms and events notifications, circuit and endpoint inventory, and historical performance data. DNA can help to simplify your network operations, speed up your service provisioning, and rapidly isolate problems while troubleshooting the network.



*Schematic drawing of the scalability resulting in a 27.6 Tb/s DCI link*

## Cloud Xpress 2 – Providing future-safe scaling

It's important to highlight that you can stack up to 23 of Cloud Xpress 2 chassis which allows 27.6 Tb/s traffic on a single fibre pair for DCI applications. Even if most infrastructures don't have these vast traffic aggregations yet, the opportunity of stacking the Cloud Xpress 2 leads to future-safe opportunities as the CX2 covers even excessive growth.

## Saving costs with Cloud Xpress

Big players like Netflix and GÉANT invested in Infinera's Cloud Xpress platform for having "best-in-breed" data centre interconnection in place. At Xantaro we also see increased demand from our customers for Infinera's Cloud Xpress solution as it perfectly fits into most DCI environments with the massive potential of saving costs.

Implementing Cloud Xpress 2 has shown, that it allows reducing your 100G data centre interconnection costs by 55%; Based on the provision of two Cloud Xpress 2 (CX1200) and access to dark fibre line rental for three years. These savings can boost your business within the industries competition.

## Benefit from Xantaro's expertise

As an Infinera partner, Xantaro has in-depth optical transport know-how and practical experience in planning and deploying the Cloud Xpress family in data centre interconnection networks. This expertise gives us the opportunity to advise our customers on the economically best possible solution. Having the Cloud Xpress within our XT<sup>3</sup>Lab enables us to offer our customers deep insights, practical pre-planning and Proof-of-Concept customised to your business needs. Contact us if you are interested in the Cloud Xpress family or other optical questions.



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