



The Peeredge Routing Fabric

The routing of telecommunications traffic is, in most instances, as critical as being able to switch calls. The intelligent handling of traffic is a key differentiator in maintaining profitability and quality. The **Peeredge Routing Fabric** is a routing platform void of traditional limitations. There are no limits on the number of lookups per-second, routing translations, external SBCs or

trunk groups. You simply cannot out-scale the solution. The fabric also has native high-availability and automatically self-heals. It can be extended to control SBCs or proxies outside of the Peeredge Ecosystem through a SIP 302-redirect and the routing response profile can be customized to a specific piece of equipment or requirement.

Routing Fabric Capabilities

— ROUTING

- Routing container based routing approach, allowing the organization of routeplans within a container. This allows multiple levels of profit assurance, quality and granularity for a single traffic profile
- An unlimited number of routing translations
- Static Routing
- LNP/MNP-based (jurisdictional) routing
- Local (LCAD)-based routing
- Call Class (Mobile, CLEC, ILEC)-based routing
- Peering-based routing
- % routing
- Forced routing
- Failover routing
- LCR, including profit assurance
- Dialed-number / LRN arbitrage
- Destination or Prefix based routing granularity

— RATING

- Ability to determine call rounding on a per-trunk group basis
- Ability to properly rate calls that have a different originator and terminator duration (delayed bye)
- Can combine rating from multiple sources (traditional SBC, Peeredge Switching Fabric, etc.) and multiple destinations to produce a cohesive set of rated CDRs for reporting

— RATESHEET MANAGEMENT

- Upload / Download ratesheets
- Manually manage ratesheets
- Historical storage of ratesheets
- Automatic processing of future-effective ratesheets
- Generate pricing based upon vendor decks, vendor depth and markup

— PERFORMANCE

- Sub-20ms routing speeds for routing in excess of 100M translations
- An unlimited amount of lookups per-second
- An unlimited number of routing translations
- An unlimited number of trunk groups and routing containers
- Sub-5ms response times for SIP 302-based routing redirects
- True on-net routing responses for Peeredge VRE

— INVOICING / BALANCE MANAGEMENT

- Per-customer invoice templates, including logo
- Multiple billing increments
- Credit limit and prepayment management
- Balance and payments management
- Past due balance additions
- Contact management
- Per-trunk group invoice detail
- Automatic and batch invoicing
- Exportable carrier, balance and invoice reports

— MANAGEMENT

- Full integration into the Peeredge Ecosystem of products with one touch management of carriers, trunk groups, call-control, routing, ratesheet 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 ratesheets, regardless of the number of Peeredge Intelligent IPs or VREs deployed.
- Automatic software updates and monitoring by 46 Labs staff.
- Ability to manage routing for external switching cooperatively with the Peeredge Switching Fabric and control all through a single native interface.

— REDUNDANCY

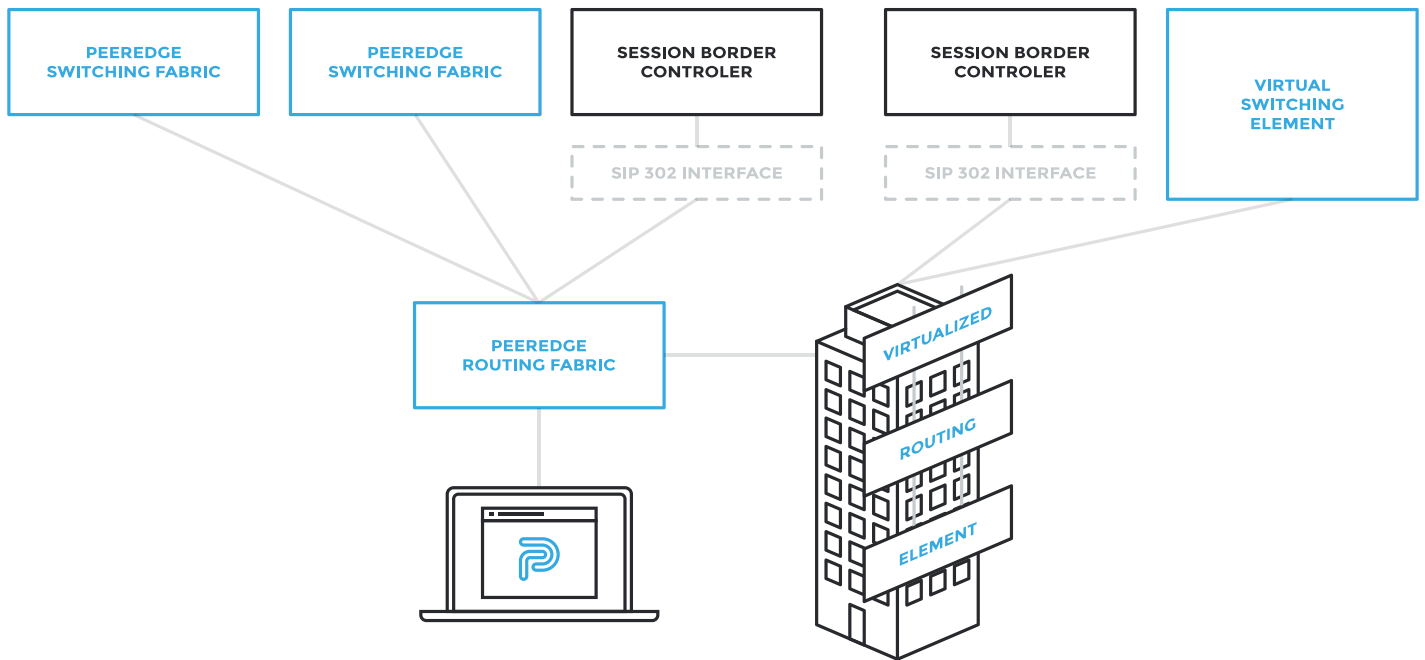
- Self-healing routing infrastructure, including backend databases and frontends
- Multiple redundant ingress points for SIP 302-based routing requests
- Each VRE (Virtualized Routing Element) is deployed with multiple database back-ends and multiple SIP 302 servers with automatic failover.

— EXTERNAL INTEGRATIONS

- Domestic US and International LNP dipping through the Peeredge Datasource Fabric
- Native Domestic LERG dipping for jurisdictional determination with automatic updating of information.
- US Local (LCAD) dipping through the Peeredge Datasource Fabric
- Integration with traditional SBC or Proxies using a SIP 302-based redirect.

Peeredge VSE

Virtualized Routing Element



The Peeredge VRE (Virtualized Routing Element) gives carriers that require on-premise routing, the ability to take advantage of all elements of the Peeredge Routing Fabric inside of their own facilities. The features present in the Peeredge Routing Fabric all convey to the VREs and users may run a hybrid of VREs alongside the native Peeredge Switching Fabric. The entire deployment can be managed using a single unified interface inside the Peeredge ecosystem. The Peeredge VREs can be coupled with the Peeredge VSE (Virtualized Switching Elements) and Peeredge VDE (Virtualized Datasource Elements) to have a fully remote deployment for latency-sensitive or high CPS applications.

The Peeredge Routing Fabric and VREs can control traditional Session Border Controllers (SBCs) or Proxies through integration with a SIP 302-redirect server. These 302-servers are natively part of the Peeredge Routing Fabric and can also be exposed to on-prem deployments through the Peeredge Virtualized Routing Elements.