Yphise

Software Assessment Report

Corporate integration portals

EXECUTIVE volume

This volume is a component of the Yphise Software Assessment Report (see chapter entitled "Yphise Software Assessment Reports").

Yphise is ISO 9001-certified in software assessment

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This EXECUTIVE SUMMARY condenses the results of Yphise in-depth research published in the REQUIREMENTS and DETAILED EVALUATION volumes. These provide you with a comprehensive assessment of the evaluated products according to our ISO 9001-certified method.

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FULL DETAILED REPORT "Corporate integration portals"			
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Contents

FOREWORD

OVERALL PRESENTATION

CORPORATE INTEGRATION PORTALS
MARKET SEGMENTATION
ASSESSMENT DIMENSIONS

OVERALL RANKING

RANKING BY ASSESSMENT DIMENSION

- 1. MANAGING THE ACCESS TO VARIOUS RESOURCES
- 2. PROVIDING NUMEROUS USERS WITH A WORK INTERFACE
- 3. ENSURING A RELIABLE SERVICE LEVEL
- 4. ENSURING A RAPID ROI OF THE CORPORATE PORTAL
- 5. ADAPTING THE PORTAL TO CORPORATE ENVIRONMENT CHANGES

THE ASSESSED SOFTWARE PRODUCTS

CLEVERPATH PORTAL

HUMMINGBIRD PORTAL

ORACLE 9iAS PORTAL

PLUMTREE CORPORATE PORTAL

WEBSPHERE PORTAL

YPHISE SOFTWARE ASSESSMENT REPORTS

Foreword

Objective of the EXECUTIVE volume

This volume is a component of the Yphise Software Assessment Report (see chapter entitled "Yphise Software Assessment Reports").

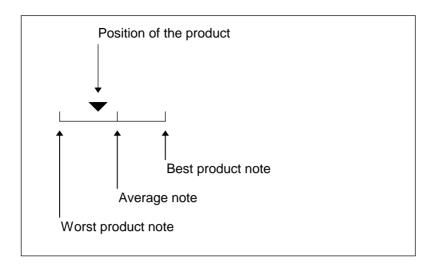
It is designed to monitor developments of the software product market and to select a short list

- It assesses the maturity and opportunities of the products available.
- It highlights the list of software products that we consider of interest to large companies. Our experience has shown that products do not always satisfactorily provide the functions that we expect, based on vendor positioning. As a result, many improper selections of software products are made.
- It highlights the strengths and weaknesses of each software product, based on our detailed assessment conducted according to our ISO 9001-certified methodology. It provides a top-down ranking of the products and it outlines our opinion.

The charts

The charts in this volume aggregate all the results, criterion by criterion, established in the corresponding DETAILED ASSESSMENT volume.

- Sorted Aggregated Table. The products (lines) and chapters (columns) are both sorted so that the best notes appear at the top left as much as possible. This chart provides a ranking of the products in descending order from top to bottom, and a best-to-worst ranking of the chapters from left to right.
- Ranking chart. The best product on a dimension has the highest ranking.
 - ⇒ This does not mean it is excellent. This is the reason the icon representing the note obtained by the best product is drawn at the end of each dimension.
 - ⇒ An identical gap between products does not have the same significance for each dimension. On a dimension where the best application is average, a product can be ranked as being clearly better than another one just because it has a "little extra".
- Strength and Weakness List.



Corporate integration portals

Added value

Various changes in the enterprise have effects on the information system:

• The multiplicity of data sources makes it difficult to find the right information. It also raises security and information access problems. The diversity of user profiles makes it difficult to provide personalized information to each user based on user privileges.

Bank2. "The confidentiality of our customers' data is subject to strict control. A security flaw could have serious consequences for the company. On the other hand, our collaborators need complete information on customers in order to be efficient. Mastering this contradictory situation is a major issue for us."

- The development of mobile computers and devices raises difficulties for access to information system resources. Remote users want to use their laptop or handheld device in order to access corporate resources.
- The number and variety of information sources is increasing. Business tasks often require information from various sources, e.g. databases, ERPs, business applications, office automation documents and Web sites. End-users must use various tools related to the various sources and shift between the views provided by each tool. This makes information processing difficult.

Corporate portals make use of the Web browser as a unified access point to the information that corporate employees require. These portals manage content heterogeneity and information security. They make it easier to organize information according to the business organization. They help provide the collaborators with accurate and up-to-date information.

Indus1. "We must guarantee that our collaborators use the information applicable to their tasks. It is also important that they do not use outdated information, as this could lead to errors with serious consequences."

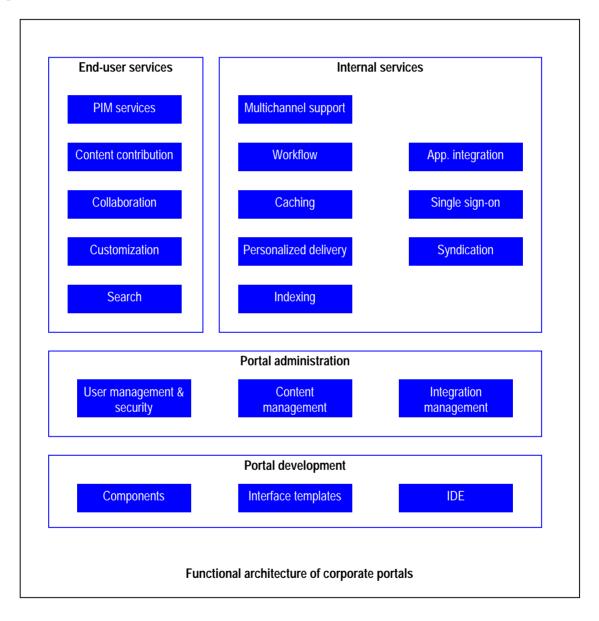
The corporate portal grants business managers autonomy in the management of business information relevant to their departments and collaborators.

Functional architecture

Corporate portals provide the following functions:

• End-user services. The portal provides its users with services such a personal information management (PIM) through calendars, email and bookmark management. It facilitates access to information by using advanced search capabilities. It allows users to customize the content (e.g. through subscription) and its display. It also provides them with collaboration features such as document sharing and discussion boards.

• Internal services. In order to access the information resources easily, the portal provides connectors that allow integration into the corporate applications. It also supports syndication protocols in order to integrate live content from other Web sites. It facilitates access to various information resources by using single sign-on capabilities. It makes it possible to access its content by means of various terminals such as Web browsers, cell phones and personal assistants. It helps access all available content by indexing the content text and its metadata. The portal also accelerates access to the most requested content, through caching. In order to help administrators organize the work among themselves, it provides them with workflow functions.



• Portal administration. The portal makes it possible to manage the numerous users accurately within a directory. It helps control user privileges in order to ensure the security of the information resources. It helps administrators manage the content (e.g. addition, publishing, updating) and integration of the portal into the corporate information resources.

•	Portal development. The portal provides the necessary functionality to extend its features through specific components used within an integrated development environment (IDE). It also helps customize the work interface by providing designers with reusable templates.		

Market segmentation

Positioning

The corporate portals are used in business-to-employee (B2E) and business-to-business (B2B) contexts. They provide a single interface for accessing the corporate information. This information belongs to various applications. The corporate portals allow the integration of heterogeneous information resources into a unified interface and allow control of the access by numerous and various users.

Corporate portal management software differs from Web content management software. Web content management tools specialize in content contribution management. The portal can rely on these tools for content management. Examples of Web content management software include Content Center (Divine), Documentum 4i WCM (Documentum), PVCS Content Manager (Merant), TeamSite (Interwoven) and V/6 Enterprise Application Portal (Vignette).

The corporate portal differs from collaborative document management software. The portal can interface with these tools, which lack application integration capabilities. Examples of collaborative document management software include Portal in a Box (Autonomy), LiveLink (OpenText), Panagon (FileNET) and SharePoint Portal Server (Microsoft).

The corporate portal differs from decision-support portals. Decision-support portals manage only business intelligence reports. Examples of decision-support portals include Axielle (Ascential), Business Intelligence Portal (Cognos), Information Delivery Portal (SAS), Brio.Portal (Brio Software) and InfoView (Business Objects).

The corporate portal differs from Web personalization tools. Corporate portal management software either provides its own personalization engine or relies on a third-party Web personalization server. Examples of Web personalization tools include Weblogic Personalization Server (BEA System) and Websphere Personalization (IBM).

The corporate portal differs from Web-to-host servers. Web-to-host servers allow access to host information through a Web interface. They do not provide access to other information resources. Examples of Web-to-host servers include Apptrieve (WRQ), Opal ii (Computer Associates), E-business Integrator & Intranet Connector (Scort) and Websphere Web Publisher (IBM).

The corporate portal differs from J2EE frameworks that provide a reusable, component-based architecture which helps in developing, deploying, monitoring, and managing the J2EE Webbased applications. These frameworks do not provide ready-to-use portal functions. Examples of J2EE frameworks include AltoWeb Application Platform (AltoWeb), RealMethods Framework (RealMethods), Struts (Apache Foundation) and Wakesoft Architecture Server (WakeSoft).

The corporate portal differs from Web application servers. Application servers are the processing infrastructure of server components. The portal components are installed on an application server. Examples of Web application servers include ONE AS (Sun

Microsystems), Oracle 9iAS (Oracle), Tomcat (Apache Foundation), Weblogic (BEA System) and Websphere (IBM).

The corporate portal differs from Web application development tools. The development tools provide functions in order to build the various components of the Web applications. Examples of Web application development tools include Jbuilder (Borland Software), Silverstream eXtend (Silverstream), WebGain (Webgain) and Websphere Studio Application Developer (IBM).

Software products assessed

Yphise assessed the products below, which can be divided into two groups, depending on their (in)dependence with regard to application servers:

- Tied to an application server: Hummingbird Portal (Hummingbird), Oracle 9iAS Portal (Oracle) and Websphere Portal (IBM). Hummingbird Portal is installed on the vendor's proprietary Core Services framework. Oracle 9iAS and Websphere Portal rely exclusively on their respective vendor's application server, i.e. Oracle 9iAS and Websphere.
- Available on various application servers: Cleverpath Portal (CA) and Plumtree Corporate Portal (Plumtree).

Yphise did not assess Epicentric Foundation Portal (Epicentric) and Citrix XPS (Citrix), because their respective distributors did not provide resources for the evaluation. Yphise policy is to recommend products only if sufficient skills and documentation are available.

Yphise did not assess ONE Portal Server (Sun Microsystems), because the product lacks integration between its components in order to make it a packaged ready-to-use portal.

Yphise did not assess Enterprise Portal Suite (ATG) and Sybase Enterprise Portal (Sybase), because their respective vendors did not demonstrate significant references. Enterprise Portal Suite is new to the market.

Yphise did not assess Net.Portal (Mediapps), because its vendor has no commercial presence outside Europe. Yphise recommends products that demonstrate worldwide availability. Also, the product lacks connection to corporate applications. It is therefore seen as a content aggregation and personalization portal and not as an integration portal. Integration could be done by using another product, Net.EAI.

Yphise did not assess Weblogic Portal (BEA Systems), because it is a framework that helps develop a portal. The product is based on its Portal Foundation Services, which provide base functionality for the development of portals.

Yphise did not assess Netegrity Interaction Server (Netegrity), because its distributor did not demonstrate sufficient responsiveness. The product was recently added to the vendor's catalogue, following the acquisition of DataChannel.

Market trends

Portal products are being ported to a larger number of Java application servers. Components of Plumtree Corporate Portal have been recently ported on Java application servers, after being a Windows-centric product. A new version of Hummingbird Portal, announced for the first quarter of 2003, would support commercial Java application servers. Even ATG and Sun Microsystems have announced that their respective portal products would support other application servers than their own (respectively, Dynamo and ONE AS).

Portals are being built by using reusable components. These components are known as eClips (Hummingbird), Gadgets (Plumtree) or Gears (ATG), but the commonly adopted name is Portlets (e.g. BEA, CA, IBM, Oracle and Sybase). The products either provide their own portlet development toolkits or integrate into development environments that help develop portlets rapidly. E.g. Sybase recently acquired OnePage, a vendor with a technology that facilitates the development of portlets.

In order to facilitate the integration of various contents and applications regardless of location and format, the portals provide compliance with Web services protocols and languages (e.g. SOAP, UDDI and WSDL). This would facilitate the setup of an integration portal, since a simple URL would be sufficient to integrate a resource that has been made available as a Web service.

Major pure players are acquired by the larger vendors. E.g. SAP acquired TopTier, Citrix purchased Sequoia, and Netegrity has recently integrated the portal technology from DataChannel. Of the remaining pure players, only Plumtree demonstrates a strong market presence. Epicentric has difficulty in consolidating its presence outside North America.

Assessment dimensions

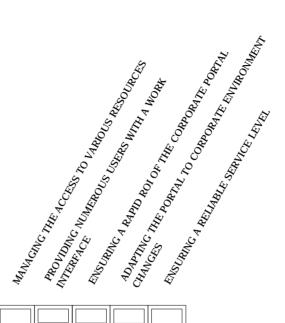
Overview

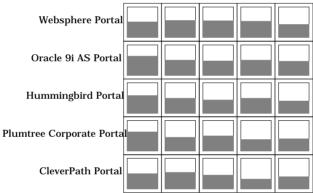
- Managing the access to various resources. The information resources needed by employees
 for their work are numerous, heterogeneous and distributed among various sites. This
 requires unifying the access to information resources. The corporate portal must provide
 easy and direct access to all the information sources required by corporate users.
 Management of access to the information sources and other administration tasks can be
 done either by technical or business administrators.
- Providing numerous users with a work interface. The portal centralizes access to the corporate information system. The number of its users grows rapidly, especially if some of the information is open to customers or partners. The portal must facilitate the management of these numerous users by letting the administrators define user profiles associated with accurate privileges. It must also facilitate personalization of the information content and layout in order to make its use more efficient.
- Ensuring a reliable service level. The portal becomes a real business work interface.
 Enterprises must not only ensure the availability of the information and facilitate access to it but also protect it. The portal architecture must be scalable. Managers need a robust and secure infrastructure in order to distribute information according to the needed level of service.
- Ensuring a rapid ROI of the corporate portal. Business managers want to ensure that the portal can be developed and deployed rapidly, while using limited resources. The portal must be easy to implement and to parameter. It must provide developers with ready-to-use components in order to facilitate and accelerate the setup of the Web-based interface to the corporate information system.
- Adapting the portal to corporate environment changes. A portal is impacted by all changes
 in the information system and business needs. Administrators must ensure its compliance
 with these changes. Portal evolution can be anticipated by analyzing the portal use. The
 portal provides administrators with accurate indicators and reports in order to facilitate its
 adaptation to changes.

Coverage of the requirements

- The best-covered dimension is "Managing the access to various resources". This is what portals should basically do: concentrate the access to various information resources. The coverage indicates the maturity of the assessed products. This facilitates the setting of a unified interface to access various information resources.
- The least-covered dimension is "Ensuring a reliable service level". This is due to lack of support of cluster technologies that help ensure high availability of the portal server. This is also due to lack of integration into commercial supervision tools that would help monitor the technical activity of the portal as a component of the information system. On the other hand, this could be ensured by the application servers on which the portals rely.



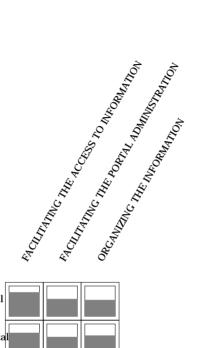


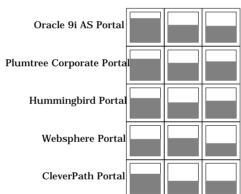


Overall ranking

- Websphere Portal stands out on "Providing numerous users with a work interface", thanks to its integration into Websphere Studio Application Developer, a development tool. This makes it possible to customize the portal interface and to help the administrators manage users accurately by adding information on users on the administration interface. This information can be retrieved from the portal repository or imported from other sources.
- Websphere Portal stands out on "Ensuring a rapid ROI of the corporate portal", because it
 makes it possible to automate the personalization of Web content based on rules. The
 product provides segmentation and rule engines that help define precise personalization
 criteria. This would help serve personalized pages based on both explicit and implicit
 information.
- Websphere Portal stands out on "Adapting the portal to corporate environment changes", because it helps ensure the consistency of portal evolution by providing reports on dependency between components. The product also helps check the integrity of services upon change, as well as audit the deployment of changed components.
- Oracle 9iAS Portal stands out on "Managing the access to various resources", because it
 facilitates management tasks by providing administrators with workflow features. It allows
 administrators to define both sequential and parallel steps and to control the assignment of
 tasks. These features are useful for mastering the portal administration tasks, since both
 business and technical administrators are involved in portal management.
- Oracle 9iAS Portal stands out on "Ensuring a reliable service level", thanks to its ability to interface with commercial supervision tools through an SNMP agent. This would help integrate the portal into overall supervision of information system operations.
- Plumtree Corporate Portal stands out on "Managing the access to various resources", thanks to its support of syndication protocols such as ICE and RSS. This facilitates subscription to the news headlines of the various information sources that provide content compliant with these protocols. The Job Server module makes it possible to graphically define rules that help the portal check for content updates and to control its publishing.
- The ranking of Hummingbird Portal on "Ensuring a reliable service level" is due its lack of support of Unix platforms and J2EE application servers. A version of the product for Solaris is announced for the third quarter of 2002. Support for Weblogic and Websphere application servers is announced for the first quarter of 2003.
- The ranking of CleverPath Portal on "Adapting the portal to corporate environment changes" is low, because it does not allow the modification of portal components independently from existing ones. It also does not assist the deployment of components. Administrators need to be guided when deploying new component versions in order to ensure the consistency of portal operations.

1. MANAGING THE ACCESS TO VARIOUS RESOURCES





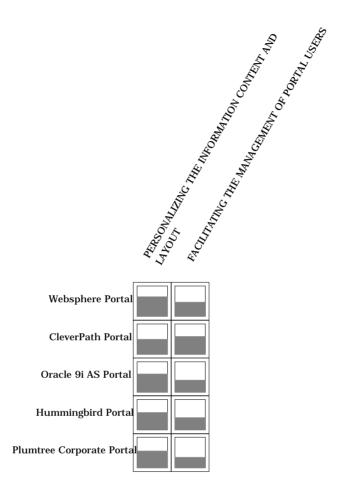
1. Managing the access to various resources

Overview

- Organizing the information. Efficient information distribution requires categorizing the various information types, identifying the information requirements of end-users and controlling the information flow. Business managers must be able to easily organize the information resources to be accessed through the portal. They define how the information is identified and they validate the information before they publish it.
- Facilitating the access to information. End-users must access information related to their business easily, regardless of the heterogeneity of the various information sources. Endusers want to access this information by using Web browsers and mobile devices. They do not want to drill through large amounts of information in order to retrieve the information they seek. They need help in searching and retrieving the information.
- Facilitating the portal administration. Administrators are numerous and have various profiles (e.g. technical and business profiles). The portal must support the distribution of its administration tasks among various administrators with different privileges. It must facilitate the administration tasks by providing a user-friendly interface and intuitive functions. Administrators also need to be guided in their work.

- Oracle 9iAS Portal stands out on "Facilitating the access to information", because it highlights the occurrences of a queried word in the search result. It also helps manage the linguistic versions of a given content. This would help provide the same content in various languages and thus facilitate access to information.
- Plumtree Corporate Portal stands out on "Organizing the information", because it helps organize the integration of content from various sources such as file servers, massaging servers, Web sites and EDM systems. Content from Web sites can be retrieved based on syndication protocols such as ICE and RSS. These protocols are widely used. This facilitates integration of external information into the portal.
- The ranking of CleverPath Portal on "Facilitating the portal administration" is due to its inability to associate administration profiles with management of specific portal components. Technical- and business-oriented administration tasks cannot be separated.
- The ranking of Websphere Portal on "Organizing the information" is due to its inability to add custom attributes to the content. These attributes are useful for content managers in order to organize the content items accurately based on the provided information.

2. PROVIDING NUMEROUS USERS WITH A WORK INTERFACE



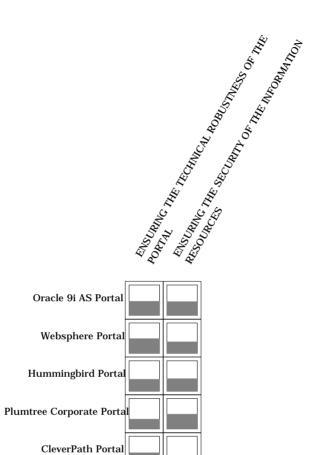
2. Providing numerous users with a work interface

Overview

- Facilitating the management of portal users. Portal users are numerous and various. These are corporate managers, employees, partners or customers. Administrators want to facilitate the management of all these users. The portal helps manage the users and their access to the information resources regardless of their number and variety.
- Personalizing the information content and layout. Managers and end-users need to gear the
 information content and layout to their own business requirements and work habits. The
 portal allows end-users to customize the information content and presentation easily.
 Meanwhile, it allows the managers to personalize the content delivery.

- Websphere Portal stands out on "Personalizing the information content and layout", because its helps end-users customize their pages by selecting the overall portal theme or the portlet appearance individually. This provides end-users with the ability to customize not only the content but also the look and feel of the portal pages.
- CleverPath Portal stands out on "Facilitating the management of portal users", thanks to its ability to add unlimited custom attributes to the description of portal users. The product differentiates the display of the custom attributes from the default ones.
- The ranking of Oracle 9iAS Portal, Hummingbird Portal and Plumtree Corporate Portal on "Facilitating the management of portal users" is due to their inability to customize the information on portal users.

3. ENSURING A RELIABLE SERVICE LEVEL

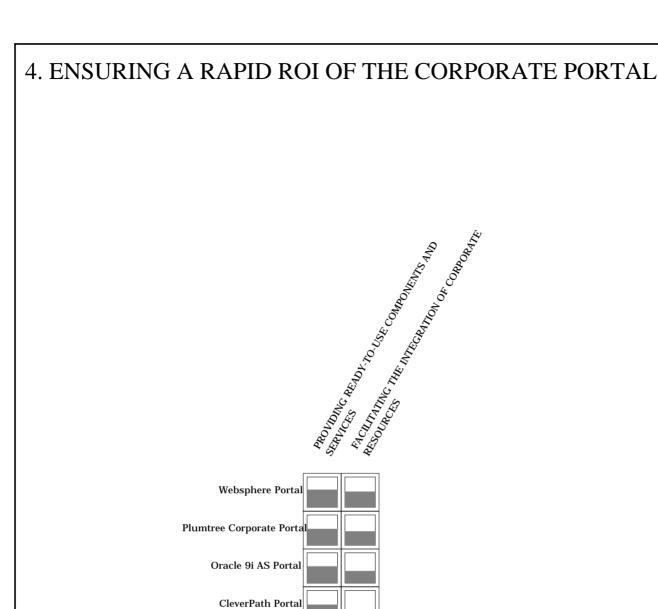


3. Ensuring a reliable service level

Overview

- Ensuring the technical robustness of the portal. In order to ensure portal high availability and to avoid information loss, the portal provides fail-over capabilities and high-availability mechanisms by distributing the workload among multiple servers. It allows administrators to monitor the technical execution and helps them anticipate problems.
- Ensuring the security of the information resources. Security managers need to protect corporate information and applications, as well as to control access to this information and these applications. Information managers decide what scope of information is available to each end-user according to business needs. The portal makes it possible to authenticate the users before they access protected information. It provides robust security in order to guarantee information availability and reliability.

- Oracle 9iAS Portal stands out on "Ensuring the security of the information resources", because it helps monitor the security of information access. It sends SNMP traps that can be read by commercial supervision tools. This is done thanks to the provided SNMP agent that helps integrate supervision of information security into centralized supervision consoles.
- The ranking of Plumtree Corporate Portal on "Ensuring the technical robustness of the portal" is due to its inability to supervise the technical activity of the portal. The product also does not allow installation of portal components on multiple servers managed by commercial cluster technologies. On the other hand, it does provide a load-balancing engine (MPPE-LB) that orchestrates distribution of gadget processing on numerous servers. These features are useful in order to ensure high availability and scalability.
- The ranking of Websphere Portal on "Ensuring the security of the information resources" is low, because it restricts the analysis scope of the information collected on portal security. On another hand, it does provide specific interfaces for commercial supervision tools, Patrol and Tivoli. This would help an IT department already using these tools to centrally monitor access to corporate information.
- The ranking of CleverPath Portal on "Ensuring the security of the information resources" is
 due to its lack of support for inactivity time-out for the single sign-on function. This feature
 is useful in order to ensure the security of the accessed information source. The inactivity
 time-out ensures that only active sessions are opened at the information source level. This
 prevents insecure connections.



Hummingbird Portal

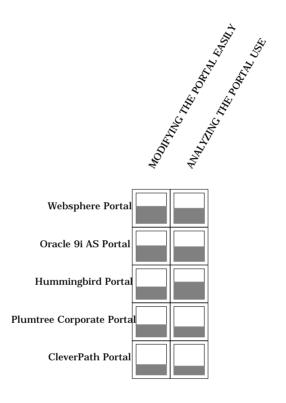
4. Ensuring a rapid ROI of the corporate portal

Overview

- Providing ready-to-use components and services. In order to facilitate and accelerate portal
 development and deployment, developers are provided with predefined and ready-to-use
 services and components that need little parameter definition. They are provided with all
 the needed components to set up a portal. Installation wizards and online help facilitate the
 setup of services and components.
- Facilitating the integration of corporate resources. The portal is used for unifying the access
 to numerous corporate applications on various platforms. Managers want to ease
 integration into these applications. The portal provides them with specific connectors for
 the applications in use in the enterprise. It also helps developers build new connectors for
 custom applications or information resources.

- Websphere Portal stands out on "Providing ready-to-use components and services", because it provides all the needed components to automate personalization of portal content. A segmentation engine and a rule engine are associated with a personalization engine in order to facilitate the serving of personalized pages based on explicit and implicit information on users. The product also facilitates integration into directories such as SecureWay Directory and Domino.
- Websphere Portal stands out on "Facilitating the integration of corporate resources", because it interfaces specifically with corporate applications, e.g. ERP systems such as Baan and EAI middleware such as Crossworlds. The product also facilitates development of custom connectors by providing an integrated development environment, Websphere Studio Application Developer.
- The ranking of CleverPath Portal on "Facilitating the integration of corporate resources" is low because it does not provide connectors for ERP and CRM products. Integration of these products is useful because corporate business relies on these products and because many employees use them. Integration would be facilitated since recent versions of these products provide Web interfaces.

5. ADAPTING THE PORTAL TO CORPORATE ENVIRONMENT CHANGES



5. Adapting the portal to corporate environment changes

Overview

- Modifying the portal easily. When changes occur in the information system or the business
 organization, the portal must be adapted accordingly. The portal helps in taking into
 account these changes easily. It helps ensure modification consistency. This helps ensure
 that services remain consistent with the underlying information infrastructure and business
 organization.
- Analyzing the portal use. Extending or improving the information access through the portal
 requires knowing what information is accessed and who has accessed it. Managers need to
 check the information use. The portal allows them to track all the activity and to collect
 precise information on portal activity. It provides managers with accurate reports in order
 to help them control the portal evolution.

- Websphere Portal stands out on "Modifying the portal easily", because it provides impact
 analysis and checks for dependencies upon deploying new versions of components. This
 helps ensure nonregression of portal operations, i.e. ensure portal evolution without
 impacting on existing services.
- Hummingbird Portal stands out on "Analyzing the portal use", thanks to its analysis capabilities. The product provides a license for the vendor's business intelligence product, Hummingbird BI. This helps build custom reports on portal activity. Managers can also use the predefined reports on various criteria such as the most frequently searched words.
- The ranking of Plumtree Corporate Portal on "Analyzing the portal use" is due to its inability to customize existing reports and to build new ones. Managers can use only predefined reports and display them within gadgets.
- The ranking of CleverPath Portal on "Analyzing the portal use" is due to its inability to record information on the services used and to customize the report layout. This requires another product, CleverPath Reporter.

CleverPath Portal ENSURING A RAPID ROI OF THE CORPORATE PORTAL ENSURING A RELIABLE SERVICE LEVEL ADAPTING THE PORTAL TO CORPORATE ENVIRONMENT CHANGES PROVIDING NUMEROUS USERS WITH A WORK INTERFACE MANAGING THE ACCESS TO VARIOUS RESOURCES Software Ranking Best software evaluation Average evaluation Worst software evaluation ©Yphise Ranking Chart -

CleverPath Portal

Opinion

- One of the strengths of CleverPath Portal is that it supports more application servers than the other assessed products do. The product allows installation of its components on Tomcat, Weblogic and Websphere. This openness provides a freedom of choice with regard to the underlying infrastructure. The Tomcat open source application server is integrated into the portal package.
- CleverPath Portal provides an opportunity for use as a proxy server. The product makes it
 possible to select whether the proxy functions are used or not, to select the proxy port and
 to filter access to selected addresses. These features are useful in order to control access to
 various information sources through the portal.
- CleverPath Portal is suitable for projects relying on the Linux mainframes (S/390). It is the only assessed product that provides specific support for this platform. This helps ensure the reliability of portal services.
- One of the weaknesses of CleverPath Portal is its lack of support for load balancing and for third-party cluster technologies. High availability and response to workload must be ensured, since the portal is used as a central activity node in the enterprise.

Vendor presentation

Developer CAVendor contacted CA

14 avenue Arago

92000 Nanterre, France Tel.: +33 1 40 97 50 50 Fax: +33 1 40 97 51 51

• Web site www.ca.com

• Development laboratory Islandia, NY, U.S.A.

• Hotline London, U.K.

New York, U.S.A. Nanterre, France

Software product presentation

• Version number 4.0

• Date of first sale December 1998

Price indication
Maintenance
Training
Setup services

Starting at 20,000 Euros
20% of purchase price
Administrator: 2 days
1,000 Euros per day

• User group No

• Recent developments Support of Web Services

Spidering

Automatic categorization Visualization services Wireless support

• Announced functions Dynamic configuration of workplaces and portlets based

on activity

Integration into CleverPath Predictive Analysis

Integration into eTrust Directory

• Main environments AIX, HP-UX, Solaris, Linux (on Intel and S/390),

Windows.

Main modules

• CleverPath Portal. Portal engine based on JSP pages and servlets.

CleverPath Portal Corporate integration portals MANAGING THE ACCESS TO VARIOUS RESOURCES ORGANIZING THE INFORMATION FACILITATING THE ACCESS TO INFORMATION FACILITATING THE PORTAL ADMINISTRATION PROVIDING NUMEROUS USERS WITH A WORK INTERFACE FACILITATING THE MANAGEMENT OF PORTAL USERS PERSONALIZING THE INFORMATION CONTENT AND LAYOUT ENSURING A RELIABLE SERVICE LEVEL ENSURING THE TECHNICAL ROBUSTNESS OF THE PORTAL ENSURING THE SECURITY OF THE INFORMATION RESOURCES ENSURING A RAPID ROI OF THE CORPORATE PORTAL PROVIDING READY-TO-USE COMPONENTS AND SERVICES FACILITATING THE INTEGRATION OF CORPORATE RESOURCES ADAPTING THE PORTAL TO CORPORATE ENVIRONMENT CHANGES ____ MODIFYING THE PORTAL EASILY ANALYZING THE PORTAL USE @Yphise Strengths and Weaknesses List -

Hummingbird Portal ENSURING A RAPID ROI OF THE CORPORATE PORTAL ENSURING A RELIABLE SERVICE LEVEL ADAPTING THE PORTAL TO CORPORATE ENVIRONMENT CHANGES PROVIDING NUMEROUS USERS WITH A WORK INTERFACE MANAGING THE ACCESS TO VARIOUS RESOURCES Software Ranking Best software evaluation Average evaluation Worst software evaluation ©Yphise Ranking Chart -

Hummingbird Portal

Opinion

- One of the strengths of Hummingbird Portal is its search capabilities. The product handles searches on its own index and manages queries and search results of third-party search engines. The product facilitates use of search results by categorizing dynamically the search results within contextual themes. This helps users select the theme that suits their query.
- Hummingbird Portal is suitable for projects that involve integration into commercial workflow management tools. The product provides specific interfaces to Akazi's FlowMind, Staffware's Process Suite and W4. This helps integration of business processes management into the portal interface.
- One of the weaknesses of Hummingbird Portal is its lack of support for Unix platforms and Java application servers. The product relies only on a proprietary application server (Core Services framework) installed on the Windows platform. Its uses proprietary tags added to JSP. A future version, announced for the first quarter of 2003, would rely exclusively on JSP and servlets and could be installed on Java application servers such as Weblogic and Websphere.

Vendor presentation

Developer
 Vendor contacted
 Hummingbird
 2, rue des Italiens

75009 Paris, France Tel.: +33 1 53 34 93 00 Fax: +33 1 53 34 93 05

• Web site www.hummingbird.com

Development laboratory Canada
 Hot Line Canada
 Australia

Software product presentation

• Version number 5

Date of first sale September, 2000Price indication Not disclosed

• Maintenance 18% of purchase price

• Training Not disclosed

• Setup Services 1,200 Euros per day

User group
 Recent developments
 Announced functions
 Main environments
 Not disclosed
 Windows

Main modules

• Hummingbird Portal. Web interface that links applications and information.

Complementary modules are:

- Hummingbird DM. Document management system. Allows to integer any document in electronic format in a common content database.
- Hummingbird KM. Provides search and categorization capabilities.

Hummingbird Portal Corporate integration portals MANAGING THE ACCESS TO VARIOUS RESOURCES ORGANIZING THE INFORMATION FACILITATING THE ACCESS TO INFORMATION FACILITATING THE PORTAL ADMINISTRATION PROVIDING NUMEROUS USERS WITH A WORK INTERFACE FACILITATING THE MANAGEMENT OF PORTAL USERS ŭ PERSONALIZING THE INFORMATION CONTENT AND LAYOUT ENSURING A RELIABLE SERVICE LEVEL ENSURING THE TECHNICAL ROBUSTNESS OF THE PORTAL ENSURING THE SECURITY OF THE INFORMATION RESOURCES ENSURING A RAPID ROI OF THE CORPORATE PORTAL PROVIDING READY-TO-USE COMPONENTS AND SERVICES FACILITATING THE INTEGRATION OF CORPORATE RESOURCES ADAPTING THE PORTAL TO CORPORATE ENVIRONMENT CHANGES MODIFYING THE PORTAL EASILY ANALYZING THE PORTAL USE @Yphise Strengths and Weaknesses List

Oracle 9i AS Portal ENSURING A RAPID ROI OF THE CORPORATE PORTAL ENSURING A RELIABLE SERVICE LEVEL ADAPTING THE PORTAL TO CORPORATE ENVIRONMENT CHANGES PROVIDING NUMEROUS USERS WITH A WORK INTERFACE MANAGING THE ACCESS TO VARIOUS RESOURCES Software Ranking Best software evaluation Average evaluation Worst software evaluation ©Yphise Ranking Chart -

Oracle 9iAS Portal

Opinion

- One of the strengths of Oracle 9iAS Portal is its ability to manage the language versions of a particular content. A default language can be defined for a specific content, and other language versions can be created based on the same content name. The portal automatically associates a language version with the added content based on the context language (i.e. the language selected for the interface). This would help provide multilingual content to the various users of the portal.
- Oracle 9iAS Portal is suitable for projects involving end-users as content contributors. The
 product provides them with a WYSIWYG editor that helps them directly type or paste
 content and format it. It also supports WebDAV. This helps in adding and updating content
 easily, since end-users manage their own contributions within access-controlled folders, as
 on a file system.
- Oracle 9iAS Portal is suitable for IT departments that already use Oracle products. The portal is bundled in the application server offering. Developers who already use the PL/SQL language or the Oracle JDeveloper development environment would participate easily in the development of new portal features or the extension of existing ones.
- One of the weaknesses of Oracle 9iAS Portal is its inability to automate integration of external content into the portal. The automation must be done through specific development. Automatic integration of content from Web sites could be done by using the recently introduced syndication server, but no integration is done yet into the portal. The syndication server supports the ICE protocol.

Vendor presentation

Developer OracleVendor contacted Oracle

15 bld Charles de Gaulle

92715 Colombes Cedex, France

Tel.: +33 1 57 60 20 20 Fax: +33 1 57 60 21 15

Web site www.oracle.com
 Development laboratory Redwood, CA, U.S.A.
 Hotline Redwood, CA, U.S.A.
 Colombes, France

Software product presentation

Version numberDate of first sale9.0.21999

• Price indication 10,860 Euros per CPU

• Maintenance 22% of purchase price. Includes technical support and

software updates.

• Training Administrator and developer: 3 days, 1,000 Euros per day

and per user.

• Setup services 1,000 Euros per day

• User group Oracle user groups per country

• Recent developments Web cache with management of page fragments

• Announced functions Not disclosed

• Main environments AIX, HP-UX, Solaris, Tru64, Linux, Windows.

Main modules

• Oracle 9iAS Portal. Main portal interface.

• Oracle 9iAS Container for Java. Provides a container for Java components.

• Oracle 9iAS Email. Email gateway.

Oracle 9i AS Portal Corporate integration portals MANAGING THE ACCESS TO VARIOUS RESOURCES ORGANIZING THE INFORMATION FACILITATING THE ACCESS TO INFORMATION FACILITATING THE PORTAL ADMINISTRATION PROVIDING NUMEROUS USERS WITH A WORK INTERFACE FACILITATING THE MANAGEMENT OF PORTAL USERS PERSONALIZING THE INFORMATION CONTENT AND LAYOUT ENSURING A RELIABLE SERVICE LEVEL ENSURING THE TECHNICAL ROBUSTNESS OF THE PORTAL ENSURING THE SECURITY OF THE INFORMATION RESOURCES ENSURING A RAPID ROI OF THE CORPORATE PORTAL PROVIDING READY-TO-USE COMPONENTS AND SERVICES FACILITATING THE INTEGRATION OF CORPORATE RESOURCES ADAPTING THE PORTAL TO CORPORATE ENVIRONMENT CHANGES____ MODIFYING THE PORTAL EASILY ANALYZING THE PORTAL USE @Yphise Strengths and Weaknesses List -

Plumtree Corporate Portal ENSURING A RAPID ROI OF THE CORPORATE PORTAL ENSURING A RELIABLE SERVICE LEVEL ADAPTING THE PORTAL TO CORPORATE ENVIRONMENT CHANGES PROVIDING NUMEROUS USERS WITH A WORK INTERFACE MANAGING THE ACCESS TO VARIOUS RESOURCES Software Ranking Best software evaluation Average evaluation Worst software evaluation ©Yphise Ranking Chart -

Plumtree Corporate Portal

Opinion

- One of the strengths of Plumtree Corporate Portal is its integration capability. The product
 provides specific interfaces to commercial EAI tools such as BizTalk Server, Businessware
 for EAI, MQSeries Integrator, Tibco ActiveExchange and WebMethods Enterprise. This
 helps integrate the portal into the corporate application by using the bridge provided by
 these integration middleware products.
- Plumtree Corporate Portal is suitable for projects involving commercial single sign-on tools. It provides specific interfaces to products such as Oblix NetPoint, Securant, Netegrity SiteMinder and Tivoli SecureWay. This allows reliance on these products to control access to the corporate application from the portal interface.
- One of the weaknesses of Plumtree Corporate Portal is its lack of technical supervision features. Also, the product does not interface with commercial supervision tools neither specifically nor through the support of SNMP. On the Windows platform, some information on portal activity could be viewed through the platform's Performance Analyzer.
- Another weakness of Plumtree Corporate Portal is its technical structure. Its Presentation Layer is Java-based, while its engine is developed in C++. The vendor does not plan to port the engine in order to build a full Java product. This ties the product to specific platforms (Solaris and Windows). The availability of the Presentation Layer in ASP format requires code duplication that can be difficult to maintain.
- Plumtree is a pure player vendor. As seen with other pure player vendors that have recently been acquired, we consider that its situation poses a sustainability risk. On the other hand, Plumtree Corporate Portal is one of the market leaders. It has significant worldwide references. This helps ensure the viability of the product.

Vendor presentation

Developer Plumtree SoftwareVendor contacted Plumtree Software

12, avenue de l'Arche 92419 Courbevoie, France

Tel.: +33 1.46.91.86.83

• Web site www.plumtree.com

• Development laboratory Not disclosed

• Hotline U.K.

Software product presentation

• Version number 4.5WS

• Date of first sale 1998

• Price indication Not disclosed

• Maintenance 18% of purchase price

• Training Administrator: 3 days, 600 Euros per user and per day

• Setup services 2,200 Euros per day

• User group Not disclosed

• Recent developments Collaboration Server

Studio Server

Frameworks fore MS Excel, SAP R/3 and Siebel

• Announced functions Not disclosed

• Main environments Solaris and Windows.

Main modules

• Portal engine. The portal core that handles page serving. Interfaces with services such as MyPage (for personalization) and Communities (for collaboration).

- Gadget Server. Provides components (Gadgets) that facilitate integration into enterprise applications, Internet services and e-business applications.
- Job Server. Based on an authentication provider that interfaces with a LDAP directory. Provides interfaces to File systems, external Web sites and to groupware servers.

Plumtree Corporate Portal Corporate integration portals MANAGING THE ACCESS TO VARIOUS RESOURCES ORGANIZING THE INFORMATION FACILITATING THE ACCESS TO INFORMATION FACILITATING THE PORTAL ADMINISTRATION PROVIDING NUMEROUS USERS WITH A WORK INTERFACE FACILITATING THE MANAGEMENT OF PORTAL USERS PERSONALIZING THE INFORMATION CONTENT AND LAYOUT ENSURING A RELIABLE SERVICE LEVEL ENSURING THE TECHNICAL ROBUSTNESS OF THE PORTAL ENSURING THE SECURITY OF THE INFORMATION RESOURCES ENSURING A RAPID ROI OF THE CORPORATE PORTAL PROVIDING READY-TO-USE COMPONENTS AND SERVICES FACILITATING THE INTEGRATION OF CORPORATE RESOURCES ADAPTING THE PORTAL TO CORPORATE ENVIRONMENT CHANGES TITLE MODIFYING THE PORTAL EASILY ANALYZING THE PORTAL USE

Strengths and Weaknesses List

@Yphise

Websphere Portal ENSURING A RAPID ROI OF THE CORPORATE PORTAL ENSURING A RELIABLE SERVICE LEVEL ADAPTING THE PORTAL TO CORPORATE ENVIRONMENT CHANGES PROVIDING NUMEROUS USERS WITH A WORK INTERFACE MANAGING THE ACCESS TO VARIOUS RESOURCES Software Ranking Best software evaluation Average evaluation Worst software evaluation ©Yphise Ranking Chart -

Websphere Portal

Opinion

- One of the strengths of Websphere Portal is the integration of Websphere Personalization. This helps automate portal personalization using rules. The product provides segmentation and rule engines that help, in association with the personalization engine, to build personalized Web pages. This is suitable for portals that target users with various profiles using pushed content.
- One of the opportunities provided by Websphere Portal is the integration of a development environment, Websphere Studio Application Developer. This would help customize portal features and interfaces. The product is based on the open source development platform, Eclipse. This would help extend its capabilities through plug-ins designed for Eclipse and that work in the WSAD environment.
- Websphere Portal is suitable for managers who use Crystal Reports for their analysis and
 reporting needs. It is the only assessed product that provides a specific interface to this
 reporting tool. On the other hand, Websphere Portal provides the Site Analyzer module that
 has the necessary functions to build custom reports on portal activity. It also provides
 predefined reports that are ready to use, as the other assessed products do.
- Websphere Portal is suitable for IT departments that already use supervision tools such as Patrol or Tivoli. The product interfaces specifically with these supervision tools. This would facilitate the supervision of portal activity. Information on both the technical activity of portal components and the access to corporate resources can be collected this way.

Vendor presentation

Developer IBMVendor contacted IBM

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Web site www.ibm.com
 Development laboratory Raleigh, USA
 Hot Line Raleigh, USA

Software product presentation

Version numberDate of first sale2001

• Price indication Websphere Portal Enable and Passport (E): 67,500 Euros

Websphere Portal Extend: 109,000 Euros

• Maintenance Included in the purchase price

• Training Portal setup: 4 days, 1,600 Euros

Setup services Not disclosedUser group Websphere Club

• Recent developments Version 4.1

• Announced functions New versions announced for fourth quarter 2002

• Main environments AIX, Solaris, Linux, Windows

Main modules

Websphere Portal Enable:

- Portal server. Provides presentation, user management, security services. It has modules such as Portlet Container (provides portlets for Content access, Search, Web Clipping, Content organization, Collaboration services and Administration) and Page Aggregation (handles themes and skins, tag library, transcoding and translation. It interfaces, for authorization, with Webpshere Member Services, portal database and UDDI directory).
- Websphere Personalization. Provides personalization technologies such as rules-based personalization, recommendations and campaign management.
- Web content Publisher. Allows contributing content and documents to the portal.
- Websphere Studio Application Developer. An IDE for developing Java-based Web applications.

Websphere Portal Extend:

- Lotus collaboration components and collaborative places.
- Lotus Extended Search.
- Tivoli Web Site Analyzer.

Websphere Portal Experience:

- Content Manager. Provides folder management and document workflow.
- Tivoli Access Manager. Policy-based access management for corporate applications.

Are also included:

• DB2 Universal Database, SecureWay Directory, IBM HTTP Server, Websphere Application Server Advanced Edition, Lotus Domino Application Server, Lotus SameTime, Lotus QuickPlace and Lotus Workflow.

Websphere Portal Corporate integration portals MANAGING THE ACCESS TO VARIOUS RESOURCES ORGANIZING THE INFORMATION FACILITATING THE ACCESS TO INFORMATION FACILITATING THE PORTAL ADMINISTRATION PROVIDING NUMEROUS USERS WITH A WORK INTERFACE FACILITATING THE MANAGEMENT OF PORTAL USERS PERSONALIZING THE INFORMATION CONTENT AND LAYOUT ENSURING A RELIABLE SERVICE LEVEL ENSURING THE TECHNICAL ROBUSTNESS OF THE PORTAL ENSURING THE SECURITY OF THE INFORMATION RESOURCES ENSURING A RAPID ROI OF THE CORPORATE PORTAL PROVIDING READY-TO-USE COMPONENTS AND SERVICES FACILITATING THE INTEGRATION OF CORPORATE RESOURCES ADAPTING THE PORTAL TO CORPORATE ENVIRONMENT CHANGES____ MODIFYING THE PORTAL EASILY ANALYZING THE PORTAL USE @Yphise Strengths and Weaknesses List

Yphise Software Assessment Reports

About Yphise

Large companies	Yphise is committed to providing the most relevant and accurate advice to assist large companies in embracing information management change. We assist them in
	identifying how to generate more business value through information management
	developing the new skills and methods necessary to achieve this value
	conducting innovative projects
	making appropriate technical decisions
IT consultants	We advise IT consultants in selecting their partnerships and choosing the best software to recommend and use in each mission.
Software vendors and investors	We advise software vendors and investors in strategy development.

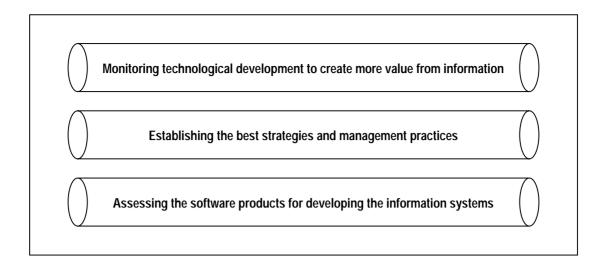
Our clients appreciate:

- our independence,
- the accuracy and rigor of our methodologies, as we are ISO 9001-certified,
- our in-depth understanding of IT management challenges, as we advise many large companies in defining IT strategy, organization and architectures,
- our coverage of all areas and technologies required for developing and managing complex information systems,
- the unique expertise we have developed since 1985.

Research programs

Yphise conducts research programs that focus on IT management challenges in large companies.

Our research programs cover three aspects.



Software product assessment

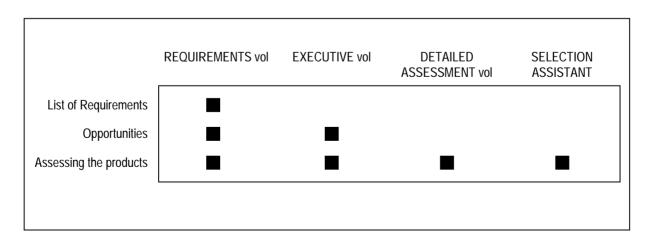
Yphise assesses over 160 software products each year. IT departments have made thousands of software selection decisions based on Yphise expertise since 1985. Yphise research covers all areas of interest to large IT departments.

The results are available at our Yphise.com SoftAssessment Portal. Various licenses provide you with the reports that you need.

Each software product assessment is conducted according to our ISO 9001-certified methodology. To our knowledge, no other company in the world produces expert and independent comparative assessments of software products based on ISO 9001-certified methodology guaranteeing accuracy and independence.

Our lab is in Paris (France) across from Pompidou Center. The numerous vendors who visit us appreciate this very convenient location.

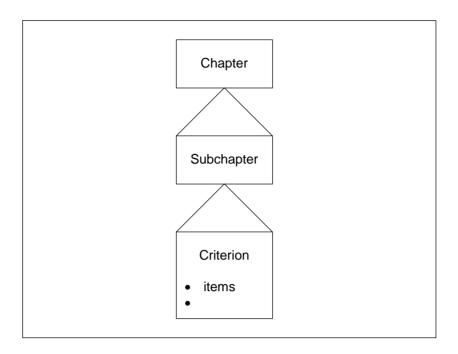
Components of the Yphise Software Assessment Reports



REQUIREMENTS VOI	It lists the functional and technical requirements to meet the needs of large companies in the evaluated area. This list is set according to our ISO 9001-certified methodology in consultation with large companies, in order to be accurate, practical and proactive.
	Our experience is that many errors when selecting software products are due to improperly defined requirements. It is indeed very difficult to establish the correct list of criteria. We have unique expertise in this field, as we work daily with large companies, monitor new developments from vendors, and cover all areas of information management within large companies. The REQUIREMENTS volume provides you, at very low cost, with the results of our expert analysis. It sets the standard to base decisions on in the evaluated area.
EXECUTIVE vol	It is designed to monitor developments of the software product market. It assesses the maturity and opportunities of the products available.
	It highlights the list of software products that we consider of interest to large companies. Our experience has shown that products do not always satisfactorily provide the functions that we expect, based on vendor positioning. As a result, many improper selections of software products are made.
	It highlights the strengths and weaknesses of each software product, based on our detailed assessment conducted according to our ISO 9001-certified methodology. It provides a top-down ranking of the products and it outlines our opinion.
	The EXECUTIVE volume is ideal for an initial review of the market, for defining your strategy, planning your investments and selecting a short list.
DETAILED ASSESSMENT vol	It provides a detailed assessment of each software product, based on the criteria of the requirements. The assessment is conducted according to our ISO 9001-certified methodology. The results are provided in tables for quick access and accurate detailed comparison of the software products.
	The assessed software products are those that we consider of interest to large companies in the evaluated area.
SELECTION ASSISTANT	This is a Windows application that you can download.
	It contains all data from the corresponding DETAILED ASSESSMENT volume.
	It allows you to customize all the data and weights, in order to arrive at your own ranking of the software products according to your own opinion and specific needs. You can then print your personalized DETAILED ASSESSMENT volume.

List of Requirements structure

The List of Requirements has a three-level structure: main issues (chapters), first analysis level of each issue (subchapters) and assessment criteria. Each criterion is composed of items.



EXECUTIVE volume aggregations and SELECTION ASSISTANT

The charts of the EXECUTIVE volume aggregate all the results established at item level in the corresponding DETAILED ASSESSMENT volume. Most of these charts aggregate results on several hundred items. The rankings and overall assessment obtained are robust and reliable.

However, you may not necessarily agree with all the notes attributed by Yphise. You may also be interested in a product that provides fewer functions and is less expensive. Some criteria and items are also more important for you. The EXECUTIVE volume charts do not take your specific requirements into account. They are very useful for a first overview of the market, but you need more information to make a purchase decision. The SELECTION ASSISTANT allows you to customize Yphise notes and criteria weights according to your own specific needs. It then adapts the ranking, and you can print your own customized report.

How to use Yphise Software Assessment Reports

Analyzing opportunities of the market	The EXECUTIVE volume is designed to assess the opportunities of the market. It highlights the list of software products that we consider of interest to large companies.
Obtaining your list of requirements	The REQUIREMENTS volume enables you to work from a reference list that you customize according to your own needs. Some criteria may be ignored, while others are essential.
Selecting a short list	The EXECUTIVE volume provides you with a brief overview of the market. Then use the SELECTION ASSISTANT. Identify the few criteria that, for you, are essential functions. The assistant then adapts the ranking of the products according to these criteria: you get valuable information to select the best short list.

Selecting a software product	You must make a decision based on your environment, context and issues. Focus your effort on the essential criteria for you. The DETAILED ASSESSMENT volume enables you to work from a reliable reference. Then use the SELECTION ASSISTANT. Input your own notes when they differ from Yphise, and use the editing functions to obtain a first overview of the results. Then use the DETAILED ASSESSMENT volume to compare the products on the basis of criteria that are less important for you.
Negotiating with the vendors	The EXECUTIVE and DETAILED ASSESSMENT volumes provide you with the strengths and weaknesses of each product. You have valuable information to use when negotiating with the vendors.