Joint Solution Brief

iQuila for Service Providers

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Solutions Brief: Leveraging iQuila for Enhanced Layer 2 Services in ISP Networks

In an increasingly competitive market, Internet Service Providers (ISPs) are constantly seeking solutions to optimize their service delivery while minimizing costs and maximizing efficiency. This joint solution with iQuila & Cradlepoint emerges as a revolutionary approach for ISPs to deliver full IEEE-compliant Layer 2 services. This brief explores how ISPs can utilize the iQuila / Cradlepoint solution to achieve these objectives.

Overview of iQuila Solution

iQuila Enterprise, deployed at the Point of Presence (PoP), enables ISPs to scale out full Layer 2 services. This innovative approach significantly reduces the overhead of equipment and overall operational costs. The iQuila solution stands out for its ability to deliver Layer 2 services over any type of connection, including cellular networks. Our partnership with Cradlepoint, a leader in cellular 4G/5G solutions, allows this service to be seamlessly delivered via the Cradlepoint hardware. The integration of iQuila's software with Cradlepoint's routers ensures seamless compatibility, making it easy for ISPs to implement the solution within their existing network infrastructure.

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Key Features of iQuila Solution

Versatile Connectivity Options: iQuila facilitates the delivery of Layer 2 services over diverse network types, including cellular networks, ensuring wide-ranging and agile service options.

IP Address Extension: The solution enables the delivery of both IPv4 and IPv6 addresses to the network edge. This flexibility is pivotal for modern network demands.

High Capacity and Performance: Supporting a full 1500 MTU and the transmission of Jumbo frames, iQuila caters to high-performance requirements.

Scalability and Security: Capable of handling tens of thousands of concurrent connections, iQuila is highly scalable. Security is a top priority, with all links being fully encrypted. For enhanced security, Quantum encryption at 4096-bit is also available.

Advanced Networking Features: iQuila supports a 100GB backbone, Q-in-Q, and 802.1q VLANs, allowing for sophisticated network architectures and service offerings.

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Benefits to ISPs

Cost Reduction: By minimizing the need for extensive physical infrastructure, iQuila reduces capital and operational expenditures.

Service Agility: The ability to deliver Layer 2 services over various connections, including cellular networks, allows ISPs to offer more agile and adaptable services to their clients.

Enhanced Control: With the retirement of MPLS over PSTN services, ISPs are now positioned to deliver more versatile services using full Layer 2 capabilities. This transition marks a significant shift in the network infrastructure landscape, enabling ISPs to offer a broader range of high-performing and adaptable networking solutions. The move away from traditional MPLS over PSTN services to a more dynamic Layer 2 framework allows ISPs to provide their clients with enhanced flexibility, improved scalability, and a more efficient service model tailored to the evolving demands of the digital era.

Innovative Technology: Utilizing the multi award winning VEN protocol, iQuila enables AI-driven Layer 2 services directly to the edge, marking a significant advancement in network technology.

The iQuila / Cradlepoint solution represents a significant leap forward for ISPs striving to enhance their service offerings while controlling costs. Its ability to deliver full Layer 2 services over various networks, combined with its scalability, security features, and support for advanced networking capabilities, positions iQuila as a pivotal tool for ISPs to navigate the challenges of the modern telecommunications landscape. As the industry evolves, solutions like iQuila will be instrumental in ensuring ISPs remain competitive and capable of meeting the diverse needs of their clients.

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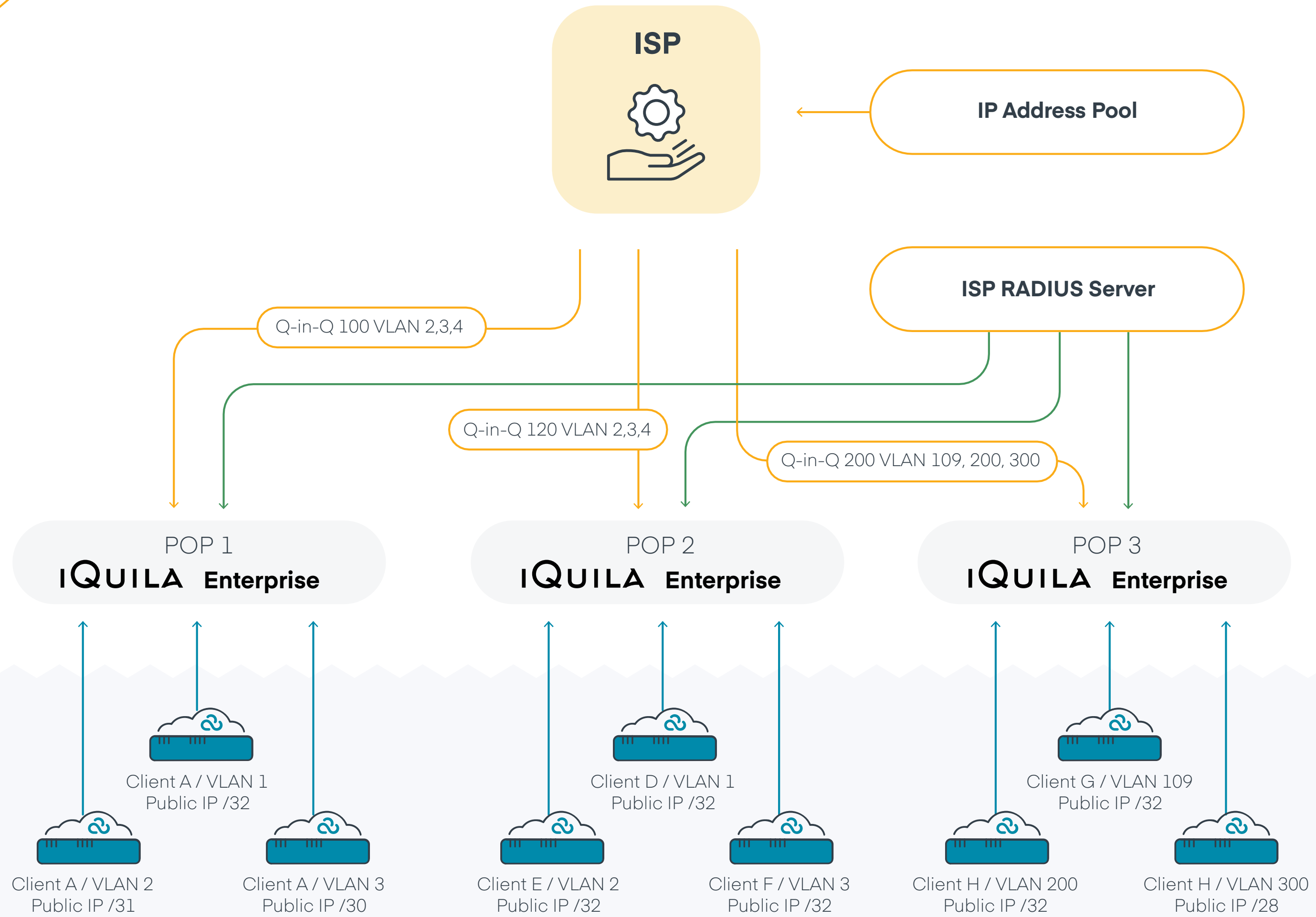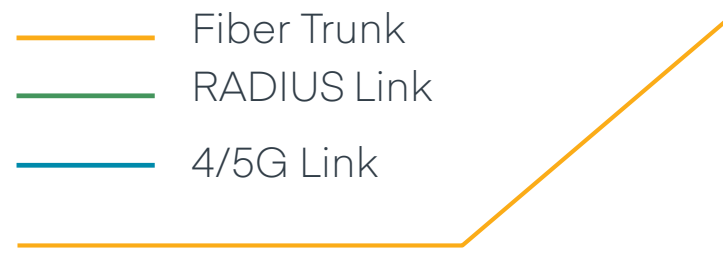
About **Cradlepoint**

Cradlepoint enables the freedom to connect people, places, and things that drive more experiences, more ways to work, and better business results — anywhere.

The company is a pioneer in Wireless WAN, offering advanced 4G and 5G routers and adapters — controlled through Cradlepoint NetCloudTM. Enterprise businesses and public sector agencies rely on Cradlepoint and its Cellular Intelligence to build a reliable, secure network wherever they need it, connecting fixed and temporary sites, vehicles, IoT devices, and remote employees. Headquartered in Boise, Idaho,

Cradlepoint is a wholly owned part of Ericsson's Enterprise Wireless Solutions Business Area. It has international offices in Asia Pacific, Canada, Europe, India, and Latin America.

About **iQuila**

iQuila Virtual Extended Network (VEN), is a revolutionary communications protocol, that delivers full data link (Layer 2) connectivity over any type of Internet connection (Layer 3), meaning core corporate network services can be extended, anywhere in the world, without compromise.

VEN uses a unique, multi-threaded approach to each of its links for resilience, AI to optimize performance across those links and several security features including Quantum encryption.