

# Technology Infrastructure

## Butler Group Subscription Services

# Device Management

## TECHNOLOGY AUDIT

### Wyse

#### Rapport for Wyse, version 4.0

**Abstract** *Wyse has introduced its latest version of enterprise terminal management software Rapport for Wyse, version 4.0. It is designed to provide scalability, ease of use, flexibility, reliability, and security. Rapport Workgroup edition is based on a single dedicated server and is supplied free of charge with Wyse Winterm thin clients. The Enterprise edition incorporating more advanced features is competitively priced at £18 per client for an upgrade licence. Butler Group believes that Rapport provides Wyse with a powerful management solution as part of its strategic initiative to extend its market position from a supplier of thin client products. Rapport for Wyse, version 4.0 is available from Wyse on a 30-day trial basis and we would advise organisations to explore its comprehensive facilities for software distribution, asset management, configuration management, and device diagnostics.*

### KEY FINDINGS

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|--|--|
| ✓ Rapport for Wyse, version 4.0 has been designed for ease of use and flexibility. | ✓ It provides scalable management capability up to 100,000s of devices.                |
| ✓ Device agent size of only 80 Kbytes.   | ✓ Supports a large number of embedded operating systems.                               |
| i Rapport is standards based.  | i Wyse is looking to market Rapport to expand from its traditional thin client market. |

**Key:** ✓ Product Strength ✗ Product Weakness i Point of Information

### LOOK AHEAD

Butler Group believes that Rapport for Wyse, version 4.0 gives Wyse an enterprise-class management tool that can not only complement its development of the thin client market, but can also take it into new markets managing the ever-expanding range of end-user devices.

## ► FUNCTIONALITY

**Product Analysis** In order to protect an enterprise's IT investment, and ensure that it gets the maximum value from its hardware, and software, increasingly sophisticated management tools are required. Intelligent tools with comprehensive functionality are needed to achieve maximum facilities for users and lowest Total Cost of Ownership (TCO) for the organisation.

Continuing change dictates that solutions to comply with end-user needs are constantly being introduced in the form of new software. Wyse thin client appliances, together with its comprehensive management tools provide customers with the following benefits:

- New protocol enhancements instigated by Citrix and Microsoft can be quickly and easily implemented.
- The use of new or advanced peripherals with desktops.
- Eliminate the need to physically visit each desktop whilst keeping up to date, therefore maximising staff efficiency.
- The automated updating of client operating systems, therefore any danger of their working with obsolete software is avoided.

Rapport for Wyse, version 4.0 allows organisations to get the most out of a server centric computing architecture, even when their desktop population amounts to tens of thousands. Administrators are able to centrally manage and control their thin client desktops, and to perform centralised or remote tasks including:

- Software Distribution.
- Asset Management.
- Device Configuration Management.
- Device Diagnostics.

With Rapport, enterprises can manage thin client devices within the organisation from a central location with intelligent use of both push and pull update, with scheduled and on-demand delivery. It provides for the full audit of devices and eliminates the need to send IT staff to the desktop. The Rapport client agent runs on a wide range of devices and it can support many administrators. Rapport reduces IT costs by achieving faster roll-out through automated processes, and improved IT productivity, as staff are freed from low value support tasks. It also provides improved user productivity by reducing downtime, and speeds up business changes and software roll-out.

**Product Functionality** The latest version of the management tool is Rapport for Wyse, version 4.0. Due to its architecture it enables network administrators to manage 100,000s of devices anywhere. It also supports distributed component implementation within the network, and uses an SQL database to store client information. Bandwidth usage is managed on a 'per subnet' basis, and as remote repositories can be deployed, the bandwidth requirement across the WAN can be dramatically reduced.

Rapport is designed for ease of use with a familiar management environment, and an intuitive graphical interface that simplifies device management. It utilises an industry standard management framework in Microsoft Management Console (MMC). Its step-by-step Wizards guide administrators through tasks, and it has a single-click selection for commonly used management functions. Rapport has a detailed on-line help system, and its default device configuration allows for simple device roll-outs.

IT staff are provided with the flexibility they need to install, configure, group and view devices, and to be able to schedule and customise device packages. Preferences, simultaneous updates, timeouts, and re-tries can be easily set, and choices can be made from multiple management protocols, including SNMP and Web services. Push and pull technology is used for device management, and varied network topologies can be accommodated simply. A powerful scripting language is used and maintenance schedules can be defined. Multiple device update options are available for selection, up to 90 custom group types are supported, and up to 30 levels of hierarchical views can be chosen.

Rapport for Wyse, version 4.0 uses reliable network protocols, such as TCP, to give administrators ready mechanisms for recovery and retry of software distribution and device management information. It has a built-in client configuration recovery mechanism, and client plug-and-play discovery with configurable client check-in to the Rapport Server. It also has Wake-On-LAN for powered-down devices, and devices can be automatically discovered when connected to the network.

Its security measures are designed to protect and enforce the security policies of the enterprise and to provide security for device management data. Duties can be separated amongst administrators by assigning specific permissions to each administrator, encrypted communications are accommodated, and client certificates enforce secure client/server relationships.

Rapport for Wyse, version 4.0 provides support for the following operating systems:

- Microsoft® Windows® CE, CE .NET.
- Microsoft® Windows NT® Embedded.
- Microsoft® Windows® XP Embedded.
- SuSE® Linux®.
- Red Hat® Linux®.
- Wyse® Blazer.

Wyse says that Rapport's very small device agent size of 80Kbytes differentiates it from its competitors. It says that its competitors have much larger agents that have emanated from the PC arena. It also has a scalable server design, allowing for the management of 100,000s of devices. It can provide software repositories distributed across the enterprise WAN to minimise network bandwidth usage, and it supports a wide range of types of device. Wyse says that Rapport's distributed architecture and use of Web-based technologies can reduce network traffic significantly.

Rapport can provide a complete remote management solution, auditing thin client devices, configuring individual applications, or re-imaging units. Rapport is delivered in two separate editions, Workgroup and Enterprise. Rapport Enterprise has a number of features not included in the Workgroup edition. They are designed to provide larger customers with added functionality to better manage their larger environments of thin clients:

- Allows for the installation of each Rapport component on a different server.
- Supports Microsoft Data Engine (MSDE) or MS-SQL Server databases.
- Remote Software Repositories.
- Device Management security.
- Management communications compression.
- Expanded custom group types and view levels.
- Configurable network hierarchy.
- Uncapped simultaneous updates.

- Simultaneous update by subnet.
- Default device configuration.
- Default grouping.
- Automatic default updates.
- Automatic SNMP discovery.

Rapport is based around client-server architecture. The server uses industry standard SQL database, Web server, MMC Graphic User Interface (GUI) and FTP, all of which are capable of being run on clustered hardware. The client device agent communicates with the server using standard Internet protocols. Management staff can access Rapport, with task-based security, from around the network, using the MMC GUI snap-in.

It achieves scalability by making best use of standard Internet protocols to efficiently communicate between server and client. The client has the ability to autonomously parse each package script and pull (using a built-in FTP client) updates. Scalability at the server end is achieved by using clustered hardware for each server component. FTP servers with intelligent replication from a master server can be placed around the network to provide optimum use of network bandwidth.

All files to be placed on devices are Cyclical Redundancy Checking (CRC) checked and compared. FTP and TFTP transfers can have subnet-specific retries and timeouts configured.

Rapport for Wyse, version 4.0 was released in June 2003, and over the initial year, Wyse will provide bug fixes as .0x increments and feature releases as .x. It plans major version releases over the next 3 years.

## Product Emphasis

Rapport for Wyse version 4.0 manages flash memory in desktop and mobile devices. It also provides support through shadowing for the management of client devices. It also includes asset management with a reporting Wizard, and systems management providing a historical record of changes. It has been designed to enable simple installation and operation through GUI interfaces incorporating Wizards and default configurations. In addition to this usability, Rapport is built for scalability, flexibility, and reliability. It is standards based with secure protocols, encrypted communications, and audit trails.

## ► DEPLOYMENT

Rapport requires a Microsoft Windows 2000 workstation, server or advanced server, or Windows XP Professional with a minimum of a 1 GHz CPU, 512 MB RAM, and 720 MB disk space. It requires a SQL database, typically Microsoft SQL Server or MSDE. The Rapport client agent is shipped as standard with all Wyse Wintertms.

Windows server administration skills and a familiarity with the Wintertm terminals to be managed are desirable for implementation of Rapport. These can be provided by the customer dependent upon its skills and resources. Wyse says that Rapport can normally be configured, implemented, and managing clients in less than one hour.

Licences can be added on a modular basis to support larger numbers of terminals. In the Enterprise version of Rapport, administrators can connect additional Rapport Microsoft Management Console (MMC) plug-ins to access Rapport, and they can also add additional Remote Software Repositories to support additional subnets. Tuning will vary greatly from one enterprise to another. Wyse provides step-by-step Wizards in Rapport, and classroom and web-based training are available. Support for Rapport is available via the Wyse help desk, and from the Wyse Web site.

All information and actions relating to Rapport and the management of the clients is stored in the SQL database, and further reporting and data extraction can be made from the database using third-party products. Data can be imported from previous versions of Rapport, and the management of devices with a legacy agent, or no client agent can also be accommodated.

The Rapport system uses standard Internet protocols for communication between the server and the client, which allows Rapport to easily manage thin clients across the Internet and through firewalls. The following communication protocols are supported: IP, TCP, HTTP, FTP, and SNMP.

Rapport provides the IT department with the facilities that it needs to manage and maintain remote client devices, other than hardware failure, so staff should no longer be required to visit the desktop. This even includes the ability to re-flash terminals with flash memory corruption that cannot boot.

A deployment of Rapport is essentially passive in its communication with client devices. The only way in which performance problems could arise is if the customer sets the heartbeat check-in from client devices at too short an interval. This would generate a great deal of network traffic.

## ► PRODUCT STRATEGY

Rapport is designed to be a major component of a complete thin client solution. Therefore the target markets are typically horizontal by industry but vertical by function. This includes any industry that employs task-based workers who need application access, yet the enterprise wants to have greater security and control over their desktop environment. The need for this functionality spans all sizes of enterprise, small, medium, and large.

The product is a key component of server-based and thin client computing, and it provides reduced costs of ownership and Return On Investment (ROI) by providing powerful remote management capabilities. Wyse sells Rapport through its distribution channel of Value Added Resellers (VARs) and distributors.

It has a key technology partnership with Microsoft and in this market its key competitors are HP with its Altiris product, and Neoware with ezRemote Manager.

The Rapport Workgroup version is bundled by Wyse with its Winterm thin client terminals. The Rapport Enterprise version providing enhanced functionality is priced on a per client basis. To upgrade the Workgroup version to the Enterprise product, there is a licence cost of £18 or €25 or US\$25 per client. Priority Plus maintenance for Rapport Workgroup is £4 or €5 or US\$5 per client annually, and for Rapport Enterprise £7 or €10 or US\$10 per client annually. Priority Plus includes all upgrades of Rapport during the maintenance period for the version held, whether Workgroup or Enterprise. Wyse also has a 'try before buy' 30 day limited licence for the Enterprise version so that customers can satisfy themselves of the product's worth before committing to an annual licence.

Wyse sees a developing market for Rapport in the management of a wide range of devices such as smart phones, PDAs, scanners, kiosks, and Point Of Sale (POS) terminals. It also sees this market for the management of devices developing quickly. It has, therefore, designed Rapport to undertake the management of all embedded, flash-based devices within the enterprise. It intends to strengthen its position in this market by continuing to extend Rapport to manage all new and different devices within the enterprise as they become available. Wyse believes that its biggest challenge is to develop market recognition of Rapport's capability to manage outside its thin client heritage.

## ► COMPANY PROFILE

Wyse was founded in 1981 and has grown to be a global business with US\$180 million annual revenues. Approximately 10% of the company's gross revenue is spent on research and development.

The company's headquarters are in San José, California, and it employs over 550 employees globally, with about 50 located in Europe. It has major offices in Dallas, London, Munich, Sydney, Beijing, and Hsinchu, Taiwan. Production facilities for Winterm products are in Taiwan, and Wyse software engineering is carried out in the US and Taiwan.

The company began by supplying text terminals, and it introduced the first Windows-based terminal in 1995. For the past five years it has been the leader in the thin client market. Its original terminal technology was overtaken and replaced by the PC, but with the growing server-based computing and thin client market, Wyse has been able to replace the PC in many environments. It is now extending its market position beyond desktop thin clients through its strategic initiatives focused on server enhancements, PC management solutions, mobile devices, and professional services.

Wyse sells its products indirectly through distribution channels, which are supported by a direct sales force for larger customers. It has shipped about 2 million Winterm terminals. Wyse reports that its products have been well received in most industry sectors, and its key clients include:

- The Royal Mail (UK)
- National Health Service (UK)
- ING (NL)
- ITS Reisen (Germany)
- Sernam (France)
- NBC (US)
- CarPhone Warehouse (UK)
- Swinton Insurance (UK)
- Landeskrankenhilfe Lüneburg (Germany)
- FNAIM (France)
- Fedex (US)
- Flight Centre (Australia)

Microsoft Embedded Systems Division has named Wyse Partner of the Year for the last three years. In addition, Wyse enjoys close links with Citrix.

## ► SUMMARY

Wyse is breaking out from its traditional role as a supplier of thin client desktops. It is a company that has reinvented itself in the past and having seen its traditional text terminals replaced by PCs, it now has the satisfaction that its thin client technology is replacing these same PCs. It is now extending its market position with strategic initiatives including device management.

Rapport for Wyse, version 4.0 adds extra benefits to the deployment of a thin client architecture. It provides the management platform for easy and cost-effective control of vast populations of desktop and mobile thin client devices. Its minimally sized device agent of 80 Kbytes, together with its distributed software repositories maximise performance from customers' infrastructure. Butler Group recommends that enterprises looking to get the most from a server centric architecture examine the benefits that Rapport for Wyse, version 4.0 can provide.

## ► CONTACT DETAILS

### **Wyse Technology (UK) Ltd.**

1 The Pavilions, Ruscombe Park  
Twyford, Berkshire  
RG10 9NN  
UK

Tel: +44 (0) 845 604 0038

Fax: +44 (0) 118 934 0749

E-mail: [info@wyse.co.uk](mailto:info@wyse.co.uk)

[www.wyse.co.uk](http://www.wyse.co.uk)

### **Wyse Technology Inc.**

3471 North First Street  
San Jose  
California 95134-1801  
USA

Tel: +1 (408) 473-1200

Fax: +1 (408) 473-2080

E-mail: [sales@wyse.com](mailto:sales@wyse.com)

[www.wyse.com](http://www.wyse.com)

### **Wyse Technology Australia**

Suite 1, 52 Queen Street  
Beaconsfield, New South Wales  
Australia 2015

Tel: +61 (0)2 9319 3388

E-mail: [info@wyse.com.au](mailto:info@wyse.com.au)

[www.wyse.com.au](http://www.wyse.com.au)

### **Wyse Technology GmbH**

Humboldtstr. 10  
D-85609 Aschheim/Dornach  
Germany

Tel: +49 (0) 1805 997 311

Fax: +49 (0) 89 460099-99

E-mail [info@wyse.de](mailto:info@wyse.de)

[www.wyse.de](http://www.wyse.de)

### **Wyse Technology**

Immeuble Mercure  
6 Parc club Arlane  
Guyancourt, 78284 Cedex  
France

Tel: +33 (0) 810 20 4114

Fax: +33 (0) 1 34 52 09 30

E-mail [info@wyse.fr](mailto:info@wyse.fr)

[www.wyse.fr](http://www.wyse.fr)

### **Wyse Technology Benelux**

't Spuul 3  
NL-5706 KM  
Helmond  
The Netherlands

Tel: +31 (0) 492 520715

E-mail: [info@wyse.de](mailto:info@wyse.de)

[www.wyse.co.uk](http://www.wyse.co.uk)

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Subscription Services, contact:

Europa House, 184 Ferensway, Hull, East Yorkshire, HU1 3UT, UK  
Tel: +44 (0)1482 586149 Fax: +44 (0)1482 323577 [www.butlergroup.com](http://www.butlergroup.com)