



Remunerate

# Remunerate 5.5

Design and Architecture

White Paper

# Remunerate Design and Architecture



**Remunerate**

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Version 2.0, April 2009



### Contents

Contents .....	3
Overview .....	4
Architecture .....	4
Performance .....	5
Configuration .....	6
Principal Classes .....	6
Employee .....	6
Position .....	6
Review Group .....	7
Position and Incentive Reviews .....	7
Secondary classes .....	7
Code Generation .....	7
Multi-Currency Support .....	8
Workflow Support .....	8
Security .....	8
Recognitions .....	8
Summary .....	9
Design highlights .....	10
Technology Overview .....	10
Server .....	10
Client .....	10
Client/Server communications .....	10

# Remunerate Design and Architecture



## Remunerate

### Overview

Remunerate is an Enterprise Compensation Management solution. It is an advanced software solution that facilitates the efficient delivery of salary and incentive reviews for medium to large organisations. Remunerate provides line managers and HR personnel with a secure online environment for performing salary and incentive reviews for the entire workforce.

This paper covers the technical aspects of Remunerate – how it has been designed, how it has been developed and how it works.

### Architecture

Remunerate has been designed with performance and integration in mind. Remunerate implements a full n-tier client/server architecture with the client implemented entirely within a browser environment. The client application is not a traditional browser-based HTML client, rather it is a fully functional UI implemented in JavaScript and Dynamic HTML providing the interactive behaviours more commonly associated with fat-client desktop applications.

Remunerate makes extensive use of standards-based web services (SOAP over HTTP/S) for communication between the client and server tiers. As a result, all facets of Remunerate have been exposed for easy integration with EAI platforms and other web services technologies including orchestration engines such as:

- Microsoft BizTalk Server

- IBM WebSphere Process Choreographer

- Oracle BPEL Process Manager.

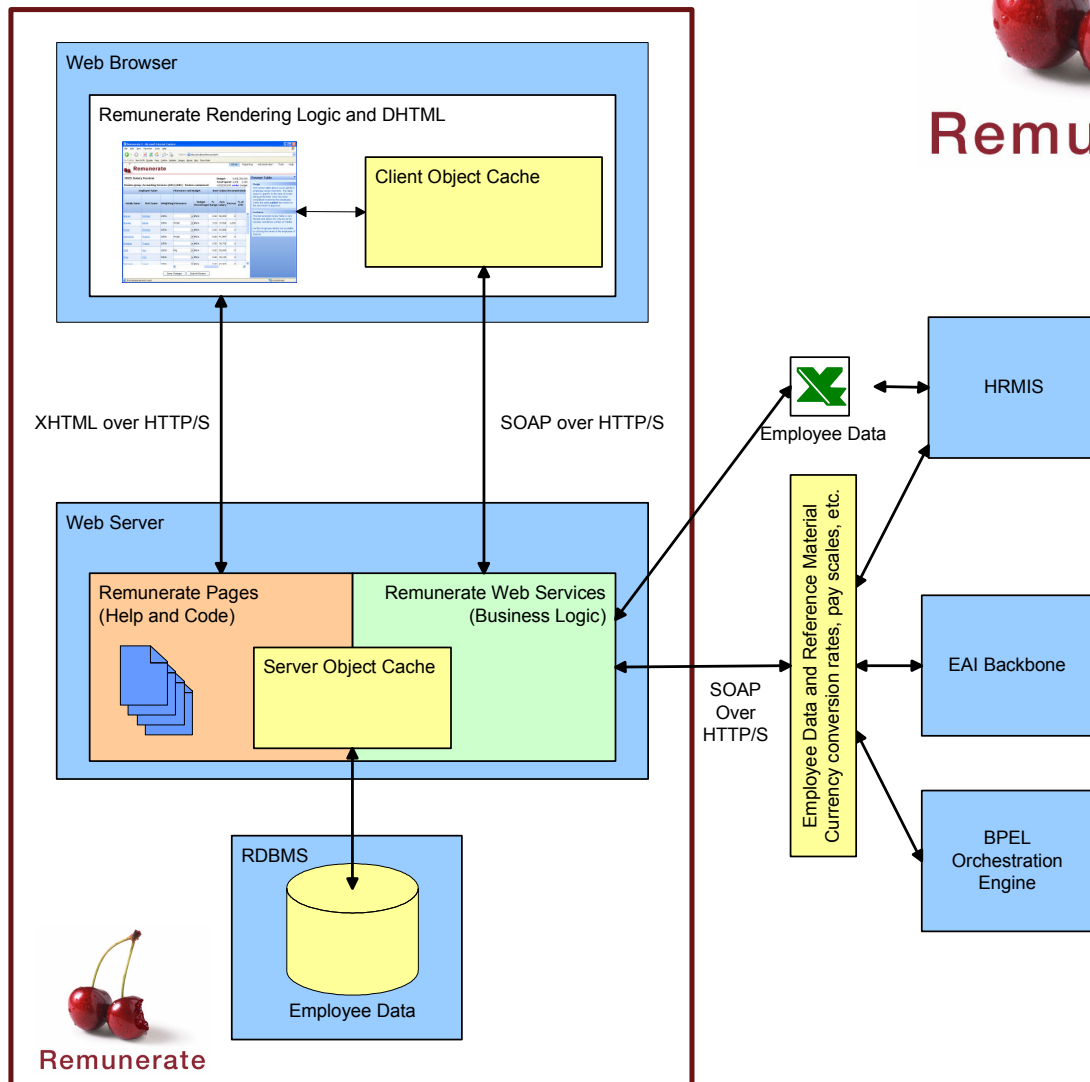
Remunerate also supports data import and export through Microsoft Excel spreadsheets for integration with older legacy business systems.

All of the Remunerate functionality is delivered through a common and intuitive web browser interface with no additional client software requirement. Remunerate has been using this architecture since its initial implementation in early 2001 but more recently a new term, "AJAX" (or Asynchronous JavaScript And Xml), has been coined to describe applications of this nature.

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**Figure 1 - Overview of the Remunerate Architecture**

In its middle tiers, Remunerate makes use of an advanced meta-data engine that provides for extensive end-user configuration of the Remunerate data model. With skills similar to those of an advanced Microsoft Excel user, Remunerate can be tailored to match the data model of any existing HRMIS allowing for easy integration and continuity of concepts between Remunerate and other business applications.

## Performance

Remunerate is designed for the global organisation and overcomes the limitations in network connectivity typically present across international boundaries.

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Remunerate caches data extensively in both the server and client tiers to ensure that data is only loaded when it is required, and only loaded once per session thereby eliminating unnecessary network interaction and reducing load on the application server.

Remunerate's AJAX architecture ensures a rapid user response time within any given function.

## **Configuration**

Remunerate uses a meta-model and code generation for both the server and client data that enables organisations to configure Remunerate to the requirements of their existing business.

## **Principal Classes**

Remunerate uses five principal object classes, each of which is end-user extensible using the meta-model definition tools:

- Employee,
- Position,
- Hierarchies,
- Position Reviews / Review Types.

## **Employee**

Employee objects contain information pertinent to a particular individual regardless of the role they perform within the organisation. Information such as name, date of birth, gender, and contact details are commonly recorded against an Employee.

## **Position**

A Position is the instantiation of an employee performing a position description. Typically a position will include information such as job size, rate of pay, incentive plans information, key performance indicators, and performance review data.

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### **Hierarchies**

Hierarchies are used to define hierarchical structure, such as Review Groups, office geographic locations (Region – Country – State – City), job position structure, product code structure, etc.

Hierarchies are also a reporting unit to allow for cross-organisation comparisons, and support granular security, allowing manager access to one or more hierarchy structures at the levels that apply to them. For example, the State Manager may have review responsibilities for a specific review group, but may also need view (reporting) access to all employees within the state he is responsible for.

### **Position Reviews**

Position Reviews (or Review Types) contain data related to specific review type and/or instance. Multiple Position Reviews can be defined which suit your organisations requirements and terminology, such as Incentive Review, Base Salary Review, Fixed Remuneration Review, Performance Review, Bonus Reviews, etc. Within Remunerate these are all just different versions of a Position Review (Review Types). The finished review data can be retained for historical reference, or exported from Remunerate to be imported into the appropriate reporting HR system.

### **Secondary classes**

Associated with the principal classes are a number of secondary classes. These are attached to the principal classes to create a comprehensive model of your business data.

### **Code Generation**

Modifications to the Remunerate meta-model result in a new definition for each of the principal class types. Remunerate generates, compiles and uses these new .NET classes for managing the underlying business data.

Once saved, changes to the meta-model flow throughout Remunerate, updating the SOAP interfaces and the client-side JavaScript code, ensuring that the data model is maintained consistently throughout the application.

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Extensive use of code generation is also applied around incentive plans, allowances and budget calculations to provide the flexibility required to align Remunerate to existing business policies and procedures.



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### **Multi-Currency Support**

Remunerate has built-in support for the multiple currencies that are required to support the payment needs of a global workforce. Reviews are conducted in the payment currency of each employee while comparison across an organisation can be completed in a currency-agnostic way to ensure relativities are maintained globally.

### **Workflow Support**

Remunerate provides a flexible workflow that allows for dynamic routing of reviews around the organisation, ensuring that the right people are involved in the review and approval process. Different workflows can be defined for each review type if required.

### **Security**

Remunerate utilises a rights-based security model. Security to employee data is delivered with a granularity that allows delegation of authority to anyone in the organisation based upon any characteristics of the employee data. These roles and rights are defined through the Remunerate user interface and assigned to system users to control their level of access to Remunerate facilities.

Users are authenticated to Remunerate either through integrating with pre-existing single sign-on (SSO) infrastructure, or internally by username and password managed by the Remunerate system itself. All access to the Remunerate system is controlled by the Remunerate system administrators without external dependencies on IT staff.

### **Recognitions**

Remunerate has been recognised as a Microsoft Gold Certified Partner for the Independent Software Vendor (ISV) / Software Solutions, having been independently tested by Lions Bridge in 2008.

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## Summary

Remunerate is a business solution for global enterprises developed on the latest technology platform from Microsoft using the very latest techniques for web-based applications. It is scalable, end-user configurable, and readily supports integration with third party products. Remunerate provides a complete solution for employee remuneration review.



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## Remunerate

### Design highlights

- Developed using the Microsoft .NET Framework and delivered as an ASP.NET web application.
- Extensively customisable through browser-based end-user functionality.
- Cutting edge AJAX architecture using SOAP/XML over HTTP/S for the best user experience possible with today's browser technology.
- Pure HTML and JavaScript client for easy deployment to users - no client-side components or Java Applets.
- Comprehensive client-side object model generated using class introspection.
- Client-side and server-side caching for optimum performance and scalability.

### Technology Overview

#### Server

Microsoft ASP.NET

Languages: C#, JScript.NET<sup>1</sup>

Database: SQL Server 2005

Operating System: Windows 2003 Server<sup>2</sup>

#### Client

Internet Explorer 6 or later<sup>3</sup>

Languages: DHTML, XHTML, JavaScript

#### Client/Server communications

Code: XHTML over HTTP/S

Data: W3C compliant web services (SOAP/XML) over HTTP/S

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<sup>1</sup> Server-side JScript.NET classes are generated and compiled at runtime.

<sup>2</sup> Support for the mono framework and associated platforms is scheduled for future releases.

<sup>3</sup> Support for Firefox and other AJAX capable browsers are scheduled for future releases.

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The Remunerate web site can be found at [www.remunerate.com.au](http://www.remunerate.com.au)

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