

## Product overview

Juniper Cloud Metro is Juniper's vision for next-generation metro networks. It leverages cloud principles to facilitate operations where edge hosting, connectivity, and [service experiences](#) converge. The ACX7000 Family portfolio, designed for the IP service fabric underlay of a Juniper Cloud Metro, is

- managed by [Junos OS Evolved](#) and [Paragon Automation](#)

- embedded with [active service assurance](#) and zero trust security

- optimized to deliver high-scale, differentiated services anywhere

# ACX7000 FAMILY OF CLOUD METRO ROUTERS DATASHEET

## Product description

[Network operators](#) are discovering incredible opportunities associated with the [5G](#), [Internet of Things \(IoT\)](#), and cloud evolution. These come along with daunting challenges to support new and increasingly complex services and applications—all while striving to deliver experience-first networking. [Juniper® Cloud Metro](#) is Juniper's vision for next-generation multiservice metro networks, leveraging cloud principles to architect, deploy, and operate networks optimized for distributed edge cloud service delivery. Juniper Cloud Metro unlocks a new generation of highly scalable architectures, automated operations, and differentiated subscriber services.

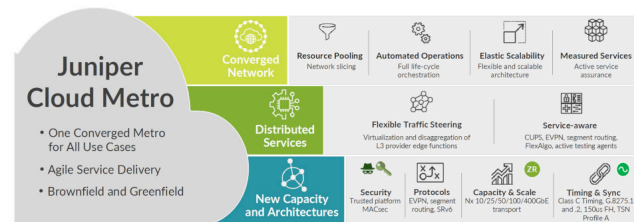


Figure 1. Juniper Cloud Metro - built for experience-first networking

## ACX7000 family portfolio highlights

The Juniper Networks® ACX7000 family, managed by Junos® OS Evolved and Juniper Paragon™ Automation, is purposely built for the IP service fabric underlay of a [Juniper Cloud Metro](#). Leveraging the industry's fastest chipsets, the portfolio presents a unique and innovative balance of leading-edge platform design, technologies, and capabilities to deliver the industry's most sustainable and high-performance routing portfolio. The ACX7000 family delivers a broad range of fixed, fixed-plus-modular, and modular multiservice routers (including environmentally rated options) providing highly flexible and scalable build-as-you-grow native port speeds from 1GbE to 400GbE, high-power ZR/ZR+ support, breakout cable options for more granular port speed deployments, and high-capacity platforms pre-engineered to support future port speeds. Every ACX7000 platform includes active service assurance and zero trust security embedded, enabling operators to deliver highly reliable and differentiated customer experiences.

Individually, ACX7000 platforms bring leading-edge performance, scale, and capability to any deployment. When building a comprehensive Juniper Cloud Metro architecture consisting of multiple ACX7000 platforms, new dimensions of end-to-end operational capability, performance, and simplicity are realized. These cloud metro routers excel in three key areas: exceptional TCO, investment protection, and cloud metro-ready to deliver experience-first networking for residential, enterprise, wholesale, and 4G/5G mobile services.

- **Complete portfolio:** The ACX7000 family covers all use case and deployment scenarios, from fixed compact and environmental-rated (C-Temp and I-Temp) 1 U platforms, to fixed-plus-modular (E-Temp and I-Temp), and fully modular systems capable of highly scalable throughput and capacity. All platforms are equipped with a full suite of Layer 2/Layer 3 and MPLS routing features and protocols, while supporting scale-up, scale-out, and hybrid architectures for both greenfield and brownfield deployments. The unique capabilities enable operators to evolve across protocol generations at their own pace.
- **Sustainable high-performance platforms:** The ACX7000 family sets new operational benchmarks for energy efficiency, space efficiency, fabric capacity, port density, and flexibility of both port speed and optics options. Juniper's use of multi-rate ports simplifies today's most common 1GbE to 10GbE and 100GbE to 400GbE service migrations, including cloud-inspired 25GbE and 50GbE options, on a port-by-port basis without a forklift. Cooling and power innovations enable these platforms to support unrestricted use of today's and tomorrow's high-power transceivers on all supporting ports.
- **Timing and synchronization:** The ACX7000 family delivers precision timing and advanced timing capabilities, for ultra-reliable low-latency communications to leverage the full potential of 5G and to confidently offer and deliver differentiated service-level agreements (SLAs).
- **Juniper Paragon Automation:** When a Cloud Metro network is enabled by Paragon Automation engineering and operation teams gain efficiency and the ability to deliver exceptional user experiences. Paragon Automation speeds up scenario planning, bulletproofs network design, and accelerates device onboarding while keeping operations ahead of issues and guaranteeing that services are delivered right the first time and every time.
- **Network as the Experience Sensor:** Juniper embeds [Juniper Paragon Active Assurance](#) test agents directly into Junos OS Evolved operating system in every ACX7000 platform, turning an entire Cloud Metro network into an "Experience Sensor" that proactively assures user experience without requiring advanced expertise or tedious manual effort.
- **Zero Trust Security:** ACX7000 family platforms feature a unique, cryptographically bound device identity that cannot be spoofed by hackers. The moment a Juniper Cloud Metro platform boots, it automatically verifies device authenticity and integrity, attesting that neither hardware nor software has been tampered with and activating RFC-compliant secure zero-touch provisioning (SZTP).

## Use cases and applications

Juniper Networks ACX Series portfolio offers a variety of multiservice platforms. The ACX7000 family overlaps and extends the breadth of Juniper's multiservice routing portfolio, and when deployed as the primary product family within a Juniper Cloud Metro architecture, bolstered by Junos OS Evolved and Paragon Automation, operators unlock an added layer of performance, capability, and operational simplicity that facilitates new pathways to, and benchmarks for, highly differentiated user experiences. Use case support includes:

- **Universal metro routing:** ACX7000 family support a full suite of routing features, allowing operators to customize deployment models to achieve their business objectives. Create a converged multiservice architecture that best supports your business, residential, and wholesale connectivity service needs. The ACX7000 family can be deployed as highly versatile multiservice routers enabling Ethernet VPN (EVPN), virtual private LAN service (VPLS), MPLS label-switching router (LSR), SR-MPLS, SRv6, and as Layer 2 Ethernet or Layer 3 IP services. All platforms incorporate packet optical convergence capabilities enabling dense wavelength-division multiplexing (DWDM) wavelengths to extend reach over dark fiber, to efficiently interconnect IP/packet and DWDM networks and support passive optical network (PON) deployments leveraging [Juniper Unified PON](#) technology. See, **Leveraging packet optical convergence** section.
- **Data center and edge compute:** The ACX7000 family is ideal for service provider and data center/cloud applications, with support for multiple overlay encapsulation methods. Select platforms also support data plane security with inline Media Access Control Security (MACsec) on all ports.
- **Enterprise WAN:** Enterprises and government agencies worldwide use ACX Series platforms to build their own L2, L3, and MPLS networks. The common and synchronized feature set provided across all ACX7000 family platforms makes it an ideal selection to ensure that operators of enterprise [WAN networks](#) can easily, confidently, and securely interconnect with public service provider networks.
- **Mobile backhaul:** ACX7000 family platforms support industry-leading, highly scalable, and reliable hardware-based timing that meets the strictest 4G/5G requirements. These include advanced timing, Synchronous Ethernet for frequency, and Precision Time Protocol (PTP) for frequency and phase synchronization, enabling deployment in next-generation mobile networks such as 4G/5G.

## Leveraging packet optical convergence

When the application calls for increased transport capacity, reach, resiliency, or interconnecting an IP/packet network to an optical transport network, deploying a platform that offers integrated DWDM interfaces is convenient and cost effective. Referred to as packet optical convergence platforms, they can convert Ethernet circuits into a DWDM signal, which can be multiplexed with other DWDM channels onto a single fiber, enabling efficient transport over an optical layer to eliminate additional, costly, standalone DWDM transponders.

The advent of small form-factor technologies like QSFP56-DD pluggable optics and 400ZR/ZR+ pluggable transceivers, enables the selection on a port-by-port basis between grey client interfaces (400G LR4) for shorter distances or coherent DWDM interfaces (400ZR/ZR+) for longer distances, as well as transport over an active optical line system—without sacrificing platform density. Juniper integrates QSFP-DD interfaces in its solutions, including the ACX7000 family, enabling considerable capital savings and substantial sustainability benefits for operators compared to the traditional use of external DWDM transponders.



Figure 2. Juniper ACX7000 family—engineered for the IP service fabric of a Juniper Cloud Metro

Table 1. ACX7000 family of cloud metro routers

ACX7000 family	Key feature/benefit (for details, please reference respective product page)
<b>ACX7020</b> Industrial temperature-rated, compact, 1 U fixed, 1GbE-25GbE cloud metro router  <a href="#">Product page</a>	The ACX7020, part of the ACX7000 series, provides industry-leading access performance in an Industrial-rated (I-temp), dense, and compact 1 U footprint. Ideal for service providers, enterprises, and wholesale services, it helps operators deliver differentiated customer experiences. <ul style="list-style-type: none"> <li>• 1 U, Industrial-rated (I-Temp) platform, option for Conformal coating variant</li> <li>• 100 Gbps throughput</li> <li>• 16 1GbE/10GbE ports, and 4 1GbE/10GbE/25GbE ports</li> </ul> <b>Note:</b> ACX7020 is available for BETA testing
<b>ACX7024</b> Industrial temperature-rated, compact, 1 U fixed, 1GbE-100GbE cloud metro router  <a href="#">Product page</a>	The ACX7024, part of the ACX7000 family, provides industry-leading access performance in an Industrial-rated (I-temp), dense, and compact 1 U footprint. Ideal for service providers, enterprises, and wholesale services, it helps operators deliver differentiated customer experiences. <ul style="list-style-type: none"> <li>• 1 U, Industrial-rated (I-temp) platform with 9.44 in (24 cm) depth</li> <li>• CPU 4C, 16GB RAM</li> <li>• 360 Gbps throughput</li> <li>• 24 1GbE/10GbE/25GbE ports, and 4 100GbE ports</li> </ul>
<b>ACX7024X</b> Commercial temperature-rated, compact, 1 U fixed, 1GbE-100GbE cloud metro router  <a href="#">Product page</a>	The ACX7024X, part of the ACX7000 family, provides industry-leading access performance in a Commercial-rated (C-temp), dense, and compact 1 U footprint. Ideal for service providers, enterprises, and wholesale services, it helps operators deliver differentiated customer experiences. <ul style="list-style-type: none"> <li>• 1 U, Commercial-rated (C-Temp) platform with 9.44 in (24 cm) depth</li> <li>• CPU 8C, 64GB RAM</li> <li>• 360 Gbps throughput</li> <li>• 24 1GbE/10GbE/25GbE ports, and 4 100GbE ports</li> </ul>
<b>ACX7332</b> Extended temperature-rated, compact, 3 U fixed + I/O bay design, 1GbE-400GbE cloud metro router  <a href="#">Product page</a>	The ACX7332, part of the ACX7300 line, offers fixed plus modularity for scale in an extended-temperature-rated (E-Temp), redundant, dense, and compact footprint including advanced timing and MACsec support. Port speeds from 1GbE to 400GbE make it ideal for many use cases. <ul style="list-style-type: none"> <li>• 3 U, extended temperature-rated (E-Temp) platform with 11.42 in (29 cm) depth</li> <li>• 2.4 Tbps throughput and integrated eTCAM technology delivering enhanced scale and low latency performance</li> <li>• Fixed ports: 32 1GbE/10GbE/25GbE ports, 8 100GbE ports</li> <li>• Three I/O bays supporting optional I/O modules: • 16-port, multi-rate (SFP56), • 4-Port (QSFP28) and 2-Ports (QSFP56)</li> </ul>

ACX7000 family	Key feature/benefit (for details, please reference respective product page)
<b>ACX7348</b> Industrial temperature-rated, compact, 3 U fixed + I/O bay design, 1GbE-400GbE cloud metro router  <a href="#">Product page</a>	The ACX7348, part of the ACX7300 line, offers fixed plus modularity for scale in an Industrial temperature-rated (I-Temp), redundant, dense, and compact footprint including advanced timing and MACsec support. Port speeds from 1GbE to 400GbE make it Ideal for many use cases. <ul style="list-style-type: none"> <li>• 3 U, industrial temperature-rated (I-Temp) platform with 11.42 in (29 cm) depth</li> <li>• 2.4 Tbps throughput</li> <li>• Fixed ports: 48 1GbE/10GbE/25GbE ports, 8 100GbE ports</li> <li>• Three I/O bays supporting optional I/O modules: • 16-port, multi-rate (SFP56), • 4-Port (QSFP28) &amp; 2-Ports (QSFP56)</li> </ul>
<b>ACX7100-32C</b> High-capacity, secure, 1 U fixed, 100GbE-400GbE, high fan-out density cloud metro router  <a href="#">Product page</a>	The ACX7100-32C, part of the ACX7100 line, is a high-capacity, high-density router that provides up to 4.8 Tbps of throughput and 100GbE to 400GbE services in a 1 U footprint. Ideal for service providers, wholesale, data centers, and enterprises. <ul style="list-style-type: none"> <li>• 1 U, with 23.42 in (59.49 cm) depth</li> <li>• 4.8 Tbps throughput</li> <li>• 32 40GbE/100GbE, 4 400GbE</li> </ul>
<b>ACX7100-48L</b> High-capacity, high-density, 1 U fixed, 10GbE-400GbE cloud metro router  <a href="#">Product page</a>	The ACX7100-48L, part of the ACX7100 line, is a high-capacity, high-density router that provides up to 4.8 Tbps of throughput and 10GbE to 400GbE services in a 1 U footprint. Ideal for service providers, wholesale, data centers, and enterprises. <ul style="list-style-type: none"> <li>• 1 U, with 23.42 in (59.49 cm) depth</li> <li>• 4.8 Tbps throughput</li> <li>• 48 10GbE/25GbE/50GbE, 6 400GbE ports</li> </ul>
<b>ACX7509</b> Compact, 5 U, modular, 1GbE-400GbE, high-density low-speed fan-out cloud metro router  <a href="#">Product page</a>	The ACX7509 is a high availability (HA), power-efficient, and modular 5 U platform. Ideal for service providers, data centers, and large enterprises, it helps network operators deliver differentiated customer experiences. <ul style="list-style-type: none"> <li>• 5 U, with 23.62 in (60 cm) depth</li> <li>• 4.8 Tbps throughput, 9-slots (supporting 8-slots in initial release)</li> <li>• Module options include:               <ul style="list-style-type: none"> <li>- 20-port: 1GbE/10GbE/25GbE/50GbE</li> <li>- 4-port: 200GbE/400GbE</li> <li>- 16-port: 40GbE/100GbE ports</li> </ul> </li> </ul>

## Common ACX7000 family feature matrix

A key differentiator and operator benefit of the ACX7000 family of Cloud Metro Routers is that all platforms in the portfolio share a common feature set with limited hardware-based exceptions.

Table 2. ACX7000 Family Feature Matrix

Feature
<b>Layer 2 Bridging</b>
IEEE 802.1ad (Q-in-Q)
Integrated Routing and Bridging (IRB)
Bridge Domains
IEEE 802.1Q VLAN Encapsulation
Link Aggregation Control Protocol (LACP): IEEE 802.3ad
MC-LAG and ESI-LAG
Static MAC
Jumbo frames
Layer 2 Control Protocol Transparency (L2CP)
Layer 2 Access Control List
ARP and ND
ERPS/G.8032
<b>IP</b>
IPv4/IPv6
FIB Compression <sup>1</sup>
Unicast Reverse-Path Forwarding (uRPF)
ECMP
RIP/RIPng
OSPF v2/v3
IS-IS

Feature
FRR
BGP for v4/v6
MP-BGP
BGP-PIC (Edge and Core)
Layer 3 Access Control List
BGP FlowSpec
BMP
BGP LS
Virtual Router Redundancy Protocol (VRRP)
BFD (Single-Hop and Multi-Hop)
PIM
GRE
Filter-based Forwarding
DHCP
IGMP/MLD
<b>Quality of Service</b>
Behavior aggregate (BA) classification
Rewrite
Multifield classification
HQOS
Multilevel Priority Queuing
Congestion Management and Avoidance
Virtual Output Queuing
Policer and Shapers
<b>MPLS Service (Layer 2 and Layer 3)</b>
L2VPN
L3VPN

Feature
Virtual Private LAN Service (VPLS)
VPWS
EVPN VPWS
EVPN E-Tree
NG MVPN
<b>MPLS and Segment Routing</b>
LDP
LDP Tunneling (LDP over RSVP)
RSVP-TE
TI-LFA, rLFA and FRR
P2MP RSVP-TE and mLDP
Segment Routing v4 and v6
Flex-Algo for v4 and v6
Segment Routing – Traffic Engineering for v4 and v6
SR-TE Protection
BGP SID, Adjacency SID, Binding SID
SR-LDP Mapping
SRLG
EVPN E-LAN, E-Line and E-Tree
EVPN A/A and A/S
BGP-LU/RFC 3107
BGP-CT
PCEP
MPLS Ping & Traceroute for SR LSP
Traffic Steering from L3VPN/L2VPN/EVPN into Colored SR-TE LSP
<b>Timing and Synchronization</b>
NTP
PTP Transparent Clock
PTP Primary/Client Capability
PTP Boundary Clock
Sync-E
Sync-E Enhanced
Sync-E ESMC (G.8264)
Class C
Class D <sup>2</sup>
GNSS (Integrated/External) <sup>3</sup>
<b>Operation</b>
Connectivity Fault Management (CFM)
Link Fault Management (LFM)
Y.1731
TWAMP
RFC2544
Port Mirroring ERSPAN
sFlow
JFlow (V9 and IPFIX) <sup>1</sup>
Syslog
<b>Security</b>
MACsec <sup>4</sup>
Secure Boot
SSH
Authentication, Authorization, and Accounting (AAA)

Feature
<b>Automation</b>
Zero-touch Provisioning (ZTP)
Network Configuration Protocol (NETCONF)
Yet Another Next Generation (YANG)
Telemetry
OpenConfig
Python Scripts

<sup>1</sup> Not supported on ACX7024, ACX7020

<sup>2</sup> Class D verified on ACX7024, ACX7100-48L, and ACX7100-32C

<sup>3</sup> Supported internally on the ACX7332 and ACX7348. Supported by external source on ACX7024, and ACX7024X

<sup>4</sup> Supported on ACX7332, ACX7348, ACX7100-32C, and ACX7509

## Architecture and key components

Powered by Junos OS Evolved, the ACX7000 family adds a new dimension of capability to the Juniper routing portfolio for service provider, large enterprise, and data center operations. Designed to address the rapid growth of mobile, video, and edge compute services, the ACX7000 family builds upon Juniper's proven IP/MPLS leadership that spans from access and aggregation to edge and core. As services change, so must service architectures.

The emergence of 5G, IoT, and cloud is forcing an evolution in how services are delivered. What's needed are purpose-built platforms that create an agile IP service fabric capable of intelligently steering traffic between user and network resource—whether the service is hosted in a physical network device or it's a virtual and dynamic instantiation hosted across a distributed cloud. Operators capable of strategically positioning service instantiations to maximize performance and minimize latency over a single, converged architecture will optimize capital investments, reduce operational expenses, and enable highly differentiated and compelling user experiences.

- Juniper Cloud Metro:** Juniper Cloud Metro (Figure 1) is a converged multiservice networking solution that takes the most powerful cloud principles used in massive hyperscale data centers and adapts them to metro networking. It optimizes the experiences of both network operators and the customers they serve, and it redefines outcomes from being purely connectivity-driven, to being completely experience-driven. A Juniper Cloud Metro, deployable in both brownfield and greenfield environments, intelligently and cost efficiently steers traffic to the best physical and virtual resource to minimize latency and optimize user experiences. It also leverages automation to accelerate and simplify network operations and showcase service delivery sophistication and quality that only network operators, and their Juniper Cloud Metro networks can achieve:

- One converged Juniper Cloud Metro for all use cases



- Agile service delivery with advanced network slicing and embedded active assurance
- Advanced protocols, timing, scale, and automation
- **Flexible capacity:** A wide variety of ACX7000 platform and pluggable optics options gives operators the flexibility to position the right device at every edge location. Choose interface options from 1GbE to 400GbE with ZR/ZR+ support. All Juniper Cloud Metro systems use the same consistent Junos OS Evolved operating system providing consistent and extensible performance across an entire ACX7000 deployment. Pay for only the bandwidth, optics and features needed, when they are needed, with a Juniper Cloud Metro that evolves with your business without chassis forklifts.
- **Converged traffic-handling:** A Juniper Cloud Metro is built for network slicing, enabling any-to-any intelligent traffic steering across the distributed network to meet SLAs. Every Juniper Cloud Metro platform supports EVPN overlays, IPv6 Segment Routing (SRv6), and Layer 2/Layer 3 VPN. Operators can converge all metro use cases—residential, business, mobile xHaul transport—onto a single converged architecture, with a single operational model. They can also grow revenues by supporting diverse new services, each with its own quality requirements and SLAs, over the same converged infrastructure.
- **Build-as-you-grow scalability:** Juniper Cloud Metro offers a more sustainable approach to ongoing network expansion. As demand grows, operators can continue using traditional scale-up approaches in existing ring architectures. But alongside them, all Juniper Cloud Metro systems support the same scale-out models—and spine-leaf architectures—that public cloud providers use in hyperscale data centers. By building a next-generation edge with smaller distributed platforms, each serving fewer subscribers, network resources are aligned more closely with demand while reducing the “blast radius” if any node goes down.
- **Embedded Paragon Active Assurance:** Traditional networks require complex standalone solutions to validate network devices and services. Juniper embeds Paragon Active Assurance test agents directly into the Junos OS Evolved operating system in every ACX7000 family platform, turning your entire Juniper Cloud Metro into an “Experience Sensor” that continually detects and fixes problems—without advanced expertise or tedious manual effort. Operators can proactively assure end-to-end 5G services, verifying that, for example, new cell sites are ready to serve customers or that edge clouds will meet SLA requirements for a new network slice, before the service is delivered. Incident resolution times are cut in half

as most problems are identified and fixed before they affect customers—translating to happier, more loyal subscribers.

- **Embedded Zero Trust security:** With a Juniper Cloud Metro architecture, zero trust security is engineered into the IP services fabric. Each ACX7000 platform features a unique, cryptographically bound device identity that can't be spoofed by hackers. The moment a Juniper Cloud Metro platform boots, it automatically verifies device authenticity and integrity, attesting that neither hardware nor software has been tampered with and activating RFC-compliant secure zero-touch provisioning (sZTP). This enhanced Juniper Cloud Metro security fabric also features native disk and file encryption to protect data at rest and offers MACsec to safeguard data in motion. Using the security built into your Juniper Cloud Metro architecture, risk is reduced to better protect users and the network. This enables operators to explore a wider range of new edge experiences that can be delivered to customers with confidence.

Together, these capabilities create a more scalable, assured, and secure IP service fabric underlay for your Juniper Cloud Metro that's optimized for the explosion of new devices and applications at the edge. They provide a powerful foundation to deliver next-generation edge services and network slices to achieve and drive sustainable business outcomes.

## Business growth

Juniper Cloud Metro solutions are optimized to enable sustainable business growth with a focus on addressing profits, people, and the planet holistically, while delivering exceptional service experiences. Through innovative design, leading-edge technology, and groundbreaking orchestration, Juniper provides operators with an “easy button” to create a cloud metro of their own to deliver highly compelling experiences to their customers.

The metro is evolving to become the new “edge,” with massive growth potential. It is where 5G, edge cloud hosting, connectivity, and service experience converge. Traditional “retro metro” architectures were not designed to sustain business growth in this quickly evolving environment.

According to [ACG Research](#), metro traffic bandwidth is projected to grow more than 500% from 2021 to 2027, making the current cost per bit economics unsustainable. User expectations continue to increase, and security threats persistently expand. From an operational perspective, 86% of telecom executives named skilled staff shortage as the primary industry challenge, and from an environmental sustainability perspective, new ITU standards require operators to reduce greenhouse emissions by 45% from 2020 to 2030. A new approach is needed to effectively tackle these

challenges and enable sustainable business growth—Juniper Cloud Metro is designed with these challenges and opportunities in mind.

Juniper Cloud Metro is about applying cloud principles to architecting, building, and operating metro networks and represents a new solution category because the attributes for its operations, systems, and architecture are fundamentally different from

traditional retro metros (Figure 3). Consider a car analogy, electric vehicles and gasoline vehicles are both “vehicles” but can clearly be placed in different categories due to their unique characteristics and attributes.

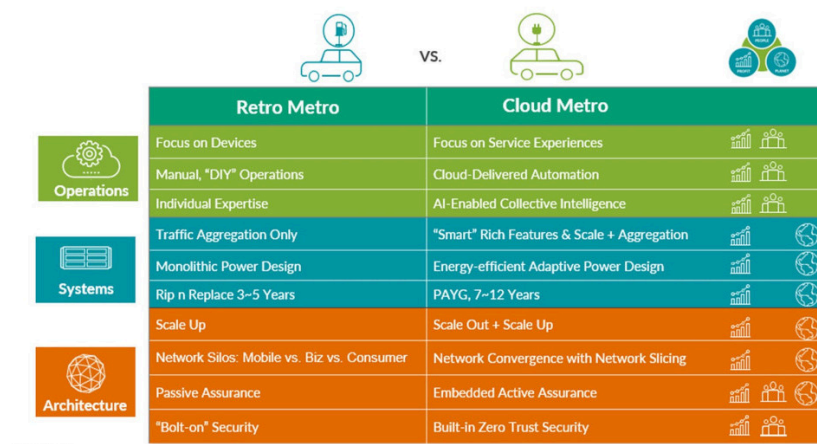


Figure 3. Juniper Cloud Metro: A new category of metro solution

The Juniper Cloud Metro solution combines an IP service fabric underlay of ACX7000 family routers, Junos OS Evolved, and Paragon Automation to achieve a singular and converged purpose—enabling sustainable business growth:

- **Sustainable operations** with Paragon Automation
- **Sustainable systems** that deliver high 400GbE port density and capacity, while reducing carbon footprint and e-waste
- **Sustainable architecture** with a scalable IP service fabric that features embedded active service assurance and zero trust security

### Common ACX7000 family software license

A recurring Cloud Metro theme highlights the many benefits operators experience by designing their brownfield or greenfield IP service fabric around the ACX7000 family portfolio. Benefits include common features and protocols, synchronized software updates, leading edge performance and sustainability, network as a sensor (Active Assurance), embedded zero trust security, secure zero-touch provisioning (SZTP), Junos OS Evolved, Paragon Automation, and more. The application of common software license options across the entire portfolio is another example of operator convenience, flexibility, and simplicity. The following build-as-you-grow software license options (Table 3) apply to all ACX7000 family platforms:

Table 3. Common ACX7000 family software license

License ordering number	Description
S-EACX-10G-A1-1	SW, EACX Software 1 year Subscription Advance license; Per 10G Capacity, With Software Support
S-EACX-10G-A1-3	SW, EACX Software 3 years Subscription Advance license; Per 10G Capacity, With Software Support
S-EACX-10G-A1-5	SW, EACX Software 5 years Subscription Advance license; Per 10G Capacity, With Software Support
S-EACX-10G-A1-P	SW,EACX Software Perpetual Advance1 license; Per 10G Capacity, without SW Support
S-EACX-10G-P1-1	SW,EACX Software 1 year Subscription Premium license; Per 10G Capacity, Includes ADV SW Subscription license, with software support
S-EACX-10G-P1-3	SW, EACX Software 3 years Subscription Premium license; Per 10G Capacity, Includes ADV SW Subscription license, with software support
S-EACX-10G-P1-5	SW, EACX Software 5 years Subscription Premium license; Per 10G Capacity, Includes ADV SW Subscription license, with software support
S-EACX-10G-P1-P	SW, EACX Software Perpetual Premium1 license; Per 10G Capacity, Includes ADV SW Subscription license, without SW Support
S-EACX-100G-A-1	SW, EACX Software 1 year Subscription Advance license; Per 100G Capacity, With Software Support
S-EACX-100G-A-3	SW, EACX Software 3 years Subscription Advance license; Per 100G Capacity, With Software Support
S-EACX-100G-A-5	SW, EACX Software 5 years Subscription Advance license; Per 100G Capacity, With Software Support
S-EACX-100G-A1-P	SW, EACX Software Perpetual Advance1 license; Per 100G Capacity, without SW Support
S-EACX-100G-P-1	S-EACX-100G-P-1SW, EACX Software 1 year Subscription Premium license; Per 100G Capacity, Includes ADV SW Subscription license, with software support

License ordering number	Description
S-EACX-100G-P-3	SW, EACX Software 3 years Subscription Premium license; Per 100G Capacity, Includes ADV SW Subscription license, with software support
S-EACX-100G-P-5	SW, EACX Software 5 years Subscription Premium license; Per 100G Capacity, Includes ADV SW Subscription license, with software support
S-EACX-100G-P1-P	SW, EACX Software Perpetual Premium1 license; Per 100G Capacity, Includes ADV SW Subscription license, without SW Support
S-EACX-400G-A-1	SW, EACX Software 1 year Subscription Advance license; Per 400G Capacity, With Software Support
S-EACX-400G-A-3	SW, EACX Software 3 years Subscription Advance license; Per 400G Capacity, With Software Support
S-EACX-400G-A-5	SW, EACX Software 5 years Subscription Advance license; Per 400G Capacity, With Software Support
S-EACX-400G-A1-P	SW, EACX Software Perpetual Advance1 license; Per 400G Capacity, without SW Support
S-EACX-400G-P-1	SW, EACX Software 1 year Subscription Premium license; Per 400G Capacity, Includes ADV SW Subscription license, with software support
S-EACX-400G-P-3	SW, EACX Software 3 years Subscription Premium license; Per 400G Capacity, Includes ADV SW Subscription license, with software support
S-EACX-400G-P-5	SW, EACX Software 5 years Subscription Premium license; Per 400G Capacity, Includes ADV SW Subscription license, with software support
S-EACX-400G-P1-P	SW, EACX Software Perpetual Premium1 license; Per 400G Capacity, Includes ADV SW Subscription license, without SW Support

Note: 10G License is applicable to ACX7020 only

To learn more, please refer to the [ACX Series](#) section of [Juniper Licensing User Guide](#).

## Optics and transceiver support

ACX7000 platforms support a wide variety of port speeds and transceiver options, including coherent optics (ZR/ZR+), direct attach copper (DAC), active optical cable (AOC), and breakout (BO) cable. Detailed information on supported optics can be found at <https://apps.juniper.net/home/>.

## Juniper service and support

Juniper Networks is the leader in performance-enabling services that are designed to accelerate, extend, and optimize your high-performance network. Our services allow you to maximize operational efficiency while reducing costs and minimizing risk, achieving a faster time to value for your network. Juniper Networks ensures operational excellence by optimizing the network to maintain required levels of performance, reliability, and availability. For more details, please visit <https://www.juniper.net/us/en/products.html>.

## Ordering information

Please contact your Juniper sales representative for information on ordering platforms in the ACX7000 family or visit <https://www.juniper.net/us/en/how-to-buy/form.html>.

## About Juniper Networks

Juniper Networks believes that connectivity is not the same as experiencing a great connection. [Juniper's AI-Native Networking Platform](#) is built from the ground up to leverage AI to deliver exceptional, highly secure, and sustainable user experiences from the edge to the data center and cloud. You can find additional information at [www.juniper.net](http://www.juniper.net) or connect with Juniper on [X](#) (formerly Twitter), [LinkedIn](#) and [Facebook](#).



## Statement of product direction

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