ip access

4G SOLUTION
3G SOLUTION
2G SOLUTION

viper™

Virtualised In-Premise Enterprise RAN platform

Simplifying small cell deployments using cutting-edge, cloud based, RAN solutions

Small cells, simplified

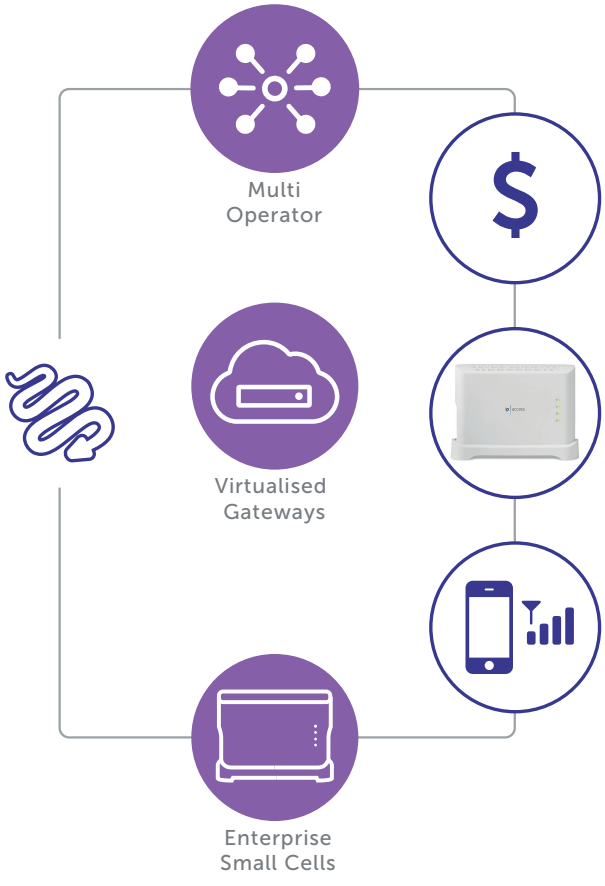
Viper is an end-to-end small cell platform from ip.access, which integrates the following components:

- A range of plug-and-play 2G, 3G and 4G small cell APs for small, medium and large enterprise deployments
- Virtualised Gateways which securely handle and route all traffic between the APs and the operator's core network
- SUMO™ Multi-Operator technology for nanoLTE, allowing a single AP to provide coverage for all networks

The Viper platform is targeted at Network Operators, MVNOs, Service Providers and System Integrators looking for a simple small cell solution which can be quickly deployed with minimal technical resources.

End-to-end security, automated provisioning and network configuration are an integral part of the Viper platform, with APs requiring only Ethernet and mains power connections, making small cell installation as easy as Wi-Fi.

Viper's 3G and 4G APs cover all major frequency bands worldwide, and support traditional licensed spectrum, Citizens Broadband, and Licensed Shared Access.



ip access Virtualised enterprise RAN.

viper™ features

Plug-and-play Small Cell Access Points

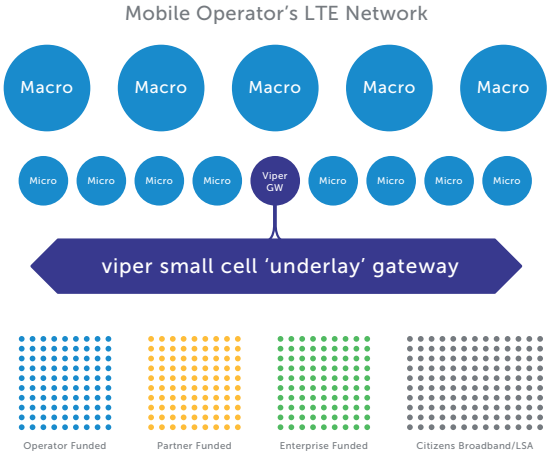
The Viper platform can be deployed with a large range of Enterprise and SoHo small cell APs from ip.access. With over 2 million small cells deployed globally, our award-winning SON and Network Listen capabilities make AP installation easier than installing Wi-Fi.

Requiring only Ethernet and power connections, APs can be installed by service partners as part of a managed rollout, or simply mailed out to end-users for unplanned deployments in small enterprises.

Fully secured IP backhaul connects the APs to the Viper gateway, with no on-site gateways needed.

APs support 2G, 3G and 4G (LTE, FDD and TDD) air interfaces in a variety of worldwide frequency bands, including the new 3.5GHz Citizen's Broadband. Capacities range from cost-optimised SoHo APs serving 8 simultaneous users, to flexible multi-band Enterprise APs supporting up to 32 active 4G users.

Virtualised Gateways



ip.access Viper™ small cell network deployment

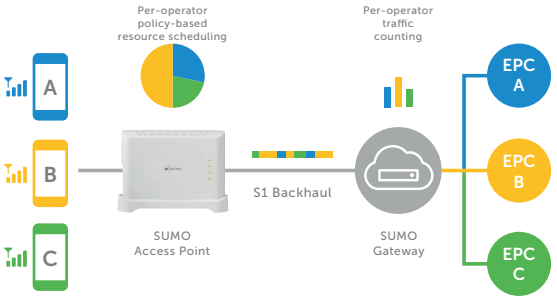
The Viper platform features fully virtualised gateways handling AP security, access control, core network interfacing and network operation. The Viper gateways can be hosted in the Mobile Operator's premises, in an offsite data centre,or cloud hosted.

By offloading all small cell-related operations to the Viper gateway, there is minimum impact on the mobile operator's existing macro network as more small cell APs are deployed. The Viper gateway wraps all the APs into a single "underlay" cell, managing handovers to and from the existing macro network, as well as handovers between small cells, for a truly scalable AP network.

Deployment of additional APs into the network is a simple plug-and-play process, enabling cost effective self-install by smaller businesses, and allowing AP deployments to be funded by the network operator, channel partners, or the end-users themselves.

SUMO™ Multi-Operator Support

The Viper platform includes SUMO for nanoLTE, ip.access' solution for multi-operator coverage from a single small cell AP. Many vertical markets such as hotels and property developers require multi-operator coverage, and installing one AP per operator is simply not an option.



With SUMO, the AP broadcasts multiple PLMN codes on the same spectrum, and all users see the AP as a cell within their home network. A policy based resource scheduler in the AP allocates capacity and bandwidth according to predefined rules. The Viper gateway securely routes all traffic to the appropriate core network for each operator, and traffic counters allow the traffic to be monetised.