z/OS 3.1 IBM Education Assistant

Solution Name: Withdrawal of OSE CHPID support requiring removal of VTAM Link Station Architecture (LSA) and

TCP/IP LAN Channel Station (LCS) devices

Solution Name: Health Check for the Removal of VTAM LSA Architecture and TCP/IP LCS devices

Solution Element(s): HVT6310

July 2023

Agenda

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Trademarks

- See url http://www.ibm.com/legal/copytrade.shtml for a list of trademarks
- Additional Trademarks:
  - None

Objectives (1)

- Background information
- About VTAM Link Station Architecture (LSA):
  - The IBM Z OSA-Express OSE CHPID type provides “legacy mode” access to Ethernet (802.3)
    - VTAM Subarea SNA (PU Type 2/4) native access to Ethernet using Link Station Architecture (LSA) support
    - VTAM Definition (VTAM VBUILD Type = XCA major node, PORT statement with MEDIUM=CSMACD)
- With the prevalence of TCP/IP and the availability of "SNA over IP" technologies, current mainframe networks are migrating to IP-based networks
- Across the industry, support for the native SNA protocol, LLC2, or 802.3, on distributed platforms is now being withdrawn, such that native SNA connectivity to the mainframe will eventually be rendered useless

Objectives (2)

- Background information
  - On July 27, 2021 IBM released a statement of direction:

    Withdrawal of support for VTAM® Link Station Architecture (LSA) and TCP/IP LAN Channel Station (LCS) devices

    As stated in Hardware Announcement 121-029, dated May 4, 2021, many IBM Z clients continue to rely on Systems Network Architecture (SNA) applications for mission-critical workloads, and IBM has no plans to discontinue support of the SNA protocol, including the SNA APIs. However, IBM Z support for the SNA protocol being transported natively out of the server using OSA Express 1000BASE-T adapters configured as channel type “OSE” will be eliminated in a future hardware system family. With the support for OSE planned to be discontinued, support for the related VTAM and TCP/IP device drivers is also planned to be discontinued. IBM intends z/OS V2.5 to be the last z/OS release to provide support for LSA (SNA) and LCS (TCP/IP) devices. z/OS systems that have workloads that rely on the SNA protocol and utilize OSE networking channels as the transport should be updated to make use of some form of SNA over IP technology, where possible, such as Enterprise Extender.

Overview

Withdrawal of support for VTAM Link Station Architecture (LSA)

- Who
  - Users who have specified MEDIUM=CSMACD on the XCA major node PORT statement

```
************************************************************************  X
*  XCAET XCA MAJOR NODE FOR OSA EXPRESS ETHERNET TYPE 2 & 4              X
************************************************************************  X
RUXOETR  VBUILD  TYPE=XCA                                                 X
RUPOETR  PORT    MEDIUM=CSMACD,ADAPNO=0,SAPADDR=12,CUADDR=2E34           X
************************************************************************
*  NAME: OSA CARD ETHERNET FOR PU TYPE 2
************************************************************************
RUGPOET2 GROUP DIAL=YES,ISTATUS=ACTIVE,CALL=INOUT,DYNPU=YES               X
RUETLN01 LINE                                                             X
RUETPU01 PU                                                               x
```

- What
  - In z/OS 3.1, we have removed the capability of specifying MEDIUM=CSMACD on the XCA major node PORT statement
    - In so doing, VTAM's LSA support will be disabled
  - LCS TCP/IP device support is removed by ZRM-709 Removal of OSA DEVICE/LINK/Home Configuration Support
- Wow
  - Enterprise Extender is a strategic SNA technology

Usage & Invocation

Withdrawal of support for VTAM Link Station Architecture (LSA)

- Using the example on the previous slide after disablement, if MEDIUM=CSMACD was specified, the following messages would be output (Existing message):

```
v net,act,id=RUXOETR
IST097I VARY ACCEPTED
IST322I CONFIGURATION RUXOETR ERROR IGNORED - INVALID VALUE
IST323I LABEL = PORTIP   - MACRO TYPE = PORT     - KEYWORD = MEDIUM
IST314I END
```

Overview (Health Check)

Health Check for the Removal of VTAM LSA Architecture and TCPIP LCS devices

- Who
  - Users who have specified MEDIUM=CSMACD on the XCA major node PORT statement
- What
  - Health check APAR OA62208 was produced for V2R3, V2R4, and V2R5 customers to warn if they are still using VTAM Link Station Architecture (LSA) (Medium=CSMACD is coded on the XCA PORT statement)
  - Named ZOSMIGV2R5_NEXT_CS_LSA
- Wow
  - Enterprise Extender is a strategic SNA technology

Usage & Invocation

Health Check for the Removal of VTAM LSA Architecture and TCPIP LCS devices

- Heath Check Messages
  - **ISTM051I** - MEDIUM CSMACD is not in use on this system for a XCA major node PORT statement
  - **ISTM052E** - MEDIUM CSMACD is in use on this system for a XCA major node PORT statement
  - System programmer response:

    Because MEDIUM CSMACD support in the XCA major node PORT statement will no longer be supported in a future release of z/OS Communications Server, IBM suggests that customers who currently use or are planning to use VTAM Link Station Architecture migrate to use Enterprise Extender (EE). See Using Enterprise Extender (EE) in z/OS Communications Server: SNA Network Implementation Guide for more information.

Interactions & Dependencies

- Software Dependencies
  - None
    - The IBM Health Checker for z/OS framework is a part of base z/OS.
- Hardware Dependencies
  - No hardware dependencies
- Exploiters
  - No exploiters

Upgrade & Coexistence Considerations

- To exploit this solution, all systems in the Plex must be at the new z/OS level: **No**
- No considerations for Withdrawal of support for VTAM Link Station Architecture (LSA)
- To exploit the Health Checker solution, Health Check APAR OA62208 was produced for V2R3, V2R4, and V2R5

Installation & Configuration

- No installation and configuration items to note

Summary

- The ability to define VTAM Link Station Architecture (LSA) has been removed in 3.1
- Health check ZOSMIGV2R5_NEXT_CS_LSA was produced to detect if the LSA in use with your systems

Appendix

- For information on migrating to use Enterprise Extender (EE), see Using Enterprise Extender (EE) in z/OS Communications Server: SNA Network Implementation Guide
- For information XCA major nodes using Medium CSMA/CD, see External communication adapter (XCA) major node full syntax in z/OS Communications Server: SNA Resource Definition Reference