

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* LESLIE K. HODGE and SCOTT E. LEDBETTER

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Appeal 2008-0802  
Application 10/147,831<sup>1</sup>  
Technology Center 2100

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Decided: September 4, 2008

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*Before ALLEN R. MACDONALD, JAY P. LUCAS, and THU A. DANG,  
Administrative Patent Judges.*

LUCAS, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF CASE

Appellants appeal from a final rejection of claims 1 to 3, 5 to 12, and 14 to 23 under authority of 35 U.S.C. § 134. The Board of Patent Appeals

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<sup>1</sup> Application filed May 17, 2002. The real parties in interest are Storage Technology Corporation, and its parent company, Sun Microsystems, Inc.

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and Interferences (BPAI) has jurisdiction under 35 U.S.C. § 6(b). Claims 4 and 13 are cancelled.

Appellants' invention relates to a method, system and computer program for creating virtual servers in an automatic manner. In the words of the Appellants:

The present invention provides a software-based solution for deploying virtual servers in a computer network. The method is initiated when an end user requesting a new virtual server clicks a hyperlink in which an imbedded command sequence requests the software to deploy a new virtual server. The software automatically updates the hypervisor environment to include the new virtual server, prepares the new virtual server disk allocations, propagates a server model image into the new virtual server, updates the new image with local identification parameters, and then boots the new virtual server.

(Spec., 3).

Claims 1, 2, and 18 are exemplary:

1. A method for deploying a virtual server, the method comprising the computer-implemented steps of:

receiving a request for deployment of the virtual server, automatically allocating storage media for the virtual server; automatically copying a predefined model system image into the virtual server;

automatically updating the image of the virtual server with local identification parameters; and automatically booting the virtual server.

2. A method for deploying a virtual server, the method comprising the computer-implemented steps of:

receiving a request for deployment or the virtual server, wherein the request for deploying the virtual server further comprises definition criteria including:

(i) a pool of possible TCP/IP addresses for the virtual server;

(ii) a pool of possible names for the virtual server; and

(iii) the model system image that is used for the creation and deployment of the virtual server; and

automatically allocating storage media for the virtual server,

automatically copying a predefined model system image into the virtual server;

and

automatically booting the virtual server.

18. A system for deploying a virtual server, the system comprising:

a means for receiving a request for deployment of the virtual server;

a means for automatically allocating storage media for the virtual server;

a means for automatically copying a predefined model system image into the virtual server, wherein the model system image contains a deployment script that is executed in the virtual server to facilitate establishment of a unique identity of the virtual server; and a means for automatically booting the virtual server.

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The prior art relied upon by the Examiner in rejecting the claims on appeal is:

|          |                    |  |
|----------|--------------------|--|
| Wesinger | US 5,870,550       | Feb. 9, 1999                           |
| Tremain  | US 2002/0069369 A1 | Jun. 6, 2002<br>(filed Jul. 3, 2001)   |
| Hay      | US 2002/0120660 A1 | Aug. 29, 2002<br>(filed Feb. 28, 2001) |
| Bruck    | US 6,801,949 B1    | Oct. 5, 2004<br>(filed May 8, 2000)    |

## REJECTIONS

- R1: Claims 1, 3, 6 to 10, 12, 15 to 17, and 20 stand rejected under 35 U.S.C. § 103(a) for being obvious over Tremain in view of Hay.
- R2: Claims 2 and 11 stand rejected under 35 U.S.C. § 103(a) for being obvious over Tremain in view of Hay and further in view of Bruck.
- R3: Claims 5, 14, 18, 19, and 21 to 23 stand rejected under 35 U.S.C. § 103(a) for being obvious over Tremain in view of Hay and further in view of Wesinger.

### Groups of Claims:

Claims are grouped by rejection, with claims 1, 2, and 18 being representative of their respective groups.

Appellants contend that the claimed subject matter is not rendered obvious by Tremain and Hay, and the respective secondary references, for failure of those references to teach important claimed limitations. The

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Examiner concludes that each of the three groups of claims is properly rejected.

Rather than repeat the arguments of Appellants or the Examiner, we make reference to the Brief and the Answer for their respective details. Only those arguments actually made by Appellants have been considered in this opinion. Arguments which Appellants could have made but chose not to make in the Brief have not been considered and are deemed to be waived.

We affirm the rejections.

## ISSUE

The issue is whether Appellants have shown that the Examiner erred in rejecting the claims under 35 U.S.C. § 103(a). The issue turns on whether the references teach the limitations of the claims, especially the automatic copying of a predefined model system image into a virtual server.

## FINDINGS OF FACT

The record supports the following findings of fact (FF) by a preponderance of the evidence.

1. Appellants have invented a method, system and computer program device (method) for quickly deploying virtual servers in a computer network. (Abstract). Instead of manually defining and initiating

individual tasks that may take up to 6 hours to deploy and customize a virtual server, (Spec., 8, bottom), the Appellants' method produces a new virtual server in less than 5 minutes. (Spec., 11). A key element in the method is the copying of an appropriate model image into the space reserved for the virtual server, except for dynamic network and server definitions that identify each server as unique. (Spec., 9, bottom). Those customizations are derived from a stream of definitions applied to the request for the new virtual server. (Spec., 10, bottom). Once the Model Linux Image (Virtual Server image) is defined, it is installed in the physical server system (Spec., 10, bottom) and booted up (Spec., 11, bottom).

2. The reference Tremain teaches a device and method for generating a virtual server in a computing environment for each user on the network who requests one. (¶[0043]). Thus, in contrast to the prior manual methods, once the Specification for each user is defined, instead of taking weeks to establish the virtual server, it may be brought into being within a matter of minutes or less. (¶[0149]). An aspect of Tremain's method is the copying of preconfigured standard servers which have been pre-loaded with the most popular software configurations. (¶[0145]). These images are customized with the application and server software requested by the individual user. (¶[0174]). The reference teaches depositing the virtual machine files into reserved container files in the physical storage

systems (¶[0102]), configuring them (¶[0174]) and then booting them up to run. (¶[0188]).

#### PRINCIPLES OF LAW

Appellants have the burden on appeal to the Board to demonstrate error in the Examiner's position. See *In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) ("On appeal to the Board, an applicant can overcome a rejection [under § 103] by showing insufficient evidence of *prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of nonobviousness.") (quoting *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)).

"It is common sense that familiar items may have obvious uses beyond their primary purposes, and a person of ordinary skill often will be able to fit the teachings of multiple patents together like pieces of a puzzle." *KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1732 (2007).

*Aventis Pharma Deutschland GmbH v. Lupin, Ltd.*, 499 F.3d 1293, 1300 (Fed. Cir. 2007); *Ormco Corp. v. Align Tech., Inc.*, 498 F.3d 1307, 1319-20 [84 USPQ2d 1146] (Fed. Cir. 2007) (law of the case that a dependent claim was obvious means the parent claim must also have been obvious); *In re Muchmore*, 433 F.2d 824, 825 (CCPA 1970) ("Since we agree with the board's conclusion of obviousness as to these narrow claims, the broader claims must likewise be obvious.").

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In sustaining a multiple reference rejection under 35 U.S.C. § 103(a), the Board may rely on one reference alone without designating it as a new ground of rejection. *In re Bush*, 296 F.2d 491, 496 (CCPA 1961); *In re Boyer*, 363 F.2d 455, 458 n.2 (CCPA 1966).

Our guiding court has held “[t]he prior art’s mere disclosure of more than one alternative does not constitute a teaching away from any of these alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claimed in the ‘198 application.” (*In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004).

## ANALYSIS

From our review of the administrative record, we find that the Examiner has presented a prima facie case for the rejections of Appellants’ claims under 35 U.S.C. § 103. The prima facie case is presented on pages 4 to 12 of the Examiner’s Answer. In opposition, Appellants present a number of arguments.

*Arguments with respect to the rejection  
of claims  
1, 3, 6 to 10, 12, 15 to 17, and 20  
under 35 U.S.C. § 103(a) [R1]*

Appellants contend that the Examiner erred in rejecting claims 1, 3, 6 to 10, 12, 15 to 17, and 20 under 35 U.S.C. § 103(a). Appellants first

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contend that Tremain and Hay fail to teach automatically copying a predefined model system image into a virtual server after storage media has been allocated to support the virtual server, as recited in claims 1 and 10. (App. Br., 7, middle). Appellants quote ¶[0145] of Tremain at the bottom of their Appeal Brief, page 7, which clearly expresses a copying step, but explain that Tremain only relates to copying an operating system, not running applications and other memory contents. (App. Br., 8, top).

Reviewing Tremain, we disagree with Appellants. Tremain discloses that: “Pre-configured virtual servers 83 … include virtual machine operating systems 84 and application and/or server software 85 for the different customers A,B,C,D,E.” (Tremain, ¶[0174]). We thus find that Tremain discloses a full image including the Operating System, Applications and data provided to the virtual servers created for each user.

Appellants next contend that the cited references fail to teach automatically updating the image of the virtual server with local identification parameters. (App. Br., 8, middle). We do not find error with the rejection on this point, for the reasons stated by the Examiner, in the Answer, page 18, bottom. Tremain and Hay teach fully customizing the copied image.

*Arguments with respect to the rejection  
of claims 2 and 11  
under 35 U.S.C. § 103(a) [R2]*

Appellants argue that the references do not teach the claimed 3 items enumerated in claim 2: the pool of addresses, the pool of names, and the model system image. The Examiner has pointed out the precise points in the prior art references where each of these elements is taught. (Answer, 19, bottom). We find that the process in Tremain is initiated by a request of the users, A...E, which requests contain the Specifications of the customer. (Tremain, ¶[00 43]).

In an interesting counter to the rejection, the Appellants contend that because multiple references are used to present the teachings of the 3 items, there is no single teaching that contains all of the enumerated items in one request. (App. Br., 12, middle). Appellants are reminded of the holdings in *KSR Int'l Co. v. Teleflex, Inc* (cited above) which instructs us that “a person of ordinary skill often will be able to fit the teachings of multiple patents together like pieces of a puzzle.” The fact that the prior art is taught in multiple patents does not obviate the effectiveness of the teachings to render the claims obvious.

*Arguments with respect to the rejection  
of claims 5, 14, 18, 19, and 20 to 23  
under 35 U.S.C. § 103(a) [R3]*

Claim 20 was rejected under R1 as being obvious over Tremain and Hay, but as it is dependent on claim 18, which requires the teachings of Wesinger for the rejection, it will be considered here under R3.

Appellants first object to this rejection for failure to teach the automatic copying of a predefined model system into a virtual server as claimed. This argument has been presented and rebutted above, and has not been found convincing. (See the discussion of R1 above).

Appellants next argue that the reference Wesinger, in combination with Tremain and Hay, fail to teach the use of scripts for customizing the image of a server, and, even if they do teach scripts, Wesinger teaches away from the use of scripts. We find that the Examiner has carefully explained the application of the prior art Tremain, Hay, and Wesinger to the rejection on pages 21 and 22 of the Examiner's Answer, and we find no error in that rejection on the points raised.

Concerning the Appellants' arguments that Wesinger teaches away from the use of scripts and therefore cannot be a valid reference, we consider the guidance of *In re Fulton* (cited above). Wesinger teaches an improvement over the use of Common Gateway Interface (CGI) scripts, which are slow to be executed because they are commonly interpreted and not compiled. However, that does not obviate the fact that (CGI) scripts are

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in the prior art. As teachings which do not “criticize, discredit, or otherwise discourage” the solution remain in the prior art, Wesinger remains a valid reference, as it merely improves on the teachings of (CGI) scripts. (*In re Fulton*, cited above.).

#### CONCLUSION OF LAW

Based on the findings of facts and analysis above, we conclude that the Examiner did not err in rejecting claims 1 to 3, 5 to 12, and 14 to 23.

#### DECISION

The Examiner's rejection of claims 1, 3, 6 to 10, 12, and 15 to 17 under 35 U.S.C. § 103(a) for being obvious over Tremain in view of Hay is affirmed.

The Examiner's rejection of claims 2 and 11 under 35 U.S.C. § 103(a) for being obvious over Tremain in view of Hay and further in view of Bruck is affirmed.

The Examiner's rejection of claims 5, 14, 18, 19, and 20 to 23 under 35 U.S.C. § 103(a) for being obvious over Tremain in view of Hay and further in view of Wesinger is affirmed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

rwk

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