DATASHEET

CloudNetManager (CNM)

Teldat's unified management platform for networks, SD-WAN, LAN and security

Overview

CloudNetManager (CNM) is Teldat's management platform for communication networks. From a single, multi-tenant and highly scalable web portal, it lets you inventory, configure, monitor and operate Teldat routers, switches and access points, and deploy SD-WAN networks with thousands of sites.

It brings together six network management modules and integrates natively with beSafe Pro (cybersecurity) and beSafe XDR (network visibility): a single user account and a unified network and security management experience.

6 network management modules in a single portal	**2** integrated security platforms: beSafe Pro and XDR	**3** consumption models: SaaS, Virtual Appliance and Appliance	**>10K** devices supported per instance

Objectives

- **Unify** WAN, LAN and WLAN operations, security and visibility under a single identity.
- **Simplify** SD-WAN: the network team focuses on applications, policies and service levels.
- **Scale** with templates, variables, batch operations and Zero Touch Provisioning (ZTP).
- **Operate proactively and securely,** with real-time monitoring on a platform that is secure by design.

Key benefits

Holistic network view

Inventory, configuration, monitoring, security and analytics in a single portal.

Massive scalability

Networks of thousands of sites with templates, CSV, ZTP and active/active hub clusters.

Proactive management

Real-time status and threshold-based alerts, notified by email and SNMP traps.

Security by design

SSO, 2FA, granular RBAC, TLS 1.3 and full auditing of user actions.

Unified network and security

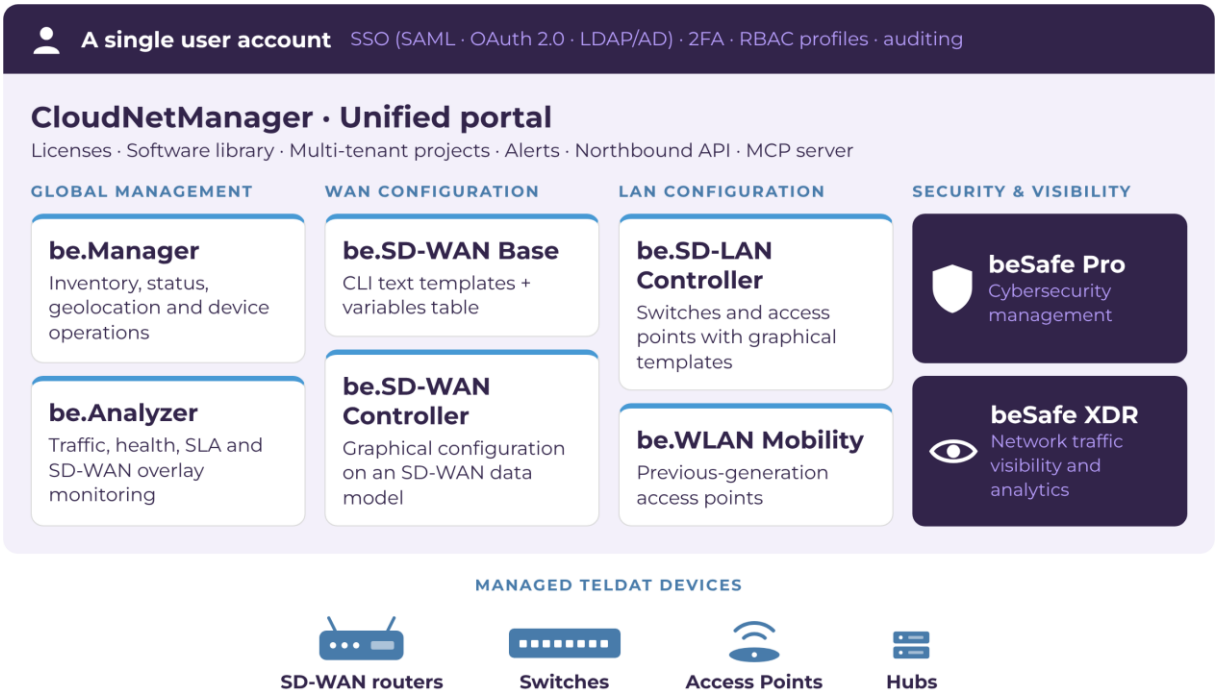
beSafe Pro and beSafe XDR integrated, with the same user account.

Freedom of consumption

SaaS, software on VMware or a turnkey appliance, with the same features.

A unified management ecosystem

CNM provides the portal, the software infrastructure and the common services shared by all tools: users, profiles, licenses, software library, projects and alerts. Its six modules run on this foundation, and beSafe Pro and beSafe XDR are accessed from the same home screen.



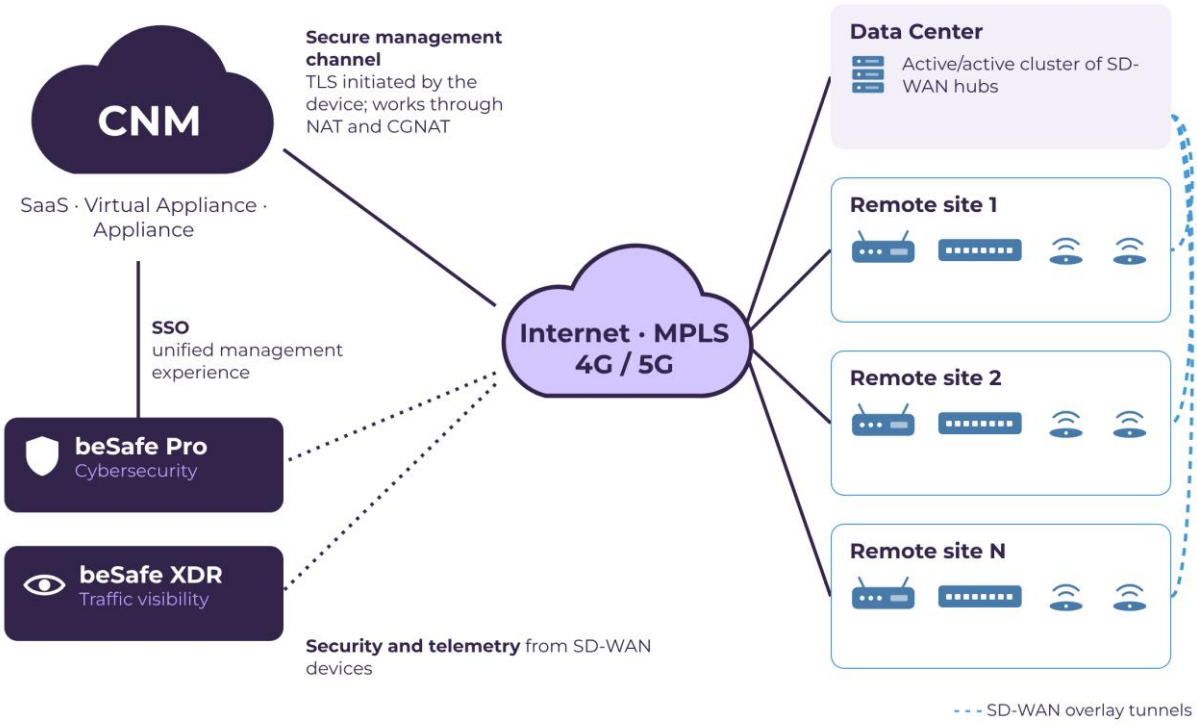
Integration with beSafe Pro and beSafe XDR

- **Unified authentication.** A single user account gives access to the CNM network management modules and to the beSafe security and visibility modules.
- **Security built into the SD-WAN.** Devices configured with CNM in SD-WAN networks integrate beSafe Pro security and beSafe XDR visibility.
- **One experience.** Although beSafe Pro and beSafe XDR are separate platforms, they are presented within the CNM portal.



Management architecture

Devices always initiate the connection to CNM over an encrypted channel. Management is therefore guaranteed wherever there is IP connectivity: on public or private networks, with static or dynamic addressing, and also behind NAT or CGNAT. Just a few kbps are enough for each device to send its health data, statistics and alarms at configurable intervals and receive any pending changes.



Common platform services

Unified authentication

SSO for the whole ecosystem with SAML, OAuth 2.0 and LDAP/AD; 2FA, strong passwords with expiry, blacklists and configurable timeouts.

Fully granular profiles

Far more than predefined levels: each profile defines in detail which operations the user can perform in each application.

Customizable alerts

Rules by severity with conditions, thresholds and timers; notification by email and SNMP traps.

Centralized administration

Multi-tenant projects, license management and device software library.

Northbound API

REST API (OpenAPI/Swagger) to integrate CNM with the customer's orchestration and inventory tools.

Built-in MCP server

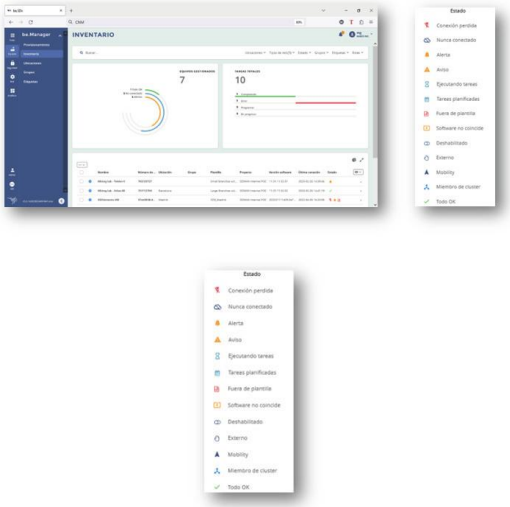
Cognitive SD-WAN: query the network in natural language from the customer's corporate AI (CNM, beSafe Pro and beSafe XDR).

CNM modules

Each module covers a specific function of the network lifecycle. be.Manager and be.Analyzer work across routers, switches and access points; the configuration modules specialize by network and device type.

be.Manager Network inventory and operations

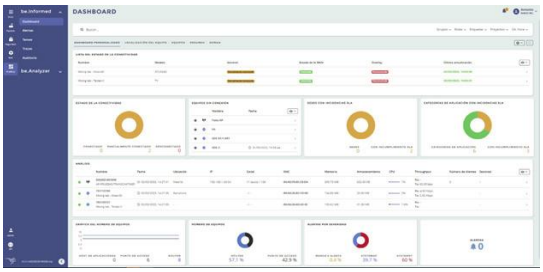
Summarizes the network status at a glance and highlights the devices that need attention. It also acts on them: assigns and parameterizes templates, synchronizes configurations and upgrades software, immediately or on schedule.

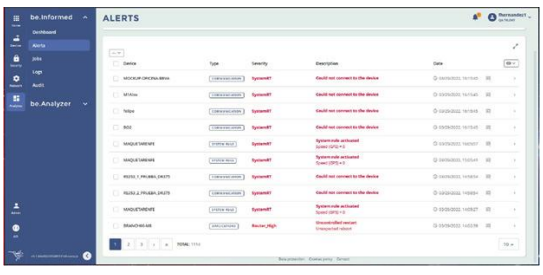


- Inventory of routers, switches and APs: add, remove and modify
- Real-time status; basic parameters, alarms, logs, tasks and health (CPU, memory, disk)
- Groups, tags, locations, maps and floor plans; automatic and manual geolocation
- Zero Touch Provisioning: new devices download configuration and software automatically
- Batch operations: reboot, templates, parameters via CSV, configuration and software
- Configuration history, change detection and rollback

be.Analyzer Monitoring and analytics

Monitors the traffic and health of all devices, with specific SD-WAN views (overlay status and interface health) and dedicated views for switches and access points.





- Customizable dashboards; health (CPU, memory, disk) and WAN/LAN traffic
- SLA per path (delay, loss, jitter); sites and applications with SLA breaches
- SD-WAN connectivity status per device: links, tunnels and routing; sites per hub
- WLAN: clients, throughput, rogue APs and neighboring channels; switches: ports and learned MACs
- Alerts by type: connectivity, configuration, hardware, licenses, security, system and applications
- Per-device traces, user auditing and PDF reports

be.SD-WAN Base Router configuration with CLI templates

Configures routers from user-written text templates containing Teldat CLI commands, combined with a variables table that adapts the template to each device. It avoids generating and transferring configurations device by device and enables mass management of very large networks.

- Text templates with built-in or external editor and a central repository in CNM
- Per-site customization with variables and nested templates
- CSV inventory file with the value of each variable per serial number
- Immediate or scheduled deployment (day, hour and minute) to one, several or all devices



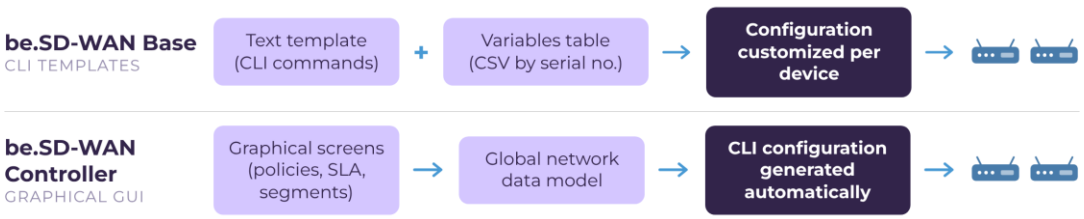
be.SD-WAN Controller Graphical SD-WAN network configuration

The user defines the SD-WAN network in graphical screens and the system generates the CLI configuration for each router. The data model defines common elements once (hubs, probes, applications, SLAs, policies) and reuses them across templates: a global change is applied to the entire network without errors.

- Automatic tunnels over public and private networks; up to 4 WAN networks
- Hubs in active/active clusters, with no limit on devices or clusters; automatic site balancing
- Tunnel probing (delay, loss, jitter) and SLA thresholds per traffic type
- L3, L4 and L7 classification with a dictionary of over 4,000 applications (DPI and DNS)
- Per-session multipath, overlay/underlay backup and up to 100 segments with optional leaking
- Automatic address management, wizards and embedded CLI



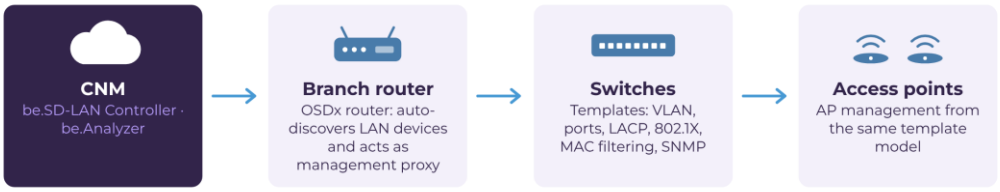
Two approaches to router configuration



be.SD-LAN Controller Switch and access point configuration

Configures switches and access points from graphical screens based on a data model, with the same approach as be.SD-WAN Controller. The branch router discovers LAN devices, registers them in CNM and acts as management proxy, so they need no direct connection to the platform.

- Reusable objects: VLAN profiles, AAA servers (802.1X), MAC lists, access control and SNMP
- Switch templates: ports, VLANs, link aggregation, DHCP Snooping and MAC filtering
- Mass template assignment; backup of the previous configuration and rollback on errors



be.WLAN Mobility Previous-generation access point configuration

Configuration module for previous-generation Teldat access points. It keeps the management of existing WLAN deployments in the same portal; they are inventoried in be.Manager and monitored in be.Analyzer (clients, throughput, rogue APs and neighboring channels).

Security

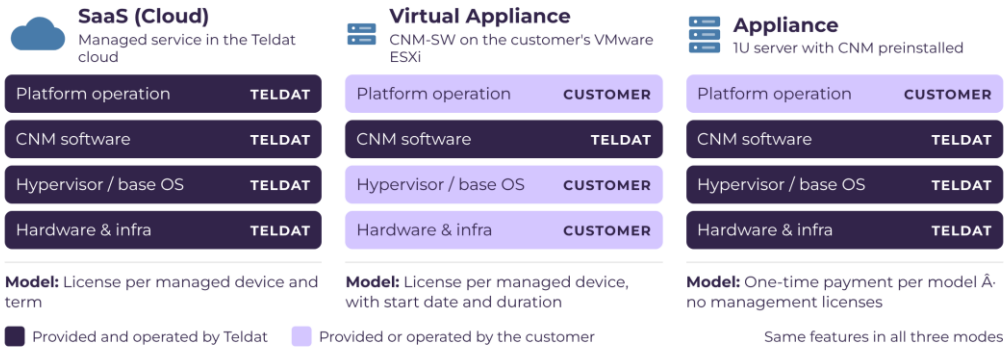
CNM is built on security-by-design and defense-in-depth principles, using strong standard cryptography (AES-256, SHA-256, TLS 1.3) to protect information, both in the cloud and on-premises.

Area	Capabilities
Authentication	MFA (2FA) · strong passwords with expiry · password blacklists · configurable timeouts · SSO with SAML, OAuth 2.0 and LDAP/AD
Authorization and auditing	Role-based access control (RBAC) · full auditing and traceability of every user action
Traffic security	Centralized administration over HTTPS · TLS 1.3 with forward secrecy (AES-256-GCM, ChaCha20-Poly1305) · X.509 certificates
Resilience	Kubernetes container architecture · active/active cluster · automatic replication and load balancing across nodes
Platform	Secure REST API · multi-tenant segmentation
Hardening	Hardened containers and secure orchestration · AES-256 and SHA-256 for control and data planes · SaaS hosted on Google Cloud Platform with secure configuration

Same security, any deployment. On-premises deployments (Virtual Appliance and Appliance) ship with the same built-in security configuration as the cloud version.

Consumption models

CNM adapts to each customer's operating model. Features are equivalent in all three models, and all modules of a given customer share the chosen consumption model.



SaaS (Cloud)

Teldat delivers CNM as a service: it takes care of all the cloud infrastructure and the customer simply accesses it. Immediate start-up with no CAPEX, licensed per managed device.

Virtual Appliance (CNM-SW)

Teldat supplies the software and licenses, and the customer provides the server and hypervisor. The ISO image is downloadable and customers can install it themselves or have Teldat install it. Licenses are issued signed and bound to the instance's unique identifier (UUID).

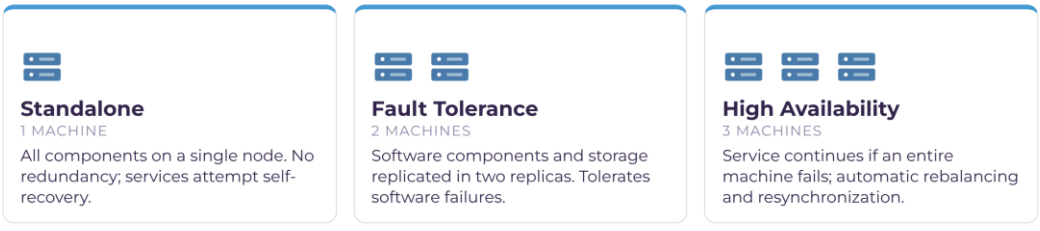
- **Platform:** VMware ESXi 6.5 or later, one physical CPU per vCPU and SSD storage with thick provisioning.
- **Connectivity:** since CNM 5.6, no Internet access is required to install or validate licenses; access to NTP and email servers is needed.

Virtual Appliance sizing (per virtual machine)

Managed devices	up to 100	up to 1,000	up to 5,000	up to 10,000
vCPU	6	8	12	16
RAM	12 GB	16 GB	24 GB	32 GB
SSD disk	500 GB	960 GB	1,920 GB	3,840 GB

Reference values for CNM 5.5.1, calculated for typical use with 5% WLAN controllers. Reference processor: Intel® Xeon® Gold 5315Y 3.2 GHz, 8C/16T.

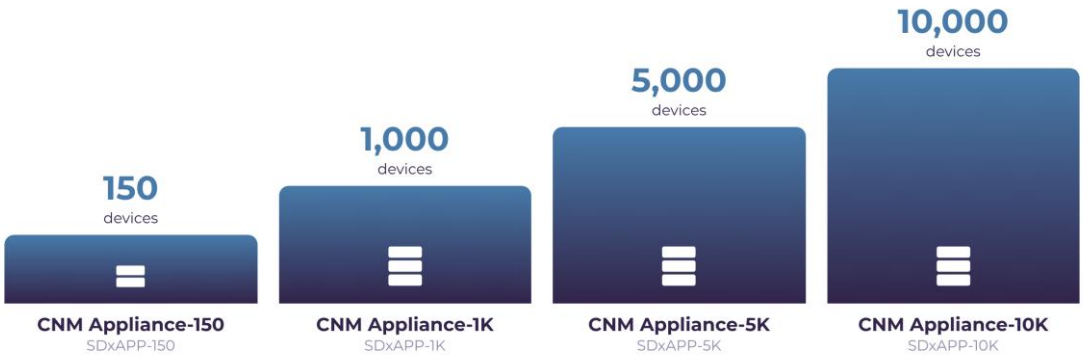
On-premises high availability (Virtual Appliance and Appliance)



In a cluster, a virtual load-balancing IP moves between nodes. All nodes must be identical and in the same data center.

Appliance

Turnkey solution: Teldat supplies one or more dedicated 1U rack servers with CNM factory-installed. No management licenses are required: it is activated with a key printed on the chassis, and device management does not expire for current features. It includes Base, SD-WAN and Mobility management. Four models are available according to the maximum number of devices.



	Appliance-150	Appliance-1K	Appliance-5K	Appliance-10K
Managed devices	up to 150	up to 1,000	up to 5,000	up to 10,000
Order code	SDxAPP-150	SDxAPP-1K	SDxAPP-5K	SDxAPP-10K
Platform	Dell R660xs · 1U	Dell R660xs · 1U	Dell R660xs · 1U	Dell R660xs · 1U
Processor	Xeon® Gold 6526Y · 16C/32T	Xeon® Gold 6526Y · 16C/32T	Xeon® Gold 6526Y · 16C/32T	Xeon® Gold 5418Y · 24C/48T
Memory	16 GB DDR5	16 GB DDR5	32 GB DDR5	32 GB DDR5
Storage	2 × 960 GB SSD · RAID 1	2 × 960 GB SSD · RAID 1	2 × 1.92 TB SSD · RAID 1	2 × 3.84 TB SSD · RAID 1
Interfaces	2 × RJ45 1 Gbps	2 × RJ45 1 Gbps	2 × RJ45 1 Gbps	2 × RJ45 1 Gbps
Power supply	2×700W 100-240V redundant	2×700W 100-240V redundant	2×700W 100-240V redundant	2×700W 100-240V redundant
Remote HW management	iDRAC9 (dedicated port)	iDRAC9 (dedicated port)	iDRAC9 (dedicated port)	iDRAC9 (dedicated port)

All models include rack-mount accessories for 2- and 4-post racks and two C13/C14 power cords. Processor frequency: 6526Y at 2.8 GHz and 5418Y at 2.0 GHz. Operation from 10 °C to 35 °C and 10% to 80% relative humidity.

Teldat Group

— Founded in 1985, Teldat is the European benchmark company in cybersecurity, with 100% proprietary technology developed in Europe. Its solutions protect and connect large corporations, public administrations and critical infrastructures, from industrial and railway networks to vehicles and public services.

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