CLAIMS

1. A system for electronic patient care, the system comprising:

a network;

a facility gateway configured to provide a publish-subscribe service for applications executed within the facility gateway for communication among the applications;

a device gateway configured for execution by the facility gateway, the device gateway is configured to communicate via the network by providing a web service;

a medical device in operative communication with the network; ~~and~~

a publish-subscribe engine configured to provide the publish-subscribe service for communication between a plurality of applications including the device gateway, the plurality of applications being executed within the facility gateway;

an external database;

a continuous quality improvement listener configured for execution by the facility gateway, the continuous quality improvement listener subscribes to a reportable clinical event topic, the continuous quality improvement listener is configured to communicate a reportable clinical event received by the subscription to the reportable clinical event topic to the external database; and

a device application configured to subscribe to a registered topic using the publish-subscribe engine, wherein:

the device application receives an event stream of the registered topic from the publish-subscribe engine,

the event stream includes a plurality of raw medical-device events from the medical device, and

when the device application receives a medical-device event corresponding to a reportable event, the device application republishes the reportable event as a continuous-quality-improvement ("CQI") message via the publish-subscribe engine.

2. The system according to claim 1, wherein a biomed server is registered to a topic of the publish-subscribe engine corresponding to a plurality of reportable events published to the publish-subscribe engine.

3. The system according to claim 1, wherein the device gateway is a web server of the web service and the medical device is a client of the web service.

4. The system according to claim 1, wherein the device gateway is configured to register a topic using the publish-subscribe service.

5. The system according to claim 4, further comprising an integration API configured for execution by the facility gateway, wherein the integration API is configured to subscribe to the topic and communicate an event received by the subscription to the topic to at least one external server.

6. The system according to claim 4, wherein the device gateway reformats the medical device event received via the web service into the reportable clinical event.

7. The system according to claim 6 , wherein the medical device communicates the medical device event via the network using the web service.

8. The system according to claim 4, wherein the topic is the reportable clinical event topic and the device gateway reformats the medical device event received via the web service into the reportable clinical event receivable by a subscriber to the topic via the publish-subscribe engine.

9. The system according to claim 8 , wherein the medical device communicates the medical device event via the network using the web service.

10. The system according to claim 4, wherein the topic corresponds to at least one class of pump events.

11. The system according to claim 10, wherein the at least one class of pump events includes at least one of an infusion event regarding an alarm, alert or notification, an infusion event regarding infusing, an infusion event regarding programming, a device event regarding communication, a device event regarding an access request, a device event regarding configuration updates, a device event regarding logging, and a device event

regarding power consumption.

12. The system according to claim 1, wherein the external database records the reportable clinical event.

13. The system according to claim 1, further comprising a device manager executable on the facility gateway, wherein the device manager is configured to maintain a list of medical devices including the medical device.

14. The system according to claim 13, wherein the list of the medical devices includes a list of serial numbers corresponding to the list of medical devices.

15. The system according to claim 1, further comprising a monitoring client in operative communication with the medical device through the network to receive status information therefrom.

16. The system according to claim 1, where each device type has a corresponding device application.

17. The system according to claim 1, wherein the CQI message is the reportable clinical event.