[0013] It is therefore desirable to provide means for better managing functionality for web services **25**.

SUMMARY OF THE INVENTION

[0014] It is an objective of the invention to provide a novel system and method for managing functionality for web services that obviates or mitigates at least one of the disadvantages of existing systems.

[0015] In an aspect of the present invention, there is provided a gateway module for managing functionality for one or more web services. The web services gateway module comprises a client application interface unit for receiving communication from a client application over a standard protocol, a communication processor for processing the communication for a web service, and a web services interface unit for delegating the processed communication to the web service.

[0016] In another aspect of the present invention, there is provided a method for managing functionality for one or more web services. The method comprises steps of receiving communication from a client application over a standard protocol, processing the communication for a web service, and delegating the processed communication to the web service.

[0017] In another aspect of the present invention, there is provided computer readable media storing the instructions and/or statements for use in the execution in a computer of a method for managing functionality for one or more web services. The method comprises steps of receiving communication from a client application over a standard protocol, processing the communication for a web service, and delegating the processed communication to the web service.

[0018] In another aspect of the present invention, there is provided electronic signals for use in the execution in a computer of a method for managing functionality for one or more web services. The method comprises steps of receiving communication from a client application over a standard protocol, processing the communication for a web service, and delegating the processed communication to the web service.

[0019] In another aspect of the present invention, there is provided computer program product for use in the execution in a computer of a method for managing functionality for one or more web services. The computer program product comprises a module for receiving communication from a client application over a standard protocol, a module for processing the communication for a web service, and a module for delegating the processed communication the web service.

[0020] Other aspects and features of the present invention will be readily apparent to those skilled in the art from a review of the following detailed description of preferred embodiments in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0021] The invention will be further understood from the following description with reference to the drawings in which:

[0022] **FIG. 1** is a diagram showing a standard web service deployment environment;

[0023] **FIG. 2** is a diagram showing a web service infrastructure in accordance with an embodiment of the invention;

[0024] **FIG. 3** shows an example of a gateway module in accordance with an embodiment of the present invention;

[0025] **FIG. 4** shows a method for managing functionality for one or more web services in accordance with an embodiment of the present invention;

[0026] **FIG. 5** shows another example of a web services infrastructure in accordance with an embodiment of the present invention;

[0027] **FIGS. 6A, 6B** and **6**C show other methods for managing functionality for one or more web services in accordance with an embodiment of the present invention;

[0028] **FIGS. 7A** is a diagram showing the gateway module as a simple object access protocol processor in accordance with an embodiment of the invention;

[0029] **FIGS. 7B** is a diagram showing the gateway module as an application programming interface contract processor in accordance with an embodiment of the invention;

[0030] **FIG. 8** is a diagram showing a modification to an application programming interface through the gateway module in accordance with an embodiment of the invention;

[0031] **FIG. 9** shows another example of a gateway module in accordance with an embodiment of the present invention;

[0032] **FIG. 10** shows another method for managing functionality for one or more web services in accordance with an embodiment of the present invention;

[0033] **FIG. 11** is a diagram showing sequence of events to log into and make web service calls in accordance with an embodiment of the invention;

[0034] **FIG. 12** is a flowchart showing a method for providing a pool of authentication identifiers in accordance with an embodiment of the present invention;

[0035] **FIG. 13** is a flowchart showing a method for using a pool of authentication identifiers in accordance with an embodiment of the present invention;

[0036] **FIG. 14** is a diagram showing another example of a login services module in accordance with an embodiment of the present invention;

[0037] **FIG. 15** is a flowchart showing another method for providing a pool of authentication identifiers in accordance with an embodiment of the present invention;

[0038] **FIG. 16** is a diagram showing an enhanced web service deployment environment in accordance with an embodiment of the invention;