



The Peeredge SIP Switching Fabric

The concept of limitless SIP switching is a new paradigm in the service provider, contact center and enterprise world. The industry has been commonly dominated by dedicated hardware with known limitations deployed in specific geographic areas. When a user required more capacity it was necessary to purchase and deploy new equipment, which is costly and

time consuming. The **Peeredge SIP Switching Fabric** was designed to remove the constraints associated with traditional Session Border Controllers. There are no upper or lower limits on the amount of simultaneous sessions, calls per second, trunk groups or routing translations. The fabric also has native high-availability and automatically self-heals.

Switching Fabric Capabilities

— SESSIONS

- An unlimited amount of session capacity within the core switching fabric
- An unlimited amount of trunk group configurations

— CALLS PER SECOND

- An unlimited amount of call set-up and tear-down capacity
- Sub-10ms switching responses

— MEDIA SERVICES

- Full codec passthrough, including wideband, wireless and wireline.
- An unlimited amount of media anchoring
- Full T.38 anchoring and pass-through
- Rogue media / RTP inactivity monitoring
- An unlimited amount of call transcoding

— SIGNALING

- Fully load balanced and distributed B2BUA (SBC) with optional forced egress (a call can enter one IP and exit through another)
- Automatic SIP normalization and protocol repair with optional SIP message manipulation
- IPV4 and IPV6 native transport support

— SECURITY

- IPSec/TLS support for signaling encryption
- Full signaling topology hiding with optional media anchoring
- Malformed packet protection
- Loop protection
- Line rate DDOS protection

— CALL CONTROL

- Carrier and trunk group inbound port and CPS throttling (across multiple Peeredge Intelligent IPs and VSEs)
- Carrier and trunk group outbound port and CPS control
- Inbound and outbound call manipulation.
- Call blocklists, including global, originating and terminating blocks.
- Call control at LNP, DNIS, ANI, RPID, PAID, FROM, TO, CONTACT level.

— MANAGEMENT

- Full integration into the Peeredge Ecosystem of products with one touch management of carriers, trunk groups, call-control, security and QOS related items.
- Responsive and SSL secured web interface with native tablet and phone web browser support.
- Wizard based setups to manage all aspects of Peeredge.
- Centralized management of session or cps limits, regardless of the number of Peeredge Intelligent IPs or VSEs deployed.
- Automatic software updates and monitoring by 46 Labs staff.

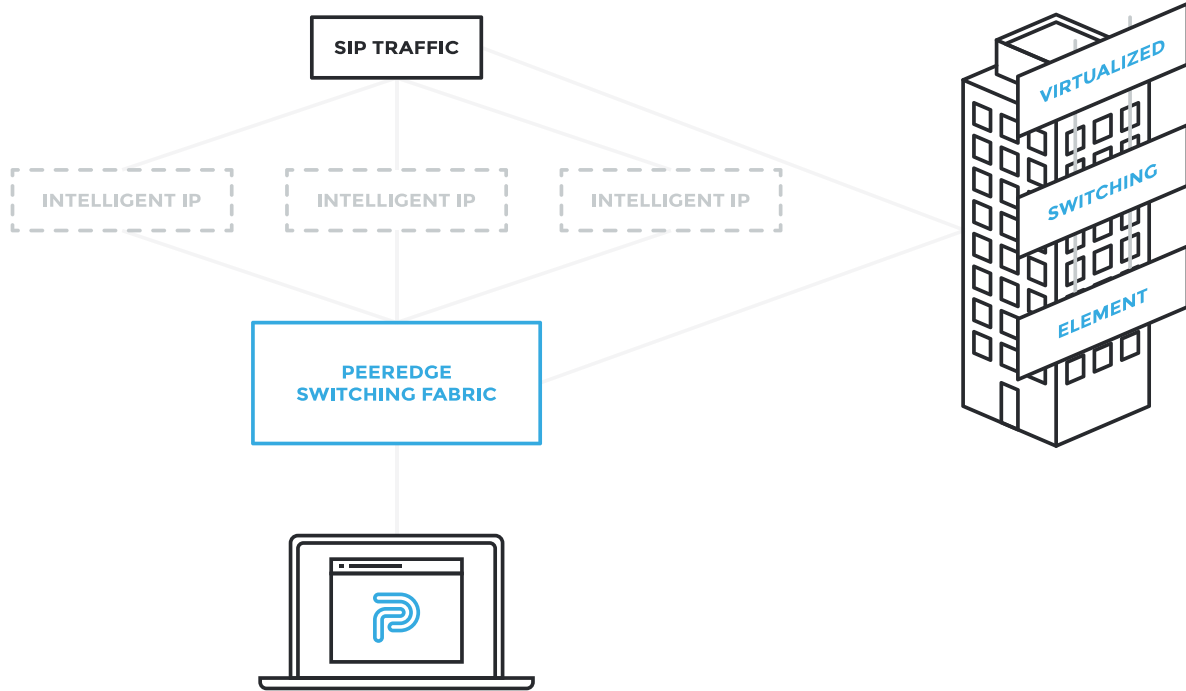
— REDUNDANCY

- Multiple session and CPS aware Peeredge Intelligent IPs issued to every customer
- Self-healing switching, routing and reporting backends.
- Virtual Switching Elements contain redundant virtualized elements for on-prem switching.

— ROUTING

- Capabilities through native integration into the Peeredge Routing Fabric:
 - Sub-20ms routing responses
 - Dialed number-based routing
 - LNP based routing
 - LERG based routing
 - Local (LCAD) based routing
 - LCR based routing
 - Call class based routing
 - Static routing
 - Failover routing
 - % Routing
 - International routing
 - Peering
- Capabilities through native integration into the Peeredge Datasource Fabric:
 - Domestic US and International LNP dipping (Direct Neustar integration)
 - LERG dipping for jurisdictional determination
 - Local (LCAD) dipping for local call determination

Peeredge VSE Virtualized Switching Element



The Peeredge VSE (Virtualized Switching Element) gives carriers that require on-premise switching, the advantage to all elements of the Peeredge Switching Fabric inside of their own facilities. The features present in the Peeredge Switching Fabric all convey to the VSEs and users may run a hybrid of VSEs alongside the native Peeredge Switching Fabric. The entire deployment can be managed using a single unified interface inside the Peeredge ecosystem.

The Peeredge VSEs can be coupled with the Peeredge VRE (Virtualized Routing Elements) and Peeredge VDE (Virtualized Datasource Elements) to have a fully remote deployment for latency-sensitive or high CPS applications.