

Accredited Standards Committee
X3, Information Processing Systems

Doc: X3T10.1/96a144r0
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Project: 1147D, TL2
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Reply to: Mark DeWilde

To: X3T10.1 Membership
From: Mark DeWilde
Subject: Notification of Change in ULPs supported

BACKGROUND

During configuration, configutors are informed of the ULPs supported in a remote node through the query node SMS and the Query Protocol SMS. This mechanism implies several assumptions:

1. The protocols indicated are ready to be used at the time of configuration
2. The protocol list returned is static, nothing will be added or deleted
3. Vendor Unique ULP codes will not be shared over the duration of the connection.

All three of these assumptions are invalid. In the case of an operating system that boots from an SSA drive, the supported ULPs are most probably not present until booting is complete. There is no mechanism to delay the use of a ULP until after booting is complete. As far as other nodes are concerned, the ULP is available as soon as configuration completes. The supported protocols could change, depending on the task set the host is running, and the network facilities needed. If the node supports multiple (>4) vendor unique protocols, then there are insufficient ULP codes available to support all simultaneously. It should be expected that the 4 codes will be shared between the protocols active at the time, and that as one protocol becomes inactive, another could be allocated the ULP code. Not all vendor unique protocols will be standardized and given standard codes.

A mechanism is needed to cause the configutors in the web to re-query a node for supported protocols in order to allow a node to supply the correct and currently active ULP information to other nodes. One mechanism would be for a node to put itself in wrap, and to then re-connect itself to the web, forcing reconfiguration. A better mechanism not requiring all nodes to reconfigure the changed node would be for the changed node to generate an async alert, and the master to notify the configutors with a new warning subtype, ULP list changed. Upon receiving this Master Alert, the configutors would use Query Protocol SMSs to update the node data they keep.

PROPOSAL

Modify table 25 as follows:

Type 06h, WARNING				
06h	01h	00h	REDUNDANT FAN FAILURE	Unchanged
06h	02h	vendor specific	FAILURE PREDICTION THRESHOLD EXCEEDED	Unchanged
06h	03h	00h	PORT NOT OPERATIONAL DUE TO HARDWARE FAULT	Wrap
06h	04h	MASTER PRIORITY field	MASTER PRIORITY CHANGED	Unchanged
06h	05h	CURRENT SPEED field	PORT OPERATING AT SLOWER THAN OPTIMAL SPEED	Unchanged
<u>06h</u>	<u>06h</u>	<u>00h</u>	<u>Supported ULP List Changed</u>	<u>Unchanged</u>

Add an additional subsection to 10.6.5:

10.6.5.5 Supported ULP List Changed

Any configutor receiving this MASTER ALERT SMS may respond to this warning by initiating a QUERY PROTOCOL SMS to the node causing the alert. The supported protocol list received is used to update the table data held in regards to that node. If a configutor for any reason does not need the changed information, then the warning may be discarded with no action.

Sincerely,

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