USING CONTENT AGGREGATION TO BUILD ADMINISTRATION CONSOLES

CROSS REFERENCE TO RELATED APPLICATIONS

The present invention is related to the inventions disclosed in the following commonly-assigned U.S. patent applications: Ser. No. 10/795,007, entitled "Federating Legacy/Remote Content into a Central Network Console", which was filed on Mar. 5, 2004 (now U.S. Pat. No. 7,444,633); and Ser. No. 10/754,375, entitled "Dynamic Composition of Help Information for an Aggregation of Applications", which was filed on Jan. 9, 2004 (now U.S. Pat. No. 7,890,864). The disclosures in these commonly-assigned patents are hereby incorporated herein by reference as if set forth fully.

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to computing systems, and deals more particularly with techniques for leveraging content aggregation techniques and frameworks (such as Web portals) for creating and deploying administration consoles, where those consoles may be used (for example) with operations such as resource configuration and systems management.

2. Description of the Related Art

Computer software and hardware systems are often configured, monitored, and managed by one or more administrators using graphical user interfaces called "consoles". Often, each system component within an information technology ("IT") environment has its own independently-developed console for carrying out these operations. Even a relatively small business can require a number of different computer-based products (including hardware components and/or software components) for its business solution, and a large business or other enterprise may have a very large number of such products in its IT environment. As a result, an administrator working in the IT environment may be faced with a large number of different consoles, each of which may potentially have different behavior and/or presentation conventions.

Requiring an administrator to learn how to use multiple different consoles is time-consuming and therefore costly. Requiring an administrator to work with multiple different consoles is also inefficient and creates an error-prone situation. For example, the administrator may require extra time for locating a desired function when changing among consoles having different presentation characteristics, and may make errors when he or she forgets the various behavioral differences among the consoles (such as the severity of a problem being depicted through a different set of colors on different consoles). Creating and maintaining a variety of product-specific consoles is also inefficient and costly for product development organizations.

Prior art consoles also suffer from other problems. In many cases, a console is installed on, and operates on, the same physical device as the product that it manages. (For example, a console that provides operations for managing a server application may be installed on the device running the server software.) In other cases, a console is installed on the workstation of every administrator needing access to the console. Both of these approaches are referred to herein as an "installed console" scenario. An enterprise can easily grow to have tens of thousands of these installed, and—even though the various instances of the installed console do not have different behavior and presentation conventions—the administrator must perform a series of mostly-redundant operations to upgrade each of the consoles when the corresponding product has to be upgraded and maintained.

Another problem with many existing consoles is that the presentation of administration functions is typically aligned with the structure of the products comprising the business solution, rather than being designed to provide a solution to an administrator's task at hand. When an administration console has been designed to administer a collection of products but a particular IT environment does not install all of those products, it may be a difficult or time-consuming task to modify the console to address only the appropriate subset of products; in other cases, such modifications may not be possible, leaving the administrator to use a console that reflects uninstalled products.

Prior art consoles also require significant duplicated effort for performing a particular action multiple times, which is burdensome and inefficient for administrators. For example, if an administrator needs to start or stop several servers, prior art consoles require the start or stop action to be carried out separately for each such server. When products from different vendors or products using different operating systems are present in an IT environment, then it often happens that the command syntax for carrying out an operation varies among the products. This can be confusing, error-prone, and inefficient for administrators.

Accordingly, what is needed are improvements to administration consoles.

SUMMARY OF THE INVENTION

An object of the present invention is to provide improvements for administration consoles.

Another object of the present invention is to provide techniques for leveraging content aggregation frameworks in administration consoles.

A further object of the present invention is to provide a Web-accessible console that consolidates the administration interfaces for an arbitrary collection of hardware and/or software resources.

Still another object of the present invention is to provide a console that is flexibly updateable by its user(s).

Yet another object of the present invention is to provide a console that enables an operation to be applied to multiple targets (where those targets may, in some cases, use differing functional interfaces).

Other objects and advantages of the present invention will be set forth in part in the description and in the drawings which follow and, in part, will be obvious from the description or may be learned by practice of the invention.

To achieve the foregoing objects, and in accordance with the purpose of the invention as broadly described herein, the present invention may be deployed as methods, systems, and/or computer program products embodied on one or more computer-readable media. In one aspect, the present invention provides content aggregation techniques for a console, comprising: defining one or more views that are renderable on the console, wherein a definition of each view specifies one or more content-creating software entities that can be invoked to create content to be rendered in the view; rendering one of the defined views, wherein a selectable representation (such as a hyperlink containing a name or other identifying information, an icon, etc.) is also rendered for at least one of the invocable software entities specified in the definition for the rendered view; invoking a particular one of the invocable software