

# The technologies in the City in 2010 – where would you put your money?

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## Disclaimer

All views stated are mine alone and do not necessarily correspond to those held corporately by Dresdner Kleinwort Wasserstein.

## Current IT Status

A recent survey revealed that on average investment banks spend 80% of their IT budget on Run the Bank activities. Therefore only leaving 20% for new developments!!

Historically most IT spend has been associated with the Trading room. It is not unusual for 'Back Office' systems to be over 20 years old!!

Changing a core 'Back Office' system has been likened to trying to change an engine on a Jumbo Jet as it is flying across the Atlantic with 300 passengers on board without crashing or being late!!

**No wonder then that my industry is where it is in IT terms.**

# Main Factors affecting IT change

- Profitability
- Mergers and Acquisitions
- External process changes
- Outsourcing
- Competition
- New Technologies

# Profitability

- There is a lag between profitability and spending on IT or process change.
  - In times of good profitability the only thing that matters is 'getting it in' there is little or no thought to waste.
  - In today's times of limited profitability and/or lack of belief in tomorrow's profit, cost consciousness rules. Everyone is looking for 'instant gratification', the 'quick fix'.
- Major infrastructure changes take years to implement and are started when the industry is in a profitable phase. This ability to respond is not necessarily the same when that infrastructure change is being implemented.

# Mergers and Acquisitions

- Over the last few years we have seen a number of 'mergers' in the banking industry. From an IT point of view these normally lead to one of the parties IT 'Back Office' infrastructure being dominant across the board. The decision process is normally driven by who has the most volume on their systems.

This in itself delays change, and is driven by the risk of changing IT infrastructures.

The lack of profitability in Investment Banking is likely to lead to further consolidation over the next few years.

## External Infrastructure change

- New Standards
  - XML, 15022, SNL etc
- New Regulations
  - Basel II, SOX, SEC regulations etc
- Central Counterparties
  - ETD's, Equities, Bonds, Repos, Swaps, Metals, Commodities, etc
- Transparency of information for non banking clients
  - Cost of Euro transfers leading to EBA Step 2
- Failed initiatives
  - GSTPA, T+1 etc

# Outsourcing

- The flavour of the last few years is large all encompassing deals with Global players such as IBM and EDS.
  - Very difficult to scope.
  - Very difficult to manage.
  - UK employment law relating to TUPE not well understood.
  - Process outsourced is more difficult to change.
- These giant outsourcing deals give ‘instant gratification’ but are unlikely to lead to long term happiness as they normally stifle change. Outsourcing can be seen as an alternative to reducing overheads by using IT to increase STP rates, and therefore reduce costs as this IT based process takes longer.
- Outsourcing can work very effectively if smaller, focused and well managed.

# Competition

- In the past only other Investment Banks were in competition with each other, now we have:
  - Hedge Funds
  - Prime Brokers
  - Arcades
  - Etc
- Advent of trade anonymity has led to smaller players being able to compete. Lack of capital is no longer an obstacle to trade just an obstacle to clear.
- The introduction of common standards will further reduce the initial cost of entry so allowing new players who have cheaper overheads (as they are using new technology!).

# New Technologies

- Open Standards
  - Cheaper to deploy
- Less hardware, operating system and database suppliers over the last ten years.
- Less diversity in communications. IP is king
- The Internet!!!
- Convergence of technologies: data, voice, mobile, etc
- Standards and yet more standards!

I can only see more standards not less moving forward before we see any consolidation.

So now for the straight IT predictions!



# IT score card for 2010+

## The Winners

- **The Internet**
- **Linux**
- **IBM**
- **Microsoft**
- **Open Source (for commoditised software)**
- **Oracle**

## IT score card for 2010+

### The Losers

- **SWIFT**
- **Sun Microsystems**
- **Proprietary networks**
- **Third party suppliers of commodity software**

### Unsure??

- **HP Compaq**

# Why

## The Internet

- When 9/11 occurred only the Internet remained available in downtown Manhattan. This is because its original design criteria was to provide a defence communications capability that had no single points of failure and was self-healing. Given today's requirements for availability, accessibility and cost the use of the Internet for corporate communications can only grow if the following can be addressed:
  - Non-repudiation
  - Security
  - Assured Delivery

More of these later!!

# Why continued

## Standards

- Initially just add complexity before reducing it. Some IT standards are now mature enough to bring about the reduction in complexity, but still more standards are emerging.

## Open Source

- Now being proven as a viable source of Operating systems etc e.g. LINUX. For mission critical deployment still require support from large organisations e.g. IBM

## SWIFT

- Almost moved over to an IP based network using multiple network vendors. These networks sold bandwidth only to SWIFT, so SWIFT utilise a VPN box to give security. So the worlds payment traffic is really running over the public Internet!
- Given an IP based approach running over the Internet they are very open to competition! When they were running over a proprietary X25 network, competition was very difficult.

So now for the Investment Banking predictions!



# Investment Banking score card for 2010+

## The Winners

- **The large well capitalised Investment Banks**
- **Further consolidation**
- **Betting becoming acceptable instead of position taking**
- **Arcades for day trading**
- **Central Counterparties**
- **Electronic trading**
- **ASP's for some services**

# Investment Banking score card for 2010+

## The Losers

- **Massive outsourcing**
- **Open outcry trading**
- **Large trading rooms**

## Unsure??

- **Massive change in Back Office infrastructure**

# Why

## Outsourcing

- Initial phase of big outsourcing deals now over. I would say overall not very good for either side. Reasons:
  - Difficult to scope – both sides have a different idea of what is being outsourced!
  - Difficult to manage – Banks have never had to manage a supplier that they rely on to do their daily job so heavily. Requires a different sort of management.
  - What a bank does changes over time, sometimes very rapidly!!
- Smaller discreet outsourcing however can be very rewarding for both sides e.g. support of legacy systems.
- A new ASP or Web Services outsource model will be much more acceptable to all parties using perhaps being supplied by more focused outsourced suppliers e.g. Thales

# Central Counterparty

European regulators have been very keen to provide transparency of charges and prices to non banks. The use of a Central Counterparty gives:

- Anonymity amongst participants no matter what their capital base!!
- Improved liquidity
- Price and charges transparency to the consumer
- Settlement Netting reducing delivery risk
- Margin calls to reduce the risk between trade date and settlement date
- Therefore better management of Risk and reduction in capital requirements
- Standardised processing (facilitates STP)

## Central Counterparties continued

All of this together gives the following:

- Significant change to current 'Back Office' processes
- Ability for new players to enter the market for execution (not clearing)
- A significantly reduced cost to 'join the club'
- Significant increase in STP rates to over 95%!!

This will lead to customers looking at their execution and clearing relationships in new ways. The big Investment banks are likely to concentrate on clearing as they have access to the capital that the Central Counterparty is looking for, but in order to pay for the changes they will offer clearing services to anyone who can put up the required margin, again this will lead to the need for better real-time risk systems.

# A Specific IT Prediction!!



## Intelligence on the network – Why?

**A number of major issues affecting Investment Banks revolve around how we communicate with external services. 'Back Office' Infrastructure is currently tied to individual external services.**

This has been partly addressed by the use of Message Brokers but they have two major failings:

Cost – difficult to justify on any given project

Single point of failure – cannot provide 99.999+% availability

**Therefore a new Paradigm is required to allow a significant change in the 'Back Office'**

## Intelligence on the network – What is it?

The ability of the network to understand messages, not just IP packets. This intelligence to include:

Context sensitive routing

Assured delivery

Non-repudiation

Very high levels of Security

Compression

Very High availability (at least 99.999% at IP address level!)

Perhaps even message translation between formats and cost based routing!

The best place to put all of this is in the router.

What supplier is the backbone of the Internet - CISCO

## Intelligence on the network – What will it look like?

**These new business services probably initially supplied as an ASP service due to the following:**

- Initial cost of provision for the ASP provider
- Low cost of entry for the user
- Integration of business knowledge
- Ability to use the cheapest carrier without affecting the ‘Back End’ application

**but eventually becoming a commodity at the initial point of entry.**

## Intelligence on the network – What will it do for me?

- Allow partial changes of 'Back Office' infrastructure without putting all processing at risk I.e. lose the jumbo jet problem
- Reduce the complexity of new 'Back Office' systems as 20-30% of the code is either for recovery or coping with different formats for the same process.
- Allowing de-coupling of the 'Back Office' infrastructure from the external world (allowing them to still think they had a unique connection to the service).
- Reduce costs.

**Creating a better environment for spend in the 'Back Office' utilising the new technology that to date has been lacking in this space.**

## Intelligence on the network – What will it do for the Internet?

- By providing all of these capabilities over the public Internet all other networks will start to decline.
- Traditional suppliers of connectivity will have to adapt to this new model or will face massive competition as the cost of entry will be significantly reduced.
- New services will come about to disenfranchise Investment Banks as the customer will be able to communicate to anyone using his technology rather than the banks.

**What would happen if all of the worldwide exchanges moved to this technology?**

## Summary - What does all this mean over the next few years?

- Greatest amount of change in the Settlements arena since Big Bang, probably an order of magnitude greater than that!
- Diverse drivers mean that multiple 'Solutions' are being proposed to the same issues.
- A large number of individual product systems (silo's) are likely to be affected
- Historical lack of investment in 'settlement systems' means that the changes are not easy.
- Technology may provide an answer!

# The Confucius Curse for Investment Banking

## **‘May you live in Interesting Times’**

- Not all institutions will adapt at the same pace, not all will survive as they are now.
- There will be some new as yet unknown players in this Brave New World
- There is a need for a new Breed of ‘Back Office Infrastructure’ which will require significant investment
- Not all the ‘Industry Initiative’s will survive but more will follow

**I wish you all, the best of Luck!!**