

Encore enCloud™ Enhances Router Deployments

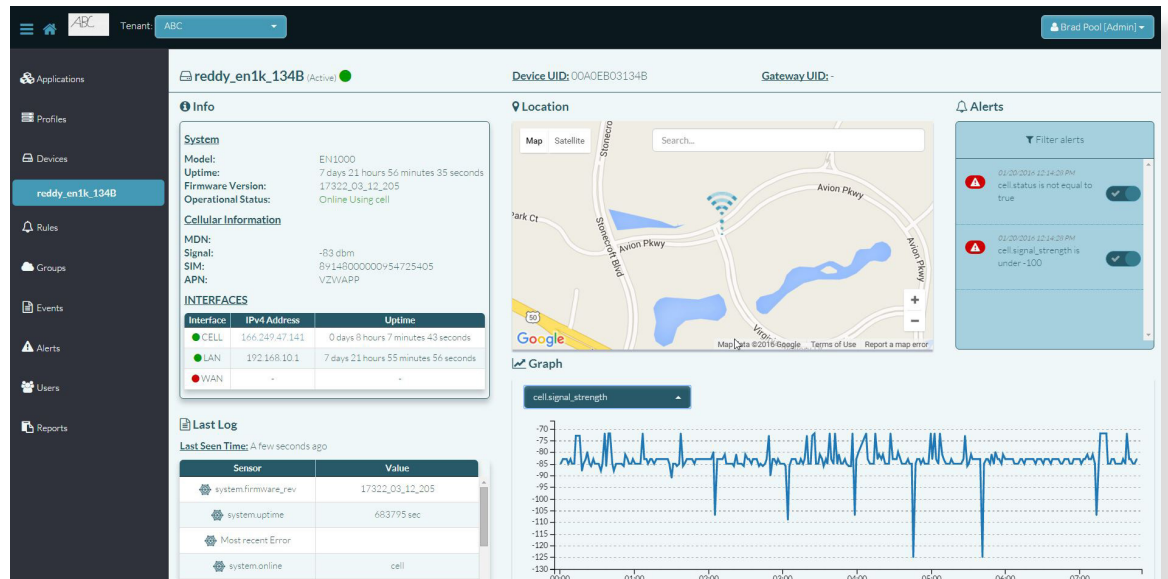
Key Benefits

- Monitor, manage, and configure Encore routers through the cloud
- Scalable for Distributors with several customers or individual users
- Configurable event thresholds for key performance metrics (e.g., signal strength)
- Self-Clearing Alerts
- Automated Device Remedies
- SMS and email alerts
- Updates router software and configuration.

General

- Unlimited cloud capacity
- Access anywhere in the world
- Optimized for EN™ line of routers
- Intuitive administration and controls

The **enCloud™ Management System** presents key information to monitor any size network of Encore EN™ routers. Based on cloud infrastructure and configuration templates, the system scales to any size deployment of devices. With partitions and multiple levels of permissions, enCloud™ supports separate views for each customer of a reseller.



Device data is updated regularly as routers communicate with enCloud™. Status can be viewed individually (pictured) or in an aggregate format. Information reported includes uptime per device, cellular signal strength, and other conditions, all recorded in the permanent event log. Events in the log can be programmed to trigger alerts, notifications, or remedies. Users can customize the display to include the information most often used.

One click drills down from the top-level representation to individual screens that detail all configuration options and operating parameters for a selected router.

The interval between periodic reports from each router can be adjusted, to balance minimum data use with prompt notification of an outage. Periodic reporting by the routers also keeps cellular connections active, to prevent message delays or packet loss after a period of inactivity. Because the routers initiate messages to enCloud™, the connection requires no special configuration of remote-site NAT devices or firewalls. However, opening a firewall port allows direct access from enCloud™ workstation to the GUI configuration interface on a router with a public address, which can aid in device management.

Keeping devices up to date is easy with enCloud™. The most recent software releases for each hardware model are stored within the enCloud™ and can be pushed to individual routers, groups, or all registered routers. Router configurations can also be deployed in the same way, making it possible to ensure consistency across any network.

Managed devices may be organized in hierarchical groups by function, by device type, by geographic location, by permission level, or other parameters. Operators get permission to view and manage devices.

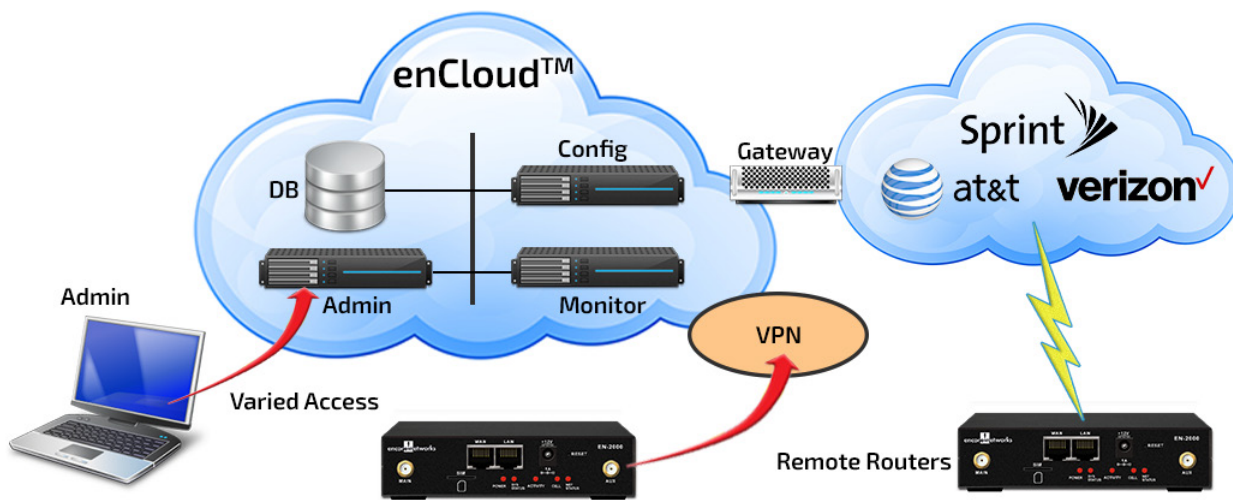
Rules in enCloud™ can be defined to report on device or user activity. Rules can be applied to individual devices or to predefined hierarchical groups. Rules trigger responses, including alerts, notifications, and diagnostic actions – a feature called Remedies.

Remedies allow a user assigned diagnostic action to take place automatically when a rule condition is met. This allows for limited automated troubleshooting, for example rebooting a router, which can save time.

Self-clearing alerts resolve themselves when the original alert criteria are resolved. For example, when low signal strength has returned to an acceptable level.

Notifications of events can be sent via e-mail or SMS to administrative users of the enCloud™ or can be assigned to contacts – people without normal access to the enCloud™ but who may still need to be notified of certain conditions.

All events are recorded in the permanent event log stored in enCloud™. This log can be used for analysis of a user network, either by accessing it directly or through the reporting platform.



enCloud™ Technical Specifications



Monitoring

Configurable alarms can send e-mail or SMS messages:

- Terminal disconnected from router
- VRRP switchover
- Switch from primary to back-up WAN connection
- Account log-in, successful or failed
- Cell signal strength and change monitoring

Periodic reports by routers to confirm status

Traverse NAT and Firewalls easily

Direct access to router configuration interface

Cell signal levels, recorded permanently for reports and timelines

Management and Configuration

Provides latest software updates

Groups devices by use case, responsibility group, etc.

Sort-and-select to choose devices for bulk operations

Each router may have a unique configuration

Administration

Establish user accounts with varied permissions:

- Administrator can configure, add, and delete devices rules and users
- Viewer has read-only access to screens
- Contacts can receive e-mails or SMS notifications

Define custom reports for all monitored events

Due to continuing product improvements, specifications are subject to change. Consult Encore sales for current information.