Abstract

Information technology budgets at investment banks were decimated in the aftermath of the Global Financial Crisis. This meant that traders would largely have to make do with what they had as the capital budgets necessary to update trading floor technologies were just not there.

Fast forward to 2013, and what you see in the world of trader voice technology is not pretty. Platforms that were a decade old in 2008, based on old architectures of the mid-1990’s, are on their last legs. And because wide area networks (WAN) and enterprise voice systems (PBX) were long ago upgraded to IP, legacy trader voice platforms remain on separate infrastructure and are incompatible with unified communications & collaboration (UC&C) or mobility applications that are revolutionizing the way we communicate.

As turret manufacturers stop supporting their legacy systems there is a mandate to modernize outdated, disparate trader voice communications and collaboration systems. As this transition begins, the maturity of IP technologies, innovative architectures and advanced collaboration applications promise to transform the trading floor and finally bring it into the IT mainstream.
Takeaways

- The “trading floor” is rarely a single place populated just by “traders” but a geographically distributed set of “trading pods” with virtual, multi-disciplinary teams increasing the importance of fluid communications and collaboration.
- Trading involves a mix of high and low-touch models, demanding that market participants be a master at blending the information technology and skills that ensure success in both.
- The increasing role of unstructured data, analysis and automation mandate convergence and interaction between computing and storage resources, data, applications and communications technologies.
- Post-crisis market fundamentals demand rigorous spending discipline and new approaches to managing IT infrastructure.
- Catastrophic events are showing that more than ever, trading technology infrastructure must be scalable, flexible, resilient and mobile.

Separate But Not Equal

Traditionally, trader voice systems have existed in a parallel universe from the rest of the IT estate and this was for a reason. The systems were designed to ensure maximum uptime, to be non-blocking, to process large volumes of calls with no delay and to be highly fault-tolerant of component failure. Because of these attributes, turret systems also required large IT room footprints as well as specially-designed cabling, power and cooling systems to make them run properly making them painfully expensive and cumbersome and requiring the specialist support of the manufacturer to make system changes, upgrade software and resolve faults.

Turret platforms also have had a strange relationship with enterprise voice (PBX). Turret systems have always had to rely on the PBX for access to the public network (PSTN), but nevertheless offered very little in the way of interoperability (in the form of line sharing and feature transparency). Turret manufacturers virtually held their nose at the idea of anything more than the crudest forms of interoperability.

This limitation has negatively impacted communication and collaboration in financial trading enterprises for decades by creating two classes of user: those with turrets and those without. This manifested itself in the (expensive) decision to uniformly outfit the trading floor with turrets to ensure optimal workflow and coverage irrespective of whether everyone on the trading floor required a turret and, more crucially, limited communication between those on and off the trading floor.
The Modern Trading Floor

The globalization of markets and evolution of communications means that trading enterprises do not exist in a single room in a single location. The fact that trading teams, back office staff and executives may all be in different locations increases the need for fluid collaboration capabilities supported by an array of communication applications that enable people to connect wherever they are whenever they need to, irrespective of the network, the device or the location.

And as the nature of trading becomes ever more automated and numerate, the contemporary trading team is as likely to feature software engineers, math PhD, risk managers and compliance officers who may or may not sit on the trading floor.

This reality is challenging the “separate, specialist architecture” approach traditionally favored by trading communications providers as they struggle to remain relevant as competing communications technologies take root, evolve and become ever more robust.

More than 8 of 10 financial services industry participants believe the need for collaboration with the middle- and back-office has increased as a result of the financial crisis.

A Better Way?

The ubiquity, efficiency and resilience of IP-based networks and unified communications and collaboration have rapidly transformed enterprise communications. These technology investments serve as the foundation for increasing collaboration not just for traders but for all employees.

Networks and platforms are engineered for “five 9’s” availability and contain enough processing horsepower to ensure that traders have access to all of the capacity and speed they have come to expect from their turret system while offering a richer, more integrated communications experience than was ever possible on a turret.

Today, the optimal turret system is not a “system” at all, but an application that is an extension of the enterprise voice communications architecture, deployed on the customer’s own network and unified computing resources, with specialty turret form factors recognized as native SIP endpoints. And because this application conforms to all of the conventions of the customer IT environment, this increases transparency and flexibility driving greater collaboration and performance, while lowering complexity and costs.
One Company, One Platform

IP Trade is the first trading communications architecture designed as a native enterprise collaboration application using Session Initiation Protocol (SIP). This completes the migration away from separate, proprietary hardware switches toward standards-based software running on the customer's unified computing resources that run in virtualized clusters. Integrating seamlessly with the unified communications & collaboration platform increases flexibility, scalability, mobility and feature transparency for all users while reducing the physical footprint and requirement for specialized vendor maintenance.

Putting the “Unified” in Unified Trading Communications

IP Trade’s innovative architecture enables trading firms to achieve truly unified communications by offering the ability to mix and match turret and IP endpoints without limitations to features, applications, lines or devices. This has been achieved through a totally software-based design approach that relies on advanced SIP communications standards, protocols and technologies that integrate seamlessly with IP-PBX call control platforms, gateways and applications.

This approach also presents a compelling ROI as the customer escapes the “turret silo premium” (single vendor lock-in) while normalizing and leveraging the investment in IT infrastructure, business continuity planning, familiarity and training of IT teams and UC&C applications already in use by staff.

The solution also offers integrated communications (hoot n holler and intercom) capabilities between IP turret and IP phone users. For example, a simple, inexpensive application can be installed on the IP Phone to enable the user to monitor and communicate with other users on multiple intercom channels.

This obviates the need to invest in expensive, proprietary, standalone devices that crowd the desk of and increase complexity for non-turret users that specialist turret manufacturers are pushing to meet the growing need for collaboration among the trading desk, middle and back-office.
The Technology Mandate for Market Participants
Trading enterprises that expect to succeed in these financial markets must become adept in integrating high and low-touch trading models into a smooth, comprehensive experience for their customers.

In addition to advanced collaboration capabilities, this means trading staff increasingly need these systems to interact with critical data and information, marketing, execution and customer service applications across multiple platforms and departments.

Making this a reality begins with having extensible IT applications that can aggregated into a seamless web of information databases, applications and communications systems accessible by all employees and, ideally, running on a unified architecture.

Database queries, contact information, trade histories, historical price information, market data and news may all play a part in making more informed decisions or providing execution capabilities to customers that will differentiate your services.

- CRM applications
- Desktop productivity applications
- Corporate directories
- Search engine integration
- Enterprise software applications
- Document management applications

Session Initiation Protocol (SIP)

SIP is a signaling protocol that has been developed and standardized by the Internet Engineering Task Force (IETF); SIP initiates real-time communications between people in all media (voice, video, data) and can be routed intelligently to any device on any IP-enabled network.

Keeping It Simple and Reducing Total Cost of Ownership
An enterprise voice-based native SIP trading communications architecture consolidates call control onto the existing unified communications & collaboration platform and unified computing infrastructure. This model also enables enterprise collaboration, directory applications and business continuity conventions to be extended to the turret estate.

Reduced Cost of Ownership Elements:

✔ The simplicity of this architecture has a positive impact on productivity and collaboration for employees both on and off the trading floor and enables the firm to “mix and match” turret, IP phone and mobile devices across the trading floor.

✔ The operational impact includes recurring reductions in investment in maintenance for proprietary hardware, costs of making configuration changes through vendor technicians, leveraging in-house technical skills for support and centralized system management, system integration costs and reduction of costs associated with hardware footprint.

✔ The ability to deploy new trading groups or locations from a centralized platform and map business continuity conventions across the enterprise and scale the application up and down dynamically as business requirements dictate.
Business Continuity and Disaster Recovery

None of us need to be reminded of the headaches associated with planning, mitigating and recovering from the effects of natural or man-made disasters. The risk of loss in financial trading for system downtime or inaccessibility cannot be overstated.

The single architecture approach goes a long way in simplifying this planning and reducing costs. Unlike separate trading communications platforms the IP Trade application relies on the call control and switching of the enterprise voice platform so it can conform to the behaviors, plans and infrastructure of this system. It obviates the need for having separate carrier facilities as well as redundant trading hardware switches in the data center or disaster recovery locations.

Further, because IP Phones and turrets can share lines, it is an option to map trading lines onto less expensive IP phones at DR sites or in the home of key personnel.

The Way Forward

While the challenge of selecting technology platforms and applications that can keep pace with the innovation occurring in communications and financial markets is formidable, IP Trade’s software-defined architecture offers a clear path to deploying a resilient, scalable and extensible trading communications platform that forms a single, streamlined and standards-based solution to meet the needs of your trading teams now and well into the future.