MDU OVERVIEW

WITH THE REVENUE EXTRACTION GATEWAY

rgNets

THE TECHNOLOGY

The revenue eXtraction gateway (rXg) enables operators to simply, easily and affordably deploy the ultimate solution for a unified WLAN infrastructure in multi-tenant scenarios. Multiple dwelling unit developments, multi-tenant venues and mixed used complexes, including, but not limited to apartment buildings, condominiums, student dormitories, assisted living, shared office spaces and other similar properties are best served by a single physical network with microsegmentation managed by the rXg. All parties involved benefit from a planned, unified, network that is specifically designed to simultaneously support the operator, property, tenants and guests.

SELF MANAGED DPSK

The rXg enables tenants to manage their own unique PSK to gain access to the single, unified, SSID that is broadcast across the property. The rXg DPSK network architecture enables tenants to easily onboard new devices by simply selecting the unified SSID and entering their unique PSK. This onboarding methodology is technologically identical to the procedure that is used with a physical residential gateway which guarantees compatibility with virtually all network connected consumer equipment.

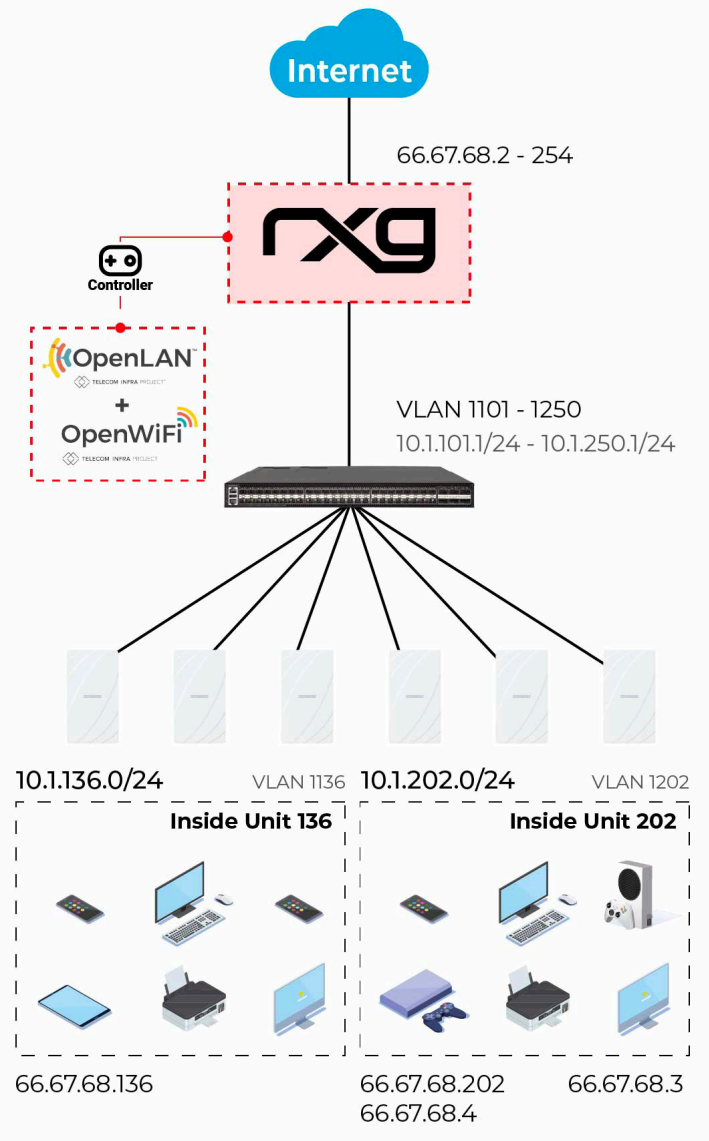
Tenants are able to manage their own PSK through the virtual Residential Gateway (vRG) feature of the rXg, which integrates seamlessly into a disaggregated OpenWiFi environment using an external DPSK workflow.

MICROSEGMENTATION

Standards-based logical microsegmentation of a unified physical network through dynamically assigned VLANs provides unmatched flexibility, functionality, security and compatibility, no matter where you go on the property. Applications that rely on broadcast and multicast-based protocols such as mDNS work exactly the way that tenants expect. All of the devices belonging to a single tenant are able to communicate with each other, and no tenant may access any other tenant's devices. Tenants are only able to see their own traffic even if they use packet sniffers such as tcpdump, Wireshark, Ethereal, pflog, Firesheep, etc.

The hot game that will be released at next year's CES will work exactly the way the developer's expect, because the standards-based approach avoids proprietary ACL network architectures with proxy servers that must be updated every time new software is introduced.

Furthermore, a standards-based approach solves connectivity problems that have yet to be discovered, for devices that have yet to be invented.



SINGLE SSID

The operator defines a single, unified SSID that is broadcast across the entire property to deploy the managed Wi-Fi solution. This planned approach to networking minimizes infrastructure overhead and maximizes airtime for client payloads. Furthermore, the single, unified SSID approach minimizes client confusion regarding which network to use and thus reduces the number of help desk calls. The OpenWiFi control plane, operating within a disaggregated framework, is tightly integrated with the rXg to implement this solution.

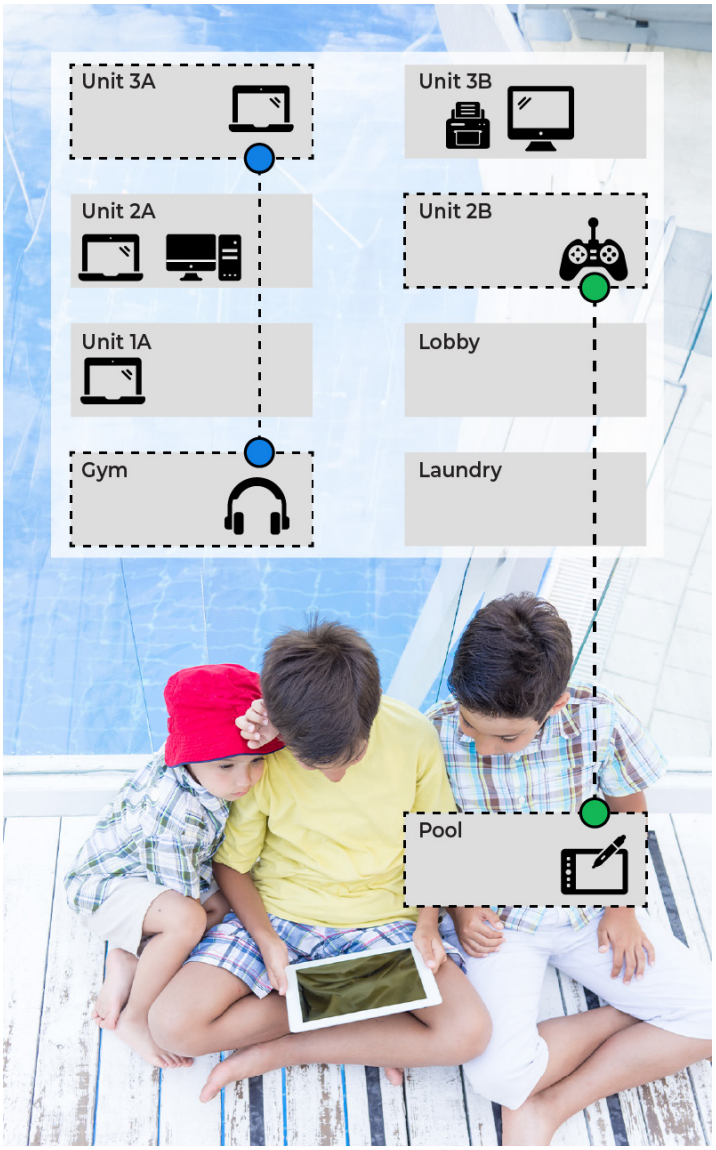
BILLING

Each tenant has control of their own specific settings through a multi-tenant aware vRG portal that is hosted on the rXg and integrated into the rXg billing system. This allows tenants to easily self-manage their service and operators to offer instant provisioning of upgrades with optional billing. The flexibility regarding the set of possible upgrade options and billing is endless. Possibilities include, but are not limited to, bandwidth, number of public IPs and even the choice of which uplink circuit is being used.

PORTABILITY

The dynamic VLANs managed by the rXg are distributed across the your Wi-Fi infrastructure in such a way that tenants are bound to their unique VLAN anywhere the wireless signal is present. This allows a tenant to access a video that is stored on a NAS in their unit using a tablet while they are in the fitness center. The tenant VLANs may be extended to include wired Ethernet ports when combined with enterprise wired switches that support 802.1 X MAB with DVLANs.
The combined solution allows a tenant to play a game through a reverse-cast from a game console that is wired into their unit while they are sitting at the pool.

The device portability of this architecture provides the seamless experience across the property that makes every device work for every tenant exactly the way that they expect.



VIRTUAL RESIDENTIAL GATEWAY

Tenants expect that their network service will support any network-connected consumer electronic device. Enterprise network architectures violate many of the assumptions made by developers of consumer electronic devices, because the reference architecture used by the developers is the typical single family home physical residential gateway.

For example, UPnP for inbound port forwards is never available in enterprise networks. The routers for enterprise networks are designed for a small number of organizational units to be managed by dedicated IT staff. This architecture is inherently incompatible with the concept of UPnP, which necessitates support for micro-segmentation and a large number of organizational units. The lack of UPnP and other consumer features on enterprise equipment adversely affects the vast majority of gaming technology that depends on inbound port forwards to support peer-to-peer networking for multiplayer games and voice chat. The rXg solution for multi-tenant venues overcomes these challenges through a unique, microsegment-aware virtualized Residential Gateway (vRG) network architecture.

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