OAM Setup Guide

Application Note 301 – OAM Setup Procedure

OAM Set-up Procedure

Application note:

This application note describes how to set-up OAM on Transition Networks standalone versions of the S3230x NIDs as well as ION C323x chassis based modules. These products support the IEEE OAM 802.3ah standard for troubleshooting and remote management that includes these features.

- Critical Event
- Discovery
- Event notification with log in
- Last gasp/dying gasp
- Remote Loop Back
- Exchange of configuration information and remote firmware upgrades with organization specific Protocol Data Units (PDUs)
- Link status failure indication

The family of x323x products implements OAM on both the fiber and twisted pair interfaces. The OAM enabled port is user selectable. By default, the fiber port is the default OAM enabled port. If dual fiber ports, Port 2 is the default.

The chassis based C323x module can only be installed in a Transition Networks ION chassis (ION001-x and ION219-x). The C323x module is “hot-swappable” and can be installed with power on in the chassis.

The standalone S323x models can be rack mounted, table top or, wall mounted.

Procedure:

1) Connect a fiber cable from the active local device (chassis) to the passive remote device. The active local device manages its passive remote peer. The relationship between the active local device and its passive remote peer is established via OAM functionality.

2) Log into the ION management agent (ION, password=private) Click on ION Stack, Chassis, then select/click on C323x module, Port 2.

TRANSITION NETWORKS

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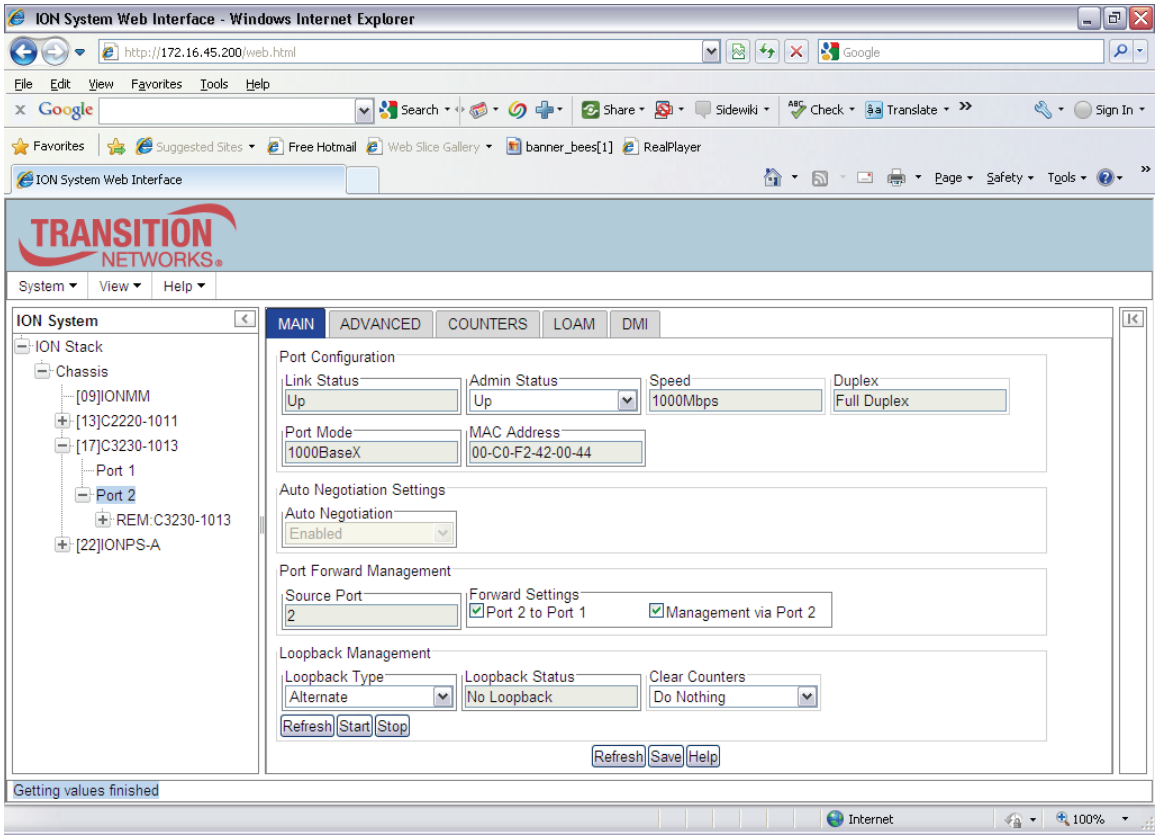

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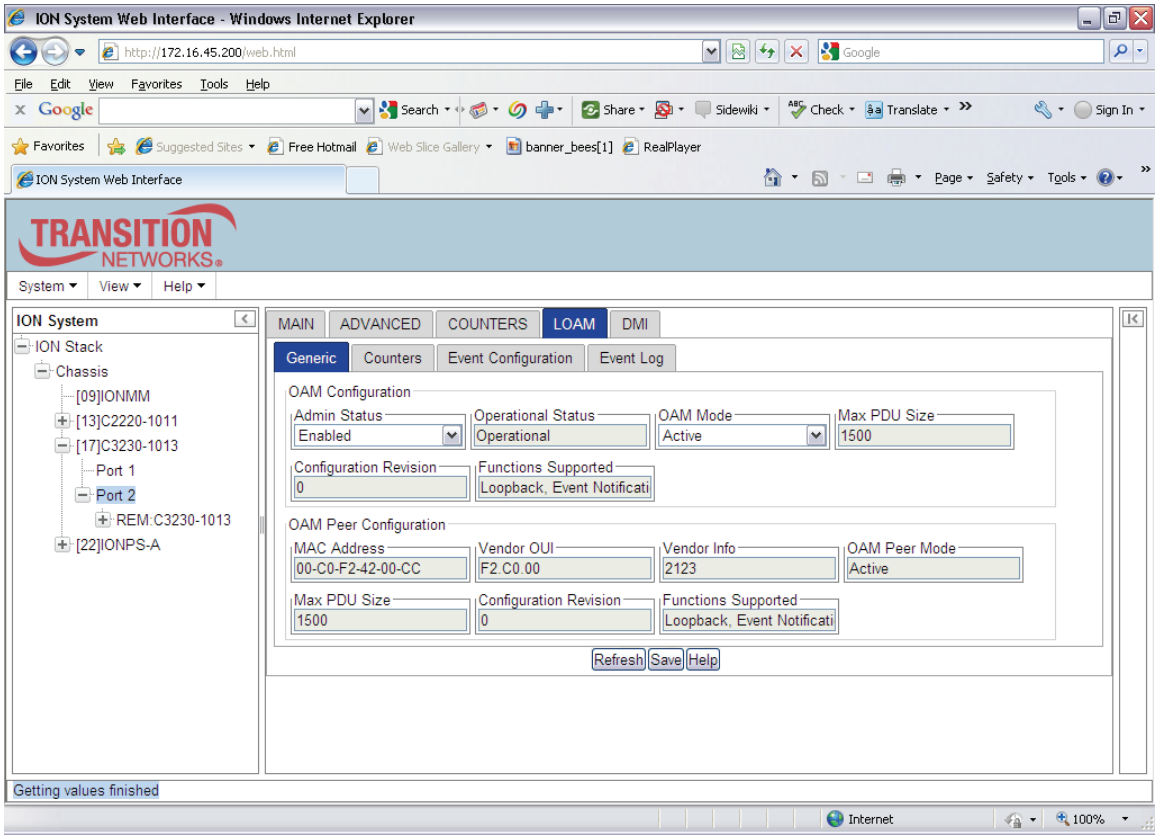
Next select LOAM, select enable from Admin Status pull down menu, set OAM Mode to Active. Save



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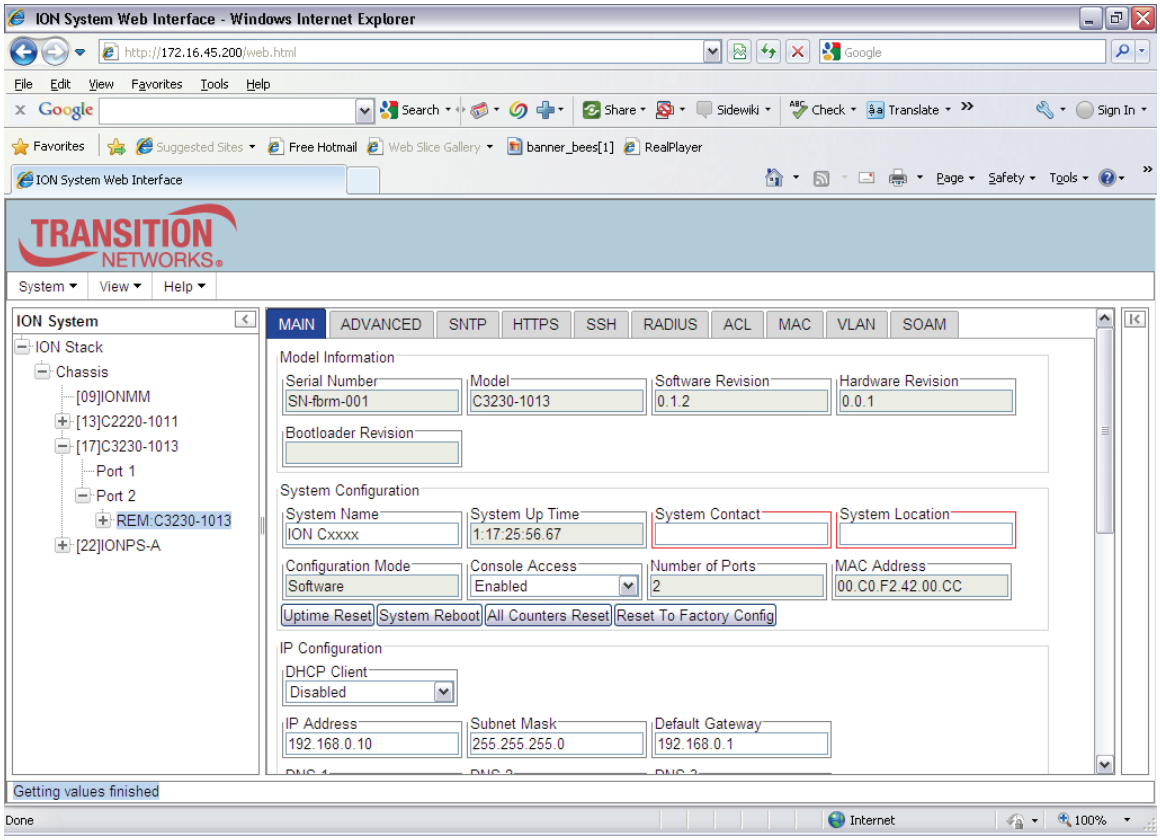
Next, select the remote S323x from the Menu



Select Port 2, then LOAM

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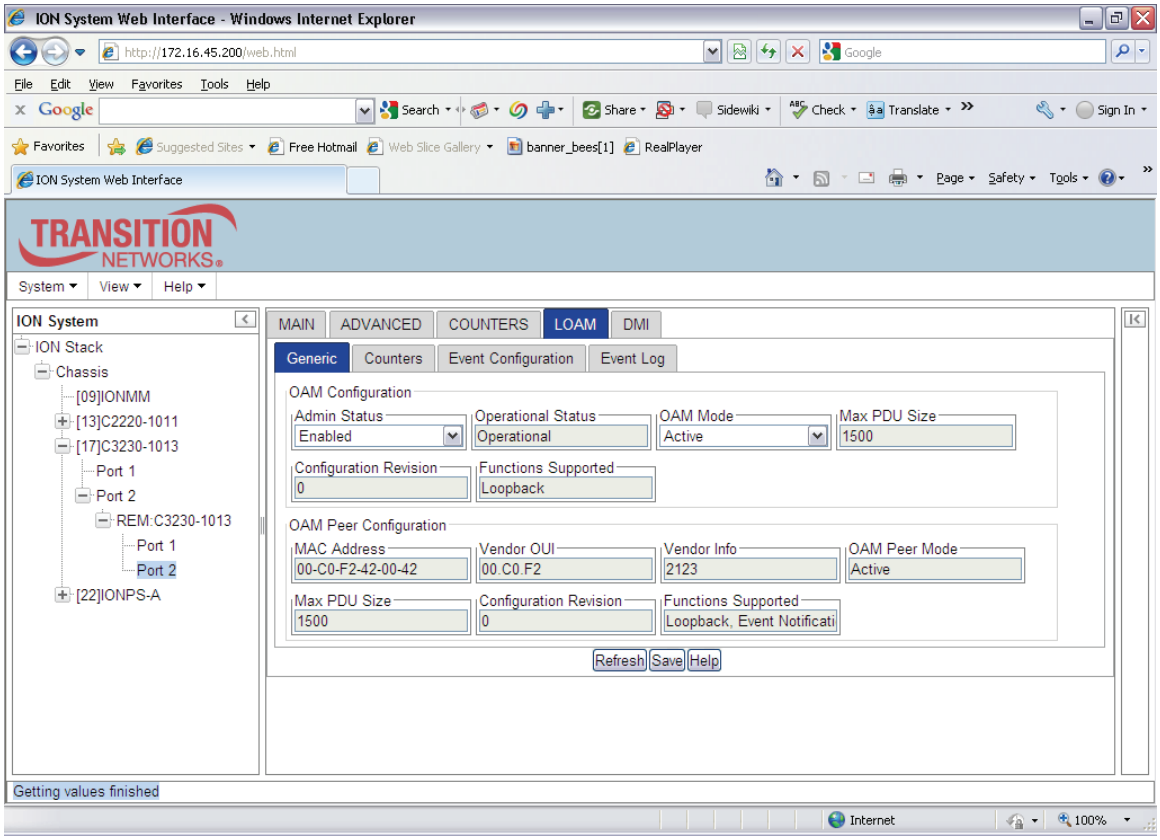

Set OAM Status to Enable, OAM Mode to Passive. Save

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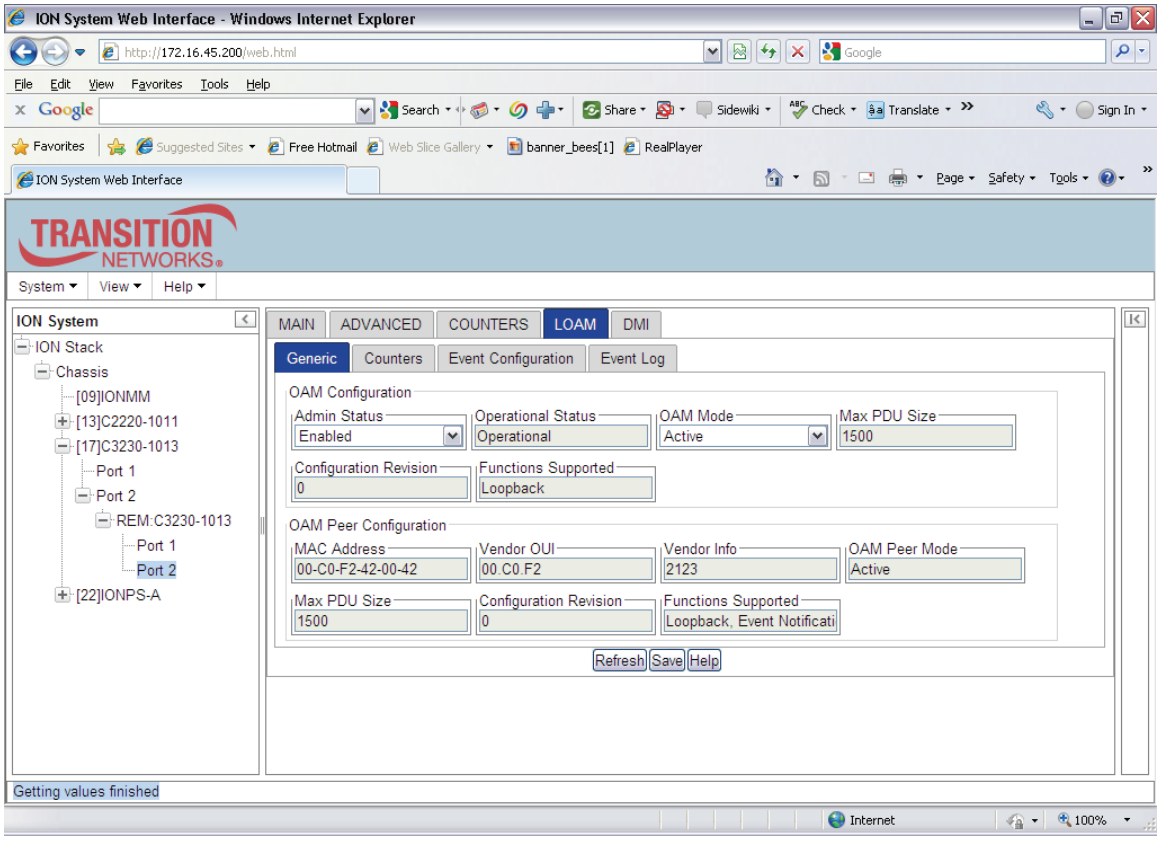

If provisioning the standalone S323x NID for remote operation without ION management, by default, the S323X is managed by the ION Management Module. Setting the mode to **local** indicates that the device is not managed by the ION Management Module but either a direct USB connection or a direct network connection via Telnet or the Web interface. Setting the mode to remote indicates that the device is managed through the ION Management Module.

At the command prompt, enter: **show switch mode**

Displays whether the device is in local or remote switch mode, indicating where the device is managed.

- local – device is managed through direct connection to the device.
- remote – device is managed through the ION Management Module.

To change management mode type: **set switch mode={local** | **remote}** Enter either local or remote without brackets

To change any of the IP parameters through the CLI interface, the management state must be enabled

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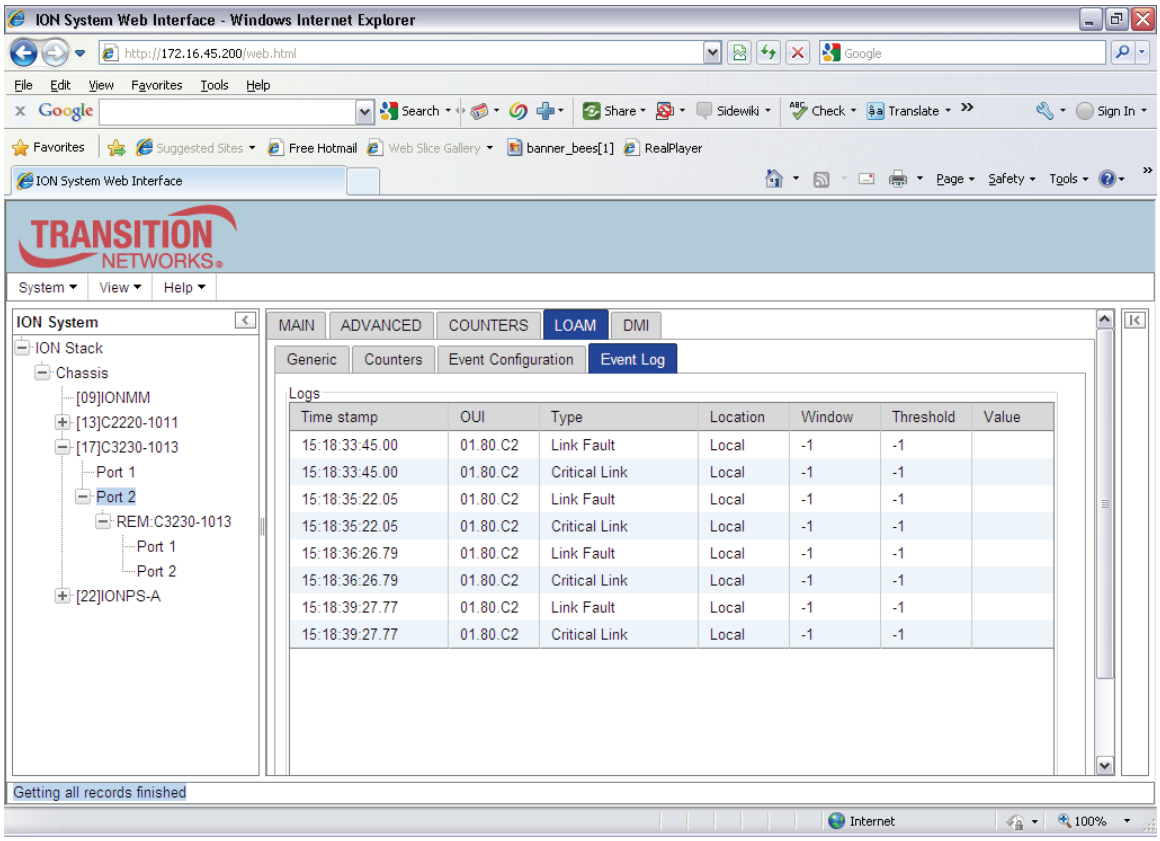
Set IP Management State set ip–mgmt state=<{enable | disable}
Enables or disables the ability to change any of the IP parameters through the CLI interface.

Test OAM critical event and link faults by observing results in the Event log



To remotely managed specific OAM critical events, set up SNMP trap host managers in the ION management module (see App. Note ###) for set-up instructions.

The x323x NIDs support both private and public MIBs for SNMP management including RFC 4878 (Definitions and Managed Objects for Operations, Administration, and Maintenance (OAM). The NIDs also implement the draft-ietf-hubmib-efm-mib (EFM OAM MIB).

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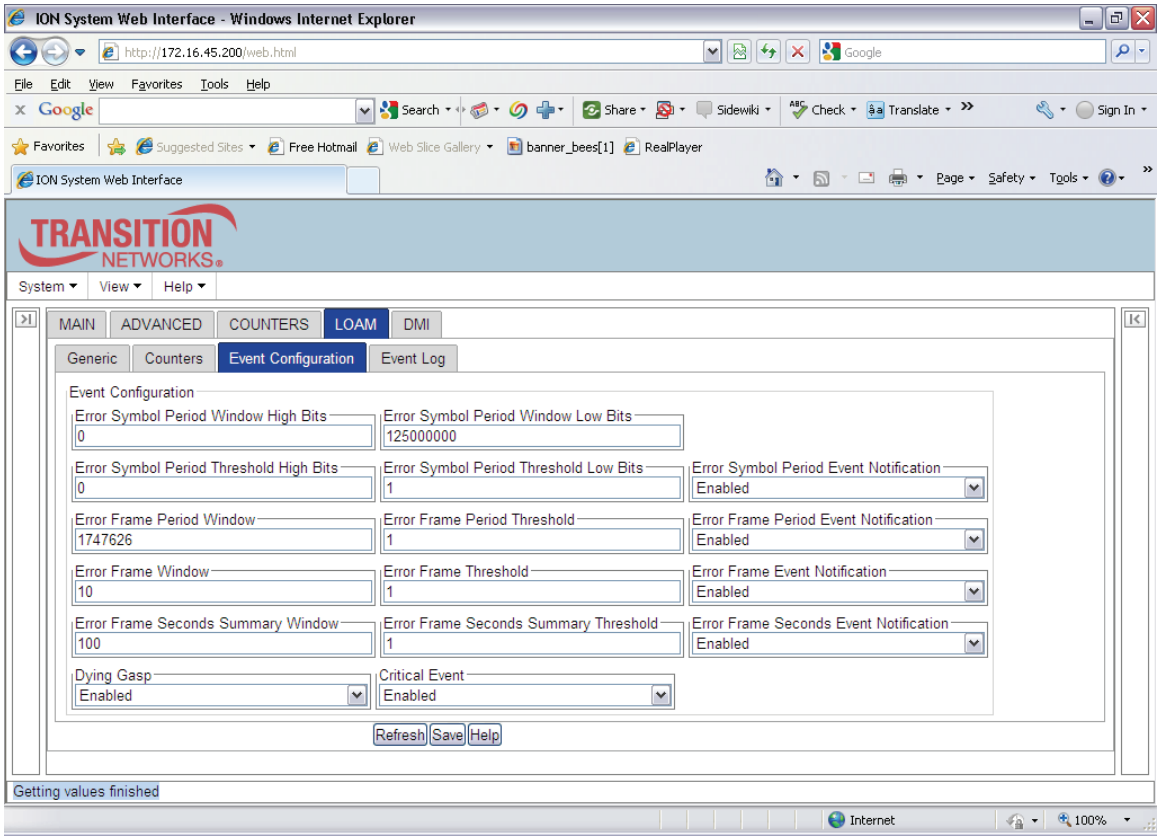
To enable certain OAM thresholds (i.e. enable/disable Last Gasp, critical events), click on Event Configuration, set thresholds, then Save



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