

## NetScaler CPX

### Bring the power of advanced Layer 4 to Layer 7 application delivery services to containerized micro-services infrastructures

CPX is NetScaler in a container form factor. It is built from the same code base as the NetScaler ADC and is packaged as a Docker container. CPX joins NetScaler VPX, MPX, and SDX in providing a cloud-ready ADC with a consistent set of ADC services to application developers and network operations teams unified through a single API, management console and policies that can run on premise and in the cloud. It is designed to be inserted early in the application development process to ease deployment of applications into production. CPX is managed by NetScaler Management and Analytics System (MAS), an orchestration, automation, visualization and analytics platform that abstracts L4-L7 platforms into a set of resources that enables agile application delivery. Through MAS, CPX interfaces with container management systems and auto-configures based on dynamic changes in the microservices infrastructure.

NetScaler CPX provides the NetScaler web and application load balancing, acceleration, security and offload feature set in a simple, easy-to-install container. Enterprises, cloud and eBiz service providers can deploy NetScaler CPX in Docker containers managed by popular container management systems.

Deploying applications can be time consuming, complex and costly. Applications need to be continually iterated, built and deployed. DevOps professionals using containers to speed up delivery and shipment of applications will benefit from CPX to insert load balancing early in the development cycle to accelerate delivery of applications to production.

#### Key Benefits

- Provides Layer 4 to 7 services for containerized applications
- Acts as control point for all microservices call flows
- Managed by popular container management systems
- Improves application security with centralized policy management
- Provide monitoring and analytics of application and network traffic
- Provide SSL offload

#### NetScaler CPX – Enabling microservices infrastructure

NetScaler CPX makes functionality typically only offered on specialized, high-end network devices available as a Docker container that can be easily and dynamically deployed in a container for micro-services applications. CPX acts as app to app proxy, load balancing applications and inserting security policies to ensure applications are protected. The flexibility of NetScaler CPX makes it easy and cost effective to fully optimize every application type. For example:

- Manage East-West traffic between containerized apps with sophisticated load balancing, SSL offload and DDoS protection.
- Act as a control point for all microservices call flows managing flows and protecting apps

- Enable in service zero downtime deploys for canary testing, rolling and blue-green deployments

#### NetScaler CPX – Advantages for IT teams

- IT teams can run CPX on any Linux host, easing its deployment in a public, private or hybrid cloud.
- IT teams can deploy a Platform-as-a-Service (PaaS) for their internal app developers and production apps that includes automated configuration of load balancing
- IT teams can use the same management platforms and tooling to manage app delivery control and load balancing across all form factors – container, virtual machine and physical appliance.

## NetScaler CPX – Advantages for Developers

- CPX allows developers to transition their services built using three-tiered layered applications into containerized and micro-services applications.
- DevOps teams can use the NetScaler in development and push verified load balancing configurations all the way into production working with IT teams
- Developers can apply approved security policies and SSL/TLS ciphers early in the development cycle.

## NetScaler CPX – L4 – L7 Features

- Content switching – present different content to different users based on policies.
- Responder – direct users to a different server based who sent the request and where it was sent from.
- Redirect – redirect user requests to the cache.
- Rewrite – create rules to change an HTTP request action
- TCP Optimization – accelerate TCP requests.
- SSL Offloading – off load SSL processing to NetScaler from the server.
- DDOS – protect against distributed denial of service attacks.
- DNS load balancing – load balance to multiple DNS servers.

## Deploy an agile application environment

With NetScaler CPX, DevOps, application business owners, developers and IT operations can deploy containerized applications and microservices architecture that keeps pace with changes in the infrastructure. CPX integrates with container management systems through NetScaler MAS and adapts to changes in the app environment to add to or delete apps from a VIP, create a new VIP for an app or transfer a VIP to another CPX. As CPX creates a VIP, MAS can automatically push an A/AAAA DNS entry to open source or commercial DNS servers.

## Provided immediate visibility and analytics

IT organizations and service need immediate visibility in the health of containerized apps and microservices. CPX streams its numerous counters and transaction data into NetScaler MAS for visibility and automated troubleshooting. Machine learning algorithms are used to identify events beyond normal trend lines alerting IT Ops, DevOps, developers and network ops teams of problems.

CPX models	Minimum Memory <sup>1</sup>	vCPUs	Supported Container Managers
CPX	1 GB	1	Kubernetes, Mesosphere DCOS, Apache Mesos and Marathon

1. The minimum memory requirement is 1 GB.



### About Citrix

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