



# AutoPilot for Financial Services

Driving Business Transaction Performance™

## Transaction Performance

In financial services industries such as investment banking and brokerages, successfully-executed transactions are fundamental to the continued existence of a bank's relationship with its customers. These transactions are the instructions customers direct their banks to execute with the implicit expectation they will be completed accurately, in their best interest and in a timely manner.

Line of business leaders, their application owners and enterprise architects in areas like Payment Processing, Bill Payment, Fraud Detection, Settlement, Compliance, Funds Transfer, Foreign Exchange and Cash Management must design, produce and deliver products that meet standards for performance, availability and transparency expected by customers, those set by regulatory agencies and the overall regulation of the marketplace.

## Blind Spots are Unacceptable

In order to meet the requirements of customers and regulatory bodies for timeliness and accuracy, application owners and their enterprise architects require the ability to track and measure the performance transactions as they flow through their IT infrastructure, traversing different applications and across tiers such as distributed to mainframe. Visibility is a mandate. Blind spots are unacceptable.

## Regulation in Flux

And to make matters more demanding, regulation for financial services, especially Capital Markets is in flux. It is likely that additional oversight will be added in response to the recent economic downturn, specifically in the areas of transparency and risk management. This means that financial service firms will be have to be ready to show that every action they took on behalf of their customers was in the best interest of those customers. How can this be done? It requires extraordinary horizontal, end-to-end and vertical visibility across your enterprise and a deep dive into all of your applications and the middleware messaging that interconnects them.

These firms will need to track and measure every transaction, compare them to service level agreements

for customer satisfaction and polices to ensure regulatory compliance.

## Silos Equal Risk

Today, most financial services firms do have monitoring systems in place to protect themselves from non-compliance. However, most of these firms employ a silo-based organizational structure with separate management for network, web server farm, applications servers, middleware messaging, databases and mainframes. The inevitable results of monitoring the availability and performance compliance of business applications through the spy holes provided by each silo are misleading, out-of-context stove-pipe views of your business. The appropriate action to take to remediate non-compliance and improve the situation is unclear. Risk increases.

With this all too common perspective, companies can pigeonhole themselves into what is referred to as the blame-game scenario. Representatives from each of the above silos will assemble following a serious problem and begin a series of finger-pointing and delayed resolutions over long, expensive firefighting sessions — resulting in decreased customer satisfaction, an ever-increasing number of tickets opened at the service desk and delayed problem resolution times. Yet again, risk increases.

## Visibility, Prediction and Performance

Avoid the blame-game. Nastel AutoPilot provides financial service firms with the requisite visibility, prediction and performance to proactively ensure the performance and availability of your business-critical applications and services



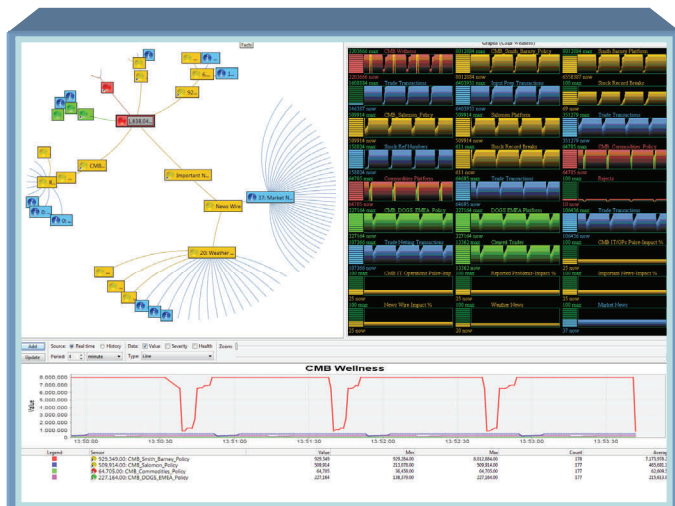
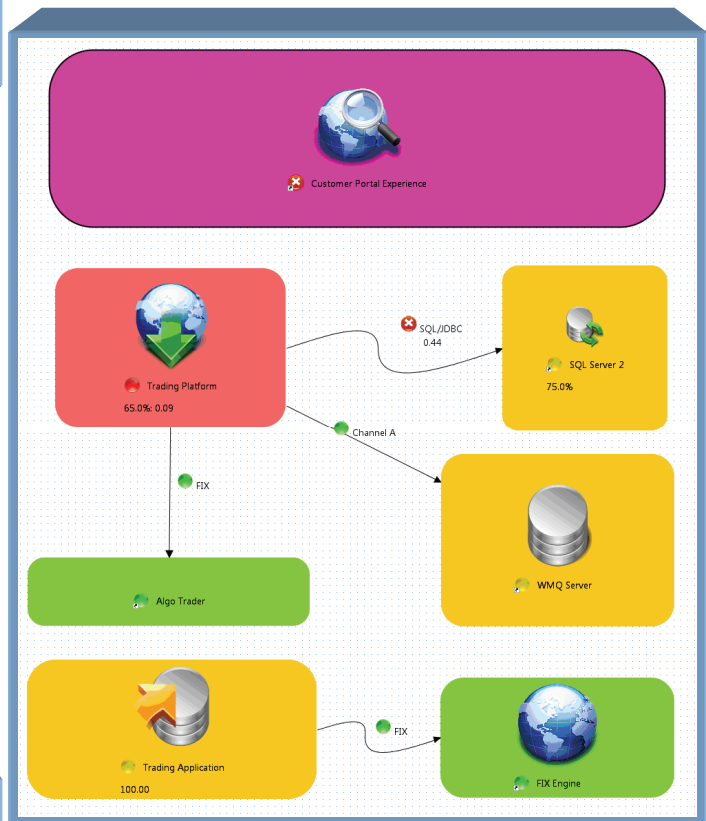
*AutoPilot provides rolling, real-time graphs illustrating your application performance and availability as compared to your business-specific, governance policies. It can illustrate the root-cause of a problem and when you have begun to veer from "business normal" to business abnormal".*





The screen below shows a business process flow and the health of a customer portal front-to-back with performance, availability and transaction flow between critical IT and business applications. AutoPilot has discovered the application components in the business process and their message flow. In real-time AutoPilot is monitoring performance and availability in comparison to user-defined Service Level Agreements (SLAs).

Above are several graphs displaying real-time application health and performance metrics including: # of transactions, retries and delays. The policy automatically detects deviation from the normal and alerts relevant parties of the potential problems. AutoPilot is monitoring applications and their constituent transactions. While this is a real-time view, the user has the option to view historical data. The area graphs on the far-right of the screen above are based on user defined policies that are created via a wizard interface. These policies are evaluated using the embedded Complex Event Processing engine.



On the left are real-time monitors of performance and "wellness" for trading platforms in various regions. The governance policy correlates KPIs such as trade flow, trades in flight as well as RSS news feeds and alerts of potential deviation from normal or a potential compliance risk. In the area graphs on the far-right of this screen we can see AutoPilot is monitoring the availability and performance of a commodities platform, foreign exchange trading and other application performance governance policies.



- ✚ Visibility
  - Real-time, 360° situational awareness™ of your applications, the middleware interconnecting them and the transactions they invoke—in order to reduce company risk and maximize customer service
- ✚ Prediction
  - Instantly know when you are veering from “business normal” to “business abnormal” using Nastel’s complex event processing (CEP) engine - take action before it hurts
- ✚ Performance
  - Ensure peak performance – at a lower cost and with less impact to your staff and customers

### Stakeholders

According to Forrester Research in Hot Banking Tech Companies To Watch In 2010, "Nastel Technologies enables six different financial services stakeholders, from Enterprise architects and Application support organizations to Line-of-business heads...Trading application managers and Support teams in the middle office...Trading unit heads..."

### Benefits

Nastel's business transaction management solution for financial services ensures optimum service levels while eliminating the hidden costs, or "stealth waste," in business processes. AutoPilot's capabilities for transaction management, deep expertise in WebSphere MQ, automated root cause isolation, performance analysis and determination of business impact enable its users to improve business process efficiencies and service levels while reducing cost and managing risk

### Scenarios

Nastel's Financial Services customers can and have used Autopilot in a variety of ways including: reporting on trade order entry problems especially any performance spikes in the norm, diagnosis of the root causes of failed trades, disputes on trade completion, validation and enrichment transaction tracking, and analysis of transactional activity underlying out trades.

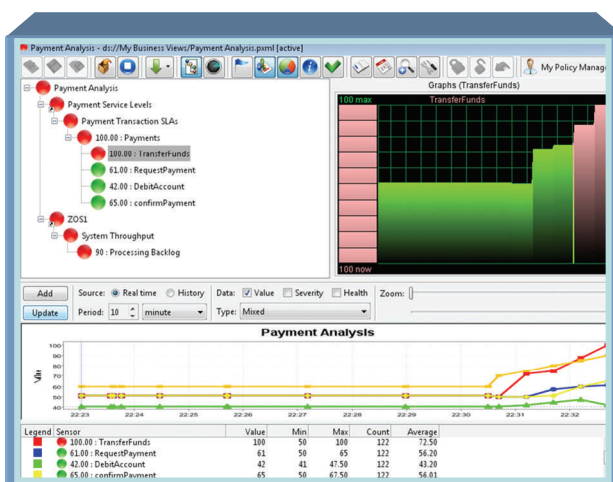
### Large US Bank

This bank uses AutoPilot to monitor its end of day reconciliation with the Federal Reserve (FEDWIRE), AutoPilot might, for example, detect 20 transactions in flight with perhaps an average duration of 10 minutes in the late afternoon.

Using AutoPilot's built-in CEP engine it could determine that there is no way these transactions will clear in time, a payment will be missed and the bank will be liable for high penalties. At the same time, everything is "green" on the bank's systems and network monitoring dashboards and user impacts have not occurred. AutoPilot's predictive capabilities are able to warn the bank of the pending situation in time to avert non-compliance and stiff financial penalties.

### Specialty Trading firm

This firm utilizes AutoPilot for all its monitoring and analysis. The firm monitors the phone system in their trading turrets to proactively ensure that traders picking up a phone to call an important customer always have a dial-tone. They also use it to monitor their internet connection, market data feeds and environmental factors like excessive heat which could stop an essential server. Recently, they began monitoring the host bus adapters (HBA) for their storage area networks (SANs). For this firm, AutoPilot's ability to warn them about problems when they first show up and not wait till they blow up provides them with a strong competitive advantage.



AutoPilot provides operational and transactional views of your application, middleware messaging and transaction performance. In the above graph we are viewing a trend analysis of the applications within the payment process such as: funds transfer, request payment, debit account and confirm payment.





### Large Multi-national Bank

This firm utilizes AutoPilot for monitoring multiple applications including: Trade Booking, Validation, Clearing, Settlement and Payments. They use it forensically to diagnose why a trade failed or when there is a discrepancy between IT and the user as to whether a trade completed. Nastel AutoPilot watches their J2EE, messaging middleware and CICS environments, and in real-time captures IT transactional activity. AutoPilot's visibility answers the question of "what really happened". AutoPilot provides trade topology stitching together the transactions it has discovered into a meaningful map or topology of a business transaction. It also provides deep-dive visibility into each step of the transaction across their distributed and mainframe environments. This can be used after the trade is completed to replay and determine the cause of unexpected behavior.

### Global Bank

This Global bank utilizes AutoPilot in nine countries with 150 apps including: EFT, Cash Mgmt, Equities, Card processing running on both distributed & mainframe. AutoPilot is utilized by production, development and QA. The predictive capability AutoPilot provides via CEP is its most prized attribute.

### Payment Processor

This large payment processor utilizes AutoPilot for monitoring and SLA management for their bill payment and fraud detection applications.

### Support for a Wide Range of Platforms

Including:

- ❑ AIX 5.3, Solaris 8-10, HP-UX 11i
- ❑ IBM System P, AS/400
- ❑ HP OpenVMS, Tandem
- ❑ Windows 7, 2k, 2003, Vista, 2008
- ❑ RH Linux 4,5; SuSe Linux 10
- ❑ z/OS 1.8, 1.9, 1.10 and zLinux
- ❑ ESM integration: HP, IBM, CA, BMC

### Conclusion

For banks and brokerages with messaging intensive IT infrastructures with a high volume of business-critical transactions, Nastel can provide the visibility, prediction and performance to reduce operational and capital expenditures, improve the service they provide to their customers and at the same time help them manage their risk of non-compliance and business process disruption.

### About Nastel

Nastel Technologies is a premier global provider of business transaction performance™ solutions for mission-critical applications. Nastel is a privately held company headquartered in New York, with offices in the U.S., the U.K., Germany and Mexico, and a network of partners throughout Europe, the Middle East, Latin America and Asia. For more information, visit Nastel's website at [www.nastel.com](http://www.nastel.com).

### AutoPilot modules include:

- ❑ **Messaging** - IBM WMQ, TIBCO EMS/RV, IBM WBI, IBM WMQ Smart Plugin for HP Operations Center software
- ❑ **Transaction Management** - IBM CICS, IBM WMQ, WESB, WAS; BEA WebLogic; JBoss, Oracle AS, Sun GlassFish, JMS, JDBC
- ❑ **J2EE** - IBM WAS, BEA WebLogic, JBoss, Oracle AS, Sun GlassFish
- ❑ **ESB** - IBM WESB
- ❑ **DB** - DB2, Oracle, MS SQL Server
- ❑ **.NET**
- ❑ **Java, C, C++**
- ❑ **SNMP, URLs, Web Services, log files**



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