Digi IX20

Versatile networking for critical applications — rugged, secure LTE router

Digi IX20 is a full-featured cellular router that scales from general connectivity applications to industrial routing and security — easy to deploy and centrally managed via **Digi Remote Manager**® (Digi RM), which is included in your **Digi 360** solution. (See page 2.)

Its flexible power and connectivity options make it a versatile choice for use in industrial infrastructure, digital signage, retail kiosks, service terminals and other critical assets with a need for secure transactions.

The high-performance architecture of the Digi IX20 router provides automatic and software-selectable primary and backup WWAN connectivity over multi-carrier cellular LTE. Digi IX20 supports advanced security (stateful firewall, MAC filtering and VPN), cellular redundancy (**Digi SureLink**®) and management (SNMP, event logging, analyzer trace and QOS), facilitating use in PCI or NERC-CIP compliant applications. **FirstNet Capable**™ models are designed to meet the demands of primary responders for critical communications.

Gain critical insights into your deployed devices and manage your network with Digi RM — the command center for your deployment. Digi RM is a cloud-based solution that facilitates easy setup, mass configuration, maintenance and support, even for thousands of devices. In the event of an interruption to your primary network connection, Digi RM also provides secure, out-of-band management access to Digi IX20 through a serial port and command-line interface. **Digi WAN Bonding** provides WAN aggregation and immediate failover.

The Digi IX20 family of routers includes multiple options and models for global distribution and deployment. In addition, Digi IX20 is designed for **Digi CORE**® **plug-in LTE modems** that can be easily changed out or upgraded without replacing the entire router.

Related Digi industrial IoT software and solutions

Digi IX10

Digi IX30

Digi IX40

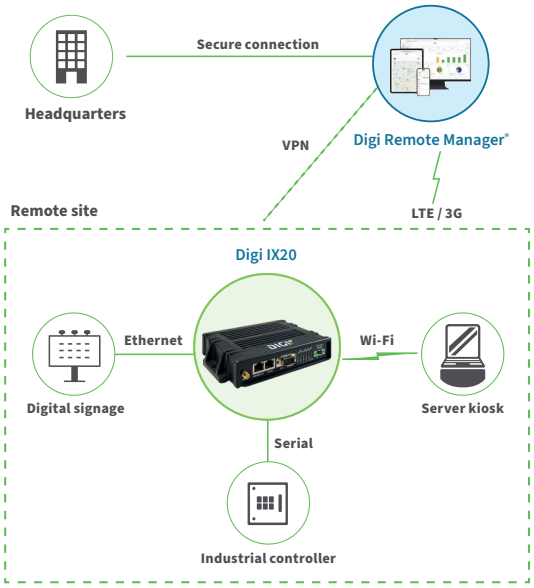
Digi IX15

Digi Remote Manager®

Key features, benefits and applications

- Compact and economical cellular routing platform with industrial feature set
- Redundant connectivity with dual SIMs and **Digi SureLink**®
- **FirstNet Capable**™ models for first responder communications
- Global bands support and options for global distribution, deployment and management
- Meets U.S. government **FIPS 140-2** cybersecurity standard
- Built-in **Digi TrustFence**® for device security, device identity and data privacy
- Dual Ethernet ports and single serial (RS-232) port
- Includes the **Digi 360** solution with warranty, customer care and **Digi Remote Manager** cloud management, enabling easy setup, mass configuration and management
- Value-added services include **Digi Containers** to enable powerful, cost-efficient applications and **Digi WAN Bonding** for WAN aggregation and immediate failover

Application example



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DIGI IX20 WITH DIGI 360

Digi 360

Digi 360 offers comprehensive IoT packaged solutions, including purpose-built devices, software and services to help customers optimize their IoT investments and maximize ROI. These solutions are designed to simplify IoT complexity, and ease the challenges enterprises face in configuring, deploying and managing their IoT initiatives. Your Digi 360 subscription is included with the purchase of **Digi IX20**, complete with Digi Remote Manager, warranty and customer care. **Learn more at digi.com/digi360**.

Management

Digi Remote Manager®, our network orchestration platform, provides complete visibility and control, with configuration, remote monitoring, automation, security and OTA software update capabilities.

Device

High-performanace, purpose-built Digi devices, with integrated software, designed to meet the requirements of a wide range of enterprise, industrial, medical and transportation use cases.

360

Warranty

Device warranty covering the full length of the Digi 360 subscription, to help customers maximize their technology investment while limiting risk.

Customer Care

The support plan provides 24 x 7 x 365 tier 1 support with 4-hour SLA for device and network troubleshooting to ensure customers can resolve issues quickly.

Value-Added Services

Digi Containers

Digi Remote Manager enables deployment of custom applications via containers

Digi Containers simplify and centralize the process of building, deploying and running custom applications on devices managed with **Digi Remote Manager** as the central portal. Containers with custom programs or Python applications can be loaded via Digi RM on any device running the **Digi Accelerated Linux** operating system (DAL OS).

As an add-on service to Digi Remote Manager, Digi Containers are a powerful capability implemented via Lightweight Linux Containers (LXC). LXC tools enable developers to package up a custom application, with its dependencies and configuration, into a lightweight, portable bundle that shares only the running kernel with the host device.

Digi WAN Bonding

Resilient connectivity and maximum performance across multiple connections

Digi WAN Bonding combines multiple connections into a seamless and resilient connectivity solution that ensures optimal performance and maximum uptime anywhere around the world.

Digi devices provide a range of connectivity options including cellular failover with features such as **Digi SureLink**, policy-based routing and interface bonding. These features are excellent at preventing any external network failures from causing downtime.

*Digi Containers and Digi WAN Bonding are available as value-added services with Digi Remote Manager.

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DIGI IX20 WITH DIGI 360

Digi 360 Management and Security

Digi Accelerated Linux (DAL OS)

DAL OS is Digi's standard operating system integrated into Digi **Enterprise** (EX), **Industrial** (IX) and **Transportation** (TX) routers, **console servers** and **USB-connected devices**. Developed for speed and simplicity, DAL OS enables advanced capabilities that support today's demanding applications. **Learn more at digi.com/DAL**.

Digi Remote Manager (Digi RM)

Digi Remote Manager is a proven technology platform that brings networks to the next level, empowering networks — and the people who manage them — to work smarter. Digi RM transforms a multitude of dispersed IoT devices into a dynamic, intelligent network. It's easy to deploy, monitor and diagnose thousands of mission-critical devices from a single point of command on a desktop, tablet or phone. All the while, software-defined security diligently safeguards your entire Digi ecosystem. **Learn more at digi.com/digi-remote-manager**.

Digi RM infrastructure and security

- Hosted in a commercial-grade cloud server environment that meets SOC 1®, SOC 2® and SOC 3® standards
- Superior availability, operating at 99.9% or greater uptime
- Open APIs are available to support application development
- Comprehensive security controls to protect your data
- Member of the Center for Internet Security® (CIS®)
- Enables compliance with security frameworks like ISO27002, HIPAA, NIST and more
- Earned Skyhigh's CloudTrust™ Program highest rating of Enterprise-Ready

DAL OS and Digi RM capabilities

- **DAL OS with Digi Remote Manager:** Remote console access, configuration templates, HTTP proxy, device event logs, configurable maintenance window
- **Serial:** Modbus, serial-over-TCP/UDP
- **Customization:** Python 3, Python pip, PyCharm integration, shell scripting, containers, MQTT client
- **Troubleshooting:** iPerf and nuttcp bandwidth testing, Find Me tool
- **GNSS:** NMEA/TAIP location forwarding to servers, geo-fencing
- Activate, monitor and diagnose your mission-critical devices through a single portal
- Schedule key operations — including firmware updates and file management — on a single device or on a group of devices, keeping your network functionality up-to-date and maintaining compliance standards
- Manage edge devices out-of-band via console terminal access
- Monitor equipment health and connectivity across deployments
- Create detailed reports and real-time alerts for specified conditions
- Integrate device data through open APIs to gain deeper insights and control with third-party applications
- Report and alert on performance statistics, including connection history, signal quality, latency, data usage and packet loss

Digi TrustFence

The Digi TrustFence device security framework simplifies the process of securing multiple connected devices.

DIGI TRUSTFENCE

Designed for mission-critical applications, **Digi TrustFence** enables users to easily integrate device security, device identity, and data privacy capabilities into product design.

Digi TrustFence security for IoT devices is designed to grow and adapt with new and evolving threats.

Learn more at digi.com/trustfence.

Built-in Security. Delivered.

- **Secure boot:** Programs and code running on the device are validated to be from an approved source or manufacturer
- **Protected hardware ports:** Internal and external I/O ports are hardened and access-controlled to prevent unwanted intrusion
- **Authentication:** Data authentication and device identity management options, with updated user and password settings
- **Secure connections:** Latest encryption protocols for data in motion and over-the-air (OTA) transmissions to ensure integrity
- **Ongoing monitoring and support:** Ongoing threat measurement and monitoring services, with external security audits

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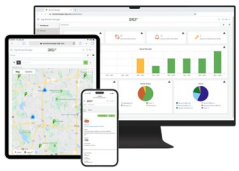
DIGI IX20 WITH DIGI 360

Specifications



Manage and configure Digi IX20 with Digi Remote Manager

SPECIFICATIONS	DIGI IX20 WITH DIGI 360*
CELLULAR**	
CERTIFICATIONS***	Visit digi.com/resources/certifications for latest certifications
LTE-A (07) WITH DIGI CORE PLUG-IN LTE MODEM 1003-CM07-OUS****	LTE-Advanced Cat 7 (North America): B2, B4, B5, B7, B12, B13, B14 — FirstNet®, B25, B26, B41, B42, B43, B48, B66, B71; 3G: B2, B5; Transfer rate (max): 300 Mbps down, 150 Mbps up; Industrial temperature
LTE (G4) WITH DIGI CORE PLUG-IN LTE MODEM 1002-CMG4-GLB****	LTE Cat 4 (Global): B1, B2, B3, B4, B5, B7, B8, B12, B13, B18, B19, B20, B25, B26, B28, B38, B39, B40, B41; 3G: B1, B2, B4, B5, B6, B8, B19; 2G: 850 / 900 / 1800 / 1900 MHz; Transfer rate (max): 150 Mbps down, 50 Mbps up; Industrial temperature
LTE (G4) WITH DIGI CORE PLUG-IN LTE MODEM 1002-CMG4-GLB-G****	LTE Cat 4 (EMEA): B1, B2, B3, B4, B5, B7, B8, B12, B13, B18, B19, B20, B25, B26, B28, B38, B39, B40, B41; 3G: B1, B2, B4, B5, B6, B8, B19; 2G: 850 / 900 / 1800 / 1900 MHz; Transfer rate (max): 150 Mbps down, 50 Mbps up; Industrial temperature
LTE (N4/P4) WITH DIGI CORE PLUG-IN LTE MODEM 1002-CMF4-OUS****	LTE Cat 4 (North America): B2, B4, B5, B12, B13, B14 — FirstNet®, B66, B71; 3G: B2, B4, B5; Transfer rate (max): 150 Mbps down, 50 Mbps up; Industrial temperature
LTE (45) WITH DIGI CORE PLUG-IN LTE MODEM 1002-CM45-OEU****	LTE Cat 4 (EMEA); LTE Bands: B3, B7, B20, B31, B72; 450 MHz support; Transfer rate (max): 150 Mbps down, 50 Mbps up; Industrial temperature
LTE (M1) WITH DIGI CORE PLUG-IN LTE MODEM 1002-CMM1-GLB****	LTE Cat M1 / NB1 (North America): B1, B2, B3, B4, B5, B8, B12, B13, B18, B19, B20, B26, B28; 2G: 850 / 900 / 1800 / 1900 MHz; Transfer rate (max): M1: 300 kbps down, 375 kbps up; NB1: 21 kbps down, 62.5 kbps up; 2G: 296 kbps down, 236 kbps up; Industrial temperature
CONNECTORS	(2) 50 Ω SMA (center pin: female)
SIM SLOTS	(2) Mini-SIM (2FF)
SIM SECURITY	Secured in cellular module
GNSS (1003-CM07 / 1002-CMG4-G)	GPS, GLONASS, BeiDou, Galileo, QZSS; Connector: 50 Ω SMA (center pin: female); Protocol NMEA 0183 V3.0; Acquisition Time Hot Start 1 s; Warm Start 29 s; Cold Start 32 s; Accuracy Horizontal: < 2 m (50%), < 5 m (90%); Altitude: < 4 m (50%), < 8 m (90%); Velocity: < 0.2 m/s
WI-FI	
MODULE	1 x 1 SISO dual-band 802.11a/b/g/n/ac (2.4 GHz / 5 GHz)
AUTHENTICATION	TACACS+, Enterprise RADIUS
MODES	Client mode and access point mode simultaneously
CLIENTS	Maximum 10 clients (access point mode: regardless of combination of clients and access points)
ACCESS POINTS	Maximum 2 access points (access point mode: regardless of combination of clients and access points)
SECURITY	WPA/WPA-2 personal, WPA/WPA-2 enterprise
CONNECTORS	(1) 50 Ω SMA (center pin: female)
SOFTWARE AND MANAGEMENT*	
REMOTE MANAGEMENT	Digi Remote Manager; SNMP v2/v3 (user installed/managed)
LOCAL MANAGEMENT	WebUI (HTTP/HTTPS); CLI (SSH)
MANAGEMENT/ TROUBLESHOOTING TOOLS	FTP client, SCP; protocol analyzer with PCAP for Wireshark; event logging with syslog and SMTP client; NTP/SNTP; Nagios, Intelliflow, iPerf, Dynamic DNS, ping, traceroute
MEMORY	256 MB RAM, 256 MB flash
ETHERNET	
PORTS	(2) RJ-45; 10/100 Mbps (auto-sensing)
SERIAL	
PORTS	(1) DB9M; RS-232 DTE; signal support TXD, RXD, CTS, DTR, DCD, flow control software (XON/OFF), hardware supported (CTS/RTS)

*Includes the Digi 360 solution for Digi IX20 (1-year) with Digi Remote Manager, warranty and customer care.

**Digi CORE plug-in LTE modem is included with the corresponding IX20 model, with the ability to upgrade or replace the modem without replacing the router. Transfer rates are network operator dependent.

***Visit digi.com/resources/certifications for latest approvals and updates.

****Digi CORE 1003-CM07-OUS and 1002-CMG4-GLB-G require two cellular antennas with option for a third GNSS/GPS antenna. Digi CORE 1002-CMG4-GLB, 1002-CM45-OEU and 1002-CMF4-OUS require two cellular antennas. Digi CORE 1002-CMM1-GLB requires only one cellular antenna. Wi-Fi antenna available for Wi-Fi enabled models.

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DIGI IX20 WITH DIGI 360

Specifications and Technologies

Manage and configure Digi IX20 with Digi Remote Manager

SPECIFICATIONS	DIGI IX20 WITH DIGI 360*
PHYSICAL	
DIMENSIONS (L x W x H)	107 mm x 162 mm x 35 mm (4.21 in x 6.38 in x 1.38 in)
WEIGHT	0.65 kg (1.4 lb)
STATUS LEDs	Power, Internet, Wi-Fi, SIM 1, SIM 2, signal strength (5), LTE
ENCLOSURE	Glass-filled polyphenylene sulphide (PPS) / IP30
POWER REQUIREMENTS	
POWER INPUT	9 - 30 VDC, reverse polarity protection, 1.0 A maximum; Connector: 2-position rewireable plug with securing screws included
POWER CONSUMPTION	1.5 W (light traffic flow), 3.5 W (peak data transmission); 1.4 W (low power mode, idle traffic, no Ethernet WAN)
ENVIRONMENTAL	
OPERATING TEMPERATURE	Models with Wi-Fi: −20 °C to 70 °C (−4 °F to 158 °F); Models without Wi-Fi: −40 °C to 70 °C (−40 °F to 158 °F)
STORAGE TEMPERATURE	-40 °C to 85 °C (-40 °F to 185 °F)
RELATIVE HUMIDITY	5% to 95% (non-condensing)
ACCESSORIES	
AVAILALBLE ACCESSORIES	Accessories not included. Available accessories: industrial extended temperature or commercial power supply (required) Wi-Fi, cellular and GPS antennas, Ethernet cable, DIN rail clip kit and DIN rail mounting bracket kit (recommended / optional)
APPROVALS**	
CELLULAR	Visit **digi.com/resources/certifications** for latest cellular certifications and updates
SAFETY	IEC62368-1, CB, EN62311
ENVIRONMENTAL	ROHS3
EMISSIONS / IMMUNITY	CE; RED; FCC Part 15, Subpart B; ICES-003; AU/NZS CISPR32
WARRANTY***	
PRODUCT WARRANTY	1-year

*Includes the **Digi 360** solution for **Digi IX20** (1-year) with **Digi Remote Manager**, **warranty** and **customer care**.
Visit **digi.com/resources/certifications for latest approvals and updates.
***Product warranty can be extended with **Digi 360** extensions or renewals.

ENTERPRISE SOFTWARE	DESCRIPTION
PROTOCOL SUPPORT	HTTPS, FTP client, TLS v1.2, SCP (client and server), SFTP, SMTP client for use by scripts and the command line, SNMP (v2/v3), SSH; remote management via **Digi Remote Manager**; protocol analyzer, ability to capture PCAP for use with Wireshark; DynDNS; dynamic DNS client compatible with BIND9/No-IP/DynDNS; captive portal, Intelliflow; Nagios, DNS server, NTP server, multicast, mDNS, IPerf
SECURITY	IP filtering, stateful firewall, custom firewall rules (iptables), address and port translation; TLS 1.2 and above, OpenVPN client and server; VPN tunnels; Authentication: RADIUS, TACACS+; certificates; MAC address filtering; VLAN support
VPN	IPSec with IKEv1, IKEv2, NAT Traversal; OpenVPN client and server; GRE VPN tunnels; Cryptology: SHA-1/256/384/512, MD5, RSA; Encryption: 3DES and AES up to 256-bit (CBC mode for IPsec); Diffie Hellman: DH groups 1-32 (CURVE448)
ROUTING / FAILOVER	IP pass-through; NAT, NAPT with IP port forwarding; GRE; multicast routing; Routing protocols: RIP (v1, v2) OSPF, BGP; IP failover: VRRP; automatic failover, **Digi SureLink**
OTHER PROTOCOLS	DHCP; dynamic DNS client compatible with No-IP/DynDNS

*For a comprehensive list of operating system features, please visit **digi.com/solutions/by-technology/dal-operating-system/features**.

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DIGI IX20 WITH DIGI 360

Product Photos and Technologies

Product photos

Digi IX20 — with cellular, GPS and Wi-Fi antennas

Digi IX20 — with GPS and cellular antennas

Digi IX20 — front

Digi IX20 — back

*Digi CORE 1003-CM07-OUS and 1002-CMG4-GLB-G require two cellular antennas with option for a third GNSS/GPS antenna. Digi CORE 1002-CMG4-GLB, 1002-CM45-OEU and 1002-CMF4-OUS require two cellular antennas. Digi CORE 1002-CMM1-GLB requires only one cellular antenna. Wi-Fi antenna available for Wi-Fi enabled models.

Featured Technologies

FIRSTNET®
Built with AT&T

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DIGI IX20 WITH DIGI 360

Part Numbers

PART NUMBERS	DIGI IX20 WITH DIGI 360*
DIGI IX20 MODELS	
IX20-W007	Digi IX20W — LTE-Advanced Cat 7 North America; Wi-Fi; GNSS: GPS, GLONASS, BeiDou, Galileo, QZSS; (2) Ethernet; DB-9 RS-232
IX20-0007	Digi IX20 — LTE-Advanced Cat 7 North America; GNSS: GPS, GLONASS, BeiDou, Galileo, QZSS; (2) Ethernet; DB-9 RS-232
IX20-W0G4	Digi IX20W — LTE Cat 4 Global; Wi-Fi; (2) Ethernet; DB-9 RS-232
IX20-00G4	Digi IX20 — LTE Cat 4 Global; (2) Ethernet; DB-9 RS-232
IX20-W0N4-D	Digi IX20W — LTE Cat 4 North America; Wi-Fi; (2) Ethernet; DB-9 RS-232
IX20-00N4-D	Digi IX20 — LTE Cat 4 North America; (2) Ethernet; DB-9 RS-232
IX20-W0G4-G	Digi IX20W — LTE Cat 4 EMEA; Wi-Fi; GNSS: GPS, GLONASS, BeiDou, Galileo, QZSS; (2) Ethernet; DB-9 RS-232
IX20-0045	Digi IX20 — LTE Cat 4 EMEA; 450 MHz support; (2) Ethernet; DB-9 RS-232
IX20-00M1	Digi IX20 — LTE Cat M1 Global; (2) Ethernet; DB-9 RS-232

*Includes the **Digi 360** solution for **Digi IX20** (1-year) with **Digi Remote Manager**, **warranty** and **customer care**.

PART NUMBERS	DIGI CORE PLUG-IN LTE MODEMS**
DIGI CORE PLUG-IN LTE MODEMS	
1003-CM07-OUS	Digi CORE plug-in LTE modem — LTE-Advanced / HSPA+ Cat 7 (North America); GNSS: GPS, GLONASS, BeiDou, Galileo, QZSS
1002-CMG4-GLB	Digi CORE plug-in LTE modem — LTE / HSPA+ Cat 4 (Global)
1002-CMG4-GLB-G	Digi CORE plug-In LTE modem — LTE Cat 4 (EMEA); GNSS: GPS, GLONASS, BeiDou, Galileo, QZSS
1002-CMN4	Digi CORE plug-in LTE modem — LTE / HSPA+ Cat 4 (North America)
1002-CM45-OEU	Digi CORE plug-In LTE modem — LTE Cat 4 (EMEA); 450 MHz support
1003-CMM1-GLB	Digi CORE plug-in LTE modem — LTE / M1 / NB1 (North America)

**Digi CORE plug-in LTE modem is included with the corresponding Digi IX20 model, with the ability to upgrade or replace the modem without replacing the router.
Visit **digi.com/resources/certifications** for latest approvals and updates.

PART NUMBERS	AVAILABLE ACCESSORIES**
REQUIRED ACCESSORIES (INDUSTRIAL OR COMMERCIAL POWER SUPPLY)	
76002104	Industrial extended temperature power supply with plug tips for US, UK, EU, AU; −20 °C to 70 °C (−4 °F to 158 °F)
76002117	Commercial temperature power supply with plug tips for US, UK, EU, AU; 0 °C to 40 °C (32 °F to 104 °F)
RECOMMENDED AND OPTIONAL ACCESSORIES	
76002105	Wi-Fi antenna
76000926	Cellular antenna — 700 MHz to 2.7 GHz
76002114	Cellular antenna — 600 MHz to 6 GHz
76000960	Cellular antenna — 450 MHz
76000842	Antenna — active GPS, 1575 MHz
76002106	Ethernet cable — 2 m (6 ft)
76002093	DIN rail mounting bracket kit
76002095	DIN rail clip kit

**Sold separately, unless otherwise noted.

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DIGI IX20 WITH DIGI 360

Part Numbers

PART NUMBERS	DIGI 360 EXTENSIONS AND RENEWALS
DIGI360-IX20-EXT-2YR	Digi 360 extension for two additional years for Digi IX20
DIGI360-IX20-EXT-4YR	Digi 360 extension for four additional years for Digi IX20
DIGI360-IX20-REN-1YR	Digi 360 renewal for one additional year for Digi IX20
DIGI360-IX20-REN-3YR	Digi 360 renewal for three additional years for Digi IX20
DIGI360-IX20-REN-5YR	Digi 360 renewal for five additional years for Digi IX20

PART NUMBERS	VALUE-ADDED SERVICES
DIGI-RM-PRM-CS	Digi Containers subscription — 1-year subscription
DIGI-SRV-WB-TIER1-1YR	Digi WAN Bonding subscription with 100 Mbps max throughput — 1-year subscription
DIGI-SRV-WB-TIER2-1YR	Digi WAN Bonding subscription with 200 Mbps max throughput — 1-year subscription
DIGI-SRV-WB-TIER3-1YR	Digi WAN Bonding subscription with 1 Gbps max throughput — 1-year subscription

For more information, please visit **digi.com**.

For more information about Digi IX20,
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