



JETRO COCKPIT4 TURNS WINDOWS 2008/R2 TO AN ENTERPRISE-LEVEL CENTRALIZE APPLICATION DELIVERY SOLUTION.

WHITE PAPER

THE ADVANTAGES OF USING THE COCKPIT4
APPLICATION VIRTUALIZATION MANAGED SOLUTION
COUPLED WITH DIFFERENT TERMINAL AND VDI
TECHNOLOGIES, INCLUDING MTS 2008/R2 TERMINAL
SERVICES.

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ABSTRACT

A Technical overview that presents how COCKPIT4 turns MS Windows Terminal Server, including last version of Windows Terminal 2008/R2 farm, into an enterprise, multi-server solution for Secure Application Publishing.

While small, homogenous and relatively basic deployment may be put in place 'as is' with MTS 2008/R2, larger or more complex ones, including environments with a variety of different types of clients, servers, printers, devices and applications, will need the manageability and functionality provided by COCKPIT4 .

This white paper describes the advantages of using the COCKPIT4 Application Virtualization managed solution coupled with different terminal and VDI technologies, including MTS 2008/R2 terminal services .



“ OVERALL, THE NEED TO CENTRALIZE APPLICATION IN ORDER TO SIMPLIFY THE MANAGEMENT AND IMPROVE THE SECURITY OF CLIENT APPLICATIONS CONTINUES TO BE A STRONG DRIVER FOR VUS SOLUTIONS, JETRO'S RECENT MOVE TO EXTEND ITS PRODUCT TO INCLUDE NEW CAPABILITIES SUCH AS SECURE BROWSING AND SAAS SUPPORT CAN HELP IT BOLSTER ITS POSITIONING AS A PROVIDER OF COMPREHENSIVE, COST-EFFECTIVE VUS SOLUTIONS THAT CAN SERVE AS AN ALTERNATIVE TO CITRIX.

BY SUPPORTING NEW VDI TECHNOLOGIES, AND ADDING MICROSOFT TERMINAL SERVER 2008/R2 AND THE RDP 7 TO THE COCKPIT4 ENGINE [I.E.: ALREADY SUPPORTED BY COCKPIT4], JETRO IS NOW IN AN IMPROVED POSITION TO COMPETE WITH CITRIX IN THE HIGH-END MARKET ”

[IDC - Company To Watch report, March 2010]



INTRODUCTION

Microsoft has extended its MTS2008/R2 functionality to include the ability to publish applications to user's desktops thereby improving performance compared to previous versions of Terminal Servers. Although it presents many new features, MTS2008/R2 is still a single server solution and not an end-to-end, centrally managed multi server solution.

While mid to large size customers, with more than 3-5 terminal servers, clearly understand the benefit of a centrally managed solution, smaller ones may decide to make do with the limited functionality provided 'as-is' with the various versions Terminal Server.

In this white paper we list the main advantages and benefits that customers gain when using COCKPIT4 in addition to MTS2008/R2. With this document, users can gain a better understanding of the additional functionality, performance, durability, manageability and stability provided by COCKPIT4 – the best and most cost-efficient alternative for Citrix XenApp – in order to make the right decision for their business needs.

COMPARISON: COCKPIT4 AND WINDOW TERMINAL 2008/R2

Windows Terminal Server 2008/R2 with RDP7 can now better compete in high-end markets against Citrix XenAPP and its ICA. Thus, the need for the COCKPIT management solution is even more evident. Industry experts agree that while MTS2008/R2 may be found suitable for very small deployments of up to 100 end users, it provides RDT Jetro with the ability to better compete with Citrix XenAPP at the Medium to large and even the high-end customers.

Table 1 below shows a comparison of the feature-sets of both COCKPIT4 and MTS2008/R2 alone. The table shows that MTS2008/R2 enhances the capabilities of Terminal Services 2003 and provides a better application delivery platform. Hence it becomes clear that in most cases, COCKPIT4 is needed in order to turn this technological platform from a departmental into an enterprise level solution.

COMPARISON TABLE

	COCKPIT4 with any version of Windows Terminal Server	Windows Terminal 2003	Windows Terminal 2008/R2
Centralized management	Yes	No	Very Basic and requires lots of manual work and third party tools to maintain farm configuration
Includes Printing Management solution	Yes	No	Basic, will mostly require a third party printing solution
Seamless application delivery	Yes	No	Basic
Server Load Balancing	Yes	No	Very Basic, counting only sessions. will mostly require a third party server load balancing solution
Application Load Balancing	Yes	No	No
User Experience Control	Yes	No	No
Users and groups based application delivery	Yes	No	No
Built in managed redundancy	Yes	No	No
Single sign on	Yes	No	Limited
Multi platform	Yes	No	Limited
Secure single port delivery	Yes	No	No
Multi Zone Farm based solution	Yes	No	No
Secure access for mobile users	Yes	No	Limited, will mostly require a third party server load balancing solution
Secure Web Browsing	Yes	No	No
Built in DRP with heartbeat monitoring	Yes	No	No
Farm wide monitoring and reporting	Yes	No	No
Administrative Session mirroring	Yes	No	No
Zone based application delivery	Yes	No	No

Table 1: A Comparison between Jetro COCKPIT4 and Windows 2003 and 2008/R2



CENTRALIZED MANAGEMENT

COCKPIT4 has a centralized administration console to manage the complete solution. Administrators can manage users, user groups, servers, server groups, applications, application delivery, printing, print terminals, load balancing, access gateways, controllers, RDP parameters, User Experience parameters, web browsing settings and permissions, segments and all other building blocks of the user experience.

COCKPIT4 allows customers to manage a multi server solution with multiple terminal servers of different kinds, all running different sets of applications, and all seamlessly managed from a central console.

COCKPIT4 centralized monitoring capabilities, such as session mirroring, allows help-desk personnel to access the session along with the user for troubleshooting. It also allows them to monitor the experience from the admin console as well as receive reports on the usage of the application delivered.

Unlike COCKPIT4, MTS2008/R2 requires administrators to create RDP links and publish them to the users. Each RDP link then needs to be tested to ascertain that it contains the appropriate applications.

PRINTING MANAGEMENT

Jetro's Universal Printing employs new methods and protocols for synchronizing between properties of physical and virtual printers, thus achieving maximal printing fidelity. The module features enhanced support for varying standard and non-standard properties including page sizes, resolutions, margins, and more. The solution also allows for printing directly to printers, thus saving a great deal of bandwidth by by-passing the client. Native printing is also supported, as well as multiple raw formats, such as Postscript, PCL5, PCL6, and EMF and a choice of raw or PDF transport, including Signed PDF documents.

COCKPIT4 Printing solution is fully integrated and managed through the Jetro COCKPIT administration console. In COCKPIT4, administrators can define what printing technique will be used in which scenario, and therefore solve the different printing issues for specific users, applications or printers.



MTS2008/R2 on the other hand has a printing solution that converts the printed page only to PDF. This however requires .NET 3.0 and RDP 6.1 or above - both of which can only be found in XP sp3, Windows 7 and Vista - thus preventing older PCs as well as thin clients from printing to their own native printers.

SEAMLESS APPLICATION DELIVERY

COCKPIT4 application virtualization provides users with a seamless environment complete with a look and feel that is identical to what users have grown accustomed to using their local PCs. With COCKPIT4, customers may use a heterogeneous farm with a combination of new and old servers and with different versions of Terminal Servers and still provide their users with a full seamless application experience.

MTS2008/R2 currently provides a fair seamless environment that may be good enough for some enterprise users. However, it does not match the seamless COCKPIT4 user experience and does not provide a similar environment for older versions of Terminal Server.

LOAD BALANCING

COCKPIT4 manages load balancing between servers by employing built-in algorithms that were designed over years of experience in the field. These are complemented by protocols that check for many different resource levels, not just number of sessions. Thus, COCKPIT4 achieves much higher performance, usability and stability than when using stand-alone MTS2008/R2.

COCKPIT4 has built-in mechanisms to prevent users from logging into loaded servers that publish themselves as load-free. Nicknamed black holes such terminal servers are known to cause users to log on in large groups leading to server overload. This can result in disconnections or server failure and sometime even in a server farm failure – all leading to poor user experience.



COCKPIT4 also monitors the availability of published applications. The solution places limits to the number of sessions per each application type on a server and on the resources consumed for each application. Thus it protects the server and the entire server farm from being overloaded, helping to distribute the load wisely and deliver unmatched user experience.

In contrast, MTS2008/R2 uses a basic round robin and very basic (network sessions) counting for load balancing that proves insufficient in the quest for higher system up-time, performance, stability and recovery. The result is inferior service uptime and therefore lower user experience compared to using COCKPIT4.

USERS AND GROUPS BASED APPLICATION DELIVERY

COCKPIT4 uses a multi level application delivery system. Taking advantage of the system, administrators can publish applications based on groups, individual users, machine names and IP ranges. This feature allows the administrator to manage each user's application delivery matrix.

MTS2008/R2 on the other hand, creates RDP links and a single, unified user experience. The link has to be created for each user or group and published to the desktop - a high maintenance procedure, especially when new applications are published.

BUILT IN MANAGED REDUNDANCY

COCKPIT4 allows for full redundancy. With its auto-connect features, customers enjoy multiple terminal servers publishing applications. Should one fail, users will automatically be redirected to a free server that supports their application set.

Unlike COCKPIT4, MTS2008/R2 has one single terminal server publishing application. Should it fail, users will lose the session and will need to reconnect (a call to the help desk is imminent in this case).



SINGLE SIGN ON

COCKPIT4 allows users to sign in one single time using their credentials. The solution then delivers the applications based on the user profile without the need to reenter the credentials. Credentials will need to be submitted again only after the customer has logged off. This allows for one machine to be used for multiple users. The major advantage in this case is that the administrator can control the login process and the process of saving credentials at the machine level.

In contrast, MTS2008/R2 alone allows users to save their credentials causing a security issue. One can of course block all the users from doing so - but there is still no control at the user or machine level.

MULTI PLATFORM SUPPORT

With COCKPIT the customer can use any RDP enabled device (with any operating system and any RDP version) to receive published applications. COCKPIT uses a universal connector approach that allows users connecting from older systems, or non windows systems, to enjoy a full featured experience. By employing the same auto connect features and full desktop environment, administrators may also publish applications to clients from virtual machines running other flavors of OS.

In contrast, MTS2008/R2 alone requires RDP 6.1 or higher preventing older systems from enjoying the full featured look and feel.

SECURE SINGLE PORT DELIVERY

COCKPIT4 tunnels all the traffic through a single port while allowing the use of SSL encryption on that port. This allows sending all the traffic on one managed and secure port to both local and remote users.

Customers can have remote users connect through the DMZ and receive published applications on an encrypted connection without the need for SSL VPN solutions.

In contrast, MTS2008/R2 uses a tunnel for all the connections. The risks are well known and the integration of third party solutions are required in order to deal with them.



MULTI ZONE FARM BASED SOLUTION

COCKPIT4 allows large customers to manage not just a multi server, but also a multi farm and a multi zone solution with multiple terminal servers all running different applications. This is combined into one seamless user experience. One can also publish different application sets to different users using advanced resolution of the user's location and the method of connection. This in turn provides users with a tailored application delivery solution from a centrally managed farm.

With COCKPIT4, administrators can also enable users in a specific location to access the terminals in the same location. This is completely managed from the administrator console and requires minimal administrative effort.

MTS2008/R2 on the other hand requires a set of terminal servers to be identical and requires each user to have its own RDP link causing insufficient efficiency and redundancy and generates great overhead in administrative tasks.

SUMMARY

This white paper described the advantages of using the COCKPIT4 application virtualization managed solution alongside with MS Windows 2008/R2 Terminal Services (MTS2008/R2).

Complete with a built in printing module, enhanced performance-boosting and cost cutting features and an advanced management console, COCKPIT4 offers a huge advantage over stand alone MTS2008/R2. This is especially evident when deployments are more complex or demanding than basic, homogeneous ones. Jetro COCKPIT4 makes MTS2008/R2 a true enterprise level solution providing the IT infrastructure required for real life and dynamic IT needs.

ABOUT RDT-JETRO

RDT-Jetro Ltd. is a leading server-based application virtualization solutions provider. Jetro's advanced software enables corporations to benefit from a centralized, secure delivery of applications across the entire organization. Through its leading COCKPIT™ and COCKPIT4i product lines, Jetro has established itself at the forefront of the IT industry, serving thousands of customers in the multibillion dollar Server Based Computing (SBC) and Network Security markets. RDT-Jetro Ltd. is fully owned by the RDT group, one of the leading Israeli technology providers since 1963.

For more information about Jetro and its products,

Please visit: <http://www.jetroplatforms.com>

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