

Minutes of SAS 2.0 Zoning Working Group - Aug 18, 2005**1 Objective**

Review 144-r6 revision of the SAS Zoning proposal.

2 The meeting was opened at 1:00 pm (PST)**3 Attendance**

Ms. Pat Thaler Agilent	Agilent Technologies
Mr. Ralph O. Weber	ENDL Texas
Mr. Kevin Marks	Dell, Inc.
Mr. Tim Hogle	LSI Logic Corp.
Mr. William Petty	LSI Logic Corp.
Mr. Tom Grieff	Hewlett Packard Co.
Mr. Robert Sheffield	Intel Corp.
Mr. George O. Penokie	IBM / Tivoli Systems
Mr. Tim Symons	PMC-Sierra
Mr. Heng Liao	PMC-Sierra
Mr. William Martin	Sierra Logic Inc.
Ed D'Avognon	Vitesse Semiconductor

4 Meeting Minutes**4.1 Docs. rev.**

Not everyone on the call had downloaded the 144-r6 document version, due to the late submission. It was agreed that there should be a cut-off period 24 hours prior to the call, so that everyone would have a chance to review the document before the call.

Action: Timely upload of document

4.2 Source check ID

Tom Grieff presented a proposal of Source ID checking for inclusion into the SAS Zoning. Source ID provides additional validation for a host access to zoned devices. There was also confusion regarding whether this is a feature to support LUN level partitioning.

The concept was challenged this as being a "security feature", and asserted that it should be offered as a separate proposal.

Action: Remove Source Check ID function from this proposal
Make Source ID check a separate proposal.

4.3 End device supervisors

Tom Grieff and Heng Liao explained an extension to the zone system management to enable "end devices" to participate in the configuration of the zoned service delivery subsystem. It was agreed that end devices should be allowed to be the active supervisor because it is more likely that an end device will have the processing and non-volatile memory capabilities. To support reporting of the entire physical topology by an Active supervisor belonging to a zoned group, there needs to be a function for "non-zone masking" discovery. It is proposed that an additional bit be defined in the DISCOVER request for this.

This requires two types of discovery request commands:

1. PHYSICAL DISCOVER request, to identify the whole infrastructure.
2. LOGICAL DISCOVER request to identify the devices available within the zone.

Explanation of the logical versus physical discovery function in the document is required.

Action: Define the process and select a bit in the DISCOVER request frame for the NON_ZONE_MASKING bit.

4.4 Trusted/un-Trusted notation

These terms have security connotations and should be changed. The terms “participating” shall replace “trusted” and “non-participating” shall replace “un-trusted” to denote whether a phy is attached to another phy within the zoned service delivery subsystem.

Action: Replace “Trusted” and “Un-Trusted” terms throughout document.

4.5 Legacy and New terms to be removed

References to “legacy” and “domain” need to be scrubbed, and re-termed as appropriate. Generally the reference will change to “non-zoning aware” device, but intelligent change is required.

Similarly the term “new” is used to identify changes made by the proposal, these need to be revised, and “new” is a relative term.

Action: Replace “Legacy”, “domain” and “New” terms throughout document.

4.6 Section numbering and reference inconsistencies

The document requires sequencing of the sections, figures and references.

The document needs greater use of reference pointers when describing changes that affect other sections.

Action: Apply proper enumeration and extend the use of referencing.

4.7 Zoning permission table description.

The new sections describing Special Groups are unnecessary and “considered usage” is inappropriate in standards documentation. Group descriptors are over stated, and can be simplified. Remove the reference to “P[0,127] shall be set to 1” as this is already detailed.

Action: Removed Special Groups section (4.1.2.3)

Remove the reference to “P[0,127] shall be set to 1”

4.8 Supervisor Election process

The election process description requires more concise text to describe how a device is nominated through use of priority bits, and how the process is completed to ensure that all devices are notified of the winner. More references to response fields of phy attributes will help. There is a lot of dependency on section “4.1.8 Topology Discovery” for reference and it may be better to move the election process to after the description of the topology discovery section.

Action: Focus on detailing election process steps, references and the section position within the flow of the document.

4.9 Change Count

Expander Change count relates to a device, but zoning provides for an expander to participate in different groups simultaneously, therefore it needs to be clarified what the change count reports to each of the relevant groups.

Action: Define what happens to change count in zoned systems.

4.10 Broadcast change

A zoned Broadcast address frame may be transmitted three times to ensure delivery. There is concern over the impact of this on receiver queues. Further detailing of this function is required and rationalization of the frequency of this event in the overall system context. Tim Hoglund requested specific review.

Action: Add details to the Broadcast section of the document.

4.11 *Minimum Table size in expanders*

Require clarification that the number of zones supported by a zoned service delivery subsystem is based on the minimum supported zones table size of any device in the subsystem.

Action: Add these words.

4.12 *Active Supervisor References.*

Clean up references so it is clear that zone management is only controlled by the Active Supervisor.

Action: Scrub for active supervisor.

5 Next Meeting

The next SAS zoning conference call is proposed for Tuesday August 30th, 1:00pm Pacific Time. Pat Thaler and Tim Symons to send out meeting notice to T10 mail list with conference call and WebEx information. The suggested agenda is for Tim Symons to go over the revised document.