



# *Enterprise OpRiskCenter™*

An Integrated Operational Risk  
and Sarbanes-Oxley Solution

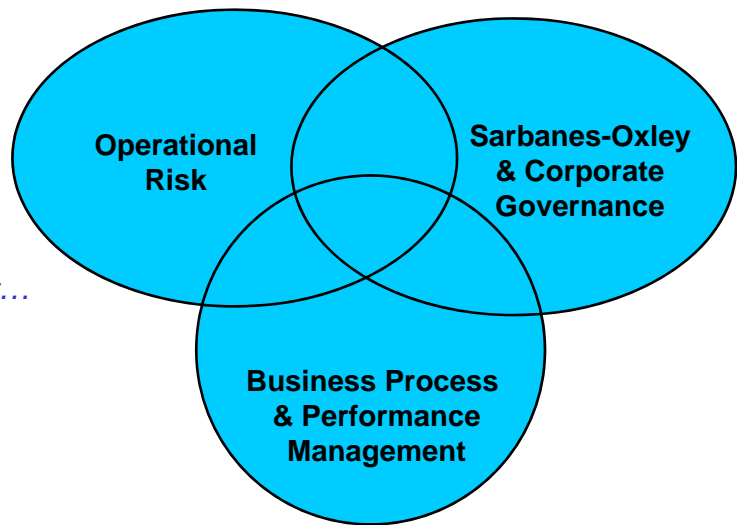
# Enterprise OpRiskCenter™

## An Integrated Firm-wide Approach to Operational Risk Management and Control

Today, the demands of operational risk require firms to take a strategic enterprise view of all elements of governance and control. It's what the Board and senior managers are demanding. It's what the lines of business want. A single, efficient solution that avoids duplication and overhead.

**Enterprise OpRiskCenter** from Centerprise Services is new class of enterprise system that combines the full range of operational risk management functionality with governance, control, compliance and business process capabilities. The suite is an integrated yet modular solution, which may be deployed with Sarbanes-Oxley support as well as process repository and business performance management capabilities.

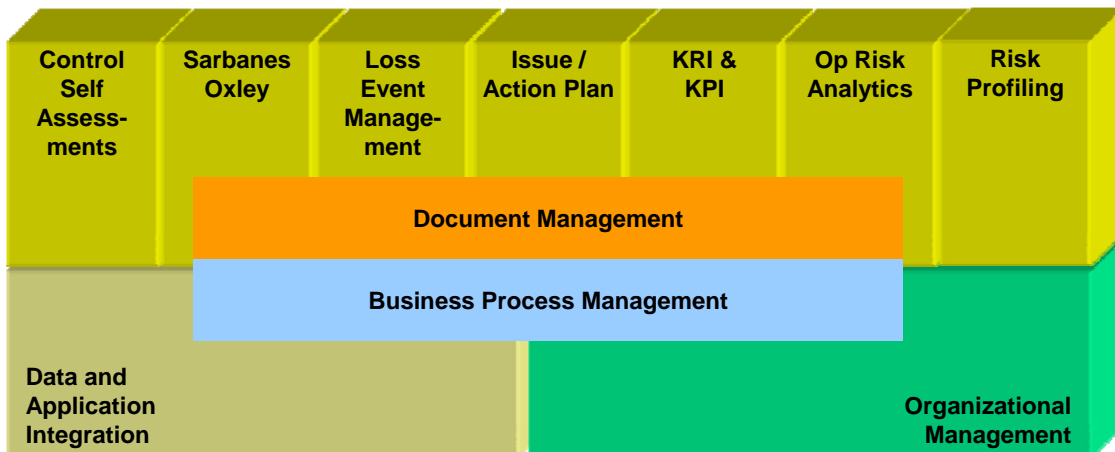
A single solution. Well orchestrated.



*The emerging convergence in the market...*

*...and the integrated solution available today.*

### Enterprise OpRiskCenter Components



# Tightly Integrated, Yet Highly Modular

*Select the Modules You Need, When You Need Them*

**Enterprise OpRiskCenter** provides both the benefits that come with strong functional integration as well as the freedom of a modular solution suite. Whether you are looking to perform integrated risk profiling across all elements of operational risk and control elements or, initially, just certain components, you will have the flexibility you need.

An overview of our various modules follows.

## Risk Profiling

The **Risk Profiling** module offers a prime illustration of the benefits of an integrated solution. The module provides the ability to create and manage customized risk profiles or “heat maps” that serve as effective management summaries of all aspects of operational risk and related risk and control elements.

Using the data managed by other modules of OpRiskCenter, side by side summary results can be presented for RCSA results, Sarbanes-Oxley control assessments, loss events, key issues, KRIs and other desired dimensions.

Users can create their own profiles by configuring the data types that make up the rows and columns of the risk profile type views. The tool serves as an effective mechanism for generating control environment, residual risk and management summary matrices and reports.

[My World](#) | [Internal Loss Data](#) | [Issue/Action Plan](#) | [Operational Risk/Control Assessment](#) | [Operational Risk Profile](#) | [Sarbanes-Oxley](#) | [Administration](#)

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Operational Risk Profile Home **CONTROL ENVIRONMENT MATRIX** ?

Operational Risk Profile Admin

Operational Risk Profile Name: **Risk Profile For Retail Banking as of 10/1/2004**

Status: **Executive Summary In Progress (0)**

Org Point: **111110101 - Retail Banking**

As of Date: **10/01/2004**

Operational Risk Profiles

Please complete the final phase of the Control Environment Matrix by clicking the Create hyperlink within each cell of the Control Environment Summary column. For each cell, you are required to assign a rating to the Control Environment Summary for the given Basel 1 category.

Basel 1 Category	Control Environment Summary	Basel 2 Category	Control Environment	Control Environment	Loss History	Issues	Risk Assessment
Internal Fraud	Satisfactory	Unauthorized Activity	Satisfactory	Satisfactory	Low	High	-
		Theft and Fraud (internal)	Satisfactory	Needs Improvement	High	-	-
External Fraud	Needs Improvement	Theft and Fraud (external)	Needs Improvement	Needs Improvement	Medium	-	-
		Systems Security	Satisfactory	Satisfactory	Low	-	-
Employment Practices and Workplace Safety	Needs Improvement	Employee Relations	Satisfactory	Satisfactory	Low	High	Needs Improvement
		Safe Environment	Needs Improvement	Needs Improvement	Medium	-	-
		Diversity and Discrimination	Satisfactory	Satisfactory	Low	-	-
Clients, Products and Business Practices	Satisfactory	Suitability, Disclosure, and Fiduciary	Satisfactory	Satisfactory	Low	-	Satisfactory
		Improper Business or Market Practices	Satisfactory	Satisfactory	Low	-	-
		Product Flaws	Satisfactory	Satisfactory	Low	-	-
		Selection, Sponsorship, and Exposure	Satisfactory	Satisfactory	Low	-	-
Damage to Physical Assets	Needs Improvement	Disasters and Other Events	Needs Improvement	Unsatisfactory	Low	High	Needs Improvement
Business Disruption and System Failures	Satisfactory	Systems	Satisfactory	Satisfactory	Low	-	Satisfactory
Execution, Delivery, and Process Management	Satisfactory	Transaction Capture, Execution, and Maintenance	Satisfactory	Satisfactory	Low	High	-
		Monitoring and Reporting	Satisfactory	Satisfactory	Low	High	-
		Customer Intake and Documentation	Satisfactory	Satisfactory	Low	-	-
		Customer/Client Account Management	Satisfactory	Satisfactory	Low	-	-
		Trade Counterparties	Needs Improvement	Needs Improvement	Low	-	-
		Vendors and Suppliers	Satisfactory	Satisfactory	Low	-	-

[Save Draft](#) | [Next >](#)

\* Required field

# Loss Event Management

Our robust **Loss Event Management** module supports all elements of loss event capture, storage and management. Events may be captured through various mechanisms: batch uploads (e.g. text delimited file), automated feeder source (through a message-oriented middleware backbone, or system API), or manual entry (optionally within a workflow context). Both internal and various public or consortium loss event data sources are supported.

A wide range of attributes may be captured with loss events. Events may have multiple causes and impacts, as well as multiple classifications (e.g., linkage to BIS and internal schemes). Events can also be related to any number of organizational elements, related issues / action items, or KRIs.

Our G/L Mapping module provides ability to reconcile events to loss records from your G/L (or other transaction sources).

The loss data capture mechanisms may also invoke downstream workflows, such as customized review and approval steps and threshold-based notifications.

# Issue & Action Plan Management

The **Issue & Action Plan** module may be used independently as well as in conjunction with the other modules. It supports enterprise-wide capture and management of issues and associated action plans, milestones and deliverables.

Issues may be associated with self-assessments, SOX survey points, loss events or other data points. An issue may be originated by multiple sources and be cross-referenced with other issues.

Action plans will include description, responsible person, target completion dates, and related information. Ad-hoc queries, status reporting and workflow-based escalation rules also can be specified and managed.

In total, this module provides a single, integrated view of key issues and remediation plans across the enterprise to ensure your key issues are being addressed when they need to be addressed.

# Risk Control Self-Assessment

The **Risk Control Self-Assessment (RCSA)** module provides complete support for the design, execution and management of the self-assessment process. Program administrators can develop RCSA programs containing the inventory of business risks and mitigating controls, and assign roles and responsibilities for assessment surveys. Various compliance and severity rating scales can be configured, and rating criteria can be specified to guide the users to uniform and consistent answers. The RCSA module is linked with the other relevant OpRiskCenter modules. Issues can be associated with any RCSA point, along with follow on action plans to close gaps in compliance. Supporting documents may be attached as well. A wide range of workflows can be designed to support the initiation, execution, and review and approval of surveys along desired business rules. Users can perform ad-hoc queries to generate a wide range of reporting and diagnostics on survey results.

# Sarbanes-Oxley

With our **Sarbanes-Oxley (SOX)** module, you can manage the entire SOX process, from the inventorying and documentation of processes and key controls, through to execution of control assessment surveys and results tracking. A flexible taxonomy provides support for constructing structures of processes, sub-processes, business objectives, risks, controls and test of control procedures.

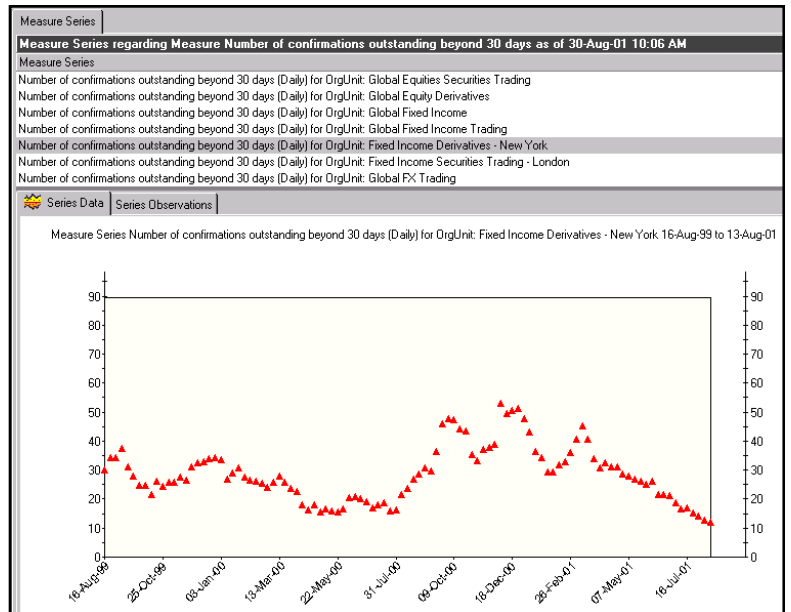
Strong workflow capability supports the deployment of control testing surveys, through to their review and approval. Users may capture detailed information on each control element, including Test of Design and Test of Effectiveness, as well as related deficiencies.

Any type of supporting document, including various types of business process maps, may be associated with processes, controls and related elements.

# Key Risk & Performance Indicators

Our **Key Risk & Performance Indicators** module is designed to serve the full range of risk and performance metrics. It supports the creation and management of multiple taxonomies of exposure indicators (e.g. public and private) and their related data series. The module thus serves as a warehouse for capturing time series of exposure indicator values, and supports associating these to various internal organizational entities (e.g. transaction volume, employee turnover, etc.). Limits and breach notifications may be also be defined and triggered.

Through our strong linkages to middleware tooling, we support interfaces with a wide range of data sources and formats for collecting KRI / KPI data. Additionally, KRI metrics can be sourced from other OpRiskCenter modules, such as self-assessment scores, workflow audit trail metrics, etc.

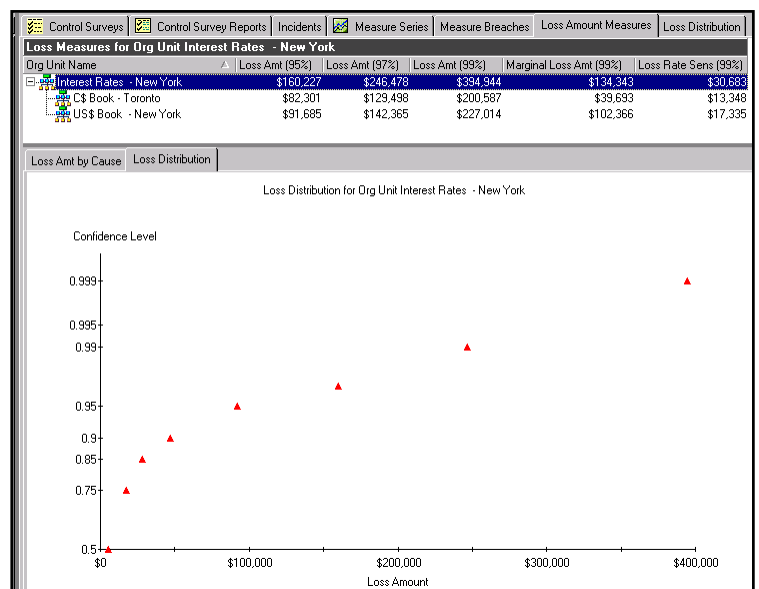


# Operational Risk Analytics

Our leading **Operational Risk Analytics** module quantifies operational risk exposures utilizing an advanced Loss Distribution Calculator (LDC). The LDC incorporates a Monte Carlo simulator to generate a distribution of possible cumulative losses over a user-defined time horizon and within a specified confidence interval.

Inputs can be a mix of institutional history, consortium data, and hypothetical events, while importance sampling allows low-probability, high impact events to be handled efficiently. The model allows extrapolation from the observed losses to larger "tail" losses that are too rare to have been observed in the available history. Scaling allows user to normalize loss data from various sources and adjust institutional history for changes in ratings (CSA, audit) or exposure indicator values.

For additional flexibility, our open architecture (via XML transport layer) supports interfacing with other third-party analytics.



# The Importance of a Firm Foundation

## *Core Functionality is Key to Successful Enterprise Deployment*

It is one thing to support domain-specific functionality for operational risk. It is quite another to have a system implementation succeed within the complexities and dynamics of real organizational environments. The challenges include constantly changing organization structures, employee responsibilities, systems, data sources, document versions, among others. **Enterprise OpRiskCenter** has been designed for this challenge. Four of our base elements in particular provide the needed foundation:

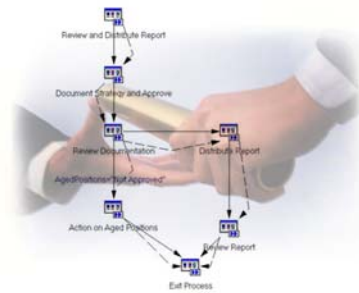
### ◆ **Organizational Management and Accountability Definition**

- ▶ Define and maintain complex organizational reporting lines
- ▶ Manage and define roles, staff assignments and detailed responsibilities and accountabilities
- ▶ Manage role-based user access privileges
- ▶ Maintains history of all previous states



### ◆ **Business Process Management**

- ▶ Document business processes
- ▶ Link processes to various op risk and SOX elements
- ▶ Design and automate workflows
- ▶ Automatically assign work items to appropriate individuals
- ▶ Define escalation / notification rules and timing
- ▶ Utilize workflow audit trail to identify operational risks and build risk exposure indicator metrics for operational risk database



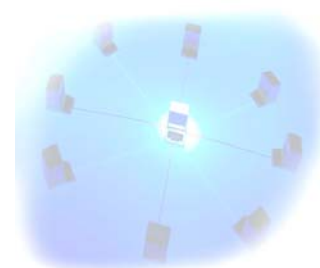
### ◆ **Document Management**

- ▶ Supports attaching a wide range of supporting document types to your op risk and SOX programs
- ▶ Leverages enterprise level document management system
- ▶ Provides full version control of all documents
- ▶ Satisfies document retention requirements



### ◆ **Data Collection and Monitoring**

- ▶ Facilitate easy integration to various legacy source systems and a wide range of data format types
- ▶ Manage software system inventory
- ▶ Manage data source definition and monitoring of data feeds



# About Centerprise

## Our Business Focus

Centerprise Services, Inc. is a leader in the development of risk management and control systems for the financial services industry. The company's product suite, CenterSphere, is a new class of enterprise system that combines enterprise risk management functionality with governance, control, compliance and business process capabilities. The suite is an integrated yet modular framework.

A strong focus exists throughout CenterSphere on organizational and accountability management, verification, business process management and audit trail. Complementary offerings are available for core centralized enterprise reference data management that are similarly process management-based. These combined elements serve as a new business intelligence application suite that can orchestrate all key risk, control and reference data. Our integrated solution allows your firm to achieve a simultaneous reduction in costs and improvement in governance and controls.

## Implementation Services

Centerprise offers services related to the delivery, implementation, operation, and management of our Enterprise OpRiskCenter suite.

We provide services related to all elements of an implementation project, including project management, business analysis, workflow design and implementation, system interface development and user training.

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*Technology at the center  
of the enterprise*

