

# TO SPLIT IS TO PERFORM



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## Is your network underperforming? The problem may be its one-track mind.

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Your network has an irreversible design flaw: a dependence on one path to transfer all your data.

This one-track approach probably worked well for a while. Then demands on your network started to grow. And grow. And grow.

Soon it was struggling to handle everything from transferring massive files to handling a barrage of edge devices—laptops, tablets, smartphones, etc. All these factors began to degrade your network's performance in noticeable ways.

Bandwidth shortages. Slower throughput. Ever-increasing instances of latency and jitter.

Face it. Big data isn't going away anytime soon. Neither are those edge devices. The only sure way to improve your network's performance is to improve your network's design.

## Divide data, add performance

Dispersive Technologies has replaced one-track networks with a solution that divides data and conquers performance problems.

It's the Dispersive™ Virtualized Network.

Hardware- and OS-agnostic, Dispersive™ VN is a software-defined overlay network. Our software divides your session-layer IP traffic into smaller, independent packet streams, then sends each stream across a different, individually encrypted path.

The performance benefits are huge.

## Maximize your bandwidth

During every session, the Dispersive™ VN aggregates and utilizes all of your connections: broadband, MPLS, cellular, WiFi, satellite, etc.

By creating one large, logical pipe, our network enables you to maximize your bandwidth utilization—our utilization exceeds 90%—without changing your network configuration.

And Dispersive™ VN software puts control at the edge. Any edge device can configure the network based on its location and available connections. This decreases latency and secures data and applications delivery.

## Rely on a network that rolls so you can rock

With VPNs or other long-term connections, BGP determines the best path when the connection is set up. However, that may not be the best path a few minutes later.

And if your transmission switches to a dirty fiber link, be prepared for higher error rates and many retransmissions. The Dispersive™ VN avoids such path problems. When it senses congestion,

poor line quality or other difficulties, the network instantaneously rolls data streams away from that path to a new one.

As a result, our network sends data faster than a VPN.

## Defeat the problems of packet loss

Bad reception, line interference and other factors can cause packet loss. When this happens, legacy TCP will slow the transmission rate by a staggering 50%.

It also requests retransmission of not only the lost packet, but also every subsequent packet. Only as these missing items arrive at their destination will TCP slowly increase transmission speed.

The Dispersive™ VN reacts much more efficiently. It terminates every session at the device and then sends it through our Dispersive™ VN software. This enables the application to read it as a no-loss, no-latency transmission.

Our software constantly monitors the network for loss and latency. When the Dispersive™ VN senses a packet has been lost, it not only retransmits it, but also puts the missing packet at the front of the queue and sends it to the next available path.

This all occurs within milliseconds, so fast that the end application is not even aware the loss occurred.

Since it ensures transmissions with no packet loss, the Dispersive™ VN can use TCP and UDP interchangeably. This enables you to enjoy UDP benefits like lower bandwidth overhead and reduced packet drops. If your network applications include gaming and voice/video communications, this is a huge advantage.

## Keep everything in order

As you may suspect, packets arriving from different paths—especially retransmitted ones—reach their destination out of order. That's no problem with our network.

Using the latest inexpensive memory and proprietary know-how, it stores packets while waiting for missing ones to arrive. The network then reassembles the packets in order and passes them to the application.

Again, it all takes just fractions of a second.

You benefit from a huge throughput improvement over TCP or any conventional networking approach.

## In short

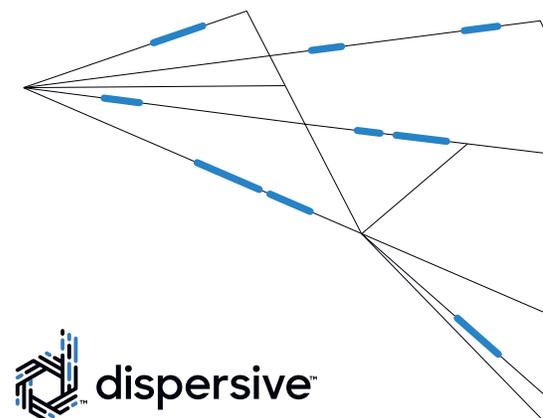
Bandwidth utilization north of 90%. Throughput speeds up to 10 times faster than a VPN. No more transmission crawls due to congestion or path damage. No more lost packet problems. The benefits of UDP transmissions.

In every major performance metric, no VPN or legacy network matches the overall performance of the Dispersive™ VN.

Let's talk.

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