



List Group

# **OpRisk Evolution**

*The comprehensive Operational Risk*

*Management Solution*

# List Group Corporate Profile

Established 1985 in Italy, servicing only Financial Services Industry

- 115 staff, 10 M€ turnover in 2005, 12.5 M€ forecast in 2006, Privately held and self funded.

Delivering innovative software in :

- **Electronic markets** (bourses, regulated markets) and **Real-time settlement systems**
- **Professional trading systems** providing automated support for trading, risk management, and best execution.
- **Operational Risk Management** for compliance to Basel II

Examples of large mission critical applications:

- ✓ **HDAT:** electronic market for complete intergrated trading of government bonds, Central Bank of Greece
- ✓ **San Paolo IMI Bank:** Treasury and Finance, International Payments, ATM solutions, Web Portals with large data volumes and very high security standards.
- ✓ **Role-based portals** for largest banking group in Italy covering over 80 banking services sales support and information distribution.



# International presence

Milano



Business Development,  
Support

Pisa



Headquarters, R&D

Turin



Banking Solutions

London



Madrid



Paris



New York



Kuala Lumpur



# References

Sanpaolo IMI

Fimat Group

Capitalia

Banca Monte Dei Paschi di Siena

Banco popolare di Verona e novara

Banco Poste

Shinan Bank

RHB

Banca Nazionale del Lavoro

Société Générale Securities Worldwide

GE Money Bank

Banca Popolare di Milano

Natexis Banques Populaires

Société Générale

Bank of Greece

Banca Caboto

Banca Sella

Banca IMI

Banca Fideuram

Caixa Geral de Depòsitos

Capitalia

Cassa di Risparmio di Firenze

Centrosim

Credit Suisse First Boston

Deutsche Bank

EFG Eurobank

Emporiki Trapeza

EuroMTS

Goldman Sachs

JP Morgan

KBC

Mediobanca

Banco Santander

MPS Finance

Morgan Stanley

Nomura

Piraeus Bank

Rasbank

Reuters

SIA

UniCredito

ING Bank Italia

HSBC Greece

Bank of America



# OpRisk Evolution: a Proven Solution



OpRisk Evolution include 6 natively integrated modules supporting a comprehensive process of collection, measurement, monitoring, analysis and presentation of Operational Risk, fully compliant with Basel II requirements.



# OpRisk Evolution Modules



LOSS DATABASE, EXTERNAL DATA, ORGANIZATION MAP, USERS, WORKFLOW & MESSAGING



CONTROL SELF ASSESSMENT, RISK REGISTER, MITIGATION PLANS



KEY RISK INDICATORS



CAPITAL MODELLING, STATISTICAL TOOLS, MONTECARLO ENGINE



EXPERTS ASSESSMENTS, QUANTIFICATION OF SUBJECTIVE ESTIMATES



INTEGRATION OF SCENARIO AND QUANTITATIVE ANALYSIS



# Security, Profiles Management

## Login Page

LoginID: Administrator

Password: .....

submit

**User Admin / Profiles ORM - OP Risk Manager**

▼ Main Info

**Code** ORM

**Description** OP Risk Manager

▼ Loss Incident Data

**canChangeOrigAffOrg**

**canSeeRestrictedET**

**Event Status** RTBV - Ready to be Validated ▼

Tables	to view	to insert	to modify	to delete	to validate
Events	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Losses	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Macro Events	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Recoveries	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Provisions	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Event Attachments	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
External Data	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ET-BL Matrix	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

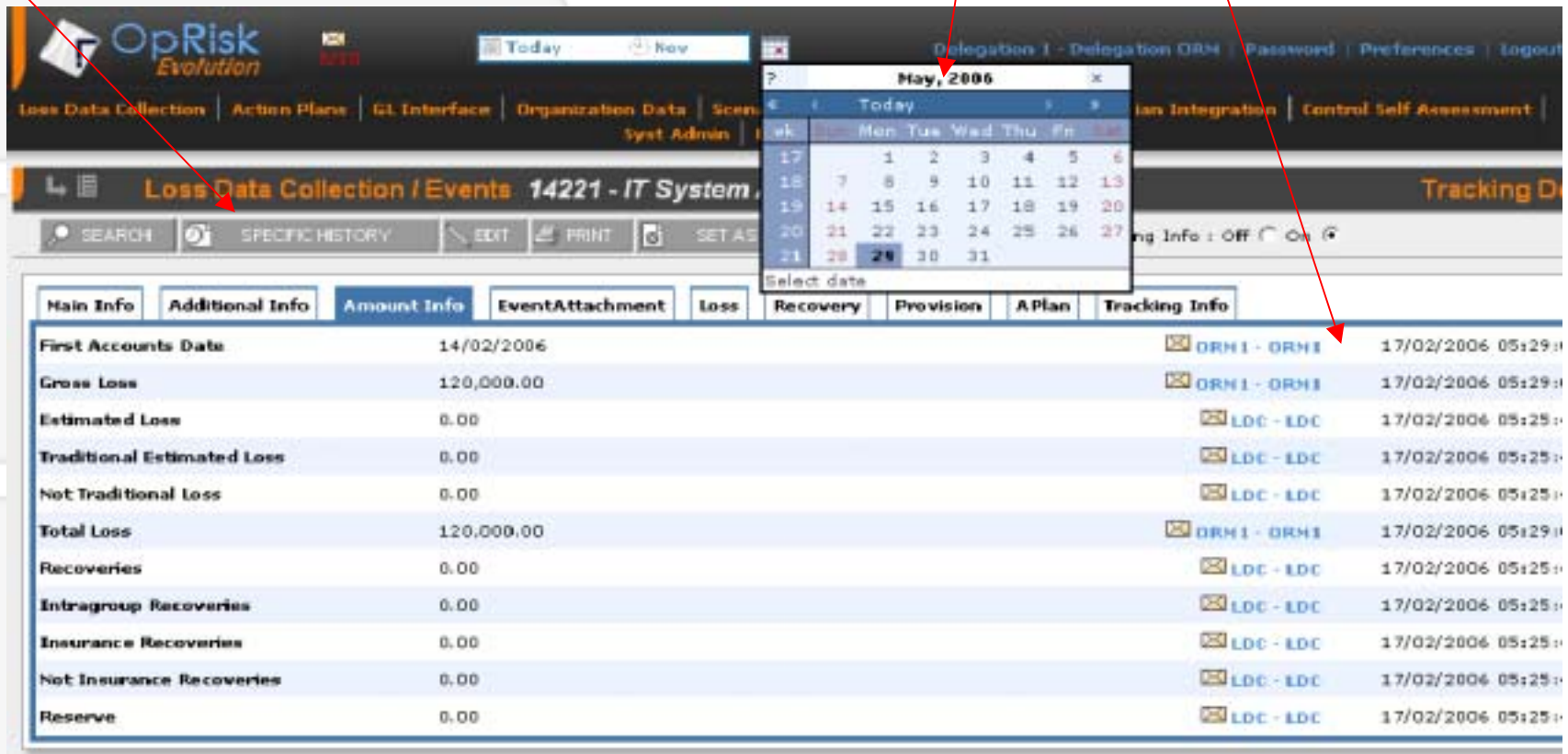
▶ Organization Data

▶ Scenario Analysis



# Traceability and Audit Trail

Multiple ways of ensuring full audit trail: calendar, last changes, specific history, searchable audit trail data ...



The screenshot displays the OpRisk Evolution software interface. At the top, there is a navigation bar with the OpRisk Evolution logo and various menu items like 'Loss Data Collection', 'Action Plans', 'GL Interface', 'Organization Data', 'Scenarios', 'System Administration', 'Integration', and 'Control Self Assessment'. Below this, a specific event is selected: 'Loss Data Collection / Events 14221 - IT System'. A search bar and buttons for 'SPECIFIC HISTORY', 'EDIT', 'PRINT', and 'SET AS' are visible. A calendar pop-up window for May 2006 is open, showing the date 28th selected. Below the calendar, a table displays event details with columns for 'Main Info', 'Additional Info', 'Amount Info', 'EventAttachment', 'Loss', 'Recovery', 'Provision', 'APlan', and 'Tracking Info'. The table contains several rows of data, including 'First Accounts Date', 'Gross Loss', 'Estimated Loss', 'Traditional Estimated Loss', 'Not Traditional Loss', 'Total Loss', 'Recoveries', 'Intragroup Recoveries', 'Insurance Recoveries', 'Not Insurance Recoveries', and 'Reserve'. Each row includes a date and time stamp, and a checkbox for tracking information.

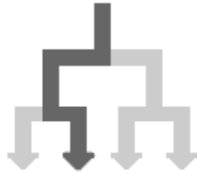
Main Info	Additional Info	Amount Info	EventAttachment	Loss	Recovery	Provision	APlan	Tracking Info
First Accounts Date		14/02/2006						<input checked="" type="checkbox"/> ORN1 - ORN1 17/02/2006 05:29:00
Gross Loss		120,000.00						<input checked="" type="checkbox"/> ORN1 - ORN1 17/02/2006 05:29:00
Estimated Loss		0.00						<input checked="" type="checkbox"/> LDC - LDC 17/02/2006 05:25:00
Traditional Estimated Loss		0.00						<input checked="" type="checkbox"/> LDC - LDC 17/02/2006 05:25:00
Not Traditional Loss		0.00						<input checked="" type="checkbox"/> LDC - LDC 17/02/2006 05:25:00
Total Loss		120,000.00						<input checked="" type="checkbox"/> ORN1 - ORN1 17/02/2006 05:29:00
Recoveries		0.00						<input checked="" type="checkbox"/> LDC - LDC 17/02/2006 05:25:00
Intragroup Recoveries		0.00						<input checked="" type="checkbox"/> LDC - LDC 17/02/2006 05:25:00
Insurance Recoveries		0.00						<input checked="" type="checkbox"/> LDC - LDC 17/02/2006 05:25:00
Not Insurance Recoveries		0.00						<input checked="" type="checkbox"/> LDC - LDC 17/02/2006 05:25:00
Reserve		0.00						<input checked="" type="checkbox"/> LDC - LDC 17/02/2006 05:25:00





# Workflow, messaging, user guidance

You have just modified the Event 14207 - Branch Theft.  
Now you can:



Return to [View or Modify the Event 14207 - Branch Theft](#) or

[Insert a new Event](#)  
[View all the existing Events](#)

[View all its Losses](#) or [Insert a new Loss](#)  
[View all its Recoveries](#) or [Insert a new Recovery](#)  
[View all its Event Attachments](#) or [Insert a new Event Attachment](#)  
[Insert a new Reserve](#)

Syst Admin / Bulletin Board

insert search global history create news download csv print

	From	Creation Date	Description	Event
1	<a href="#">CORINA</a>	18/02/2006 06:15:17	There are some ACTION Plan rea...	<a href="#">APlan</a>
2	Angela - Angela	17/02/2006 05:34:21	Loss Event Description	
3	<a href="#">CORINA</a>	17/02/2006 03:26:05	There are some Events ready fo...	<a href="#">Events</a>
4	<a href="#">CORINA</a>	16/02/2006 17:11:51	List of Events with field Orig...	<a href="#">Events</a>
5	<a href="#">CORINA</a>	13/02/2006 18:08:18	There are 13 Loss ready to be ...	<a href="#">Losses</a>
6	<a href="#">CORINA</a>	13/02/2006 18:05:13	There are some Events ready to...	<a href="#">Events</a>
7	<a href="#">CORINA</a>	25/01/2006 22:04:52	There are 3 Recovery ready to ...	<a href="#">Recoveries</a>
8	<a href="#">CORINA</a>	25/01/2006 22:01:23	There are some Events ready fo...	<a href="#">Events</a>
9	Robert - Robert	20/01/2006 16:27:52	Excel Template	
10	Angela - Angela	17/01/2006 10:54:49	Repair Loss Organization Unit ...	<a href="#">14205 - theft in agency of mil...</a>

mark as read mark as unread Viewing all 10 Records

# Dynamic Data Model

**Syst Admin / Tables**

**WARNING: You are acting as Administrator!**

<input type="checkbox"/>	<input type="checkbox"/>	<u>Code</u>	<u>Description</u>	<u>Key Sort</u>	<u>Creation Date</u>
<input type="checkbox"/>	1	<b>APlan</b>	APlan	25,236	10/02/2006 17:51:37
<input type="checkbox"/>	2	<b>APlanAttachment</b>	APlanAttachment	25,239	10/02/2006 17:51:37
<input type="checkbox"/>	3	<b>APlanStatus</b>	APlanStatus	25,238	10/02/2006 17:51:37
<input type="checkbox"/>	4	<b>APlanType</b>	APlanType	25,237	10/02/2006 17:51:37
<input type="checkbox"/>	5	<b>AccountCoord</b>	AccountCoord	0	10/02/2006 17:51:37
<input type="checkbox"/>	6	<b>AccountStatus</b>	AccountStatus	0	10/02/2006 17:51:37
<input type="checkbox"/>	7	<b>AccountType</b>	AccountType	0	10/02/2006 17:51:37
<input type="checkbox"/>	8	<b>AP_STATUS</b>	Action Plan Status	25,113	15/01/2006 18:45:48
<input type="checkbox"/>	9	<b>ACTION_PLAN</b>	Action Plans	25,111	13/01/2006 14:09:14
<input type="checkbox"/>	10	<b>ApplCol</b>	ApplCol	0	25/11/2005 13:31:51

Viewing 1-10 of 164 Records

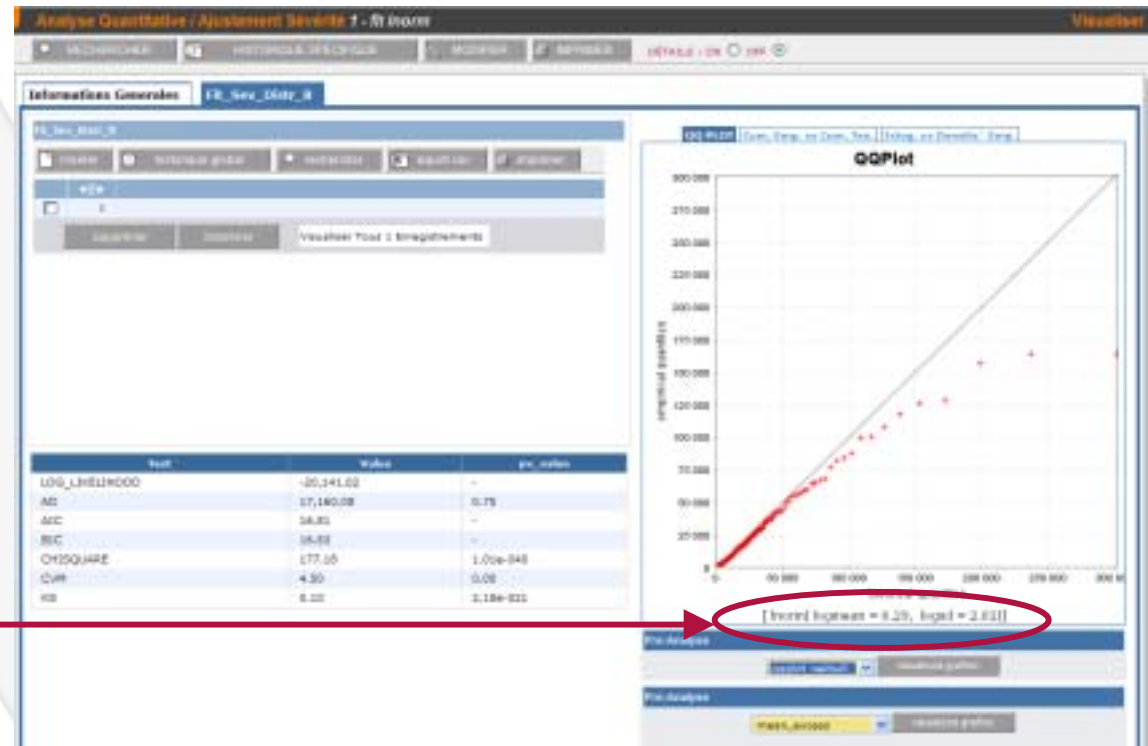


# Powerful statistical tools

Graphical view of distributions provides assistance for adjustments and further analysis.

OpRisk automatically calculates best values for each possible distribution

frequency



# Montecarlo Engine

Montecarlo engine also includes insurance schemes. This data has a direct impact on calculations.



Montecarlo engine calculates several million iterations in a few seconds.



# Controls Self Assessment

1- Controls are set up from Event Types associating Risk Factors and relevant controls

2- Questionnaires are built from this matrix distributed across the organization

Contrôles / Questionnaires - Sessions 1

RECHERCHER HISTORIQUE SPÉCIFIQUE IMPRIMER S'ACTIVER Masquer les informations de traçabilité - ON OFF ON OFF

Informations Générales

Département: 01\_02 - Banque commerciale

Questionnaire: Formulaire 02 - Procédure interne et externe Banque commerciale

Statut: 1 - Terminé

Workshop: 2 - Disponibilité de contrôle Procédure Interne et externe

Utilisateurs habilités à répondre: Angela - Angela, Robert - Robert

Réponses

	1	2	3	4	5	6	7	8	9
traçabilité des opérations bancaires	Pas de traçabilité des flux permettant des fuites et des fraudes			traçabilité des flux mais pas de procédure interne de contrôle			Très bonne traçabilité et contrôles actifs de contrôle		
Politique de motivation des salariés	Pas de suivi de motivation ni de moyens mis en oeuvre			Moyens mis en oeuvre mais pas toujours en adéquation avec les besoins exprimés			Moyens de motivation mis en place de manière personnalisée et très bien perçus		
Procédure de suivi des opérations bancaires afin d'éviter les fraudes	Pas de suivi mis en place			Suivi mis en place mais détournable			suivi très strict mis en place et suivi		
Procédure de sécurité des locaux et des biens	Procédure inexistante, toute personne extérieure peut facilement rentrer et sortir des bâtiments			Procédure pour les personnes extérieures mais moyennement suivie			Procédure d'entrée et de sortie des personnes extérieures très stricte		
Pratiques informatiques en matière de sécurité	Pas de firewall ni de restrictions sur les sites sensibles et les téléchargements			Firewall en place mais pas d'autres restrictions			Multiples firewalls et autres restrictions ne permettant pas d'infiltrer externe ni de fuite		
Procédure de sécurité des locaux et des biens	Procédure inexistante, toute personne extérieure peut facilement rentrer et sortir des bâtiments			Procédure pour les personnes extérieures mais moyennement suivie			Procédure d'entrée et de sortie des personnes extérieures très stricte		

# Controls : Scorecard



The screenshot shows the OpRisk Evolution Scorecard Aggregation interface. The interface includes a navigation menu on the left with options like Data Collector, Organizational Data, Scenario Analysis, Openness, Quantitative Analysis, and Score Card. The main content area displays a table with columns for various risk categories and a Total score. The table data is as follows:

	01 - Internal Fraud	02 - External Fraud	03 - Employment Practices and ...	04 - Clients, Products and Bus...	05 - Damage to Physical Assets	Total
01_01 - Company 1	47	51	79	37	22	43
01_02 - Company 2	53	50	44	44	44	48
01_02_01 - Company 2 - UD 1	49	79	44	26	78	57
01_02_02 - Company 2 - UD 2	78	78	100	82	44	78
01_02_04 - Company 2 - UD 3	41	44	23	42	78	48
01_03 - Company 2	52	70	44	70	22	45

The results of this Control Self Assessment module are regrouped in a Scorecard, showing the percentage of application, and colors to focus on existing problems (red).

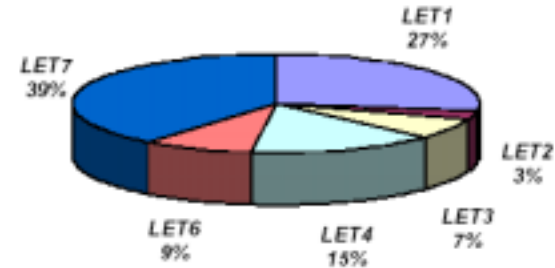


# Key Risk Indicators



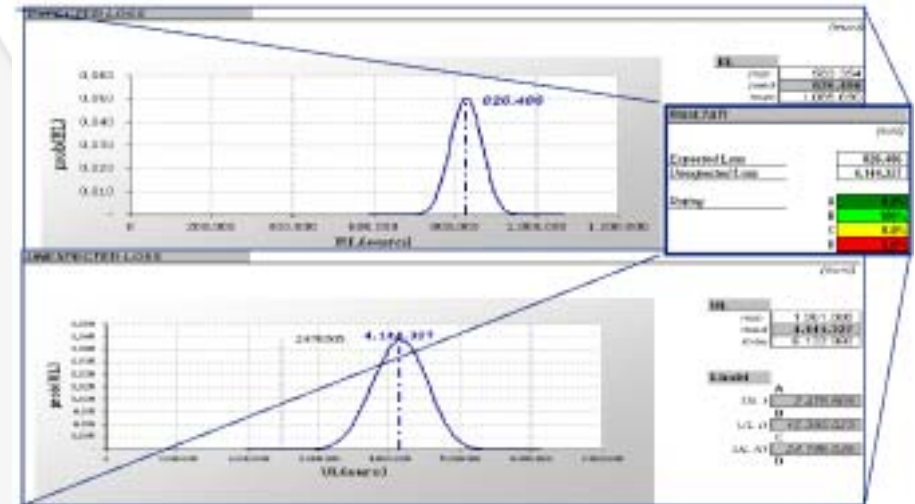
# Reporting

AMH: questions by Loss Event Type



Each query is exportable (Excel) and/or printable (PDF)

OpRisk Evolution can be easily interfaced to major analysis and reporting tools (i.e. Business Object, Crystal Reports, etc.)





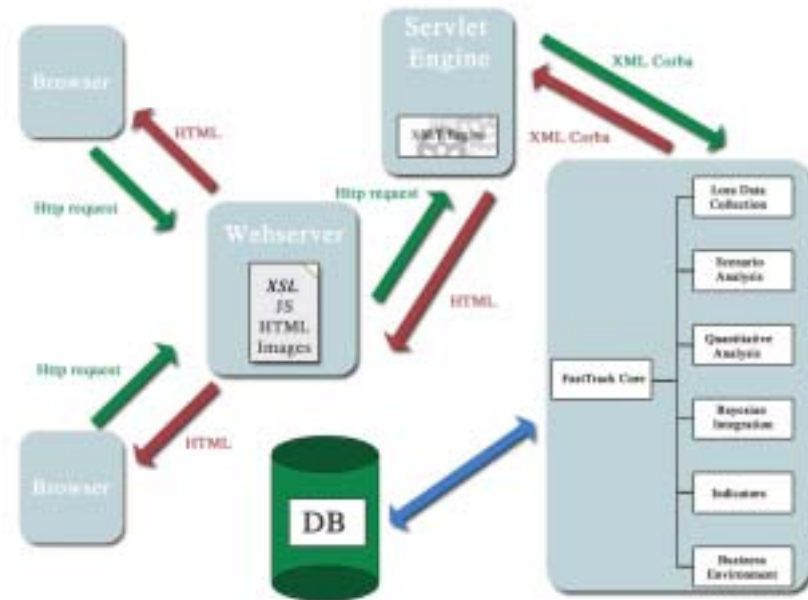
# Open & Evolutive Architecture

OpRisk Evolution is based on **FastTrack©**, List's technology platform guarantying:

➤ **load balancing** & automatic **fail-over**

➤ **openness**: ease of integration with existing infrastructure and data flows (e.g. accounts)

➤ **evolutive**: ease of continued adaptation to banks' specific needs



# Easily distributed & personalised

Thanks to its powerful Graphical User Interface and full web structure, OpRisk Evolution can adapt to all organisation type:

- easily **distributed** via intranet and/or web within the organisation
- Look and feel easily **personalised** using stylesheets and XSL

OpRisk Evolution provides a consistent interface for all users contributes to **diffusion of a common language** within the organisation, as well as **promotion of an operational risk culture**.

