Eclipse Open Financial Markets Platform

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INFORMATION MANAGEMENT

Agenda

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- Motivation and Background
- Project Victoria
- Eclipse Open Financial Markets Platform
  Idea and Goals
- OFMP – Architecture
- OFMP – Next Steps
- Demo

About WeigleWilczek

WEIGLEWILCZEK

- Coaching and Training – founder of the Eclipse Training Alliance
- Custom Enterprise Software Applications
- Development and support of Eclipse-based solutions
- Requirements Engineering
- IT Project Management
- Architecture Consulting
- IT Change Management
- More information at: www.weiglewilczek.com

eclipse FOUNDATION MEMBER™

Satisfied Clients

- IBM
- Siemens
- Bosch
- SunGard
- TXB LB
  - Transaktionsbank
- Daimler
- ARZ
- APC
- Johnson&Johnson
- Thales Group
- Otto Group
- Roche
- Ministry of Finance of Estonia
- …

Project „Victoria“

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- Victoria was initiated by Financial Markets of Luxembourgian Bank
- Goal: Creation of a middle office financial markets application
- Kick Off: April 2006
- Prototype: August 2006 based on Eclipse RCP / J2EE
- Implementation started October 2006
- First Release: March 2007 for Forex Desk
- Approx. 4.5 person-years of development
- 1.5 years of production

Financial Markets – Workflow Overview

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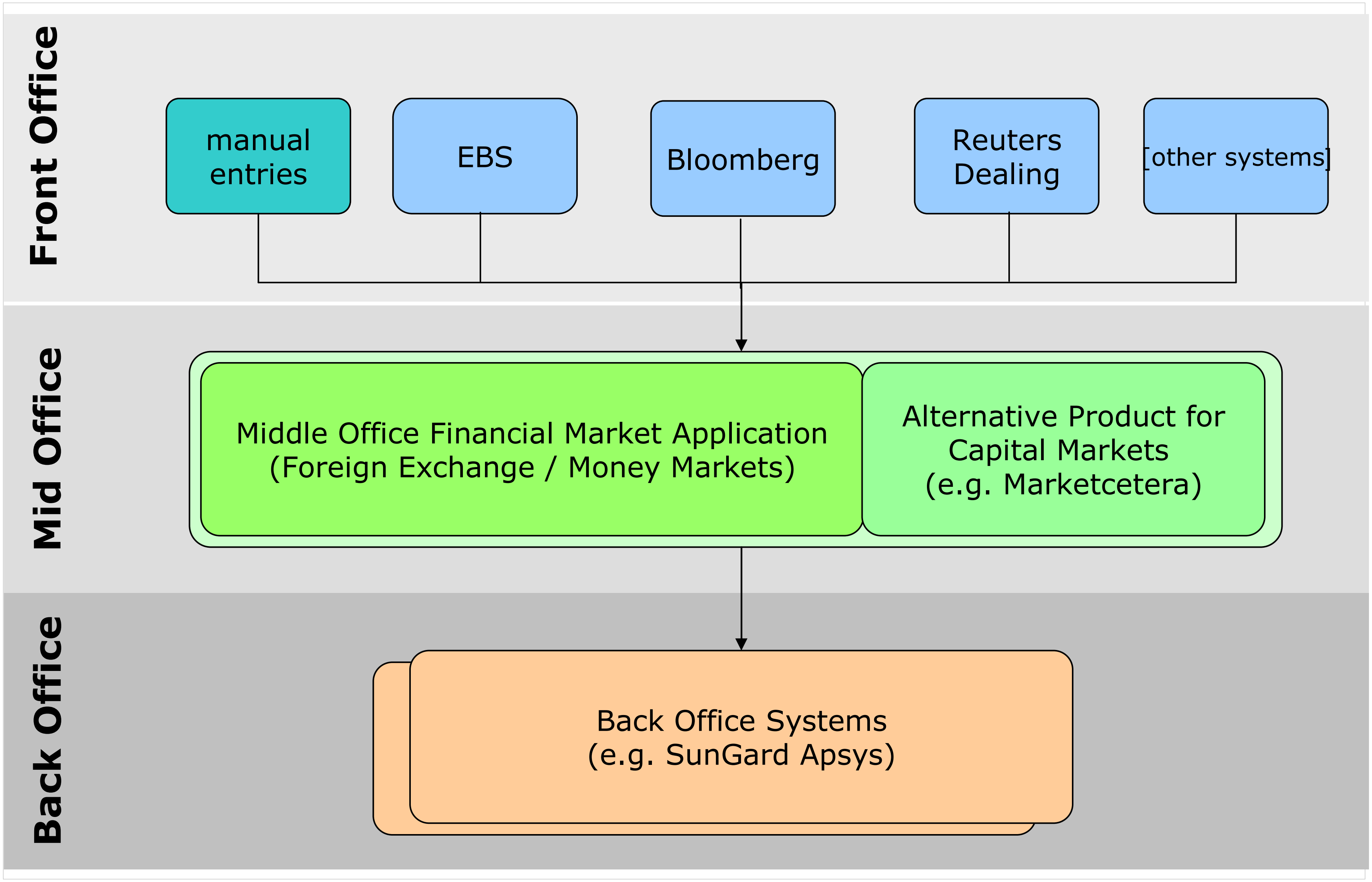

Victoria - Architecture Overview

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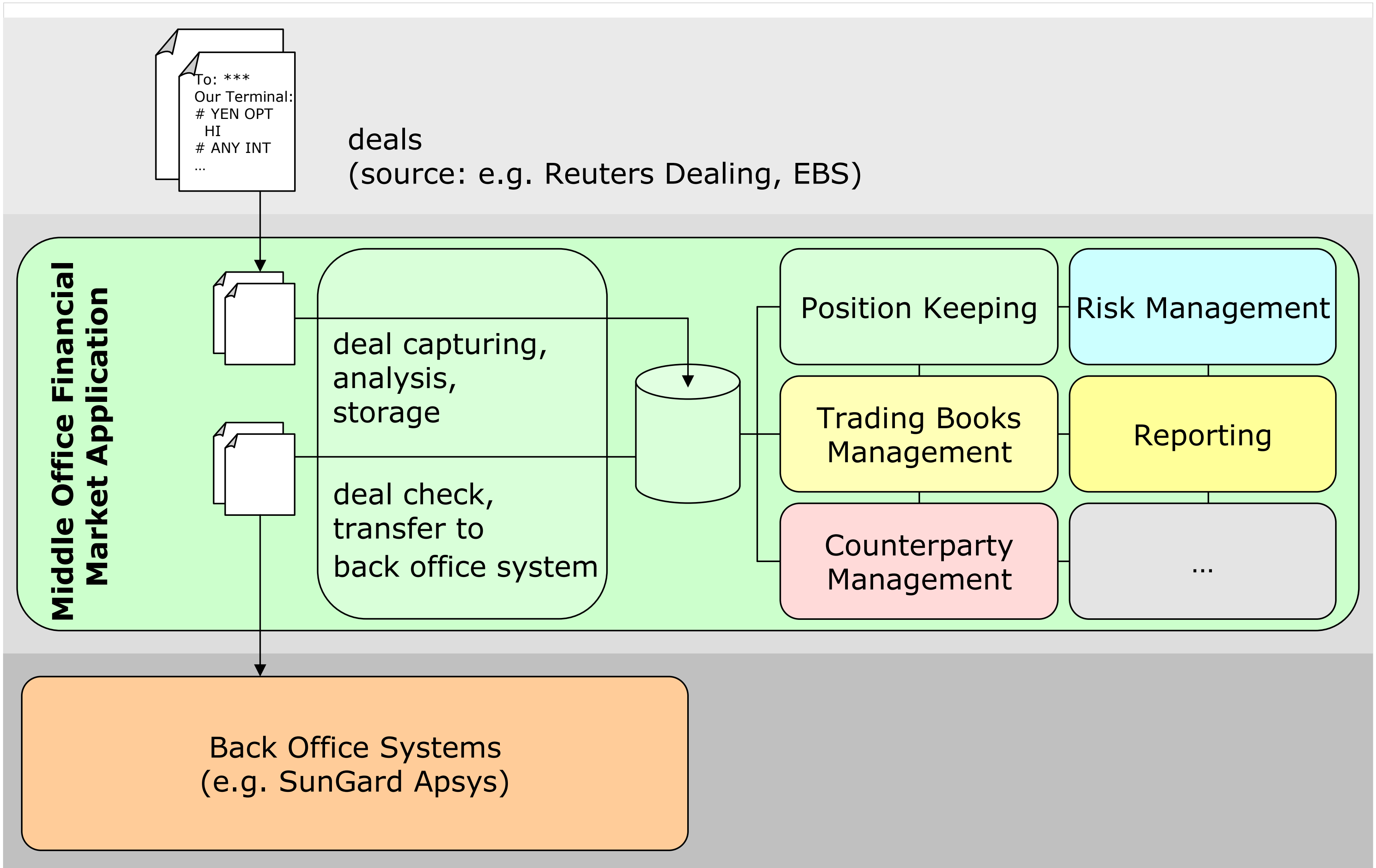

Victoria – Technologies

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- JBoss AS and J2EE/Spring Framework
- Eclipse RCP
- Java Web Start for Deployment with WebRCP
- Eclipse Data Binding through RCML
- IBatis Persistence Framework
- Acegi Security
- JUnit Tests Suites
- Client Notifications and STP Workflow based on JMS
- BIRT
- PDE Headless build

Victoria – Feature List

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- STP Front Office to Back Office workflow
- Ticket Input Gateway (TIG)
- Interfaces to Reuters 3000 Xtra ®
  and EBS ® trading platforms
  - TOF Protocol support
    (Reuters Ticket Output Feed)
- Forex Desk support
  (Spot, Forward, Swaps)
- Money Market Desk support
  (Loan and Deposits)
- Business Date Management
- Banks and customers counterparties management
- Portfolio Management
- Position Keeping
- Account Manager deals' Profit and Loss
- Currency Rates
- CLS compatibility
- Automatic and On-Demand Reporting
- Automatic and semi-automatic deal validation
- Job Scheduler
- User/Roles security management

Open Financial Markets Platform – Idea

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- Domain specific, collaborative software development
- Share development tools, frameworks, protocols, functional modules
- Don‘t reinvent the wheel
- Create an integration point for existing banking / finance applications
- Ensure long-term support for the platform
- Avoid black box and vendor lock-in

Eclipse Open Financial Market Platform

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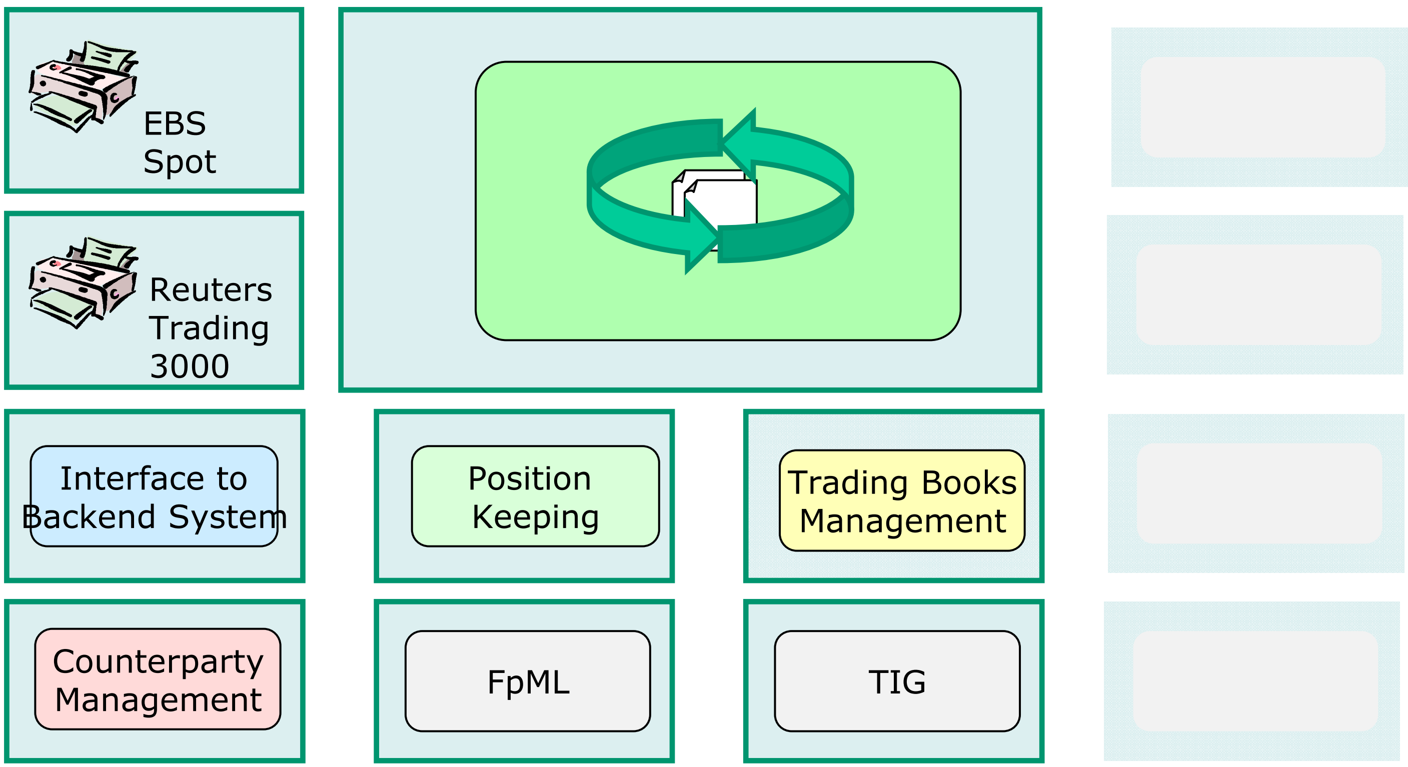
- Specific development tools, functional modules, protocols and frameworks for financial markets



OFMP Project

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- Project created – incubation phase started January 2008
- First commit in March 2008
- Milestone 1 – November 2008 – Basic services
- Support welcome!

OFMP Architecture

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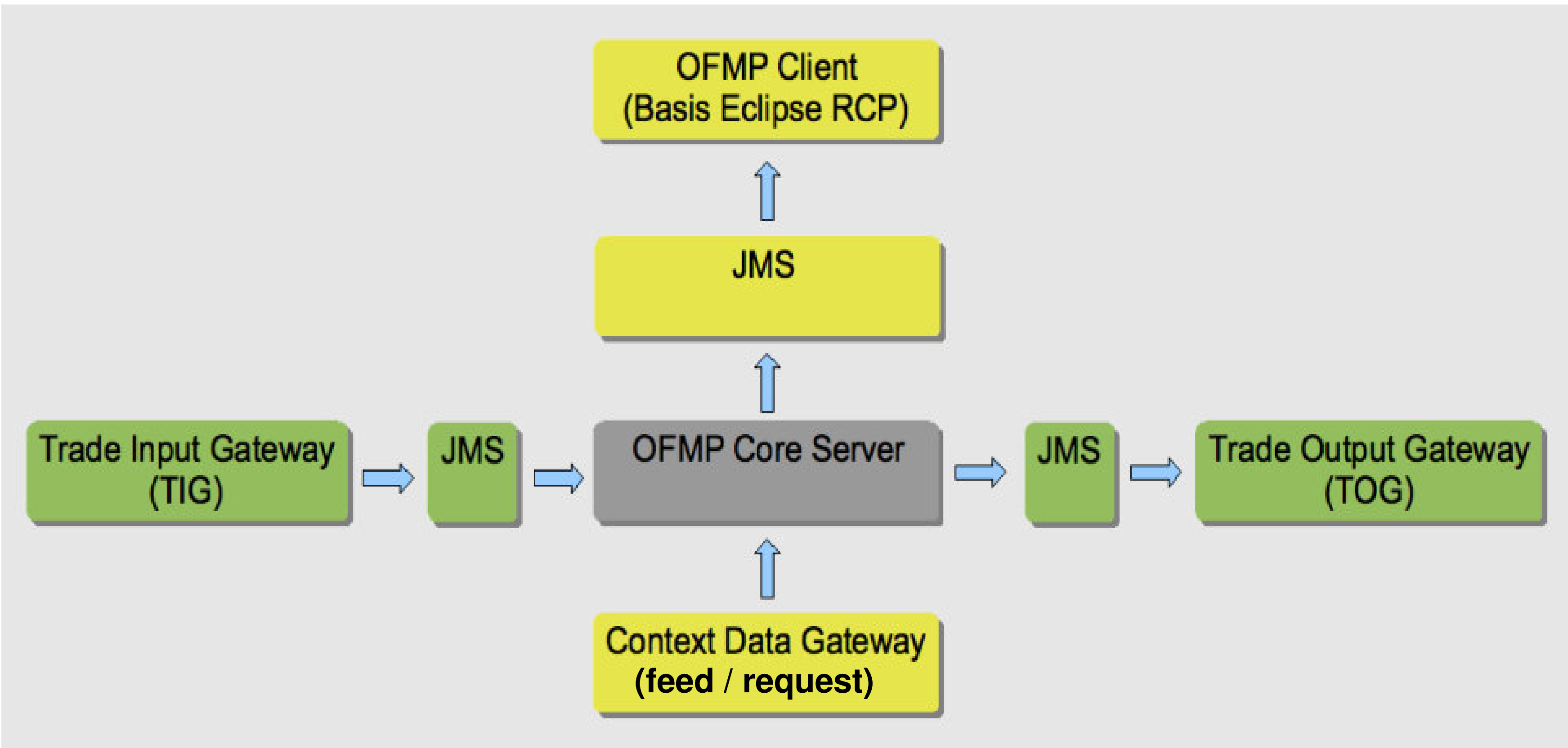

Functional Structure

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Common
- Background job scheduler
- Business rules engine
- Reporting infrastructure
- Currency calendar
- ...

Risk Controlling
- Real time position keeping
- Intra-day risk management
- Reconciliation process
- Position mark to market
- ...

Environment Definition
- Market data management
- Counterparty management
- Trading guidelines management
- Trading books management
- ...

Risk Management
- Market risk measurements
- Derivatives instrument pricing
- Stress testing
- Monte Carlo methods
- Simulations
- ...

Business Standard
- CLS Compliancy
- P&L Calculation
- Order management
- ...

Technology oriented ⟷ Business oriented

Start with Basic Components...

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- Counterparty Management
- Currency Services
- Date Services
- Reporting Services
- Calendaring Services
- QuantLib Wrapper
- Position Keeping
- Portfolio Management

Next Steps - Technology

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- Support FpML (fpml.org)
- Support FIX Protocol
- Port everything to OSGi
- Use SOA Service Bus
- Model Driven Architecture

Next Steps- Business Logic

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- Profit and Loss
- Support classical derivative products:
  - TRS, IRS, Currency and Equity Options
- Real-time mark-to-market
- Integration of QuantLib

Potential Future Steps

- Integrate capital market
- Limits Management
- ...

Code Contribution - RCML

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RCML combines XML and JavaScript to program and configure rich clients based on Eclipse's Rich Client Platform (RCP) in a very efficient and cost effective way. RCML allows you to quickly build interactive, Java-based rich client applications based on SWT/JFace.

RCML is used in the initial code base to define views and perspectives, simplify UI Data Binding, specify reports, define custom business-oriented testing languages and customize services.

www.rcml.net

Roadmap 2008

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Date	Version	Description
2008 - January		Project Creation Review
2008 - March	1.0 M1	Sanitize source code OSGi based Front Office Gateway
2008 - June	1.0 M2	Forex Profit and Loss Single OSGi bundle server Extract third party libraries to standalone bundles
2008 - September	1.0 M3	Position Keeping, Counterparty, Currency, Date and Calendar services moved to OSGi Spring Remoting
2008 - December	1.0	Fully OSGi based server

→ Bigger commit planned for December 2008

Banking Industry Working Group

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In collaboration with OFMP Project Team, this IWG is planned to:

- Collect and produce business requirements and analyses;
- Ensure a generic definition to ensure a broad market interest in these functions;
- Act as an advisory board on OFMP functional and technical roadmaps;
- Act as OFMP promoters in their industry.

Key Benefits I

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- Use OFMP as a banking specific, Eclipse based framework
  - Protocols
  - Tools
  - Functional modules
- Use OFMP for integration purposes

Key Benefits II

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- Collaborate on things you need within the OFMP project community
- Use expertise of OFMP team for your individual software projects
- Influence OFMP roadmap by bringing your requirements to the Banking Industry Working Group

Demos

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- Basic OFMP Demo
  http://www.covariance.lu/docs/OFMP_Presentation.htm
- FX Portfolio Demo
  http://www.covariance.lu/docs/fx_portfolios_demo.htm

Additional Information

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- www.eclipse.org/ofmp
- news://news.eclipse.org/eclipse.technology.ofmp
- www.ofmp.org (pre-Eclipse)
- www.covariance.lu
  (OFMP Blog with online demo)

Contact Information

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