

WHITEPAPER

The 3 pillars of an effective IT system for the supervision of financial services institutions

Introduction

The ability for financial regulators to supervise the financial services industry in an effective manner depends almost entirely on the timely analysis of accurate and complete data collected from regulated institutions. The primary tool, therefore, that enables the effective supervision of financial institutions is the Supervision IT System. Deficiencies in this system can result in catastrophic failures in the supervision of financial services institutions, as we have seen in recent times. To avoid these failures in future, three 'Pillars' of an effective system for the supervision of financial services institutions have been identified.

Pillar 1: Data Quality & Control

Quality of collected supervisory data is of the utmost importance in the supervision of financial services institutions. Without excellent quality data, collected in a timely fashion, the foundations for effective supervision are undermined. Furthermore, knowing that the quality, reliability, feasibility, validity and integrity of the data are guaranteed engenders confidence in the supervisory function, enabling hard decisions for tough action, safe in the knowledge that these decisions are supported all the way to the quality of the raw data.

LEVELS OF DATA QUALITY AND CONTROL REQUIRED FOR PILLAR 1

1. Ensuring timely collection of scheduled returns.
2. Mandating the completion of all or part of a regulatory return, applicable to a regulated entity type.
3. Applying tight restrictions on the type of data that can be provided in each instance, such as the size of the number, email address, percentages, dates, etc.
4. Allowing data to be dynamic where applicable, changing the layout and data collected based on a firm's characteristics.
5. Providing auto-calculations using complex formulae.
6. Pre-populating data into the return from disparate sources (e.g. last years return, price of a stock).
7. Provision of warnings when feasibility thresholds are crossed (e.g. net premiums written increases by more than 100% on the previous period).
8. Firing validation rules on forms, forcing data entered to adhere to certain criteria.
9. Firing validation rules across the entire return for cross-form validation.
10. Firing validation rules across returns for time-series consistency.
11. Allowing supporting documentation to be provided against certain data fields.
12. Allowing and controlling data within a form to be completed multiple times.
13. Allowing and controlling forms and groups of forms to be completed multiple times.
14. Supporting resubmission processes for corrections.
15. Assessing the plausibility of submitted data.
16. Delegating the completion and submission of supervisory data.
17. Automating the data collection process via system-to-system interfaces.



Software for Effective Regulation

Pillar 2: Real-time Regulatory Intelligence

When data is submitted to the supervision system it is inherently already stale: whether by hours or months, there is always a gap between the period that the data relates to and the moment of submission.

This time lag is a fact of life for supervisors of financial services institutions, which makes the production of meaningful analysis at the moment the data is received critically important. This concept is known as Real-time Regulatory Intelligence. It is critical that when the data is received it is:

- A.** entirely valid
- B.** is automatically processed and passes into the system and
- C.** triggers the automatic generation of reports designed to form an early warning of potential issues before further detailed analysis is performed.

Pillar 3: Flexibility

We live in turbulent and challenging times within the regulatory environment. The recent financial crisis has led to and will lead to continuous changes in the supervisory function and the regulatory landscape. It is no longer acceptable for a system to be static — the data required from financial services institutions and the subsequent analysis of the data is constantly changing. Therefore systems must be capable of almost continuous change, with the time to implement these changes measured in days rather than months.

HOW TRADITIONAL APPROACHES FAIL TO ACHIEVE THE THREE PILLARS

The development of supervision systems has traditionally been broadly based around two approaches: bespoke development and the use and integration of horizontal 3 party products, with many implementations combining the two approaches. These approaches have serious shortcomings which invariably lead to a supervision system that cannot hope to cope with the demands placed on it in today's regulatory environment.

Bespoke Systems

While bespoke systems appear at first to be attractive since a system is built exactly to specifications, it almost always misses the mark. Requirements are rarely fully met and, as is most often the case, the bespoke development takes so long that changing business requirements cannot be incorporated into an inflexible development model without critical impacts to timelines and budgets.

Whilst bespoke systems are by far the most expensive option, they also suffer huge risks in terms of project failure, with an extraordinary number of projects going over budget and in some cases becoming years overdue.

Since requirements, budgets and timelines shift throughout the course of the extremely complex project, quality ultimately suffers. An impatient focus on getting to the finish line also usually means corners are cut and the system which was envisioned on day one is rarely if ever delivered.

Another major flaw with this approach is that the Pillar 3 requirement for flexibility is always overlooked and underestimated. The nature of the system, the complexity of supervision and the engineering of the software make it impossible to change. Often bespoke systems become so complex that they are left never to be changed, with new requirements implemented outside the system leading to disparate data sources and severe problems for analysis and regulatory intelligence.

Systems Integration with 3rd Party Products

Systems built by integrating 3rd party products suffer from similar problems. Due to the horizontal nature of these products, none of them are built specifically for regulation and therefore cannot hope to coherently satisfy all the requirements of the system. Indeed, even the mighty Excel boasts just 7 of the 17 levels of data quality and control required for Pillar 1.

Projects are also oftentimes problematic, with promises of smooth and coherent integration quickly becoming major headaches. The need to integrate and the subsequent lack of cohesion result in a failure to meet Pillar 2.

Although this development option is usually less expensive than bespoke builds, the integration challenges result in systems that are difficult to maintain, and don't ultimately deliver on the flexibility boasted by the separate 3rd party products, thus failing to meet the requirements of Pillar 3.

VIZOR SOFTWARE & THE 3 PILLARS

Vizor Software is a product that has been specifically designed and built for financial regulation over the last decade. When Vizor Software is implemented there is no integration challenge and there is no code to write. The platform is flexible to the extreme leaving the business free to focus on what they want from the system rather than how it can be achieved. Vizor Software provides three core applications that correspond to the three pillars.

Pillar 1: Vizor Portal

Vizor Portal is a web-based application that allows regulated firms to securely enter their return data into web forms. Alternatively their return can be automatically populated from their own systems via XML. The key here is the extent to which Vizor Portal is capable of ensuring data quality. Vizor Portal implements all 17 levels of data quality and control required for Pillar 1, guaranteeing the automation of the data collection process. Data is proven to be error free, accurate, complete, consistent and "feasible" in the context of the given firm. When the regulatory return is completely "valid", it can be submitted.



Software for Effective Regulation

Pillar 2: Vizor Regulatory Intelligence

Vizor Regulatory Intelligence automatically receives data from Vizor Portal on submission. With the quality of the data absolutely assured, the submission triggers analysis and relevant users are notified. In essence, as soon as the data is made available to the regulator, early indicators allow a risk-based model of supervision to be adopted, with “early warning” reports drawing the supervisor’s attention to particular firms or data sets for further in-depth analysis. Vizor Regulatory Intelligence also comprises reporting capabilities built specifically for regulation to allow automated industry wide analysis and aggregation.

Pillar 3: Vizor Builder

The Vizor Portal and Vizor Regulatory Intelligence applications are 'configured' with the Vizor Builder. Vizor Builder specifies the data to be collected, along with all the validation levels to ensure utmost data quality. It is also used to specify the analysis to be carried out, whether it be early warning indicators, risk profiling, detailed analysis of a single return, industry wide aggregates, or time series analysis. Furthermore, Vizor Builder is responsible for maintaining these “templates” over time. Business users can modify forms and reports in hours, and within days these modifications can be in use in the production system where they are versioned to co-exist with earlier versions as appropriate.

TRADITIONAL APPROACHES

- Uncontrolled, disparate, electronic document or spreadsheet based data, collected in a semi ad-hoc manner.
- Poor data quality, poorly structured, unreliable and incomplete. Errors in the data must be corrected.
- Much manual work involved in collating and processing returns, with untimely submissions and other issues to resolve.
- Aggregation and analysis is burdensome, requiring advanced technical skills and products not built for regulation.
- Long, frustrating delays between the submission date of returns and the production of accurate analysis reports.

VS

INTEGRATED REGULATION WITH VIZOR SOFTWARE

- Automatically controlled, coordinated and structured data, collected on time.
- Unparalleled data quality: data is complete, accurate, valid and feasible — there is no requirement for manual intervention.
- Automated processes — data automatically passes through the submission/approval processes.
- Reports designed by business users, on a reporting platform specifically designed for regulation.
- As soon as data is received, early warning reports are triggered, facilitating the adoption of a risk-based regulatory approach when required.

About Vizor

Vizor is the global leader in software for financial regulation.

For the past decade, we have been implementing systems for the world's leading financial regulators. Our customer base spans Western Europe, Central & Eastern Europe, the Middle East, the Far East, Africa and the Antipodes.

Vizor was established in 2000 by a group comprising highly experienced ex-financial regulators and IT industry leaders, with the specific aim of providing enterprise-class software for the poorly serviced and increasingly demanding regulatory sector.

Built from the ground up specifically for financial regulation, Vizor Software is the perfect fusion of regulatory expertise and enterprise-class software engineering.

A fully capable and future-proof Vizor system can be implemented in just three months.

If you would like to learn more about how Vizor Software can help your organisation to become a more effective supervisory authority, please contact us at sales@vazorsoftware.com.

References

[OECD: Policy Framework for Effective and Efficient Financial Regulation](http://www.oecd.org/dataoecd/28/49/44362818.pdf)

<http://www.oecd.org/dataoecd/28/49/44362818.pdf>

[EU Solvency II directive](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32009L0138:EN:NOT)

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32009L0138:EN:NOT>

Quote: "When granting supervisory approval, supervisory authorities shall verify the completeness, accuracy and appropriateness of the data used."

[FT: Failure of financial regulation](http://blogs.ft.com/economistsforum/2009/01/the-failure-of-financial-regulation/)

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[Columbia Journalism Review](http://www.cjr.org/the_audit/the_lehman_scandal_breaks_wide.php)

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Upcoming changes/initiatives in the regulatory landscape, highlighting the need for flexible systems:

[Solvency II](http://www.fsa.gov.uk/pages/About/What/International/solvency/index.shtml)

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[IOSCO](http://www.iosco.org/news/pdf/IOSCONEWS183.pdf)

New principles regarding cross border supervision of securities:

<http://www.iosco.org/news/pdf/IOSCONEWS183.pdf>

[Basel Committee](http://www.bis.org/press/p091217.htm)

Consultative proposal to strengthen banking sector:

<http://www.bis.org/press/p091217.htm>