

How can banks and financial institutions address demand for increased **competitiveness, **productivity** and **scalability** on the global trading floor?**

Introduction

With the current market volatility, financial institutions are facing greater challenges to reduce operational costs and boost productivity. While they prepare and position themselves for the economic upturn, trading activity continues as firms rebalance their portfolio to invest in the right asset class and hedge themselves against the market volatility, which results in an increased transaction volume.

For this reason, the investment on technology in the trading room has become even more critical for firms wanting to improve efficiency and develop a competitive edge. Specifically in the area of trading floor optimisation, firms are exploring ways to standardise existing technology for more effective trader communication and to expand globally or regionally with minimal increase in cost.

A new trend has emerged among firms as they shift away from proprietary TDM voice technology and start building voice platforms using more pervasive IP networking technology, which is the common infrastructure for most financial institutions.

Challenges

Today's investment firms are expected to send, receive and respond to information instantly. Traditionally, dealers used a legacy PABX-based dealing room solution for daily operations and communication requirements. While a common solution for many, it can prove costly and difficult to scale; it may also inevitably have an impact on trading room productivity. As trading environments become more competitive, traders need fast, immediate access to information and the ability to respond with maximum alacrity. Ultimately,

such agility will help reduce the unit transaction cost and enable traders to respond successfully to volatile trading cycles. There is also a myriad of new compliance regulations to adhere to, along with the need for unprecedented transparency. For instance, the ease of voice recording and playback can prove to be an important feature for compliance purpose. A trader's main communication device is his trading turret. Turrets need to be intuitive and responsive in order to achieve maximum functionality and efficiency. IP turret, like those from IP Trade, is a sophisticated multimedia terminal, which provides all the standard functionalities – open lines, direct lines, dealing conference mode, TV streaming – required for swift communication in the trading room. Previous turret systems relied on legacy vendor voice architecture systems that are inherently difficult to link to common IP platforms in the back office. Consequently, the transfer of tradecritical information to and from the back office could prove slow and arduous.

This is one of the factors a Chief Information Officer (CIO) needs to consider in order to ensure converged communication processes fit the back and front-end office requirements. It is also equally important that the CIO leverages existing IT infrastructure applications such as VoIP and unified communication suites to extend the longevity of the technology investment while building a resilient platform that scales and conforms to the business continuity and disaster recovery procedure.

Reasons for IP solution

IP is the de facto networking protocol to transport data and voice traffic across any corporate network. Financial institutions are also quickly adopting IP-based voice communication in their office environment.

The benefits of standardising on a common platform are reduced operating costs and easy expansion across different physical locations. The adoption of IP telephony into trading room turrets or dealer board is one option to converge communication processes into one integrated voice platform. Now a ubiquitous technology, IP is a communication protocol that enables organisations across all verticals to support highly available and scalable IT architectures. It supports real-time, low-latency mission critical messages while handling high quality, high volume voice and video traffic in the form of IP-based telephone and video calls. IP telephony already enjoys strong penetration in the mid and back office in financial firms except on the trading floor. However, this setup disassociates the trader from the back-end environment and prevents them from maximising the enhanced features of converged IP communications based on the IP PBX, common in the back office environment.

Maximise current VoIP investment

By leveraging the current VoIP investment, the CIO can establish an IP platform whereby all communication is transmitted. For example, a new generation of IP trading turrets can extend the IP platforms from the back office to the trading floor – incorporating Cisco Unified Communications Manager – to offer a truly converged communication setup. New IP turrets can also simplify Internet access and line-sharing processes by allowing CTI (Computer Telephony Integration) integration through one channel.

Seamless integration with current infrastructure

Rapid integration with existing applications is a key feature of the new IP turrets. Messaging is unified; Microsoft Outlook can be accessed with one simple click and contacts easily exported into shortcuts on the turret. New IP turrets also allow a duplicated stream for recording, which can be encrypted, if required, with playback to front and back offices. Ultimately, new IP turrets maximise the operability of the existing IT infrastructure while ensuring reliability, performance and cost efficiency.

Benefits of IP Turrets

As unified communications becomes a reality for major businesses and organisations in 2009, traders and dealers can now usher in this new communication platform. The integration of IP telephony into front-end turrets offers numerous competitive advantages – not only for

traders, but also for staff at management and executive levels. Traders benefit from improved responsiveness, customised interfaces, simple shortcuts and open line communication with trading partners. They will also enjoy increased access and easier communication with the back and mid offices.

Figure 1

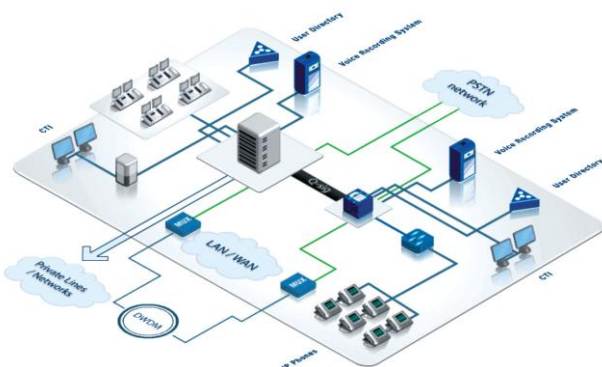


Figure 1: Before IP (i.e. traditional TDM Voice Switching Infrastructure)

Before IP turrets

- Trading floor requires proprietary and dedicated PBX while enterprise has standard IP PBX and complex signalling (QSIG) for integrating the two systems
- Integration of the two systems is costly and time consuming
- Multiple voice recording systems required
- Separate user directories for both environments need to be run and maintained
- Turrets with non-standard footprints depending on functions and facilities
- Changes to turrets require manual intervention
- Private lines require special cards in proprietary PABX

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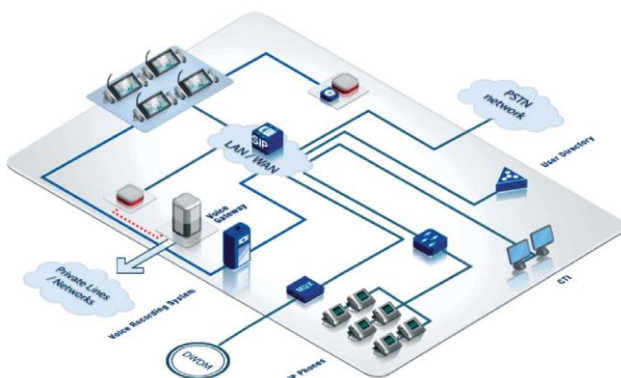


Figure 2: After IP

After IP turrets

- A single resilient PBX can support the entire organization
- Consolidation to a single voice recording system
- Consolidation to a single user directory for ease of management
- Turrets with consistent footprint regardless of function and facilities
- Turret support server allows for centralised turret management
- Open line server provides flexible connectivity to turrets

Before	After
Dedicated and proprietary TDM voice switch; costly to implement.	Ethernet and IP are common and matured technologies; cheaper to implement.
Require many points of integration.	Increased simplicity with less integration points, thus resulting in less points of failure.
Limited access to large players; limited options for people who want to trade.	Accessible by many players; more choices for people with a smaller trading floor.
Dealers integrate from back office using different technology.	Automatically enables business continuity as traders can trade anywhere by logging on to the company's system via a turret.
Time-consuming transfer of information from front to back office.	Intelligence is enabled as targeted messaging can be easily programmed; reduced distance between traders and their clients, increased agility of trading floor.

Business Benefits of IP

Next-generation IP trading turrets, like those developed by IP Trade, are capable of delivering great business benefits. Higher up the ladder, the CIO can be assured of high reliability, security and increased flexibility within the network infrastructure. Streamlining processes and applications will also see a reduction in administration costs and facilitate a faster response to configuration changes. The CEO will see traders' productivity levels increase, bolstering the competitive edge

of the business. The business continuity and disaster recovery options mean business positions can be rapidly reinstated from alternative locations, if required, to ensure a minimal loss of business. IT spend can be maximised to ensure a better return on investment on highly scalable solutions and the overall total cost of ownership (TCO) can be significantly lowered through reduced capital outlay, operating expenses and support charges. In fact, IP trading turrets can offer a TCO that is 40% lower than existing solutions.

Benefits across the board

In essence, the benefits of using an IP voice trading system are multifold – from front, mid to back office, and across all levels of the organisation.

For the Trader	For the CIO	For the CEO
Global free seating	High reliability and security	Lower TCO
Up to 6,000 shortcuts on a customisable interface	More flexibility in network infrastructure	Better return on investment
Touchscreen turret	Reduction of administrative effort	Leveraging existing IT investment
Open line dealing	Open architecture with full redundant back up (CCUM)	High availability
All standard telephone features	Full native SIP	Business continuity, disaster recovery options
VR playback to turret	Automatic firmware update with failover plan	Easy expansion into new and smaller locations
Productivity improvement	Support for open lines such as ARD Hoot & Holler via IP or digital	Smooth migration with no disruption to business

Engaging the right IT partner

There are six key considerations to note when it comes to choosing the right IT partner that can help fully integrate IP telephony trading turrets into existing systems:

- Competency in IP and networking technology**
 It is imperative for the IT partner to fully understand IP technology and be highly competent to integrate the voice architecture technologies into existing trading ecosystem technologies seamlessly, as well as the user profiles within the Microsoft infrastructure into the turret.
- Capability to uphold security standards**
 The IT partner must be able to assist in the design and build of a QOS-enabled, low-latency low jitter, highly resilient IP network incorporating the network for the highest security standards.
- Relationship with leading technology vendors**
 A strong existing relationship with leading technology vendors like Cisco Systems and Microsoft will ensure that the IT investment and deployment is most up-to-date and future-proof.

- **High availability for support**
Assured uptime is critical to any financial institution. Hence, the ability to support high-availability SLAs (24x7) and being located in the geography of the operating offices are critical.
- **Assured compliance to regulations**
Level of knowledge and sensitivity to the compliance regulations in the financial industry is a key enabler for any IT partner to fully leverage IP technology in addressing regulatory requirements.
- **Flexible financing options**
In the current economic context, the ability to provide flexible purchase financing options to optimise cash flow would be an added advantage.

The Traders' desk of the future

IP-based trading turrets represent the future of trading room communication. Aligned with the installed base of unified communications technology, they respond to the demand for more streamlined communication between the trading room and business partners, along with clients and the general office environment. IP-based trading turrets can help boost efficiency and productivity, not to mention offer a competitive advantage over rival organisations. The current business environment presents a unique opportunity for firms to invest in modern technology at a relatively lower cost. Hence, it is important that large financial institutions make the right IT investment in IP technologies now so as to be well-positioned for growth when the market recovers.

