

# DISCOVER THE BREADTH OF $\Pi^{\circledR}$ 

A global financial ecosystem for the professional trader that also provides end-to-end enterprise solutions

TT is an ultra-low-latency platform that leverages a hybrid-cloud infrastructure to provide a streamlined, go-anywhere, high-performance experience for professional traders worldwide. Execute through our global network of colocated servers, delivering unprecedented trade execution with the world's fastest commercially available professional futures trading platform. Leverage infrastructure and data services to integrate your front, middle and back office systems and streamline your trading and business operations.


## BENEFITS

## SAAS DEPLOYMENT

TT is a completely managed solution that only requires FCMs to provide exchange credentials and administer risk for their customers. Once a user is enabled, they simply log in from anywhere they have an Internet connection. Users are always on the latest version.

## GLOBAL NETWORK

The TT platform is deployed across our global, ultra-low latency network. Price servers, exchange order connections and automated execution tools are colocated with exchanges on Linux servers for superior performance.

## MARKET ACCESS

Connect to a growing number (currently over 50) of exchanges on six continents around the globe. Subscribe to market data and trade on each of the exchanges for which you have credentials through our colocated and proximity hosted data centers.

## HIGH AVAILABILITY

All aspects of our offering-access points, backbone, exchange access, software, hardware and data centers-are architected for redundancy, failover and disaster recovery.

## PERFORMANCE

TT was designed with performance in mind. The network is built using 10 GB infrastructure and high-performance NICs with stack bypass. Backend software for prices, exchange connections, automated trade execution and pre-trade riskchecks is deployed on Linux servers in colocated data centers around the world.

## OPEN PLATFORM

Integrate your systems on the front end or back end of TT, extend the platform to access your own markets, private liquidity or execution algos and import data from external sources for solutions across your enterprise.

## FEATURES

## CHOICE OF INTERFACE

Access TT wherever you have Internet connectivity or cellular coverage. Use a web browser to access TT from any computer, download TT Desktop for multi-monitor high-performance access, or use TT Mobile to access TT from your Android or iOS devices.

## MD TRADER ${ }^{\circledR}$

The industry-leading interface provides single-click order entry while displaying market depth against a static, vertical price axis. The static price display gives you a visual sense of market movement over a period of time or relative to other markets.

## AUTOSPREADER® ${ }^{\circledR}$

The industry-leading spread execution tool is deployed on colocated servers in our data centers. Use powerful features such as Reload, Queue Holder, Hedge Manager and Aggregator or customize your spreading logic with Autospreader Rules.

## TT PRIME

TT Prime is a fully hosted, custom-built Autospreader, combining order routing and spread logic into a single process, deployed on dedicated infrastructure for the fastest spread trading solution available. TT Prime is available as a dedicated or shared service.

## ALGO EXECUTION

Reduce market impact and improve the timing of conditional execution with TT Order Types or use a multitude of broker and third-party algos to improve executions.

## ORDER MANAGEMENT

Submit care orders to your broker or central execution desk and allow experts to leverage our full suite of execution tools to fulfill your request.

## CHARTING AND ANALYTICS

Charts are integrated into TT and include over 20 chart types and 100 technical indicators. Charts have access to 10 years of historical tick data.


## OPTIONS

A robust suite of tools gives options traders enhanced market views, options analytics, execution tools and risk metrics. The Advanced Options Package includes calculated values for volatility, Greeks and theoretical prices based on TT's Autofit Vol Curve or your own userdefined Vol Curve.


## ADL®

Use TT's visual programming interface consisting of drag-and-drop building blocks to quickly develop and test automated trading strategies without any manual programming.

## T® SCORE

Our surveillance software utilizes machine learning and data visualizations to give compliance officers and traders alike the ability to identify risk, detect anomalies and avoid violations associated with various types of problematic trading activities such as spoofing.

## POSITION TRANSFER

Internally match trades to improve trade executions across your entire firm and to avoid regulatory violations and fines resulting from crossing or self matching.

## APIs

Our variety of APIs gives users the ability to consume normalized market data, develop bespoke, low-latency trading applications using .NET or C++, integrate systems for easy administration, and expand the market coverage and capabilities of the TT platform with our open architecture.

## FIX SERVICES

Easily connect your FIX client applications or systems to access and extend the $\Pi$ platform. Consume FIX market data to power your applications, receive normalized execution reports with FIX Drop Copy, use FIX order routing for fast, secure, powerful and flexible exchange access, or connect your own markets to the $\Pi$ ecosystem with our FIX Price and Order Gateways.

## DATA SERVICES

Import fills and working orders from external systems into TT for a global view of risk. We will store your data and provide access and querying capabilities for compliance, business intelligence or whatever purpose you see fit.

## INFRASTRUCTURE SERVICES

Whether or not you use TT, leverage our low-latency global financial network and expert operations team. We provide hosting, exchange market data, exchange order routing access, private bandwidth between data centers, TT platform integration and more.

## MARKETS

TT provides connectivity to the world's leading derivatives exchanges, including CME, Eurex, Euronext, ICE and Nasdaq, plus dozens of regional exchanges.

## AMERICAS

B3
BrokerTec
Cboe Futures Exchange (CFE)
Cboe U.S. Equity Options
Chicago Board of Trade (CBOT)
Chicago Mercantile
Exchange (CME)
COMEX
Fenics

EMEA
Athens Stock
Exchange (ATHEX)
Borsa İstanbul (BIST)
Borsa Italiana (IDEM)
Cboe Europe Derivatives
Exchange (CEDX)
Dubai Gold \& Commodities
Exchange (DGCX)
Dubai Mercantile
Exchange (DME)
Eurex
Euronext Amsterdam
Euronext Brussels
Euronext Lisbon
Euronext Paris

## ASIA/PACIFIC

Australian Securities
Exchange (ASX)
Bursa Malaysia (BMD)
Dalian Commodity
Exchange (DCE)
FEX Global
Hong Kong Exchanges and
Clearing (HKEX)
ICE Futures Singapore
Korea Exchange (KRX)
Osaka Exchange (OSE)
National Stock Exchange of India (NSE)

ICE Futures U.S.
Mexican Derivatives
Exchange (MexDer)
Minneapolis Grain
Exchange (MGEX)
Montréal Exchange (MX)
New York Mercantile
Exchange (NYMEX)
Nodal Exchange

European Energy
Exchange (EEX)
ICE Futures Abu Dhabi
ICE Endex
ICE Futures Europe
Johannesburg Stock
Exchange (JSE)
London Metal Exchange (LME)
MEFF
Nasdaq Commodities
Nasdaq Nordic Derivatives
Oslo Børs
Warsaw Stock Exchange (WSE)

NSE IFSC-SGX Connect
(GIFT City)
Shanghai International Energy
Exchange (INE)
Singapore Exchange (SGX)
Taiwan Futures
Exchange (TAIFEX)
Thailand Futures
Exchange (TFEX)
Tokyo Commodity
Exchange (TOCOM)
Tokyo Financial Exchange (TFX)
Zhengzhou Commodities
Exchange (ZCE)

## CONTACT TT

Email sales@tradingtechnologies.com to learn more about TT.

