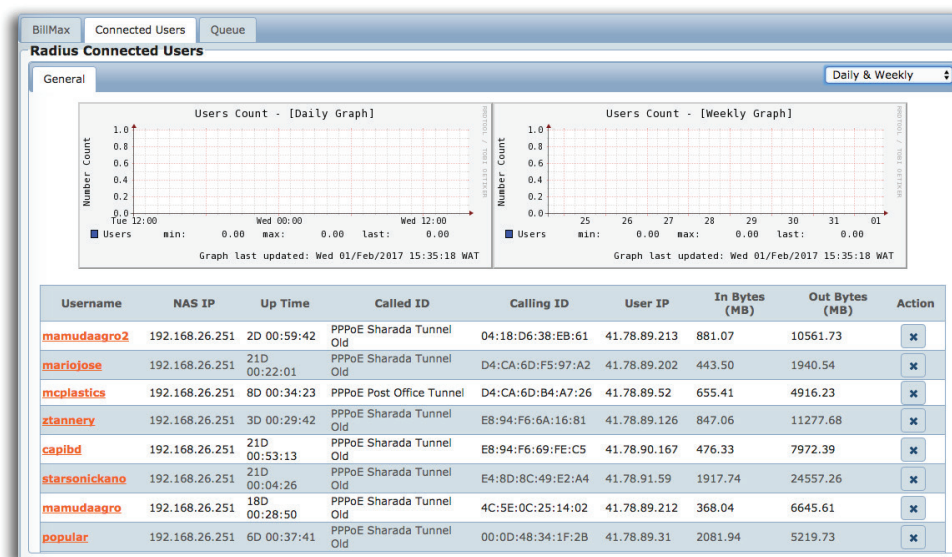


MikroMate Module

The MikroTik® module is an optional software component to the BillMax suite that provides total operational control and monitoring to WISPs that utilize MikroTik® hardware.

Overview

MikroMate allows the service provider to centralize configuration, control and monitoring of any number of MikroTik® routers, APs and CPEs from within BillMax. Using these functions, the service provider is able to provision services with specific usage profiles, manage access and troubleshoot service issues; all of which increase quality of service, operational efficiency and profitability.



Device Management

Providing wireless broadband Internet service is complex. Many devices, network links, software services and management systems are often involved in providing service. While it is possible to manage each component separately, doing so almost always leads to greater expense, more outages and poorer quality of service.

MikroMate streamlines management via the RouterOs API. MikroMate is designed to include only those functions typically needed by a WISP in a simple-to-use single interface/host. This provides enormous efficiency and less MikroTik® expertise.

Subscriber Management

Subscriber management is equally challenging. You need to ensure that your subscribers are paying for and receiving the correct service. With thousands of subscribers this can only be done with a solution that tightly integrates billing with service provisioning.

By using BillMax and MikroMate, you'll be able to achieve these goals and much more. In particular, you can setup a subscriber for billing and provision the service by entering the account information and selecting their service. Suspension when an account is overdue is automatic. Re-enabling access can be achieved by the subscriber via a captive portal without any intervention by your staff. Diagnosing service issues can be done easily by viewing graphs and examining usage and device logs.

Resource Management

One of the biggest issues for a WISP is providing the appropriate amount of bandwidth to fulfill the promised Internet service levels. Provide too little and you'll have unhappy customers. Provide too much and you'll be paying for something you don't use which in turn reduces profits.

With MikroMate, you can control and manage bandwidth utilization using a revolutionary three-tiered queuing system. Using the proper configuration, a WISP can insure that overall available bandwidth is not exceeded and subscriber service level agreements are met, and lastly bandwidth is reduced equally across all subscribers in times of high usage.

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Device Management

- Configure MikroTik® devices (routers, access points, and customer premise equipment)
- Backup and restore of MikroTik® configuration
- Update firmware
- Monitor MikroTik® devices
- Device utilization graphs (CPU, memory, disk, bandwidth)
- System logs in centralized location
- Control settings for:
 - Static IP addresses and pools
 - DHCP
 - DNS
 - PPP
 - Routing and bridging and ARP
 - Virtual interfaces
 - Firewall
 - SNMP
 - Bandwidth queuing
 - Radius

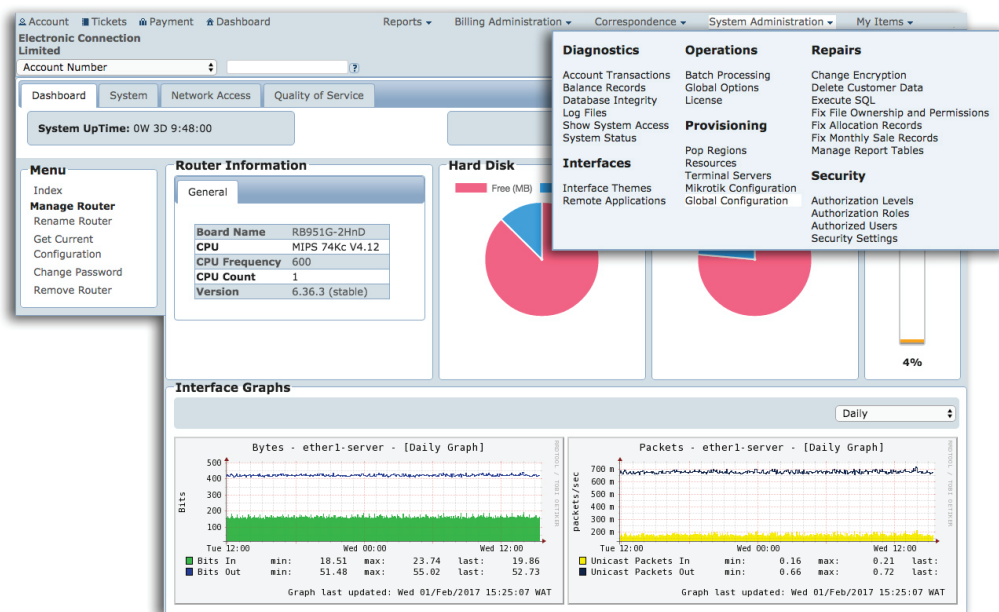
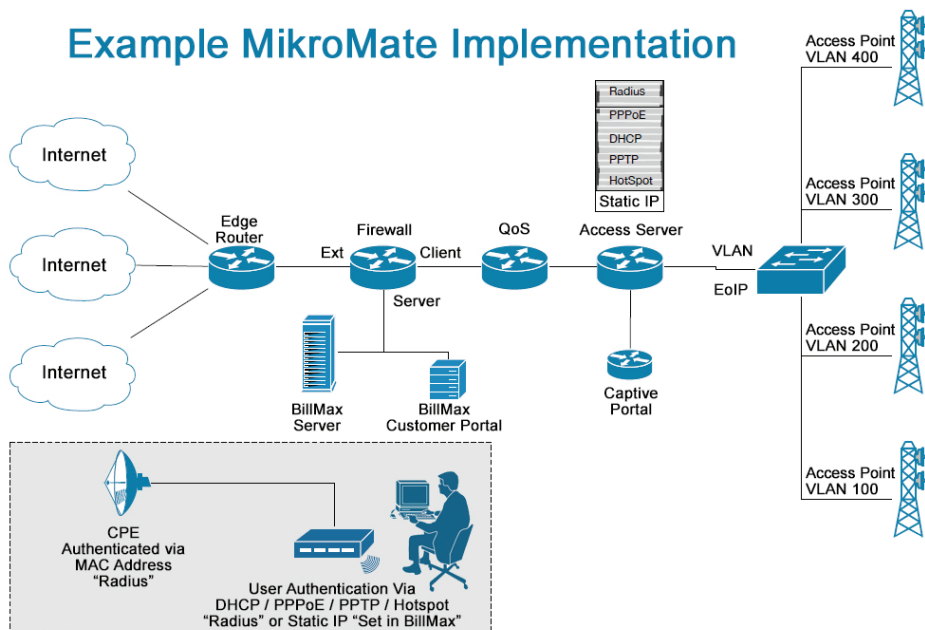
Subscriber Management

- Easy real-time provisioning of services
- Automatic suspension
- Captive portal for subscriber self-help
- HotSpots
- Radius integration
- Access control via PPP, DHCP

Resource Management

- Three-tiered queuing
- Separate bandwidth queues by time of day
- Usage graphs and logs

Example MikroMate Implementation



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