Bridge Assigned VSI Type IDs for VDP

bg-ghanwani-bridge-vsi-0710-v1

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Overview

- Background
- Motivation for network assigned VSI Type IDs
- Modifications to VDP in 802.1Qbg/D1.0

Background

- 802.1Qbg/D1.0 contains a protocol to communicate VSI Type IDs between end stations and bridges
- Currently, the end station is always responsible for indicating the VSI Type ID to a bridge
- It would be useful to allow the *option* of having the bridge assign the VSI Type ID for a given VSI

This is in addition to, not instead of, the existing mechanism for server assigned VSI Type ID

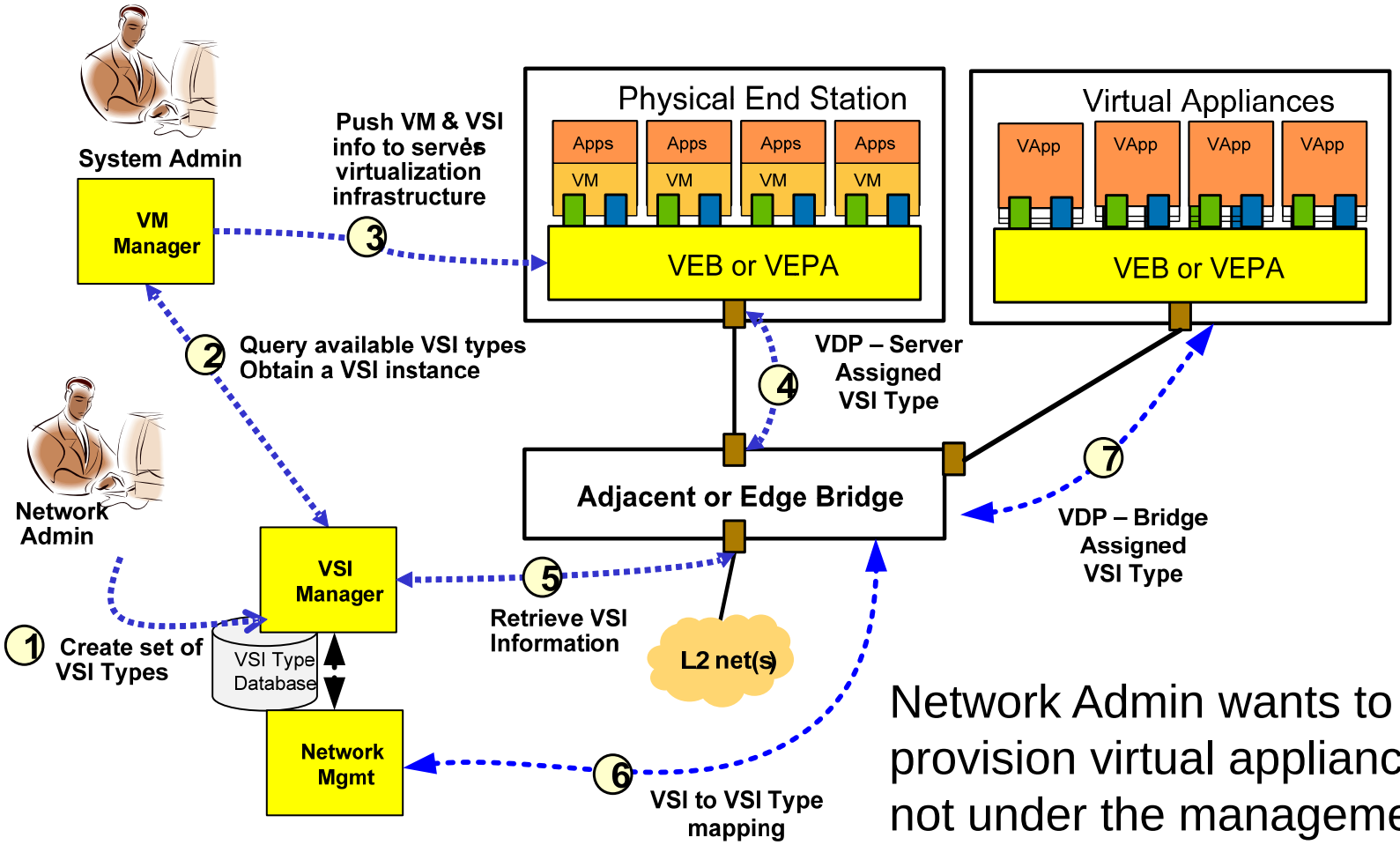
Motivation for Bridge-assigned VSI Type IDs

- The VSI Type ID for a VSI determines what policies get applied to the server represented by that VSI at a VEB/VEPA/bridge port
- The policy is usually something that would be maintained in the VM Manager
- There are instances where the server need not be involved in VSI Type ID assignment

Motivation – An Example

- The Network Admin would like to set up virtual appliances in a server
- The server/VMs used for the appliances are not under the administration of the VM manager

Use Case for Bridge Assigned VSI Types

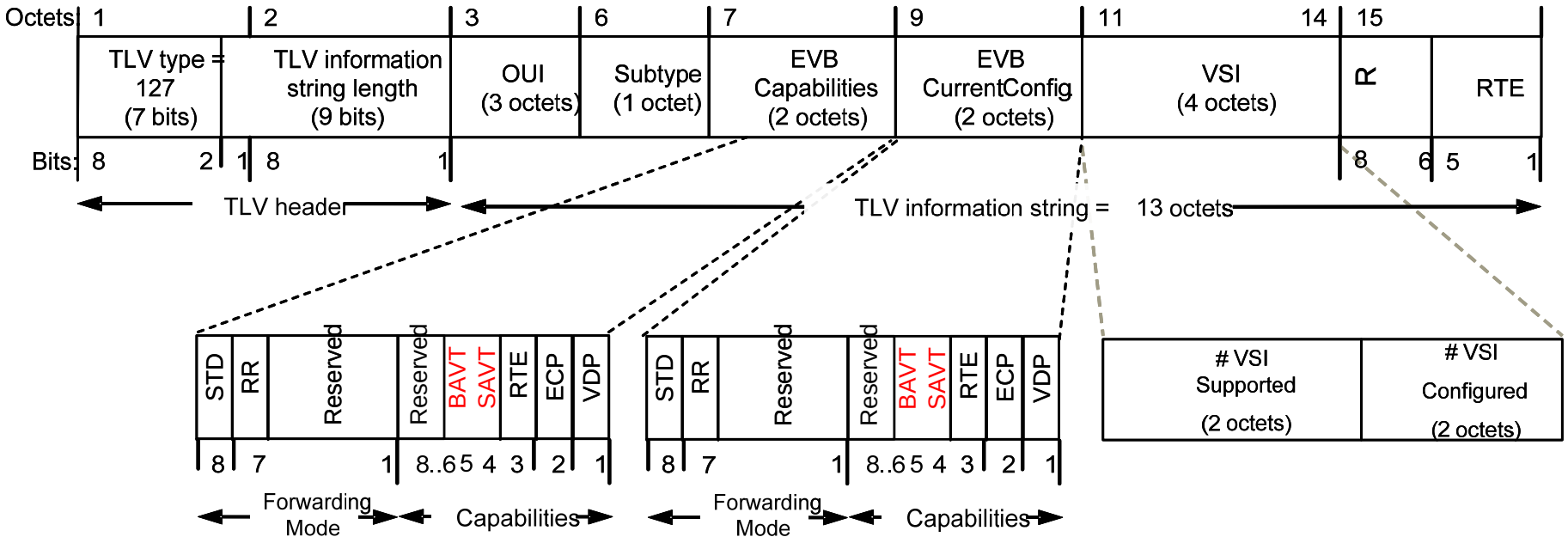


Network Admin wants to provision virtual appliances not under the management of the VM Manager

Modifications to VDP and CDCP

- Currently, during the pre-associate and associate phases, the end station always specifies the VSI Type
  - Instead, at this step, the server provides a reserved VSI Type indicating “To be provided by Bridge”
  - The Bridge would provide the assigned VSI Type in the confirmation message
  - If the server wants to refuse the assignment it can send a de-associate message
- In the EVB TLV, the Bridge will indicate whether or not it will accept VSI Types from the server
  - If not, an error will be returned if the VSI Type ID is anything other than the reserved value
  - 2 additional bits are needed
    - “support server assigned VSI Type ID”
    - “support bridge assigned VSI Type ID”

EVB TLV Changes

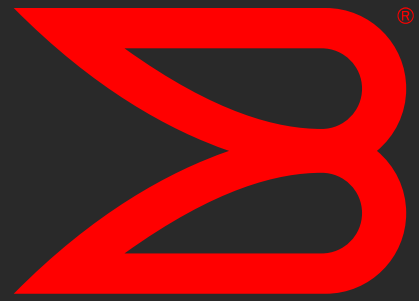


BAVT = Bridge Assigned VSI Type ID
SAVT = Server Assigned VSI Type ID

Server Assigned & Bridge Assigned VSI Types

- What is currently specified in the P802.1Qbg draft is SAVT
  - This mode will continue to be required for conformance to P802.1Qbg
- A new mode, BAVT, is allowed
  - Optional to implement in the conformance clause for 802.1Qbg
- Both the server and the bridge may set either of these bits
  - SAVT or BAVT may be used only if set by the bridge and the server
  - If both are set by the bridge and the server, then either can be used
  - SAVT operates as specified today
  - If only BAVT is set, then the bridge will accept pre-associate and associate messages from the server only with a reserved Type ID and will return the Type ID to be used in the response

BROCADE



THANK YOU