

NEWBRIDGE CONTROLLER

WLAN Controller – Cloud or On-Premise, One Console



CLOUD

ON-PREMISE

DEVICES

Enterprise-grade WLAN management and predictive intelligence, delivered as a serverless cloud subscription or as an on-premise appliance – deploy, monitor, and tune an entire estate of access points from one pane of glass.

Zero-Touch

PROVISIONING

11

AP REPORT TEMPLATES

Cloud

OR ON-PREMISE

CENTRALIZED FLEXIBILITY

- Unified control of device adoption, group policies and individual settings
- A single pane of glass across sites and tenants
- Customizable alerts engine with proactive maintenance tools

ARCHITECTURE & SCALE

- Serverless cloud control plane, or an on-premise appliance
- Elastic scaling with network demand
- Split-plane design: user traffic never leaves the site

DEPLOYMENT & ADMIN

- Zero-touch provisioning with Quick-Scan device registration
- Automated rolling firmware upgrades, scheduled off-peak
- Multi-user login with role-based access control (RBAC)

INTELLIGENCE & CONTROL

- Real-time metrics across traffic, client behaviour and RF health
- 11 access-point report templates, exportable and schedulable
- Live Link telemetry and remote command from anywhere

INTRODUCTION

Newbridge Controller delivers enterprise-grade performance and predictive intelligence to mid-sized organizations, with elite-level efficiency and minimal IT overhead. Run it as a serverless cloud subscription with no controller hardware to buy, or as an on-premise appliance where data-residency or connectivity rules require the control plane to stay inside the building.

The web interface is the same in both deployments. Every advanced configuration available on-premises is available in the cloud, so moving between them requires no relearning and no compromise.

Only management data travels to the cloud. User traffic stays local and never leaves the site, so privacy and data sovereignty are preserved while administrators keep full remote visibility and control.

Newbridge Controller enables the **Network Controller** module. RADIUS and captive-portal services are delivered by **Newbridge IAM**; the complete module set is **Newbridge CMC**.

ADVANTAGES

A hardware controller is a box you buy, size, power, patch, and eventually replace. Newbridge Controller lets you take it out of the design, or keep it where the rules demand, without changing the console either way.

Deploy it your way

The same console, the same features, as a cloud subscription or an on-premise appliance. The decision is a deployment choice, not a feature trade.

User traffic stays local

Split-plane architecture sends only management data to the control plane. Client traffic never leaves the site, preserving privacy and data sovereignty.

No controller hardware

In cloud deployments a serverless control plane scales with the estate. Nothing to size up front, nothing to power, rack, or replace at end of life.

Rollouts in minutes

Zero-touch provisioning: connect the device, register its serial and MAC, and it pulls its own configuration. No on-site engineer.

Upgrades without a window

Automated rolling upgrades update the fleet sequentially, so most of the network stays live. Schedule them off-peak and walk away.

One pane, many tenants

Isolated sites inside a single account, portable logins across instances, and role-based permissions assigned per cloud or per site.

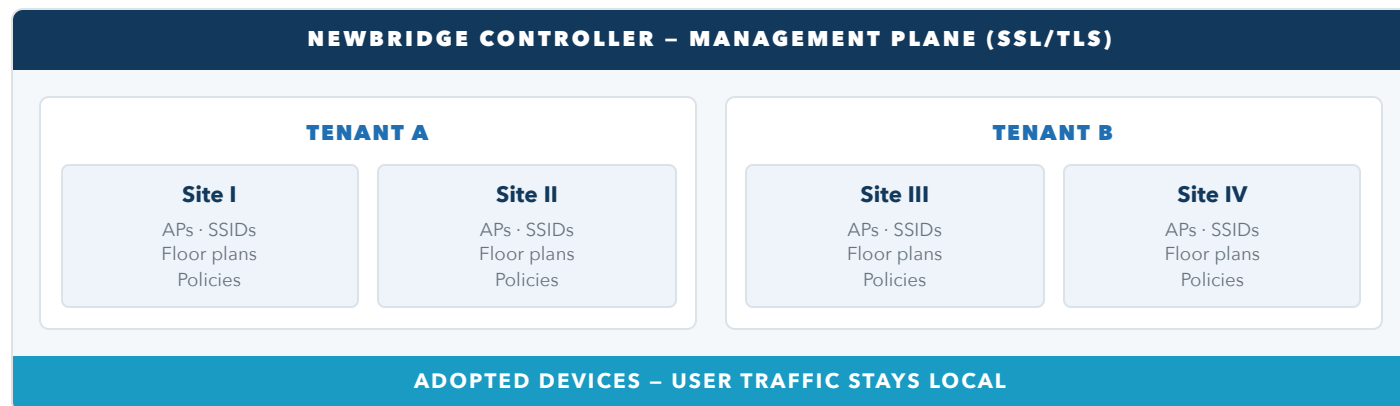
Evidence, not guesswork

11 access-point report templates – generated on demand or on a schedule, exported to PDF, XLSX or CSV.

Act without a site visit

Live Link opens a direct channel to any adopted device: live telemetry, system health, RF utilization, and one-click reboot.

ARCHITECTURE



Each tenant is isolated. A single login may be associated with more than one instance; role-based permissions are assigned per cloud or per site.

CLOUD OR ON-PREMISE

The Network Controller module is identical in both deployments. What differs is where the control plane runs, how capacity is bounded, and who schedules the upgrades.

	CLOUD	ON-PREMISE
Control plane	Newbridge-hosted, serverless	Customer-hosted appliance
Console	Identical web interface	Identical web interface
Capacity	Licence-controlled (Max APs)	Bounded by the appliance model
Per-AP licence	Included in the subscription	MAP licence, one per access point
Platform upgrades	Managed for you	Scheduled by the customer
User traffic	Stays local	Stays local
Commercial model	Per-AP subscription, 1 to 5 years	Appliance purchase plus support

ON-PREMISE APPLIANCES

ORDER NO.	MANAGED ACCESS POINTS
NB-9180-CTL-UK	Up to 180
NB-9480-CTL-UK	Up to 480
NB-9980-CTL-UK	Up to 980

Every appliance requires one **NB-9000-LIC-1** MAP licence per managed access point, ordered separately.

THE NEWBRIDGE MANAGEMENT FAMILY

NEWBRIDGE CONTROLLER	NEWBRIDGE IAM	NEWBRIDGE CMC
Wi-Fi management: the Network Controller module, cloud or on-premise. THIS DATASHEET	Identity and guest access: the RADIUS and Captive Portal modules. OPTIONAL GATEWAY ON-PREMISE	The complete module set: Network Controller, RADIUS, Captive Portal and On-Premise services. OPTIONAL GATEWAY ON-PREMISE

Each product runs in the cloud or on-premise. The Gateway is the on-premise **NB-IAMG** appliance, which adds internet access management services.

MULTI-SITE & MULTI-TENANT MANAGEMENT

- **Isolated Site Architecture** – create multiple independent sites within a single account. Each site keeps its own configurations, floor plans, security policies and device properties.
- **Granular Multi-Cloud Access** – user accounts are portable. A single login can be associated with multiple instances, giving one view across different organizational umbrellas.
- **Groups** – logical AP clusters inside a site, for bulk configuration and reporting.
- **End-to-End Encryption** – all communication between on-premises devices and the control plane is protected with industry-standard SSL/TLS, preventing interception and man-in-the-middle attacks.
- **Separation of Planes** – only management data travels to the cloud; user traffic stays local, preserving privacy and data sovereignty.
- **Hardened Privacy** – rigorous access controls and data masking keep sensitive network information private and compliant with global standards.

GRANULAR ACCESS CONTROL

ROLE	SCOPE
Administrator / Owner	Total authority over the environment and all associated sites
Site Manager	Full read/write privileges restricted to specific locations or departments
Guest / Viewer	Read-only access for monitoring and reporting, with no configuration rights

Roles and permissions are defined under Administration → User Management, and applied per cloud or per site.

ZERO-TOUCH PROVISIONING

Deploy hardware in minutes, not hours. The onboarding process removes the need for on-site technical configuration.

1

Connect

Plug the device into the internet.

2

Register

Enter the serial number and MAC address in the portal.

3

Activate

The device pulls its configuration automatically and is ready to serve.

MAINTENANCE & UPDATES

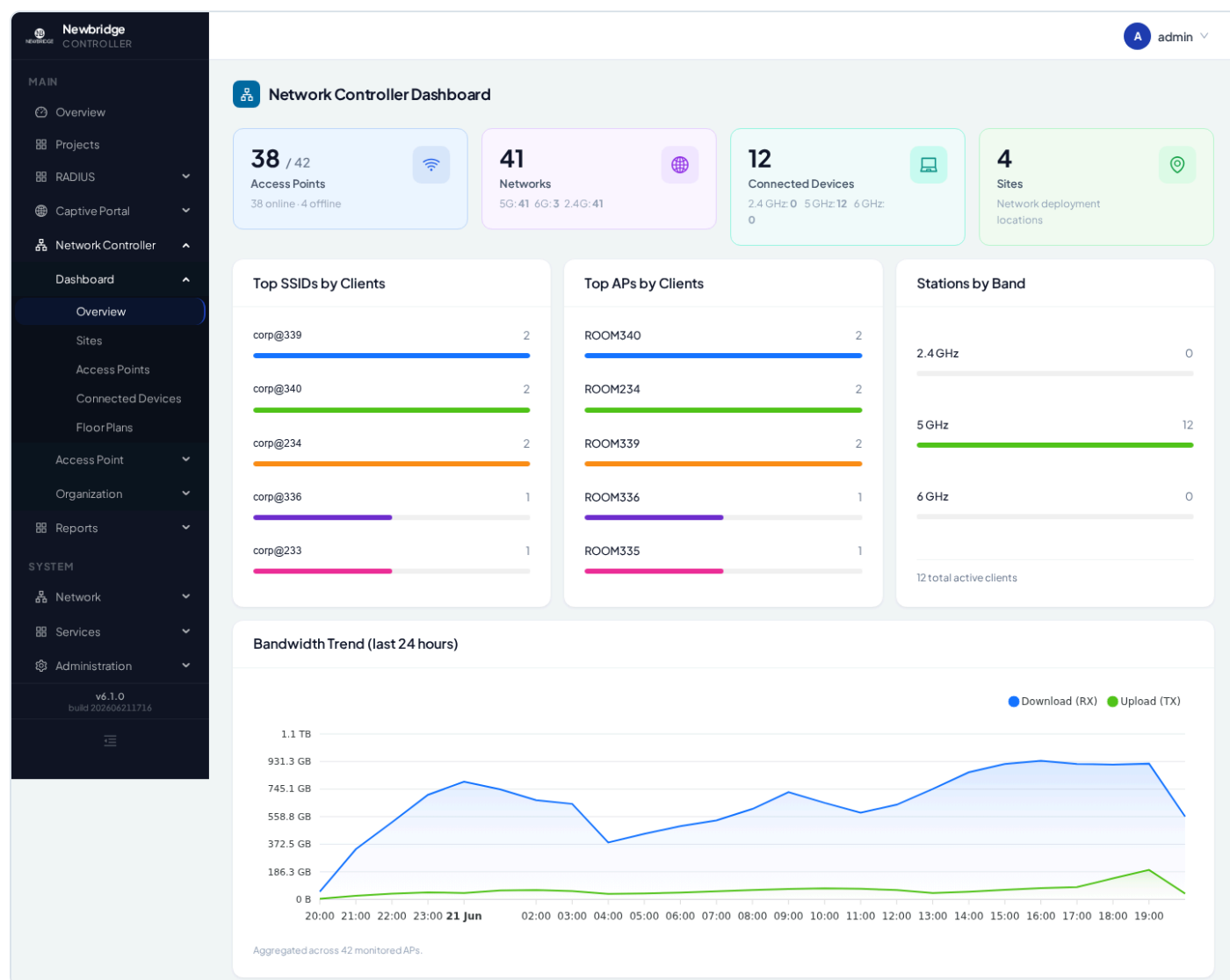
- **Automated Rolling Upgrades** – update the fleet sequentially so the majority of the network stays operational while others reboot.
- **Scheduled Execution** – plan upgrades for off-peak hours to eliminate impact on business productivity.
- **Hybrid Configuration** – bulk site-level settings for uniform deployments, granular device-level tuning where hardware differs.
- **Config Versions** – firmware-pattern mappings keep each AP model on a known-good configuration schema.

NETWORK CONTROLLER DASHBOARD

One screen answers the questions an operator asks first: how many access points are up, how many clients are on which band, and where the bandwidth went in the last day.

- Access points online and offline, against the licensed fleet
- Networks and connected devices, broken out by 2.4, 5 and 6 GHz

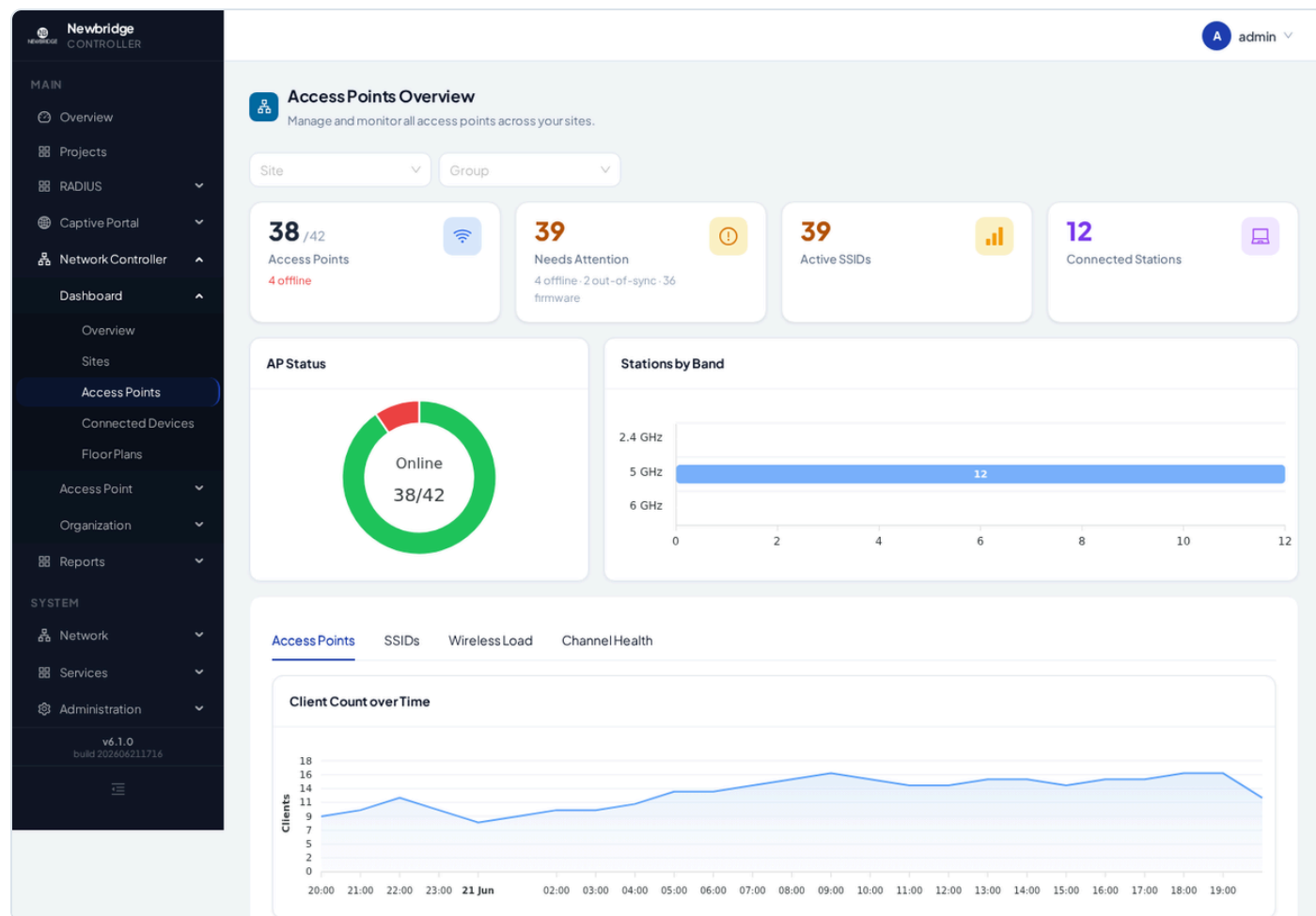
- Top SSIDs and top APs by connected clients
- Bandwidth trend over the last 24 hours, download and upload
- Channel distribution per band, highlighting channels carrying three or more radios



Network Controller dashboard – fleet status, stations by band, top SSIDs and APs, and the 24-hour bandwidth trend.

ACCESS POINTS OVERVIEW

A dedicated view surfaces what needs attention – offline devices, out-of-sync configuration, and pending firmware – alongside AP status, stations by band, and client count over time. Tabs drill into SSIDs, wireless load, and channel health.



Access Points Overview – needs-attention counters, AP status, and client count over time.

LIVE LINK – TELEMETRY WITHOUT A SITE VISIT

- **Performance** – throughput per interface and client counts
- **System Health** – CPU, memory and operating temperature
- **RF Optimization** – real-time channel utilization
- **Infrastructure** – PoE power consumption and load levels
- **Diagnostics** – instant uptime and system status
- **One-Click Reboot** – soft-reset any adopted device instantly

FEATURE MAP

Everything the Network Controller module exposes, grouped as it appears in the web console.



HISTORICAL STATISTICS

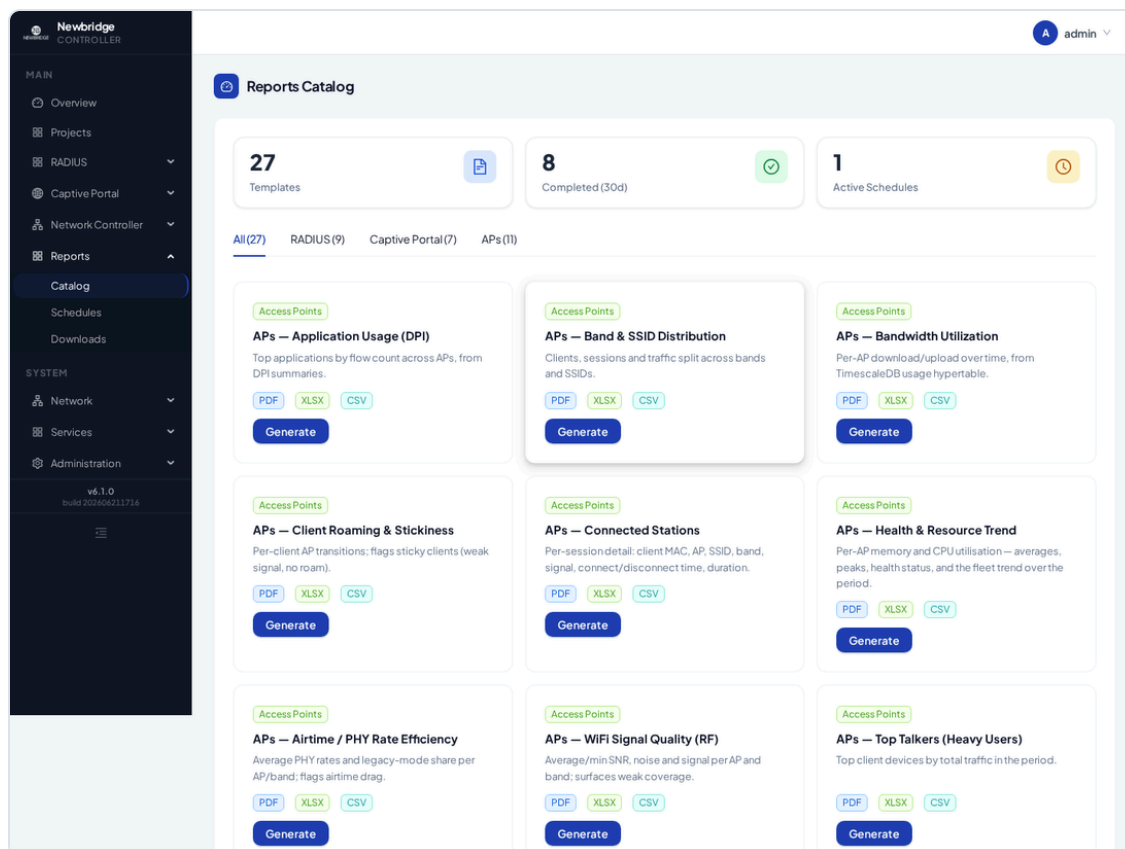
- Throughput rates per interface
- Client counts per wireless interface (SSID) over time
- Channel utilization per wireless radio over time
- Current networking status and traffic details
- Client session information
- Retention depends on licence type – two months or more

ALERTS, LOGS & AUTOMATION

- **Email alerts** – raised when devices go offline or otherwise need attention
- **Notifications** – event alerting with configurable recipients
- **Customizable alerts engine** with proactive maintenance tools
- **Audit trail** – operation, upgrade, configuration, client and connection logs
- **Scheduler jobs** – background task monitoring for recurring work
- **Report schedules** – recurring generation with archived downloads

REPORTS CATALOG

Eleven access-point report templates ship with the Network Controller module. Generate any of them on demand, or put them on a recurring schedule and collect the output from the downloads archive. Every template exports to PDF, XLSX or CSV.



Reports catalog – templates by category, each generating to PDF, XLSX or CSV.

ACCESS-POINT REPORTS

- **Application Usage (DPI)** – top applications by flow count across APs
- **Band & SSID Distribution** – clients, sessions and traffic split across bands and SSIDs
- **Bandwidth Utilization** – per-AP download and upload over time
- **Client Roaming & Stickiness** – per-client AP transitions; flags sticky clients
- **Connected Stations** – per-session client, AP, SSID, band, signal and duration
- **Health & Resource Trend** – per-AP memory and CPU, averages and peaks
- **Airtime / PHY Rate Efficiency** – average PHY rates and legacy-mode share; flags airtime drag
- **Wi-Fi Signal Quality (RF)** – average and minimum SNR, noise and signal per AP and band
- **Top Talkers (Heavy Users)** – top client devices by total traffic
- **Uptime & Health** – per-AP uptime percentage, firmware version, last-seen and down-event count
- **Devices – Bandwidth Utilization** – per-client bandwidth, top-N when no MAC filter is set

A further sixteen templates covering RADIUS (authentication audit, concurrent sessions, data-cap breach, idle-session audit, NAS/site utilization, realm and roaming summary, session detail (CDR), usage by user, voucher batch) and Captive Portal (activity, advertisement performance, login-method breakdown, new vs returning visitors, guest onboarding funnel, survey responses, voucher lifecycle) are delivered with Newbridge IAM.

LICENSING

The platform is licensed by module. Newbridge Controller enables the Network Controller module. Each licence carries its own validity period and capacity limits, is imported into the console as a file or as encrypted licence text, and more than one licence may be active at a time.

FIELD	DESCRIPTION
Enabled Modules	Which modules the licence activates
Valid Until	Expiry date of the licence; status is shown as Active or Expired
Max APs	Licence-controlled limit on managed access points
Client Name	Organization the licence is issued to, shown per licence

Capacity limits are set per licence and enforced by the controller. The console reports application version, hardware serial, licence serial and overall status under Administration → Licence Management.

ORDER INFORMATION – CLOUD

ORDER NO.	DESCRIPTION
NB-CLD-CTL-1Y	Newbridge Cloud management subscription, per AP, 1 year
NB-CLD-CTL-2Y	Newbridge Cloud management subscription, per AP, 2 years
NB-CLD-CTL-3Y	Newbridge Cloud management subscription, per AP, 3 years
NB-CLD-CTL-4Y	Newbridge Cloud management subscription, per AP, 4 years
NB-CLD-CTL-5Y	Newbridge Cloud management subscription, per AP, 5 years

ORDER INFORMATION – ON-PREMISE

ORDER NO.	DESCRIPTION
NB-9180-CTL-UK	Newbridge Controller 9180 appliance, up to 180 APs
NB-9480-CTL-UK	Newbridge Controller 9480 appliance, up to 480 APs
NB-9980-CTL-UK	Newbridge Controller 9980 appliance, up to 980 APs
NB-9000-LIC-1	MAP licence, one per managed access point

Cloud subscriptions include Newbridge software and hardware support for the term. On-premise appliances take a separate software and hardware support contract, available in one- to five-year terms. Optional modules are entitlements enabled on the licence, not separately ordered parts.

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