CLAIMS

What is claimed is:

1. A computer-implemented method, comprising:

determining whether an operating system of a node of a distributed computing environment is functioning correctly by sending a first management query to the node;

in response to determining that the operating system of the node is not functioning correctly, determining whether the node has an active communication link by sending a second management query to ports associated with the node; and

in response to determining that the node has an active communication link, resetting the active communication link for the node by sending a reset request to the ports associated with the node.

2. The computer-implemented method of Claim 1, wherein the first management query is directly sent from a first node of the distributed computing environment to a second node via a point-to-point connection between the first node and the second node.

3. The computer-implemented method of Claim 1, wherein the first management query is indirectly sent from a first node of the distributed computing environment to a second node via a switch located between the first node and the second node.

4. The computer-implemented method of Claim 1, wherein the first management query is sent by a first node to a second node in response to determining that the second node is a neighbor node to the first node.

5. The computer-implemented method of Claim 1, wherein the first management query includes a fabric management query that terminates within the operating system of the node.

6. The computer-implemented method of Claim 1, wherein it is determined that the operating system of the node is not functioning correctly in response to determining that a response to the first management query has not been received from the node within a predetermined time period.

7. The computer-implemented method of Claim 1, wherein in response to determining that the operating system of the node is not functioning correctly, all ports associated with the node are probed to determine whether any ports of the node are present and active, the probing including sending the second management query that asks the ports associated with the node whether the node has an active communication link.

8. The computer-implemented method of Claim 1, wherein it is determined that the node has an active communication link in response to identifying an active port within the node in response to the second management query.

9. The computer-implemented method of Claim 1, wherein in response to determining that the operating system of the node is not functioning correctly, and the node also has an active communication link, a predetermined count is incremented, and monitoring of the node is performed with a greater frequency.

10. The computer-implemented method of Claim 1, wherein the reset request causes the ports associated with the node to reset all active links within the node.

11. The computer-implemented method of Claim 1, wherein each node within the distributed computing environment is designated a monitoring node.

12. The computer-implemented method of Claim 1, wherein a monitoring node within the distributed computing environment is only allowed to send a predetermined number of reset requests to another node within a predetermined time period.

13. The computer-implemented method of Claim 1, wherein the first management query and the second management query are both high-priority queries.

14. The computer-implemented method of Claim 1, wherein the first management query also determines whether a network adapter of the node is operational.

15. A computer program product for fencing non-responding ports in a network fabric, the computer program product comprising a computer readable storage medium having program instructions embodied therewith, wherein the computer readable storage medium is not a transitory signal per se, the program instructions executable by a processor to cause the processor to perform a method comprising:

determining whether an operating system of a node of a distributed computing environment is functioning correctly by sending a first management query to the node, utilizing the processor;

in response to determining that the operating system of the node is not functioning correctly, determining whether the node has an active communication link by sending a second management query to ports associated with the node, utilizing the processor; and

in response to determining that the node has an active communication link, resetting the active communication link for the node by sending a reset request to the ports associated with the node, utilizing the processor.

16. The computer program product of Claim 15, wherein the first management query is directly sent from a first node of a distributed computing environment to a second node via a point-to-point connection between the first node and the second node.

17. The computer program product of Claim 15, wherein the first management query is indirectly sent from a first node of a distributed computing environment to a second node via a switch located between the first node and the second node.

18. The computer program product of Claim 15, wherein the first management query is sent by a first node to a second node in response to determining that the second node is a neighbor node to the first node.

19. The computer program product of Claim 15, wherein the first management query includes a fabric management query that terminates within the operating system of the node.

20. The computer program product of Claim 15, wherein it is determined that the operating system of the node is not functioning correctly in response to determining that a response to the first management query has not been received from the node within a predetermined time period.

21. The computer program product of Claim 15, wherein the second management query asks the ports associated with the node whether the node has an active communication link.

22. A system, comprising:

a processor; and

logic integrated with the processor, executable by the processor, or integrated with and executable by the processor, the logic being configured to:

determine whether an operating system of a node of a distributed computing environment is functioning correctly by sending a first management query to the node;

in response to determining that the operating system of the node is not functioning correctly, determine whether the node has an active communication link by sending a second management query to ports associated with the node; and

in response to determining that the node has an active communication link, reset the active communication link for the node by sending a reset request to the ports associated with the node.

23. A computer-implemented method, comprising:

sending a first management query from a first node of a distributed computing environment to a second node of the distributed computing environment, where the first management query is associated with an operating system of the second node;

in response to a failure to receive, at the first node, a response to the first management query from the second node, sending, from the first node to one or more communication ports associated with the second node, a second management query; and

in response to receiving, at the first node, a response to the second management query from the one or more communication ports associated with the second node indicating that the second node has an active communication link, sending, by the first node to the one or more communication ports associated with the second node, a link reset request to reset the one or more communication ports of the second node with the active communication link.

24. The computer-implemented method of Claim 23, wherein a plurality of additional nodes is included with the first node and the second node within the distributed computing environment, and each of the nodes within the distributed computing environment monitors neighboring nodes utilizing the first management query and the second management query.

25. A computer-implemented method, comprising:

determining whether an operating system of a node of a distributed computing environment is functioning correctly by sending a first management query to the node;

in response to determining that the operating system of the node is not functioning correctly, determining whether the node has an active communication link by sending a second management query to ports associated with the node; and

in response to determining that the node has an active communication link, incrementing a predetermined count and performing monitoring of the node with greater frequency;

in response to determining that the predetermined count exceeds a threshold, flagging the node and resetting the active communication link for the node by sending a reset request to the ports associated with the node.

~~25. A computer program product for implementing a management node within a distributed computing environment, the computer program product comprising a computer readable storage medium having program instructions embodied therewith, wherein the computer readable storage medium is not a transitory signal per se, the program instructions executable by a processor to cause the processor to perform a method comprising:~~

~~sending a first management query from a first node of a distributed computing environment to a second node of the distributed computing environment, utilizing the processor, where the first management query is associated with an operating system of the second node;~~

~~in response to a failure to receive, at the first node, a response to the first management query from the second node, sending, from the first node to one or more communication ports associated with the second node, a second management query, utilizing the processor; and~~

~~in response to receiving, at the first node, a response to the second management query from the one or more communication ports associated with the second node indicating that the second node has an active communication link, sending, by the first node to the one or more communication ports associated with the second node, a link reset request to reset the one or more communication ports of the second node with the active communication link, utilizing the processor.~~