

FLEET MANAGER

WITH THE REVENUE EXTRACTION GATEWAY





The rXg Fleet Manager

The rXg Fleet Manager offers a powerful and efficient way to manage multiple RG Nets revenue eXtraction gateway (rXg) devices, enabling seamless operations and scalability. This whitepaper provides a technically detailed overview of the features and capabilities of the rXg Fleet Manager, including geographically distributed Fleet Nodes, configuration templates, centralized upgrades, and more.

Introduction

The RG Nets revenue extraction gateway (rXg) is a comprehensive solution for service providers, offering a fully integrated edge network head-end that maximizes revenue, minimizes costs, and easily scales. The rXg Fleet Manager extends the capabilities of the rXg platform by enabling operators to manage multiple rXg devices from a single pane of glass. This paper discusses the features and benefits of the rXg Fleet Manager in detail.

Fleet Nodes & Architecture

Fleet Nodes are geographically distributed rXg devices, representing individual venues. Most Fleet Nodes are standalone rXgs, while others may be configured as rXg clusters for increased resilience and performance. The Fleet Manager is deployed in a central location and typically runs on a single bare metal rXg or a symmetric pair of rXgs for high availability. Fleet Nodes communicate with the Fleet Manager over the internet, securely transmitting statistics and receiving commands.

Fleet Groups and Real-Time Monitoring

The Fleet Manager GUI provides a fleet groups view, displaying fleet nodes, their health, and real-time updates. It supports multi-tenant role-based access control, allowing administrators to manage and monitor their entire fleet at a glance. The monitoring dashboard offers detailed information on node performance, including bandwidth usage, packet loss, latency, and device-specific metrics.

Configuration Templates

Fleet Manager enables operators to push configuration templates to individual or multiple Fleet Nodes and Fleet Groups, instantly updating and synchronizing configurations across the rXg fleet. This feature allows operators to make changes to pricing, admin access, SSIDs, VLANs, or deploy new VMs with a single click. Configuration templates are written in a flexible, domain-specific language (DSL) that allows for dynamic generation of nodespecific configurations based on variables such as location, customer type, or other attributes.

Centralized Upgrades

With the rXg Fleet Manager, operators can schedule upgrades for one or multiple Fleet Nodes and Fleet Groups, receiving real-time status information and in-depth reporting on successes and failures. The Fleet Manager supports parallel upgrades, minimizing downtime and ensuring consistent firmware and software versions across the fleet.

Centralized Backup Repository

Fleet Manager serves as a remote server target for fleet node backups, with backup count and size limits governed only by hardware. Backups are encrypted and compressed for secure storage and efficient transmission. The centralized backup repository enables administrators to quickly restore a fleet node's configuration or recover from hardware failures, reducing the time and effort required for disaster recovery.

Centralized Authentication

The rXg Fleet Manager facilitates seamless authentication across the entire fleet, allowing end-user devices to maintain their access profiles across multiple properties and enabling user profile updates from a single dashboard. The Fleet Manager supports integration with various authentication systems, including RADIUS, LDAP, and OAuth, as well as onpremises and cloud-based billing and user management platforms.

Bastion Host

Administrators can use the Fleet Manager as a proxy to access CLI and GUI of Fleet Nodes, with automatically deployed ACLs limiting exposure to the internet. Fleet Manager supports secure remote access via ACLs, SSL proxy, or VPN as a bastion. The bastion host functionality provides an additional layer of security, ensuring that fleet nodes are protected from unauthorized access



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