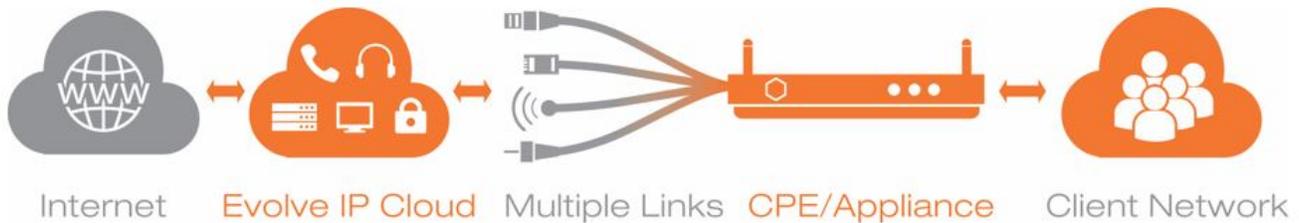# Cloud Connect

Cloud Connect combines the bandwidth of multiple public connections (from nearly any carrier) into a single, faster, more reliable virtual connection that can be used to securely access Evolve IP's Cloud and the Internet and replace expensive WAN connections.

Internet   Evolve IP Cloud   Multiple Links   CPE/Appliance   Client Network

By bonding your multiple (low cost) connections, Cloud Connect:

- **Dramatically increases your network speed**
- **Increases reliability with automatic failover**
- **Provides bi-directional QoS over public networks**
- **Provides a cost effective alternative to MPLS networks**

Most importantly, Cloud Connect is delivered, managed and supported by Evolve IP, regardless of who delivers the connections to your office, ensuring your business can access its critical cloud-based resources whenever they're needed.

Cloud Connect Provides

- **Fully managed network bonding service:** Traffic to and from your network goes through a server that distributes the data among the individual connections in the bond. At your site it is recombined into the original data stream by a small device connected to your existing firewall or router. All traffic is monitored in our NOC, to ensure your lines are healthy and your service uptime is optimized.
- **Aggregation and Compression of all available connections**: You no longer have to choose between slow, unreliable, inexpensive broadband Internet or costly leased lines. Internet connections of different types, providers, speeds, and latencies can be bonded. Use a combination of DSL, cable, fiber, fixed or mobile wireless, T1, etc. Cloud Connect makes available the total combined bandwidth of all connections and compresses traffic increasing the aggregate throughput by up to 5x.
- **Immediate Failover:** Cloud Connect detects a failed connection almost instantly- within 0.3 seconds- and removes it from the bond. Your Voice calls don't drop, your Virtual Desktop sessions aren't interrupted, your backups stay current. The only change is a reduction in bandwidth equal to the speed of the failed connection. When a connection is restored, it is added back to the bond within 0.1 seconds.   Failover and failback has NO implication on DNS like traditional load balancing.
- **QoS over Internet:** Cloud Connect prioritizes your critical application traffic between the local appliance and Evolve IP's core which acts as your central on-ramp to the Internet. This design enables us to prioritize traffic in both directions, make routing decisions on the quality of each connection and provide a better experience that is consistent with MPLS-based QOS. The Quality of Service engine reacts dynamically and adjusts itself to accommodate heavy and light usage of specific applications, ensuring they get the bandwidth they need, when the need it.
- Enterprise Security and Encryption: Cloud Connect supports VPN and private network connections, encrypts communication between the appliance and our network, authenticates all bonded traffic back to Evolve IP's cloud. When coupled with Evolve IP security services such as Cloud Firewall, Cloud Connect is a great complement to your Defense in Depth strategy
- **Backup for your backup:** Cloud Connect also supports a single dedicated failover connection, used only when all the other connections in the bond have failed. This is useful to have, for example, a 3G cellular connection as a backup but to avoid its usage-based charges under normal circumstances.

How it works

1. Traffic bound for the client network first passes through the Evolve IP Cloud where the data stream is divided, each packet routed independently through one of your individual Internet connections.
2. When the packets reach the CPE, they are recombined into the original data stream and forwarded to the client network.
3. Traffic from the client network takes the opposite path: the bonding appliance distributes the traffic across your connections and it is recombined in the Evolve IP Cloud before being sent to the destination host.

Deploying Cloud Connect to Replace MPLS WAN

- Securely access the Evolve IP Cloud from all sites
  Cloud Connect encrypts the traffic over the public Internet using advanced cipher ensuring that sensitive data is protected over the public bond.
- Build your WAN using Cloud Connect
  Replace complicated Firewall/VPN devices and expensive (and slow) MPLS connections. Cloud Connect sites can privately access other Cloud Connect locations, and can be integrated with legacy MPLS or Private locations on the Evolve IP Network, forming a flexible, hybrid WAN.
- Mix and match providers and protocols for last mile redundancy and increased bandwidth
  Combine ADSL, T1, Cable or fixed wireless from any provider into your Cloud Connect WAN ensuring that you can select the most appropriate and available bandwidth at your most troublesome locations. No need to default to your WAN provider's expensive T1 price in hard to reach areas.
- Reduce WAN Costs by 52%. Increase Bandwidth by 400%

QoS over Broadband

Access Types   **Bonded Circuits**   Priority Queues
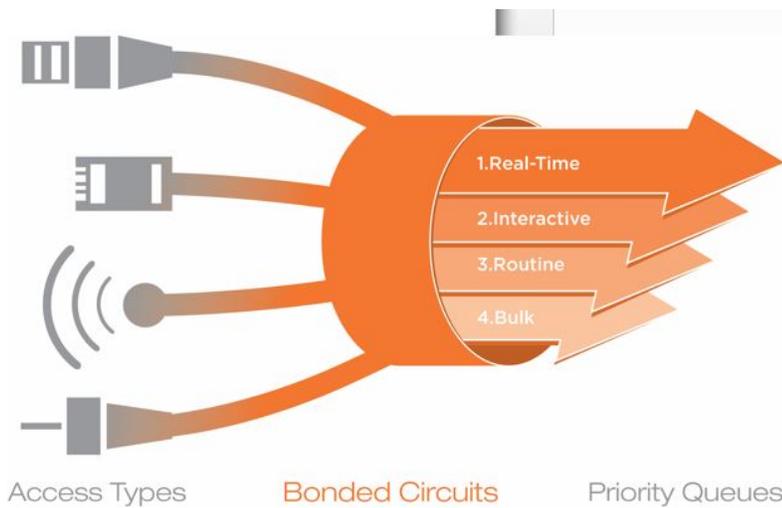
The Evolve IP Quality of Service Engine works end to end – for both uploads and downloads- and refers to the ability of our network to offer an enhanced level of service to certain types of traffic.

Our Quality of Service Mechanism ensures voice quality for Evolved Office customers by delivering packets further into the core. By ensuring the packets are delivered to the core, Evolve IP has essentially eliminated the quality-related issues with last-mile access technologies.

First, we bond the connections – any connection, of any type, speed, or provider. We are the leader in Cloud-based-Bonding technology, allowing us to bond virtually any number of connections to create one single "pipe" to satisfy your bandwidth needs.

Then, we tie your network to peering Aggregators located strategically inside our core network. By adding an aggregator in a central location on the internet backbone, Cloud Connect technology can ensure that packets are prioritized between your premise and our network. We'll prioritize traffic across the entire network so that in-coming and out-going high-priority traffic such as voice, video or Virtual desktop is complication-free.

For more information, please reach out to your Technical Advisor.