



## Secure, reliable

# TRADING INFRASTRUCTURE AS A SERVICE

Access a hyper-connected, low latency ecosystem of 75+ markets, applications, data centers and hundreds of firms through a single, fully managed and high touch trading infrastructure.

Verizon Financial Network offers a flexible, purpose-built trading infrastructure solution delivering strategic agility and execution flexibility to the capital markets community in Europe and the U.S.

Verizon has a pedigree in enabling the capital markets community with high availability solutions for trading applications such as market data delivery, order execution and order routing.

Verizon Financial Network is a solution for trading firms, exchanges and service providers that is purposely architected to provide firms with on-demand, high performance and high touch access to markets and services around the globe so they can trade efficiently across multiple markets while controlling costs.

### ADDRESSING KEY CUSTOMER CHALLENGES

Companies in today's capital markets industry face a multitude of challenges. These challenges are driving trading firms to find cost-efficient ways of accessing markets, applications, and industry data centers all without sacrificing flexibility or performance:

**Market Structure.** De-regulation has introduced alternative markets. Firms need to manage the resulting liquidity fragmentation and trade across more venues and across asset classes to succeed and drive relevant differentiation.

**Operationalization.** Electronic trading has transitioned from new to norm, and firms need to standardize and manage cost.

**Delivering Innovation.** Exchanges, service providers, and firms alike need to innovate faster and quickly deliver new products and services to their customers across the global market place in order to differentiate in today's highly competitive market.

### INNOVATE WITH THE VERIZON FINANCIAL NETWORK

Verizon Financial Network has been purpose built to provide resilient and high-performance access to markets, applications, and industry data centers.

**Flexibility.** Verizon Financial Network offers on-demand, scalable, and market-neutral access to markets, applications, and data centers around the globe quickly and securely. Similarly, it allows exchanges and service providers to deliver their markets and applications to the global capital markets community through the Verizon Financial Network ecosystem of trading firms.

**Standardization.** Verizon Financial Network enables firms to standardize electronic trading infrastructure and move to an operating expense-based and elastic cost model that provides high levels of availability, performance, and service.

**Market Access/Service Distribution.** Verizon Financial Network enables exchanges and service providers to focus on core, non-infrastructure business and manage networks and applications.

### KEY USE CASES

Verizon Financial Network has been designed to support three key, broad use cases:

**Market Access.** Rapidly and efficiently access exchanges and other liquidity pools around the globe for both order entry and market data consumption. Add and remove markets and scale usage up and down as you go, with high performance, availability, and strong security. Verizon Financial Network supports both Layer 3 and Layer 2 based market access for maximum flexibility.

**Front-office to Front-office.** Seamlessly inter-connect your front-office applications colocated with various exchanges and/or industry data centers using logical, scalable, and high performance point-to-point or any-to-any connectivity across the Verizon Financial Network platform. In addition to this "Colo to Colo" use case, Verizon Financial Network also supports inter-connecting your front-, mid-, and back-office applications. As with market access, you can add and remove connections and scale usage up and down as you go and operate on both Layer 3 and Layer 2.

## PLACES TO CONNECT

- Chicago
- Copenhagen
- Frankfurt
- Helsinki
- London
- New York/New Jersey
- Paris
- Stockholm
- Zurich

## BUSINESS BENEFITS

- **On demand.** Add and change services within hours
- **Pay as you go.** Scale usage up or down
- **Reduced risk.** Change/remove services at any time
- **High touch.** Fully managed solution with dedicated teams
- **High performance.** High capacity and deterministic low latency
- **Data center aware.** Connect in and across industry data centers

**Application and Service Distribution.** Tap into an existing ecosystem and footprint of firms, data centers, and markets to deliver applications and services to the capital markets community rapidly, consistently, and without having to invest into dedicated distribution infrastructure. Accelerate time to market through the on-demand and low entry characteristics of the Verizon Financial Network. Also, partnering with Verizon for application and service distribution means a global partner actively managing your applications and services in the global marketplace.

## DEDICATED, PROVEN ARCHITECTURE

The Verizon Financial Network is based on a purpose built architecture supporting hundreds of customers and continuously improved since its inception. The architecture has been designed from the ground up to support a high level of flexibility and can easily be tailored to your business needs to provide a fully integrated solution. The fact that it is purpose built is evident throughout the architecture:

- Full multicast support with edge-to-edge dual diverse delivery
- Service availability SLA of 100%<sup>1</sup>
- High capacity, low latency performance
- Extensive performance management capabilities including any-to-any microsecond level, continuous latency measurements and patented multicast gap detection
- Single platform supporting both Layer 3 and Layer 2 services

With security paramount in trading applications, the platform carries only traffic and data which demands that all packets be delivered reliably and on time. The global operations centers proactively monitor all regions of the Verizon Financial Network infrastructure 24 hours a day; 7 days a week; 365 days a year.

## LATENCY PERFORMANCE

Our Verizon Financial Network is based on a partially meshed, data center aware architecture—built to deliver deterministic, low latency performance. The below table provides our current performance.

	CHICAGO	NEW YORK	LONDON	ZURICH	FRANKFURT	STOCKHOLM
CHICAGO		14.3	89.4	103.3	97.8	109.9
NEW YORK	14.3		75.0	88.9	83.5	95.6
LONDON	89.4	75.0		13.9	8.5	20.6
ZURICH	103.3	88.9	13.9		5.4	27.2
FRANKFURT	97.8	83.5	8.5	5.4		21.8
STOCKHOLM	109.9	95.6	20.6	27.2	21.8	

*Figures indicate end-to-end, round trip delay (RTD) measured in milliseconds for Verizon Financial Network Layer 2 services. The platform is complete and times are accurate as of January 2014.*

## ABOUT VERIZON

Verizon is a global leader in driving better business outcomes for mid-sized and large enterprises and government agencies. Verizon combines integrated communications and IT solutions, professional services expertise with high IQ global IP and mobility networks to enable businesses to securely access information, share content, and communicate.

Verizon is rapidly transforming to a cloud-based “everything-as-a-service” delivery model that will put the power of enterprise-grade solutions within the reach of every business. We are one of the few tier 1 providers with a dedicated solution for the capital markets industry. We offer high-speed, global networks that securely and reliably connect many of the Fortune 1000 financial service organizations to their customers.

## LEARN MORE

To find out how the Verizon Financial Network can make positive outcomes for your business, contact your Verizon Account Team Manager or visit [verizonenterprise.com/us/industry/finance/financial-network/](http://verizonenterprise.com/us/industry/finance/financial-network/). The Verizon Financial Network 2.0 service is available in Europe and in the U.S. and may be ordered out of Europe.

<sup>1</sup> SLA available with dual circuit connectivity. Terms and conditions apply; see your Verizon account manager for details.