

[0107] The secured version of these services, as well as any other secured service, can be implemented in a similar approach. However, the implementation is not straightforward, as the secured services usually use a different encryption key for each domain. This key is used to prevent unauthorized computers from accessing the information, as well as to authenticate the server that the information is sent to. The solutions for implementing the same approach for the secured services might be:

[0108] To use the same key for all the domains on each server;

[0109] To modify the protocol to contain some information about the target domain in clear (i.e. not encrypted) text.

[0110] To try to decode the message using all the domains keys. Once the message is decrypted, the wrapper can pass the message to the target domain (which can be determined by the key upon which the decryption of the message is carried out).

#### A Name-Based VDS

[0111] According to copending Israeli Patent Application No. 147560, an emulation of a computer system in which a remote client can access its system utilities and programs is referred to as a Virtual Dedicated Server (VDS). According to said application, a plurality of VDS instances can be executed simultaneously on one hosting computer system, each referring to a different directory tree as its root directory.

[0112] Using the VDS technology, the FTP server can use a different “/etc/passwd” for each domain, thus resulting in a different set of allowed users for each domain (including the same user name in several domains).

[0113] Using the technology described herein, a plurality of VDSes can use a single IP address for the Web services provided by the VDSes.

[0114] FIG. 2 schematically illustrates Web servers hosted by VDS systems that are hosted by one computer system, according to a preferred embodiment of the invention.

[0115] The hosting computer 10, hosts the VDS systems 60 and 70. VDS 60 is hosting the FTP server 11, and the POP3 server 12. VDS 70 is hosting the POP3 server 21, FTP server 22 and HTTP server 23. Daemon 40 “listens” to the well-known FTP port, HTTP port, and POP3 port. Whenever the daemon 40 indicates a request for connection from a client 30, the wrapper 50 “negotiates” with the client 30 as the appropriate Web server until the domain is indicated. Then, the wrapper negotiates with the appropriate Web server 11, 12, 21, 22 or 23 as it was the client. At the last stage, a connection between the appropriate Web server and the client is established, until the communication session ends.

[0116] The “appropriate server” is indicated by two parameters: the port, which indicates the type of the server (FTP, HTTP, etc.), and the domain that indicates the appropriate VDS.

[0117] As described in copending Israeli Patent Application No. 147560, the performance of the system can be improved using hard links.

[0118] The above examples and description have of course been provided only for the purpose of illustration, and are not intended to limit the invention in any way. As will be appreciated by the skilled person, the invention can be carried out in a great variety of ways, employing more than one technique from those described above, all without exceeding the scope of the invention.

1. A method for providing a Web service by a plurality of Web domains hosted by a computer, through a single IP address, comprising:

- a) For each of said domains, allocating a server having a unique domain name and said IP address, for providing said service;
- b) Providing a wrapper, being a software module for intermediating between a client of said service and said servers via the standard communication protocol for communicating with each of said servers;
- c) Upon receiving a request for connecting said client to the one of said servers in order to provide said service:
  - (i) Identifying the target domain name of said request by interacting between said client and said wrapper via said standard protocol;
  - (ii) Interacting between said wrapper and the server providing said service which is associated with said target domain name by said standard protocol;
  - (iii) Establishing a communication channel between said server and said client utilizing said standard protocol; and
  - (iv) Allowing said server to provide said service to said client.

2. A method according to claim 1, wherein the username phrase being used includes the username and the domain, and the domain name is separated from the username by one or more characters which do not conform with the standard characters allowed in a username in the standard protocol.

3. A method according to claim 2, wherein the username phrase is “user%domain” or “domain%user”, in which “user” is the username, “domain” is the domain name, and “%” is any character which does not conform with the standard protocol for such phrasing purposes.

4. A method according to claim 1, wherein said Web services are chosen from among HTTP, FTP, POP3, SMTP, MIRC, Telnet, SSH, Rtelnet, and Shell.

5. A method according to claim 1, wherein each of said Web domains refer to a different Virtual Dedicated Server.

6. A method according to claim 1, wherein said computer system is a Unix-based system, any dialect of Unix, Solaris, Linux (Red Hat, Debian, SuSE, FreeBSD, etc.), AIX, HP/UX, Tru64, or Irix.

7. A method according to claim 1, wherein each domain has its own instance of the server.

8. A method according to claim 7, wherein the server(s) of some or all the domains share the same disk space.

9. A method according to claim 8, wherein only one instance of some or all of the server(s) resides at the Host, and being referenced by hard links from the domains.

10. A method according to claim 1, wherein the wrapper is kept active for the entire session.