WHAT IS CLAIMED IS:

1. A modular information handling system framework comprising:

a rack containing at least one chassis;

a sled placed within the chassis;

wherein the sled includes at least one information handling system;

a fan placed within the chassis to cool the information handling system;

a fan controller communicatively coupled to the fan;

wherein the fan controller manages operation of the fan;

a node controller associated with the sled;

wherein the node controller manages operation of the sled;

a power module for supplying power to the information handling system;

a power module controller for managing operation of the power module; and

a primary domain controller communicatively coupled to at least one of the fan controller, the node controller, and the power module;

wherein the primary domain controller manages the operation of at least one of the fan controller, the node controller and the power module;

wherein the node controller comprises:

an identification service to identify the physical location of the node controller within the system;

a notifier service operable to send messages from the node controller to at least one of the primary domain controller and the fan controller;

a command listener to receive messages from the primary domain controller;

a serial console service to interface with the information handling system;

a monitoring service;

wherein the monitoring service keeps track of data from one or more sensors associated with the sled, and

a log service operable to receive and store messages from one or more components of the node controller.

2. The system of claim 1, wherein the primary domain controller provides a user interface for the modular information handling system framework.

3. The system of claim 2, wherein the primary domain controller is operable to display information relating to performance of the modular information handling system framework to the user.

4. The system of claim 2, wherein the primary domain controller allows a user to control performance parameters of the modular information handling system framework.

5. The system of claim 1, further comprising a secondary domain controller, wherein the secondary domain controller manages the operation of at least one of the

fan controller, the node controller and the power module if the primary domain controller becomes inoperational.

6. The system of claim 5, further comprising a management appliance, wherein the management appliance contains one or more of the primary domain controller, the secondary domain controller and a management switch.

7. The system of claim 1, wherein the primary domain controller is communicatively coupled to at least one of the power module controller, the fan controller and the node controller through a management network.

8. The system of claim 7, wherein the management network is an Ethernet network.

9. The system of claim 1, wherein the information handling system is selected from the group consisting of a server and a data storage device.

10. The system of claim 1, further comprising one or more sensors for monitoring operating conditions of at least one of the sled, the fan and the power module.

11. The system of claim 10, wherein the one or more sensors are selected from a group consisting of a temperature sensor and a power monitoring sensor.

12. The system of claim 1, wherein the primary domain controller comprises one or more managers and one or more interfaces.

13. The system of claim 10, wherein the primary domain controller comprises:

a device manager communicatively coupled to the one or more sensors;

wherein the device manager receives sensor data from the one or more sensors;

a domain controller manager to manage the primary domain controller;

a security manager to authenticate connections to the primary domain controller; and

a notification manager to monitor sensor data received by the device manager.

14. The system of claim 13, wherein the notification manager generates a notification if sensor data indicates occurrence of an event of interest.

15. The system of claim 14, wherein the event of interest is selected from the group consisting of sensor data indicating a temperature exceeding a threshold temperature value and sensor data indicating power consumption exceeding a threshold value.

16. The system of claim 14, wherein the notification manager generates the notification to an end user through a user interface.

17. The system of claim 5, wherein the primary domain controller comprises a redundancy manager, wherein the redundancy manager allows communications between the primary domain controller and the secondary domain controller.

18. The system of claim 17, wherein operations of the primary domain controller are transferred to the secondary domain controller if the secondary domain controller is unable to communicate with the redundancy manager.

19. The system of claim 13, wherein the device manager includes a cache for buffering sensor data received from the one or more sensors.

20. The system of claim 19, wherein the sensor data is moved into permanent memory from the cache at a predetermined frequency.

21. The system of claim 1, wherein the fan controller comprises:

an identification service to identify the physical location of the fan controller within the system;

a notifier service operable to send messages from the fan controller to the primary domain controller;

a command listener service to receive messages from the primary domain controller;

a monitoring service;

wherein the monitoring service keeps track of data from the one or more sensors associated with the fan,

a dynamic fan control to regulate speed of the fan based on the information available from the monitoring service;

a log service operable to receive and store messages from components of the fan controller; and

a heartbeat signal to determine if the fan controller is operating.

22. The system of claim 21, wherein the monitoring service generates a signal to the notifier service if data from the one or more sensors indicates an event of interest.

23. The system of claim 20, wherein the dynamic fan control includes a proportional-integral-derivative controller.

24. The system of claim 21, wherein the heartbeat signal directs the fan to operate at maximum speed if the fan controller is inoperational.

25. The system of claim 1, wherein the node controller manages power to the sled.

~~26. The system of claim 1, wherein the node controller comprises:~~

~~an identification service to identify the physical location of the node controller within the system;~~

~~a notifier service operable to send messages from the node controller to at least one of the primary domain controller and the fan controller.~~

~~a command listener to receive messages from the primary domain controller;~~

~~a serial console service to interface with the information handling system;~~

~~a monitoring service;~~

~~wherein the monitoring service keeps track of data from one or more sensors associated with the sled, and~~

~~a log service operable to receive and store messages from one or more components of the node controller.~~

~~27~~26. The system of claim 1~~2~~6, wherein the monitoring service is operational to generate a signal to the notifier service if data from the one or more sensors indicates an event of interest.

~~28~~27. The system of claim 1, wherein the node controller is communicatively coupled to the fan controller.

~~29~~28. The system of claim 1, wherein at least one of the fan controller and the node controller includes a configuration file containing its operational parameters.

~~30~~29. The system of claim 1, wherein the primary domain controller is operable to configure the configuration file of the fan controller and the configuration file of the node controller.

~~31~~30. A modular rack system comprising:

a plurality of chassis placed in one or more racks;

a plurality of sleds placed in each chassis;

wherein each sled includes an information handling system;

a shared fan module to cool the plurality of sleds in each chassis;

a shared power module to supply power to one or more sleds in one or more chassis;~~ and~~

a shared management module to manage operation of the plurality of chassis, wherein the shared management module comprises a primary domain controller; and

a node controller associated with a sled, wherein the node controller comprises:

an identification service to identify the physical location of the node controller within the system;

a notifier service operable to send messages from the node controller to at least one of the primary domain controller and the shared fan module;

a command listener to receive messages from the primary domain controller;

a serial console service to interface with the information handling system in the sled;

a monitoring service;

wherein the monitoring service keeps track of data from one or more sensors associated with the sled,

wherein the monitoring service is operational to generate a signal to the notifier service if data from the one or more sensors indicates an event of interest; and

a log service operable to receive and store messages from one or more components of the node controller.

~~32~~31. The system of claim ~~31~~30, wherein the shared fan module comprises one or more fans and a fan controller to control operation of the shared fan module.

~~33~~32. The system of claim ~~32~~31, wherein the fan controller comprises:

an identification service to identify the physical location of the fan controller within the system;

a notifier service operable to send messages from the fan controller to the primary domain controller;

a command listener service to receive messages from the primary domain controller;

a monitoring service;

wherein the monitoring service keeps track of data from the one or more sensors associated with the fan,

a dynamic fan control to regulate speed of the fan based on the information available from the monitoring service;

a log service operable to receive and store messages from components of the fan controller; and

a heartbeat signal to determine if the fan controller is operating.

~~34~~33. The system of claim ~~33~~32, wherein the monitoring service is operational to generate a signal to the notifier service if data from the one or more sensors indicates an event of interest.

~~35~~34. The system of claim ~~31~~30, wherein the shared power module comprises a power distribution unit and a power module controller to control operation of the shared power module.

~~36~~35. The system of claim ~~35~~34, wherein the power distribution unit comprises one or more power supply units.

~~37. The system of claim 31, wherein the shared management module comprises a primary domain controller.~~

~~38~~36. The system of claim ~~37~~30, wherein the primary domain controller enforces a power capping policy.

~~39~~37. The system of claim ~~37~~30, wherein the primary domain controller tracks power consumption of one or more components of the modular rack system.

~~40~~38. The system of claim ~~37~~30, further comprising a secondary domain controller that replaces the primary domain controller if the primary domain controller becomes inoperational.

~~41~~39. The system of claim ~~37~~30, wherein the primary domain controller comprises:

a device manager communicatively coupled to one or more sensors;

wherein the one or more sensors monitor operating conditions of at least one of a sled, a component of the shared fan module, and a component of the shared power module;

wherein the device manager receives sensor data from the one or more sensors;

a domain controller manager operable to manage the primary domain controller;

a security manager operable to authenticate connections to the primary domain controller; and

a notification manager operable to monitor sensor data received by the device manager.

42~~41~~40. The system of claim 41~~38~~39, wherein the notification manager is operable to generate a notification if sensor data indicates occurrence of an event of interest.

~~43. The system of claim 37, further comprising a node controller associated with a sled.~~

~~44. The system of claim 43, wherein the node controller comprises:~~

~~an identification service to identify the physical location of the node controller within the system;~~

~~a notifier service operable to send messages from the node controller to at least one of the primary domain controller and the shared fan module.~~

~~a command listener to receive messages from the primary domain controller;~~

~~a serial console service to interface with the information handling system in the sled;~~

~~a monitoring service;~~

~~wherein the monitoring service keeps track of data from one or more sensors associated with the sled,~~

~~wherein the monitoring service is operational to generate a signal to the notifier service if data from the one or more sensors indicates an event of interest; and~~

~~a log service operable to receive and store messages from one or more components of the node controller.~~

4541. The system of claim 3130, wherein the shared fan module, the shared power module and the shared management module are communicatively coupled through a management network.

4642. The system of claim 4541, wherein the management network is an Ethernet network.

4743. The system of claim 3130, wherein power is distributed to the sleds through a chassis backplane.