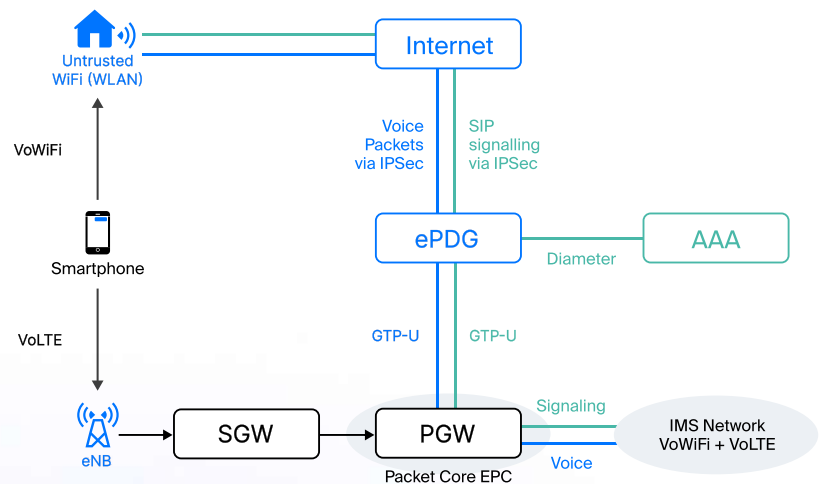
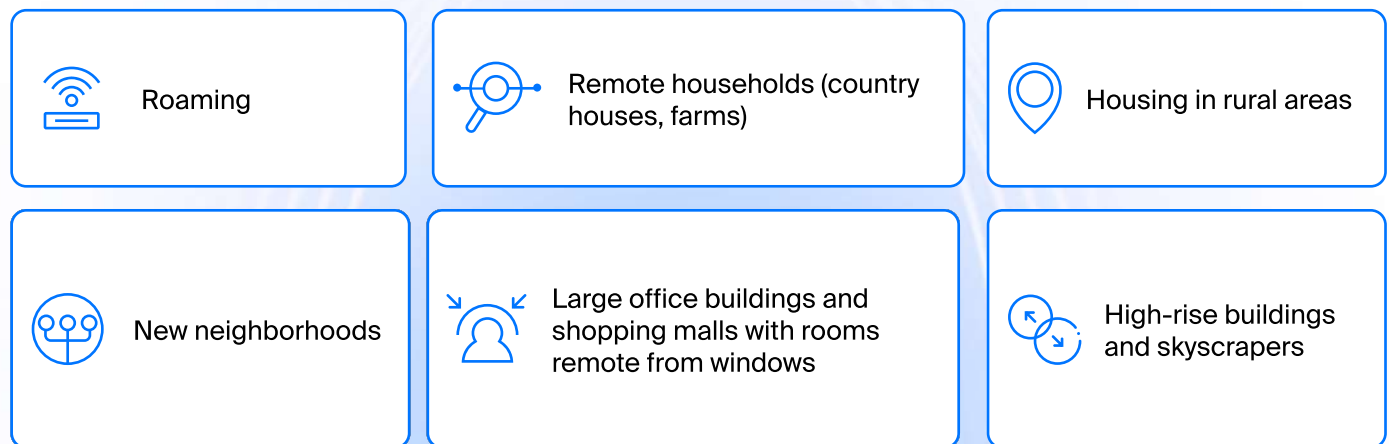


Stingray ePDG – Wi-Fi Calling for mobile networks

Evolved Packet Data Gateway (ePDG) is a solution for launching Wi-Fi Calling that seamlessly switches subscriber voice calls and SMS to any available Wi-Fi to increase operator network coverage. ePDG by VAS Experts supports flexible integration scenarios with PGWs from various vendors and operates with AAA.



Use Cases



Key Features

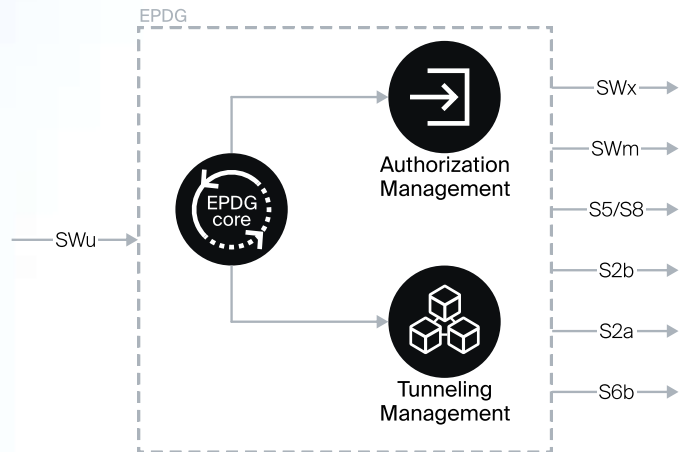
1. Implementation according to 3GPP specifications
2. Several operator integration schemes are available
3. Work with multiple AAA and PGW of the operator for balancing and redundancy
4. 5G Ready: Support for S2b architecture for a smooth transition to Next-Gen Core
5. Regular updates, including new functionality.
6. In-house development, customization for customer requirements, and 24/7 support.

Technical Specifications

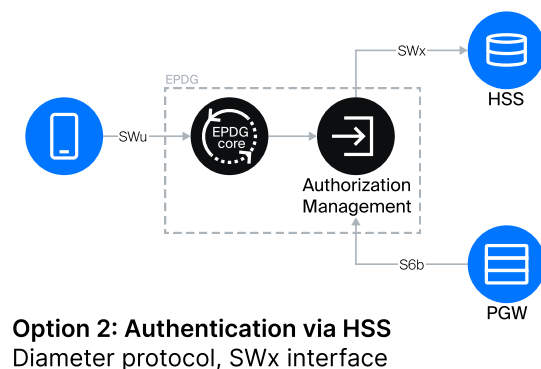
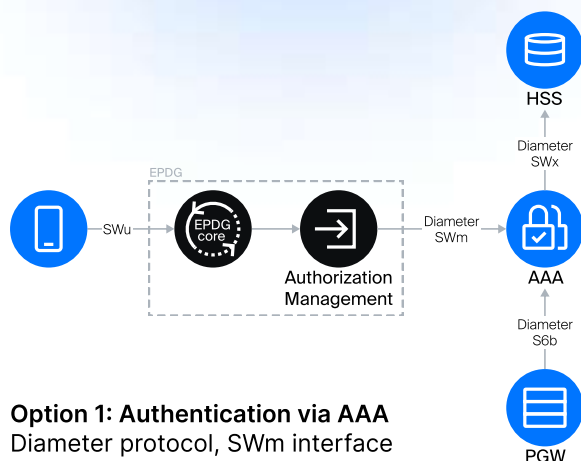
Stingray ePDG components and interfaces

Stingray ePDG includes 3 modules for flexible interaction with the telecom operator's information systems. Each module can be customized and finalized separately.

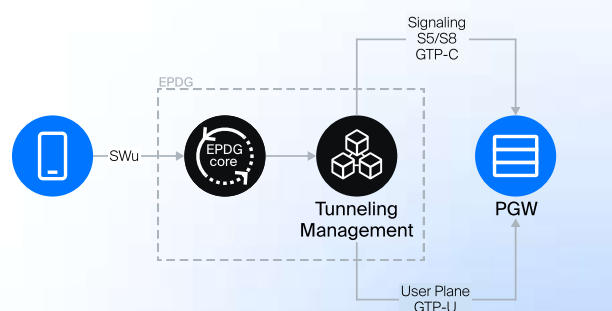
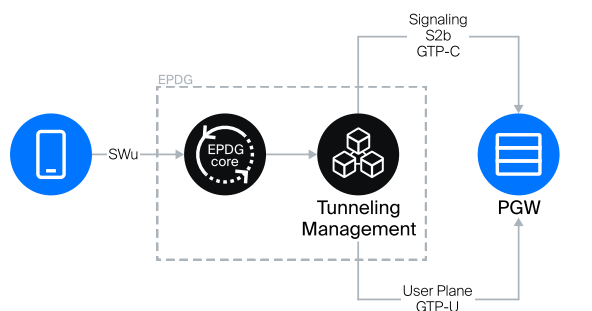
1. **ePDG Core** – Coordination and QoS assurance.
2. **Authentication Module** – Various authentication scenarios, including built-in AAA.
3. **Tunnel Management Module** – Different tunnel management scenarios.



Integration with operator's information systems: Authentication module



Integration with operator's information systems: Tunneling module



Functional capabilities

Industry standard support:

- 3GPP TS 23.042
 - Architecture enhancements for non-3GPP accesses
 - Covers Complete Architecture in Detail, Important Document for enhancing knowledge on VoWiFi
- 3GPP TS 33.042
 - 3GPP System Architecture Evolution (SAE); Security aspects of non-3GPP accesses
 - Covers Security & Authentication related Call Flows

Multi-Level Authentication

- EAP-AKA for mutual authentication between the UE and the AAA server.
- EAP-GTC for supporting L2TP tunnels (corporate VPNs, ISP services).
- PKI Infrastructure: X.509 certificate exchange with OSCP and CMPv2 support (RFC 4210, 3GPP TS 33.310).

Dynamic Authorization:

- Concurrent UE-PDN sessions via SWm.
- Re-authentication without session termination.

Routing and Traffic Management:

- GTPv2 on S2b: Efficient data transfer between the ePDG and PGW.
- Dynamic PGW selection based on DNS records, taking into account network topology and weighted load balancing.

Seamless handover:

- Real-time switching between VoWi-Fi and VoLTE via S2b.
- Minimizes packet loss by buffering data until session termination.

Reliability and Scalability

- Redundancy: Fault-tolerant architecture with automatic failover.
- Compatibility: Full compliance with 3GPP Release 14/15 and RFC standards.

Minimum System Requirements

For the subsystem, you can use hardware or virtual machines with the following specifications:

- Processor (CPU) – 2.5 GHz, 1 unit
- Random Access Memory (RAM) – from 2 GB
- Hard Disk Drive (HDD) – 50 - 250 GB
- Operating System – VEOS
- Network Interface Card (NIC) – from 10 Mbps

**Request a personal demo
and start your free trial
of VAS Experts products**

sales@vas.expert
vasexperts.com

Follow us:

