

Aptio 5.x AMISCE Release Notes

AMI SOFTWARE UTILITY USER GUIDE

REVISION 1.51 – JULY 25, 2024

NDA REQUIRED

Aptio 5.x AMISCE Release Notes

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Revision History

Date	Revision	Description
2009-10-07	1.00	Initial draft
2009-10-23	1.01	Update Requirement and Add Notes section
2010-08-26	1.02	Added UEFI 2.1 support, support for SMIVariable modifications for extracting database in pieces.
2010-11-03	1.03	Updated for release 2.00.1020
2011-07-26	1.04	Updated according to document standards.
2011-04-10	1.05	Release 2.01.1030
2012-10-15	1.06	Output a comment for checkbox controls. Fix proble with checksum output on raw script
2013-08-05	1.07	Updated for release 2.02.1044
2013-09-26	1.08	Updated for release 2.03.1047
2013-10-11	1.09	Updated for release 5.00.1048
2014-01-02	1.10	Updated supported OS list
2014-05-16	1.11	Updated for release 5.00.1059
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2014-10-01	1.13	Updated feature list with new features for v5.01 Updated version history for v5.01.1073
2016-02-08	1.14	Updated for release 5.02.1092
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2017-02-06	1.17	Updated for release 5.03.1107
2017-04-04	1.18	Updated for release 5.03.1109
2017-05-29	1.19	Updated for release 5.03.1111
2018-02-07	1.20	Updated copyright information
2018-06-07	1.21	Updated for release 5.03.1115
2018-10-04	1.22	Updated for release 5.03.1123
2018-12-17	1.23	Updated for release 5.03.1125
2019-08-02	1.24	Updated for release 5.03.1129
2019-08-16	1.25	Updated for release 5.03.1130 windows only
2019-08-30	1.26	Updated for release 5.03.1131 for Windows, Efi, EfiArm and LnxArm
2019-09-16	1.27	Updated for release 5.03.1132 Linux only
2019-11-28	1.28	Updated for release 5.04.1136
2020-05-19	1.29	Updated for 5.04.1138 release for EFI, Windows and Linux X86 versions
2020-06-15	1.30	Updated for 5.04.1139 release for EFI, Windows and Linux X86 versions & updated for 5.04.1138 release for EFI and Linux ARM versions.
2020-06-23	1.31	Updated for release 5.04.1139 Linux Arm only
2020-07-09	1.32	Updated for release 5.04.1140 Windows only
2020-08-03	1.33	Updated for release 5.04.1141 Windows only
2020-08-12	1.34	Updated for release 5.04.1142 Linux Only
2020-08-17	1.35	Updated for release 5.04.1143 Windows only
2020-10-30	1.36	Updated for release 5.04.1144 Windows Updated for release 5.04.1143 Linux Updated for release 5.04.1140 EFI

2020-11-03	1.37	Updated for release 5.04.1139 EfiArm Updated for release 5.04.1140 LnxArm
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2021-04-20	1.39	Updated for release 5.05.00.0001
2021-06-18	1.40	Updated for release 5.05.01.0002
2022-02-23	1.41	Updated for release 5.05.02.0003
2022-03-15	1.42	Updated for release 5.05.02.0003 EfiArm/LnxArm/WinArm
2022-05-31	1.43	Updated for release 5.05.03.0004
2022-06-16	1.44	Updated for release 5.05.03.0004 Windows deliverables
2022-08-01	1.45	Updated for release 5.05.04.0005
2022-09-30	1.46	Updated for release 5.05.05.0006
2023-03-08	1.47	Updated for release 5.05.06.0007 Formatted document as per the AMI template
2023-04-03	1.48	Add an item in "Issues Fixed" in Ver5.05.06.0007 SceWinArm Reviewed the document format
2023-05-12	1.49	Updated for release 5.05.07.0008 Reviewed the document format
2023-08-30	1.50	Updated for release 5.05.08.0009 Reviewed the document format
2024-07-25	1.51	Updated for release 5.05.09.0010 Reviewed the document format

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Description

This document provides release information of Aptio 5.x AMISCE too

Chapter 1

1 WINDOWS

Release

- V5.05.09.0010 07-08-2024

Deliverables

- SCEWIN.EXE
- SCEWIN_64.EXE
- Amigendrv32.sys
- Amigendrv64.sys
- AMI_Aptio_5.x_AMISCE_User_Guide_NDA.pdf
- AMI_Aptio_5.x_AMISCE_Release_Notes_NDA.pdf

Features

The following features are supported:

- Generates Setup Question script with relevant information for modification by user.
- NVRAM values can be updated based on modifications to Setup Question script file.
- Ability to modify the defaults for the Setup Question controls.
- Verbose mode for detailed generation of the script file.
- Reads NVRAM variables and HII database from BIOS at run time to create files that can be used as input to a setup emulation program. The NVRAM script file may be edited as text. Implemented for Windows.
- Loads the NVRAM script file created above and updates NVRAM.
- Command line operation.
- Optional user password check
- APTIOV support
- Supports mapping language.
- Provision to specify mapping language.
- Supports expression evaluation.
- Supports blocking of migration.
- Unlocks protected variable update with administrator password.
- Support to change user/admin password.
- Supports suppression of duplicate questions.
- Support to export only questions whose value is different from default.
- Aptio V BIOS Identification.
- Get SMI port from ACPI table.
- Support to change question values from command line.
- Support for PLDM export and import.
- Support for efivarstore type variables.
- Support for negative numbers as values for controls.
- Support to hide banner.
- Support to read single question value from command line.
- Support to identify suppressed and grayed out forms and controls in script file.



- SMM communication support.
- Support to indicate system modification by AMISCE.
- Support to reboot and shutdown after system modification.
- Date/Time control support.
- Support to read default values in single question export.
- Support to update/create NVRAM variable data from command line.
- Support for providing user and admin password in file.
- Shows help string of setup questions in script file.
- Support for wildcard Smbios string.
- Supports expression evaluation for options.
- Support for Order list control export and import.
- Supports Non-register-based SW SMI interface.
- Support to compare the scripts.

Supported Operating Systems

The AMISCE is supported by the following operating systems:

- Microsoft® Windows® PE
- Microsoft® Windows® 8
- Microsoft® Windows® 8.1
- Microsoft® Windows® 10
- Microsoft® Windows® 11
- Microsoft® Windows® Server 2019
- Microsoft® Windows® Server 2022

***Note**: Starting from Microsoft Windows® 7 in all the Windows Operating System the Application requires Administrator privileges to be executed. The command box from which SCE is run must have been launched using "Run as Administrator".*

Compatibility

- Requires "SmiVariable" eModule support to be provided by EFI BIOS. The module can be found at Aptio V: $/AptioV/Source/Modules/SmiVariable labeled SmiVariable_04 or later
  Aptio 4: $/Alaska/BIN/Modules/SmiVariable labeled 4.6.3_SmiVariable_1.2 or later.
- For update of default values to be effective, the TSE module must be labeled 4.6.2_TSE_2_02_1205_BETA or later (for Aptio4) and AMITSE_2_20_1270 or later (for AptioV).
- Enable token ALWAYS_PUBLISH_HII_RESOURCES.
- Requires 'AmiSetupNvLock' BIOS module for NVRAM variable update protection. The module can be found at: Aptio V: $/AptioV/Source/Modules/AMISetupNVLock labeled AmiSetupNvLock_4 or later
  Aptio 4: $/Alaska/SOURCE/Modules/AMISetupNvLock labeled 4.6.2_AmiSetupNvLock_1_02 or later
- If present, TSE tokens RT_ACCESS_SUPPORT_IN_HPKTOOL and RT_ACCESS_FOR_EFIVARSTORE must be enabled.
- Bios version check requires:
  - ACPI label 'ACPI_17' or later for Aptio V.
  - ACPI label '4.6.5.0_ACPI_48' or later for Aptio 4.
- For export and import of question values from command line and PLDM support, the Aptio firmware should have the mapping language support enabled. The default mapping language is x-AMI in Core 5.12 or below and x-UEFI-AMI in Core 5.13 or above. To enable the mapping language, add the language code to RFC_LANGUAGES token.

Known Issues

- Cpwd feature has an issue with SmiVariable_04 module
- With SmiVariable_05, Rawmode export and import will not work properly.

Limitations

- Minimum / maximum values of a numeric control are not exported to the script file.
- Questions with the same help string name are considered to be ambiguous on UEFI 2.0 BIOS.
- Questions which depend on runtime service access variable only can support expression evaluation.

Version History

1.1.1 SCE WIN

1.1.2 Ver 5.05.09.0010 07/08/2024

Issues Fixed

- Support NVR2 nvram format (Integrate ExtFlags to NVR2.flags). (EIP – 775512)
- Support both PLDM data format V1 and V2. (EIP - 793908)
- Support BitFieldVarstore setup options. (EIP - 798372)

1.1.3 Ver 5.05.08.0009 08/30/2023

Issues Fixed

- Fixing the issue of stack smashing detected unknown terminated. (EIP - 753848 / EIP - 755687)
- Optimization for reducing time of export/import the script file. (EIP - 746600)
- Add support for NVR2 nvram format. (EIP - 753756)

1.1.4 Ver 5.05.07.0008 05/12/2023

Issues Fixed

Fixing the issue of space lost in the output script file. (EIP - 742809)

1.1.5 Ver 5.05.06.0007 02/14/2023

Issues Fixed

- Fixing the issue of not clearing buffer in PortWriteEsiByte2 function. (EIP - 722717)
- To sync the code change that fixed the segmentation fault on centOS 9. (EIP - 726594)
- Upgrade to GdkCorePkgWin_09.4.1.

1.1.6 Ver 5.05.05.0006 09/30/2022

Issues Fixed

- Fixing the issue of not allocating enough buffer for package list in AmiSetupLib. (EIP - 704485, EIP - 690244)
- Upgrade to GdkCorePkgWin_09.3.

1.1.7 Ver 5.05.04.0005 08/01/2022

Issues Fixed

- Fixing the issue of allocating memory failed. (EIP - 688257)
- Upgrade to GdkCorePkgWin_09.1.(EIP - 682394)

1.1.8 Ver 5.05.03.0004 05/31/2022

Issues Fixed

- Upgrade GDK module to 1.08.12. (EIP - 677580)
- Upgrade Windows driver version to 5.3 to remove the issue causing privileged escalations. (EIP - 668933)

1.1.9 Ver 5.05.02.0003 02/23/2022

Issues Fixed

- Skip the unicode character directly, rather than replacing unicode with space. (EIP - 621658)
- Fixing the issue of allocating memory failed when importing pldm data: memory size cannot be zero. (EIP - 623355)
- Fix the issue of exporting script file different in EFI and Linux. The structure size is different in EFI and Linux. (EIP - 634216)
- Report the error message that BIOS needs a reset to expand the size of Hii database. (EIP - 626858)

1.1.10 Ver 5.05.01.0002 06/18/2021

Issues Fixed

- SCE exit code always returns 0x00. (EIP - 610706)
- SCE exit code doesn’t match the user guide. (EIP - 610706)

1.1.11 Ver 5.05.00.0001 04/20/2021

Issues Fixed

- SCE tool HII DB is not updated the data. (Value not changed). (EIP - 600430)

1.1.12 Ver 5.04.1147 01/22/2021

Issues Fixed

- Exported(with /ndef) PldmDataSize is more than BCP FV size.(EIP - 573294)
- Pldm Export failed in MS Server: Grantley Mayan City Refresh SVN platform and Lenovo-SVR 4S Cedar Island platform. (EIP - 569392)

1.1.13 Ver 5.04.1144 10/30/2020

New Features

- SCE compare 2 script file and output the difference to a new script file (EIP - 569353)

Issues Fixed

- Pldm import failed in AMD platform.(EIP - 565003)
- Pldm Export failed in Idaville platform. (EIP - 557115)
- Duplicate Question warning needs to be suppressed when requested mapping lang is not having any duplicate entries. (EIP – 574244)

1.1.14 Ver 5.04.1143 08/26/2020

New Features

- Driver selection by Windows version for backward compatibility. (EIP – 559384)

1.1.15 Ver 5.04.1141 08/04/2020

New Features

- Supports Non-register based SW SMI interface. (EIP – 555042)

1.1.16 Ver 5.04.1140 07/09/2020

Issue Fixed

- SCEWIN 32 application is not working in Windows7 32-bit machine. (EIP – 552381)
-

1.1.17 Ver 5.04.1139 06/15/2020

New Features

- /opwd switch is added to input the OFBD password through command line. (EIP – 545898)

1.1.18 Ver 5.04.1138 05/19/2020

New Features

- Include variable name and guide associated to the setup question in advanced script. (EIP - 490026)

- SCE Command Line Option to Output "Value Only". (EIP - 526545)
- Control default value needs to be taken from HII default instead of NVRAM. (EIP – 524681)
- Support for displaying Trace messages (EIP - 539054)
- Order list control defaults support in Pldm.(EIP - 534904)

Issues Fixed

- Check for leading/trailing spaces during SMBIOS platform validation not working. (EIP - 522646)
- SCE Library Link issues (EIP - 527604, 533941, 533942)

1.1.19 Ver 5.04.1136 11/28/2019

New Features

- Order list control support in SCE. (EIP - 496294)
- Expression evaluation support for Order list. (EIP - 505743)
- Order list control support in pldm. (EIP – 500565)

Issues Fixed

- SCELNX crashes after disabling AmiSetupNVlock setup question. (EIP - 501882)

1.1.20 Ver 5.03.1131 08/30/2019

New Features

- Need to analyze about support to provide warning for controls which need system reset based on reset_required flag. (EIP - 476729)
- SCE helpstring support and check box value validation. (EIP - 472304)

1.1.21 Ver 5.03.1130 08/16/2019

New Features

- With the latest driver SCE needs to be prepared BQA submission. (EIP - 490757)

1.1.22 Ver 5.03.1129 08/02/2019

New Features

- Added support for wildcard Smbios string. (EIP - 483555)

1.1.23 Ver 5.03.1125 12/17/2018

New Features

- SCE need to support BIN file directly as a password format. (EIP - 441672)
- Form "Network Stack Configuration" is not shown in SCE dump with UefiNetworkStack_27. (EIP - 434661)

1.1.24 Ver 5.03.1123 10/04/2018

New Features

- Date/Time control support. (EIP - 364015)
- Support for exporting single question default value. (EIP - 353737)
- Command line option to update/create new NVRAM variable in SCE. (EIP - 411146)
- Add support for single question update when mapping language is duplicated for the same storage location. (EIP - 423308)

1.1.25 Ver 5.03.1115 06/07/2018

New Features

- SCE completed flag. (EIP – 404656)
- Need to Add Reboot/Shutdown switch in SCE. (EIP – 408091)

1.1.26 Ver 5.03.1111 05/29/2017

Issues Fixed

- Grayout and Suppress setup items in Runtime Error Logging page display abnormally in SCE dumped file. (EIP – 324479)

1.1.27 Ver 5.03.1109 04/04/2017

Issues Fixed

- Upgrade AMISCE Windows to work if driver allocated memory address is greater than 4GB. (EIP – 325058)

1.1.28 Ver 5.03.1107 02/06/2017

New Features

- SMM communication algorithm needs to be modified in SCE for windows (EIP – 310679)

1.1.29 Ver 5.03.1102 12/26/2016

New Features

- Negative number input support for SCE utility. (EIP - 256676)
- Option to hide banner in SCE. (EIP - 291217)
- Support to read single question from command line. (EIP - 286488)
- SCE needs to handle default mapping language x-AMI and x-UEFI-AMI the same. (EIP - 278203)
- PLDM: Support to specify mapping language. (EIP - 278991)
- Introduce a new switch with SCE tool , which can output grayout and suppress items in one dumped file. (EIP - 288280)
- Suppressed form's all control should be in commented out format with /ce switch. (EIP - 292718)

Issues Fixed

- SCELNX-Modify setup item fails if setup item string include "®". (EIP - 260987)
- Some item will not be filter out properly when using SCE /g command in shell. (EIP - 283721)

1.1.30 Ver 5.02.1097 06/06/2016

New Features

- Provide efivarstore type variable support in AMISCE (EIP-264084)
- Improve expression evaluation logic (in OS version) to evaluate nested expressions even if parent expression fails to evaluate. (EIP 253128)

1.1.31 Ver 5.02.1092 08/02/2016

New Features

- Change question value from command line (EIP - 234918)
- Support for PLDM export and import (EIP - 190945, 241871, 243898)
- Function request for disabling boot options via SCE tool. (EIP - 235175)

Issues Fixed

- Typographical error (EIP - 236384)
- Windows and Linux version SCE tool still dump hidden options when using parameter /v /g /sp (EIP - 225595)
- Warning during import is not suppressed by the /q flag. (EIP 246565)
- Tool SCELNX_64 cannot dump successful with command /g /sp in UEFI RHEL 7.1 OS. (EIP - 223189)

1.1.32 Ver 5.01.1073 10/01/2014

New Features

- Enhanced export mode: Comment out duplicate questions. (EIP - 169273)
- Get the SMI port number from ACPI table and use that in SCE (EIP - 132634)
- Migration mode: Only export questions whose value is different from the default (EIP - 168203)
- Change user/admin password for BIOS setup (EIP - 171710)
- Provision to specify mapping language (EIP - 147195)

1.1.33 Ver 5.00.1068 08/06/2014

Issues Fixed

- AMISCE cuts off one-of option value when data width greater than 2 bytes. Also, current setting ‘*’ is missing. (EIP - 178800)

1.1.34 Ver 5.00.1059 05/16/2014

New Features

- Admin password to unlock variable access (EIP - 168125)

- Suppress output of questions with blank or empty names. If /lang present suppress output of questions without x-AMI string. (EIP - 154739)
- Block SCE execution on non Aptio V platforms' (EIP - 121820)

Issues Fixed

- AMISCE gives syntax error during script file import on Sugarbay platform (EIP – 167123)

1.1.35 Ver 5.00.1048 10/07/2013

- Release for AptioV

1.1.36 Ver 2.03.1047 09/26/2013

Issues Fixed

- QA reported issues fixed.

1.1.37 Ver 2.02.1044 08/05/2013

New Features

- APTIOV support
- Improve handling of duplicated or unmatched questions
- Output subtitles as comments to SCE scripts
- SCE work with mapping language
- Support management of migration feature including blocking migration via command line switch
- Add support for question evaluation to SCE
- Add command option to SCE to control export/import of boot order controls
- Substitute variable inside StdDefaults when a variable for a formset is missing
- Support for /sp command for suppress if opcode and /g command for grayout.
- Support for suppressing forms and submenu items.

Issues Fixed

- Aptio V - SCE_WIN64 crushed during retrieving data from an AptioV BIOS (EIP - 95126)
- SCEWIN not work under Win8 (EIP – 95654)
- AMISCE does not properly handle 32 and 64 bit numeric control nor can it properly limit check signed numeric controls. (EIP – 100678)
- SCEWIN utility tool can't work – 96822.
- SCE boot option question overflows buffer and uses wrong case for hex digits when reading Bootnnnn variable (EIP – 106102)
- Some versions of SCE lose the % character in question names (EIP – 113274)
- SCE question mismatch when prompt has trailing space (EIP -118838)
- SCE tool is not updating the boot order properly (EIP – 113459)

1.1.38 Ver 2.01.1030 04/10/2012

New Features

- Add /ds and /dm command line switch to load defaults from control value.

- Add '/q' command line switch to suppress warning messages.
- AMISCE to work with security update to SMIVariable
- Add password feature.
- Implement string controls.

Issues Fixed

- Fix Controls with extreme number of options cause SCE to not list all options.
- Fix in parser error and warning messages.
- Fix failure to show options under nested suppressif.
- Prevent corruption of LegacyBootOrder variable
- Fix failure to report success on raw import when final variable is read-only.
- Allow raw import to change size of variable data.
- Fix Controls with extreme number of options cause SCE to not list all options.
- Fix failure to get strings when system language not English.
- Fix language control in exported script.
- Add checks for invalid options. Previously invalid values were accepted.

1.1.39 Ver 2.00.1020 11/03/2010

New Features

- Added support to UEFI 2.1 in both 32 and 64 bit.
- Added Standard (BIOS) / Manufacturing defaults update feature.

Issues Fixed

- SCEWin 32 bit can't work with some memory (EIP - 46612)

1.1.40 Ver 2.00.0002 5/17/2010

- Initial release.

Note: *AMISCE expects scripts in the format as specified by the specification. White space and Empty Lines at the start of the script is not allowed.*

Chapter 2

2 LINUX

Release

- V5.05.09.0010 07-08-2024

Deliverables

- SCELNX_32
- SCELNX_64
- AMI_Aptio_5.x_AMISCE_User_Guide_NDA.pdf
- AMI_Aptio_5.x_AMISCE_Release_Notes_NDA.pdf

Component Versions

Below is a list of the version numbers of the components that make up this release.

- SCELNX_32 5.05.09.0010
- SCELNX_64 5.05.09.0010

Features

The following features are supported:

- Generates Setup Question script with relevant information for modification by user.
- NVRAM values can be updated based on modifications to Setup Question script file.
- Ability to modify the defaults for the Setup Question controls.
- Verbose mode for detailed generation of the script file.
- Reads NVRAM variables and HII database from BIOS at run time to create files that can be used as input to a setup emulation program. The NVRAM script file may be edited as text. Implemented for Windows.
- Loads the NVRAM script file created above and updates NVRAM.
- Command line operation.
- Supports UEFI 2.0 and UEFI 2.1 BIOS or later.
- Optional user password check
- APTIOV Support
- Supports to specify multiple mapping language.
- Supports blocking of migration.
- Supports expression evaluation.
- Unlocks protected variable update with administrator password.
- Support to change user/admin password.
- Supports suppression of duplicate questions.
- Support to export only questions whose value is different from default.
- Aptio V BIOS Identification.
- Get SMI port from ACPI table.
- Support to change question values from command line.
- Support for PLDM export and import.
- Support on secure boot enabled systems (RHEL 7.2).
- Support for efivarstore type variables.

- Support for negative numbers as values for controls.
- Support to hide banner.
- Support to read single question value from command line.
- Support to identify suppressed and grayedout forms and controls in script file.
- SMM Communication Support
- Support to indicate system modification by AMISCE.
- Supports reboot and shutdown after system modification.
- Date/Time control support.
- Support to read default values in single question export.
- Support to update/create NVRAM variable data from command line.
- Support for providing user and admin password in file.
- Shows help string of setup questions in script file.
- Support for wildcard Smbios string.
- Supports expression evaluation for options.
- Support for order list control export and import.
- Supports non-register based SW SMI interface.
- Support to compare the scripts.

Supported Operating Systems

The AMISCE is supported by the following operating systems:

- Linux

2.1.1 Pre-Requisites:

1. Log in Linux as root otherwise use sudo (if permitted).
2. The compiler suite (gcc, make, libelf-dev) must be installed. If these packages are not installed, the driver CANNOT be built.
3. For most of the distributions, SCE will generate driver without any notification, If it doesn't exist you need to install kernel sources. Also Initmem fails. Please follow point 4.
4. Kernel sources must be installed, *CONFIGURED*, and then compiled. Following are steps to do this:
    1. Find Running Kernel's Configuration File:

        To configure the sources, simply change to the kernel source directory (typically /lib/modules/$(uname -r)/build). If it doesn't exist, you need to install kernel source. Typically, the reference configuration for the kernel can be found in the /boot directory with filename

        '.config', 'kernel.config', or 'vmlinux-2.4.18-3.config'. Type 'uname -a' and use the configuration filename that best matches the output from 'uname -a'. Also, check for /dev/mem directory existence. If it doesn't exist, you need to install kernel sources. Normally it comes with the installation unless if the option is deselected.

        On some distributions Red Hat for instance, there is a config directory under /lib/modules/$(uname -r)/build.

        Copy this configuration file into the root of the linux kernel source tree (usually it is /lib/modules/$(uname -r)/build). This file must be renamed to ".config"(dot config).

REFERENCES

Linux Loadable Kernel Module HOWTO

http://www.linux.org/docs/ldp/howto/Module-HOWTO/index.html

Compatibility

- Requires “SmiVariable” eModule support to be provided by EFI BIOS. The module can be found at: Aptio V: $/AptioV/Source/Modules/SmiVariable labeled SmiVariable_04 or later
  Aptio 4: $/Alaska/BIN/Modules/SmiVariable labeled 4.6.3_SmiVariable_1.2 or later.
- For update of default values to be effective, the TSE module must be labeled 4.6.2_TSE_2_02_1205_BETA or later (for Aptio4) and AMITSE_2_20_1270 or later (for AptioV).
- Enable token ALWAYS_PUBLISH_HII_RESOURCES
- Requires ‘AmiSetupNvLock’ BIOS module for NVRAM variable update protection. The module can be found at:
  - Aptio V: $/AptioV/Source/Modules/AMISetupNVLock labeled AmiSetupNvLock_4 or later
    Aptio 4: $/Alaska/SOURCE/Modules/AMISetupNvLock labeled 4.6.2_AmiSetupNvLock_1_02 or later
- If present, TSE tokens RT_ACCESS_SUPPORT_IN_HPKTOOL and RT_ACCESS_FOR_EFIVARSTORE must be enabled.
- Xen support requires RuntimeMemoryHole support. If Sce Driver is already present then user needs to delete it first and then run AmiSce.
- Bios version check requires:
  - ACPI label ‘ACPI_17’ or later for Aptio V.
  - ACPI label ‘4.6.5.0_ACPI_48’ or later for Aptio 4.
- For update of question values from command line and PLDM support , the Aptio firmware should have the mapping language support enabled. The default mapping language is x-AMI. To enable the mapping language, add the language code to RFC_LANGUAGES token.
- All versions of SCE will be able to run in kernel versions up to 4.12. But only newer versions starting from 5.03.1113 will run in kernel versions 4.13 and later.

Known Issues

- Cpwd feature has an issue with SmiVariable_04 module
- With SmiVariable_05, Rawmode export and import will not work properly.

Limitations

- Minimum / maximum values of a numeric control are not exported to the script file.
- Questions with the same help string name are considered to be ambiguous on UEFI 2.0 BIOS.
- Expression evaluation can only be done if nvram variables will have runtime service access.
- 5.03.1127 version’s driver name (amiscedrv_mod.o) differs from other version drivers (amifldrv_mod.o). So, the user will not be able to use the latest version’s signed driver for 5.03.1127 executable and vice-versa.

Version History

2.1.2 SCELNX_32 & SCELNX_64

2.1.3 Ver 5.05.09.0010 07/08/2024

Issues Fixed

- Support NVR2 nvram format (Integrate ExtFlags to NVR2.flags). (EIP – 775512)
- Support both PLDM data format V1 and V2. (EIP - 793908)

- Support BitFieldVarstore setup options. (EIP - 798372)
- Upgrade to (INT)GdkCorePkgLnx_08.18.01 to fix the issues of unable to make driver. (EIP – 797338 / EIP - 801512)

2.1.4 Ver 5.05.08.0009 08/30/2023

Issues Fixed

- Fixing the issue of stack smashing detected unknown terminated. (EIP - 753848 / EIP - 755687)
- Upgrade to GdkCorePkgLnx_08.16.1.
- Optimization for reducing time of export/import the script file. (EIP - 746600)
- Add support for NVR2 nvram format. (EIP - 753756)

2.1.5 Ver 5.05.07.0008 05/12/2023

Issues Fixed

- Fixing the issue of space lost in the output script file. (EIP - 742809)
- Upgrade to GdkCorePkgLnx_08.14

2.1.6 Ver 5.05.06.0007 02/14/2023

Issues Fixed

- Fixing the issue of not clearing buffer in PortWriteEsiByte2 function. (EIP - 722717)
- Fixing the issue of Segmentation fault on centOS 9. (EIP - 726594)
- Upgrade to GdkCorePkgLnx_08.13.1

2.1.7 Ver 5.05.05.0006 09/30/2022

Issues Fixed

- Fixing the issue of not allocating enough buffer for package list in AmiSetupLib. (EIP - 704485, EIP - 690244)
- Upgrade to GdkCorePkgLnx_08.12.(EIP - 697075)

2.1.8 Ver 5.05.04.0005 08/01/2022

Issues Fixed

- Fixing the issue of allocating memory failed. (EIP - 688257)
- Upgrade to GdkCorePkgLnx_08.10.(EIP - 677580)

2.1.9 Ver 5.05.03.0004 05/31/2022

Issues Fixed

- Upgrade GDK module to 1.08.12. (EIP - 677580)

2.1.10 Ver 5.05.02.0003 02/23/2022

Issues Fixed

- Skip the unicode character directly, rather than replacing unicode with space. (EIP - 621658)
- Fixing the issue of allocating memory failed when importing pldm data: memory size cannot be zero. (EIP - 623355)
- Fix the issue of exporting script file different in EFI and Linux. The structure size is different in EFI and Linux. (EIP - 634216)
- Report the error message that BIOS needs a reset to expand the size of Hii database. (EIP - 626858)

2.1.11 Ver 5.05.01.0002 06/18/2021

Issues Fixed

- SCE exit code always returns 0x00. (EIP - 610706)
- SCE exit code doesn't match the user guide. (EIP - 610706)

2.1.12 Ver 5.05.00.0001 04/20/2021

Issues Fixed

- SCE tool HII DB is not updated the data. (value not changed). (EIP - 600430)

2.1.13 Ver 5.04.1147 01/22/2021

Issues Fixed

- Exported (with /ndef) PldmDataSize is more than BCP FV size.(EIP - 573294)
- Pldm Export failed in MS Server: Grantley Mayan City Refresh SVN platform and Lenovo-SVR 4S Cedar Island platform. (EIP - 569392)

2.1.14 Ver 5.04.1143 10/30/2020

New Features

- SCE compare 2 script file and output the difference to a new script file (EIP - 569353)

Issues Fixed

- Pldm import failed in AMD platform. (EIP - 565003)
- Pldm Export failed in Idaville platform. (EIP - 557115)
- Duplicate Question warning needs to be suppressed when requested mapping lang is not having any duplicate entries. (EIP – 574244)
- Error message "Password does not match admin password" was reported when import BIOS settings by SCELNX 5.04.1139 tool. (EIP – 564310)

2.1.15 Ver 5.04.1142 08/12/2020

New Features

- Supports non-register based SW SMI interface. (EIP – 555042)

2.1.16 Ver 5.04.1139 06/15/2020

New Features

- /opwd switch is added to input the OFBD password through command line. (EIP – 545898)

2.1.17 Ver 5.04.1138 05/19/2020

New Features

- Include variable name and guide associated to the setup question in advanced script. (EIP - 490026)
- SCE Command Line Option to Output "Value Only". (EIP - 526545)
- Control default value needs to be taken from HII default instead of NVRAM. (EIP – 524681)
- Support for displaying Trace messages. (EIP - 539054)
- Order list control defaults support in Pldm. (EIP - 534904)

Issues Fixed

- Check for leading/trailing spaces during SMBIOS platform validation not working. (EIP - 522646)
- SCE Library Link issues (EIP - 527604, 533941, 533942)

2.1.18 Ver 5.04.1136 11/28/2019

New Features

- Order list control support in SCE. (EIP - 496294)
- Expression evaluation support for Order list. (EIP - 505743)
- Order list control support in pldm. (EIP – 500565)

Issues Fixed

- SCELNX crashes after disabling AmiSetupNVlock setup question. (EIP - 501882)

2.1.19 Ver 5.03.1132 09/16/2019

New Features

- Need to analyze about support to provide warning for controls which need system reset based on reset_required flag. (EIP - 476729)
- SCE helpstring support and check box value validation. (EIP - 472304)

Issues Fixed

- SCELNX_64 remove error message in RHEL7.2 without GCC environment. (EIP – 483155)

2.1.20 Ver 5.03.1129 08/02/2019

New Features

- Added support for wildcard Smbios string. (EIP - 483555)

2.1.21 Ver 5.03.1127 20/03/2019

New Features

- Support to work using WSMT memory when kernel sources are missing. (EIP - 454333)

Issues Fixed

- SCELNX_64 fails with locked down linux kernel. (EIP – 451017)

2.1.22 Ver 5.03.1125 17/12/2018

New Features

- SCE need to support BIN file directly as a password format. (EIP - 441672)
- Form "Network Stack Configuration" is not shown in SCE dump with UefiNetworkStack_27. (EIP - 434661)

Issues Fixed

- SCELNX can't work on embedded Linux(busybox) environment. (EIP – 441525)

2.1.23 Ver 5.03.1123 04/10/2018

New Features

- Date/Time control support. (EIP - 364015)
- Support for exporting single question default value. (EIP - 353737)
- Command line option to update/create new NVRAM variable in SCE. (EIP - 411146)
- Add support for single question update when mapping language is duplicated for the same storage location. (EIP - 423308)

2.1.24 Ver 5.03.1115 07/06/2018

New Features

- SCE completed flag. (EIP – 404656)
- Need to Add Reboot/Shutdown switch in SCE. (EIP – 408091)

2.1.25 Ver 5.03.1114 30/03/2018

New Features

- Modified SCE to prefer existing driver over using RuntimeMemoryHole. (EIP – 398938)

2.1.26 Ver 5.03.1113 31/10/2017

Issues Fixed

- SceLnx64 cannot build on Linux kernel version 4.13. (EIP – 369927)

2.1.27 Ver 5.03.1111 29/05/2017

Issues Fixed

- Grayout and Suppress setup items in Runtime Error Logging page display abnormally in SCE dumped file. (EIP – 324479)

2.1.28 Ver 5.03.1106 01/02/2017

New Features

- SMM Communication algorithm needs to be modified in SCE for Linux (EIP 310750)

2.1.29 Ver 5.03.1100 17/11/2016

New Features

- [AMISCE] Improve expression evaluation logic (in OS version) to evaluate nested expressions even if parent expression fails to evaluate. (EIP - 253128)
- Negative number input support for SCE utility. (EIP - 256676)
- Option to hide banner in SCE. (EIP - 291217)
- Support to read single question from command line. (EIP - 286488)
- SCE needs to handle default mapping language x-AMI and x-UEFI-AMI the same. (EIP - 278203)
- PLDM: Support to specify mapping language. (EIP - 278991)
- Introduce a new switch with SCE tool, which can output grayout and suppress items in one dumped file. (EIP - 288280)
- Suppressed form's all control should be in commented out format with /ce switch. (EIP - 292718)
- SCE Utility tries to create/modify variables in Linux that it cannot. (EIP – 271655)

Issues Fixed

- SCELNX-Modify setup item fail if setup item string include "®". (EIP - 260987)
- (JP0037-245) Question about SCE Linux on Secure Boot enable. (EIP - 258411)
- Some item will not be filter out properly when using SCE /g command in shell. (EIP - 283721)

2.1.30 Ver 5.02.1097 06/01/2016

New Features

- Provide efivarstore type variable support in AMISCE (EIP-264084)
- Update Linux flash driver to work on secure boot enabled systems (RHEL 7). (EIP – 258411).
- Improve expression evaluation logic (in OS version) to evaluate nested expressions even if parent expression fails to evaluate. (EIP 253128)

Issues Fixed

- SCELNX-Modify setup item fail if setup item string include "®" (EIP – 260987)

2.1.31 Ver 5.02.1092 01/12/2016

New Features

- Change question value from command line (EIP - 234918)
- Support for PLDM export and import (EIP - 190945, 241871, 243898)
- Function request for disabling boot options via SCE tool. (EIP - 235175)

Issues Fixed

- Typographical error (EIP - 236384)
- Windows and Linux version SCE tool still dump hidden options when using parameter /v /g /sp (EIP - 225595)
- Warning during import is not suppressed by the /q flag. (EIP - 246565)

2.1.32 Ver 5.01.1081 08/25/2015

Issues Fixed

- Tool SCELNX_64 cannot dump successful with command /g /sp in UEFI RHEL 7.1 OS. (EIP - 223189)

2.1.33 Ver 5.01.1073 09/24/2014

New Features

- Enhanced export mode: Comment out duplicate questions. (EIP - 169273)
- Get the SMI port number from ACPI table and use that in SCE (EIP - 132634)
- Migration mode: Only export questions whose value is different from the default (EIP -168203)
- Change user/admin password for BIOS setup (EIP - 171710)
- Provision to specify mapping language (EIP - 147195)

2.1.34 Ver 5.00.1068 08/06/2014

Issues Fixed

- AMISCE cuts off one-of option value when data width greater than 2 bytes also current setting '*' is missing. (EIP - 178800)

2.1.35 Ver 5.00.1059 05/16/2014

New Features

- Admin password to unlock variable access. (EIP – 168125)
- Suppress output of questions with blank or empty names. If /lang present suppress output of questions without x-AMI string. (EIP - 154739)
- Block SCE execution on non Aptio V platforms' (EIP - 121820)

Issues Fixed

- AMISCE gives syntax error during script file import on Sugarbay platform (EIP - 167123)
- Linux only. Driver gives success message when kernel header sources not available. (EIP - 140526)

2.1.36 Ver 5.00.1053 12/10/2013

New Features

- Add command option to SCE to control export/import of boot order controls
- Substitute variable inside StdDefaults when a variable for a formset is missing
- Support management of migration feature including blocking migration via command line switch
- SCE work with mapping language
- Add support for question evaluation to SCE
- Support for Suppressing Forms added
- Support for Suppressing Submenu items in Forms added
- Support for /sp command for suppress if opcode and /g command for grayout.

Issues Fixed

- SCE question mismatch when prompt has trailing space – EIP 118838
- SCE tool is not updating the boot order properly - EIP 113459

2.1.37 Ver 2.02.1040 03/05/2013

New Features

- Output subtitles as comments to SCE scripts – EIP 112604
- SCE: add comment to checkbox value indicating enabled/disabled values
- APTIOV support
- Improve handling of duplicated or unmatched questions
- Support to generate permanent copy of driver for SCELNX

Issues Fixed

- Some versions of SCE lose the % character in question names (EIP – 113274)
- SCE boot option question overflows buffer and uses wrong case for hex digits when reading Bootnnnn variable – EIP 106102
- Overlapping strcpy fails with new version of glibc on Linux.This causes mismatch of question prompts with leading spaces.
- SCE RAW Export command generates invalid NVRAM file (EIP – 103911)
- AMISCE does not properly handle 32 and 64 bit numeric control nor can it properly limit check signed numeric controls. – EIP 100678
- Aptio V - SCE_WIN64 crushed during retrieving data from an AptioV BIOS (EIP
- - 95126)
- Import crashing in Windows864bit OS (EIP – 96182)
- SCEWIN not work under Win8 (EIP – 95654)

2.1.38 Ver 2.01.1030 04/11/2012

New Features

- OFBD module password check support
- Implement string controls
- Support opeation on Linux domain 0 under XEN (requres RuntimeMemoryHole driver in BIOS).
- Allow raw import to change size of variable data.
- Add checks for invalid options. Previously invalid values were accepted.
- AMISCE to work with security update to SMIVariable

Issues Fixed

- Prevent corruption of LegacyBootOrder variable
- Fix failure to report success on raw import when final variable is read-only.
- SCE does not show all the options in a oneof control if it has embedded suppressif statements (UEFI 2.1).
- SCE attempts to load Linux driver twice.
- Fix failure to get strings when system language not English.
- Fix Controls with extreme number of options cause SCE to not list all options.
- Fix language control in exported script.

2.1.39 Ver 2.00.1027 12/01/2010

Issues Fixed

- Extreme number of options in control could cause buffer overrun.
- SCE crash for variables longer than 20 characters.
- Add '/q' option to suppress warning messages.

2.1.40 Ver 2.00.1001 08/16/2010

- Initial Version

Platforms Tested

- HunterCave UEFI 2.0&2.1 for 32 bit and 64 bit – Ver 2.00.1022
- TomCove UEFI 2.0 & 2.1 for 32 bit and 64 bit

OS Version Tested

- UBUNTU 18.04 with kernel 4.18.0-13-generic
- OS: RHEL Server 7.7 (kernel version 3.10.0-1062.e17.x86_x64)

Chapter 3

3 EFI

Release

- V5.05.09.0010 07-08-2024

Deliverables

- SceEfi.efi
- SceEfi64.efi
- AMI_Aptio_5.x_AMISCE_User_Guide_NDA.pdf
- AMI_Aptio_5.x_AMISCE_Release_Notes_NDA.pdf

Component Versions

Below is a list of the version numbers of the components that make up this release.

- SceEfi.efi Version 5.05.09.0010
- SceEfi64.efi Version 5.05.09.0010

Features

The following features are supported:

- Generates Setup Question script with relevant information for modification by user.
- NVRAM values can be updated based on modifications to Setup Question script file.
- Ability to modify the defaults for the Setup Question controls.
- Verbose mode for detailed generation of the script file.
- Reads NVRAM variables and HII database from BIOS at run time to create files that can be used as input to a setup emulation program. The NVRAM script file may be edited as text. Implemented for Windows.
- Loads the NVRAM script file created above and updates NVRAM.
- Optional user password.
- Command line operation.
- Supports mapping language.
- Supports expression evaluation.
- Supports blocking of migration.
- Unlocks protected variable update with administrator password.
- Support to change user/admin password
- Supports suppression of duplicate questions.
- Support to export only questions whose value is different from default.
- Aptio V BIOS Identification.
- Get SMI port from ACPI table
- Support to change question values from command line.
- Support for PLDM export and import.
- Support for efivarstore type variables.
- Support for negative numbers as values for controls.
- Support to hide banner.
- Support to read single question value from command line.

- Support to identify suppressed and grayedout forms and controls in script file.
- Removed dependency of SmiVariable module.
- SMM communication support.
- Support to indicate system modification by AMISCE.
- Support to reboot and shutdown after system modification.
- Date/Time control support.
- Support to read default values in single question export.
- Support to update/create NVRAM variable data from command line.
- Support for providing user and admin password in file.
- Shows help string of setup questions in script file.
- Support for wildcard Smbios string.
- Supports expression evaluation for options.
- Support for Order list control export and import.
- Support to compare the scripts.

Supported Operating Systems

The AMISCE is supported by the following operating systems:

- Both 32 and 64 bit EFI Shell.

Compatibility

- Requires “SmiVariable” eModule support to be provided by EFI BIOS. The module can be found at: Aptio V: $/AptioV/Source/Modules/SmiVariable labeled SmiVariable_04 or later
  Aptio 4: $/Alaska/BIN/Modules/SmiVariable labeled 4.6.3_SmiVariable_1.2 or later.
- For update of default values to be effective, the TSE module must be labeled 4.6.2_TSE_2_02_1205_BETA or later (for Aptio4) and AMITSE_2_20_1270 or later (for AptioV).
- Enable token ALWAYS_PUBLISH_HII_RESOURCES.
- Requires ‘AmiSetupNvLock’ BIOS module for NVRAM variable update protection. The module can be found at: Aptio V: $/AptioV/Source/Modules/AMISetupNVLock labeled AmiSetupNvLock_4 or later
  Aptio 4: $/Alaska/SOURCE/Modules/AMISetupNvLock labeled 4.6.2_AmiSetupNvLock_1_02 or later
- If present, TSE tokens RT_ACCESS_SUPPORT_IN_HPKTOOL and RT_ACCESS_FOR_EFIVARSTORE must be enabled.
- Bios version check requires:
  - ACPI label ‘ACPI_17’ or later for Aptio V.
  - ACPI label ‘4.6.5.0_ACPI_48’ or later for Aptio 4.
- For update of question values from command line and PLDM support, the Aptio firmware should have the mapping language support enabled. The default mapping language is x-AMI. To enable the mapping language, add the language code to RFC_LANGUAGES token.

Known Issues

- Cpwd feature has an issue with SmiVariable_04 module.
- With SmiVariable_05, Rawmode export and import will not work properly.

Limitations

- Minimum / maximum values of a numeric control are not exported to the script file.
- Questions with the same help name are considered to be ambiguous on UEFI 2.0 BIOS.

Version History

3.1.1 SCE EFI

3.1.2 Ver 5.05.09.0010 07/08/2024

Issues Fixed

- Support NVR2 nvram format (Integrate ExtFlags to NVR2.flags). (EIP – 775512)
- Support both PLDM data format V1 and V2. (EIP - 793908)
- Support BitFieldVarstore setup options. (EIP - 798372)

3.1.3 Ver 5.05.08.0009 08/30/2023

Issues Fixed

- Fixing the issue of stack smashing detected unknown terminated. (EIP - 753848 / EIP - 755687)
- Optimization for reducing time of export/import the script file. (EIP - 746600)
- Add support for NVR2 nvram format. (EIP - 753756)

3.1.4 Ver 5.05.07.0008 05/12/2023

Issues Fixed

- Fixing the issue of space lost in the output script file. (EIP - 742809)

3.1.5 Ver 5.05.06.0007 02/14/2023

Issues Fixed

- Fixing the issue of not clearing buffer in PortWriteEsiByte2 function. (EIP - 722717)
- To sync the code change that fixed the segmentation fault on centOS 9. (EIP - 726594)
- Upgrade to GdkCorePkgEfi_08.5.1.

3.1.6 Ver 5.05.05.0006 09/30/2022

Issues Fixed

- Fixing the issue of not allocating enough buffer for package list in AmiSetupLib. (EIP - 704485, EIP - 690244)
- Upgrade to GdkCorePkgEfi_08.4.

3.1.7 Ver 5.05.04.0005 08/01/2022

Issues Fixed

- Fixing the issue of allocating memory failed. (EIP - 688257)
- Change the interfaces from runtime service to issuing SMI to SmiVariable. (EIP - 679904 / EIP - 687349)

3.1.8 Ver 5.05.03.0004 05/31/2022

Issues Fixed

- Upgrade GDK module to 1.08.12. (EIP - 677580)

3.1.9 Ver 5.05.02.0003 02/23/2022

Issues Fixed

- Skip the unicode character directly rather than replacing unicode with space. (EIP - 621658)
- Fixing the issue of allocating memory failed when importing pldm data: memory size cannot be zero. (EIP - 623355)
- Fix the issue of exporting script file different in EFI and Linux. The structure size is different in EFI and Linux. (EIP - 634216)
- Report the error message that BIOS needs a reset to expand the size of Hii database. (EIP - 626858)

3.1.10 Ver 5.05.01.0002 06/18/2021

Issues Fixed

- SCE exit code always returns 0x00. (EIP - 610706)
- SCE exit code doesn't match the user guide. (EIP - 610706)
- EFI SCE tool hang when string is too long. (EIP - 604268)

3.1.11 Ver 5.05.00.0001 04/20/2021

Issues Fixed

- SCE tool HII DB is not updated the data. (value not changed). (EIP - 600430)

3.1.12 Ver 5.04.1147 01/22/2021

Issues Fixed

- Exported(with /ndef) PldmDataSize is more than BCP FV size.(EIP - 573294)
- Pldm Export failed in MS Server: Grantley Mayan City Refresh SVN platform and Lenovo-SVR 4S Cedar Island platform. (EIP - 569392)
- SCE hang with I350 driver added on bios. (EIP – 550393)

3.1.13 Ver 5.04.1140 10/30/2020

New Features

- SCE compare 2 script file and output the difference to a new script file (EIP - 569353)

Issues Fixed

- Pldm import failed in AMD platform and OFBD password prompt is not displayed in New WSMT Bios. (EIP - 565003)

- Pldm Export failed in Idaville platform. (EIP - 557115)
- Duplicate Question warning needs to be suppressed when requested mapping lang is not having any duplicate entries. (EIP – 574244)

3.1.14 Ver 5.04.1139 06/15/2020

New Features

- /opwd switch is added to input the OFBD password through command line. (EIP – 545898)

3.1.15 Ver 5.04.1138 05/19/2020

New Features

- Include variable name and guide associated to the setup question in advanced script. (EIP - 490026)
- SCE Command Line Option to Output "Value Only". (EIP - 526545)
- Control default value needs to be taken from HII default instead of NVRAM. (EIP – 524681)
- Support for displaying Trace messages. (EIP - 539054)
- Order list control defaults support in Pldm.(EIP - 534904)

Issues Fixed

- Check for leading/trailing spaces during SMBIOS platform validation not working. (EIP - 522646)
- SCE Library Link issues (EIP - 527604, 533941, 533942)

3.1.16 Ver 5.04.1136 11/28/2019

New Features

- Order list control support in SCE. (EIP – 496294)
- Expression evaluation support for Order list. (EIP – 505743)
- Order list control support in pldm. (EIP – 500565)

Issues Fixed

- SCELNX crashes after disabling AmiSetupNVlock setup question. (EIP - 501882)

3.1.17 Ver 5.03.1131 08/30/2019

New Features

- Need to analyze about support to provide warning for controls which need system reset based on reset_required flag. (EIP - 476729)
- SCE helpstring support and check box value validation. (EIP - 472304)

3.1.18 Ver 5.03.1129 08/02/2019

New Features

- Added support for wildcard Smbios string. (EIP - 483555)

3.1.19 Ver 5.03.1125 17/12/2018

New Features

- SCE needs to support BIN file directly as a password format. (EIP - 441672)
- Form "Network Stack Configuration" is not shown in SCE dump with UefiNetworkStack_27. (EIP - 434661)

3.1.20 Ver 5.03.1123 04/10/2018

New Features

- Date/Time control support. (EIP - 364015)
- Support for exporting single question default value. (EIP - 353737)
- Command line option to update/create new NVRAM variable in SCE. (EIP - 411146)
- Add support for single question update when mapping language is duplicated for the same storage location. (EIP - 423308)

3.1.21 Ver 5.03.1115 06/07/2018

New Features

- SCE completed flag. (EIP – 404656)
- Need to Add Reboot/Shutdown switch in SCE. (EIP – 408091)

Issues Fixed

- With latest TSE test driver, SCE Advanced mode is not working. (EIP - 407744)

3.1.22 Ver 5.03.1111 29/05/2017

Issues Fixed

- Grayout and Suppress setup items in Runtime Error Logging page display abnormally in SCE dumped file. (EIP – 324479)
- The limitation of SCEEFI generates files in root directory instead of the current working directory when path is not mentioned and executed from UEFI: Built-in-EFI Shell. (EIP – 332188)

3.1.23 Ver 5.03.1108 02/07/2017

New Features

- SMM communication algorithm needs to be modified in SCE (EIP - 309194)

3.1.24 Ver 5.03.1101 12/08/2016

New Features

- Negative number input support for SCE utility. (EIP - 256676)
- Option to hide banner in SCE. (EIP - 291217)

- Support to read single question from command line. (EIP - 286488)
- SCE needs to handle default mapping language x-AMI and x-UEFI-AMI the same. (EIP - 278203)
- PLDM: Support to specify mapping language. (EIP - 278991)
- Introduce a new switch with SCE tool, which can output grayout and suppress items in one dumped file. (EIP - 288280)
- Suppressed form's all control should be in commented out format with /ce switch. (EIP - 292718)
- SCE needs to avoid using Hiidb NVRAmVariable , get the data using HII protocols. (EIP - 281375)

Issues Fixed

- SCELNX-Modify setup item fails if setup item string include "®". (EIP - 260987)
- Some item will not be filter out properly when using SCE /g command in shell. (EIP - 283721)

3.1.25 Ver 5.02.1097 06/09/2016

New Features

- Provide efivarstore type variable support in AMISCE (EIP-264084)
- Improve expression evaluation logic (in OS version) to evaluate nested expressions even if parent expression fails to evaluate. (EIP 253128)

3.1.26 Ver 5.02.1092 02/17/2016

New Features

- Change question value from command line (EIP - 234918)
- Support for PLDM export and import (EIP - 190945, 241871, 243898)
- Function request for disabling boot options via SCE tool. (EIP - 235175)

Issues Fixed

- Typographical error (EIP - 236384)
- Windows and Linux version SCE tool still dump hidden options when using parameter /v /g /sp (EIP - 225595)
- Warning during import is not suppressed by the /q flag. (EIP - 246565)
- Tool SCELNX_64 cannot dump successful with command /g /sp in UEFI RHEL 7.1 OS. (EIP - 223189)

3.1.27 Ver 5.01.1073 10/09/2014

New Features

- Enhanced export mode: Comment out duplicate questions. (EIP - 169273)
- Get the SMI port number from ACPI table and use that in SCE (EIP - 132634)
- Migration mode: Only export questions whose value is different from the default (EIP -168203)
- Change user/admin password for BIOS setup (EIP - 171710)
- Provision to specify mapping language (EIP - 147195)

3.1.28 Ver 5.00.1068 08/06/2014

Issues Fixed

- AMISCE cuts off one-of option value when data width greater than 2 bytes. Also the current setting '*' is missing. (EIP - 178800)

3.1.29 Ver 5.00.1059 05/16/2014

New Features

- Admin password to unlock variable access. (EIP - 168125)
- Suppress output of questions with blank or empty names. If /lang presents suppress output of questions without x-AMI string (EIP - 154739)
- Block SCE execution on non Aptio V platforms' (EIP - 121820)

Issues Fixed

- AMISCE gives syntax error during script file import on Sugarbay platform. (EIP - 167123)

3.1.30 Ver 5.00.1050 10/29/2013

New Features

- Add command option to SCE to control export/import of boot order controls (EIP – 118512)
- Substitute variable inside StdDefaults when a variable for a formset is missing
- Support management of migration feature including blocking migration via command line switch (EIP – 125433)
- SCE work with mapping language (EIP – 126273)
- Add support for question evaluation to SCE - EIP 125431 – Support for Suppressing Forms added.
- Add support for question evaluation to SCE - EIP 125431 – Support for Suppressing Submenu items in Forms added.
- Add support for question evaluation to SCE - EIP 125431 – Support for /sp command for suppress if opcode and /g command for grayout.
- Expression Evaluation support for AMISCE Efi – (EIP - 132790)

Issues Fixed

- SCE question mismatch when prompt has trailing space (EIP – 118838)

3.1.31 Ver 2.02.1039 02/21/2013

New Features

- Output subtitles as comments to SCE scripts (EIP – 112604)
- APTIOV support
- Improve handling of duplicated or unmatched questions (EIP – 92631)
- Add comment to checkbox value indicating enabled/disabled values (EIP 103690)

Issues Fixed

- Output language code in script instead of trying to render full language name (EIP -114981)
- Some versions of SCE lose the % character in question names (EIP - 113274)

- AMISCE does not properly handle 32 and 64 bit numeric control nor can it properly limit check signed numeric controls. (EIP - 100678)
- SCE boot option question overflows buffer and uses wrong case for hex digits when reading Bootnnnn variable (EIP – 106102)
- SCE RAW Export command generates invalid NVRAM file (EIP – 103911)
- Output language code in script instead of trying to render full language name (EIP – 114981)
- BIOS Strings being updated in SUBTITLES but not TITLES in SCE – (EIP - 114822, EIP 114790)
- SCE exported language control shows English twice. Fails to output '*' for selected chinese dialect. (EIP - 114785)

3.1.32 Ver 2.01.1030 04/18/2012

New Features

- OFBD module password checking.
- Implement string controls.
- Add checks for invalid options. Previously invalid values were accepted.
- Allow raw variable import to change the size of a variable.
- AMISCE to work with security update to SMIVariable

Issues Fixed

- Prevent corruption of LegacyBootOrder variable.
- Fix failure to report success on raw export when final variable is read-only.
- SCE does not show all options of one of the control if it has embedded suppress if statements (UEFI 2.1).
- Fix failure to get strings when system language is not English.
- Fix controls with extreme number of options cause SCE to not list all options.
- Fix language control in exported script.
- Fix file open failure with assert message from open.c.

3.1.33 Ver 2.00.1027 03/18/2011

New Features

- Quiet mode (/q) added to suppress warning messages.

3.1.34 Ver 2.00.1009 9/09/2010

- Initial test version

Notes*:*

AMISCE expects scripts in the format as specified by the specification. White space and Empty Lines at the start of the script is not allowed.

Chapter 4

4 LNXARM

Release

- Ver 5.05.09.0010 07/08/2024

Deliverables

- SceLnxArm
- AMI_Aptio_5.x_AMISCE_User_Guide_NDA.pdf
- AMI_Aptio_5.x_AMISCE_Release_Notes_NDA.pdf

Component Versions

Below is a list of the version numbers of the components that make up this release.

- SceLnxArm 5.05.09.0010

Features

The following features are supported:

- Generates Setup Question script with relevant information for modification by user.
- NVRAM values can be updated based on modifications to Setup Question script file.
- Ability to modify the defaults for the Setup Question controls.
- Verbose mode for detailed generation of the script file.
- Reads NVRAM variables and HII database from BIOS at run time to create files that can be used as input to a setup emulation program. The NVRAM script file may be edited as text. Implemented for Windows.
- Loads the NVRAM script file created above and updates NVRAM.
- Command line operation.
- Supports UEFI 2.1 BIOS or later.
- Optional user password check
- APTIOV Support
- Supports mapping language.
- Supports blocking of migration.
- Supports expression evaluation.
- Unlocks protected variable update with administrator password.
- Support to change user/admin password
- Supports suppression of duplicate questions.
- Support to export only questions whose value is different from default.
- Aptio V BIOS Identification.
- Support to change question values from command line.
- Support for PLDM export and import.
- AFRI interface replacement for SSI.
- Support on secure boot enabled systems
- Support for efivarstore type variables
- Support for negative numbers as values for controls
- Support to hide banner

- Support to read single question value from command line.
- Support to identify suppressed and grayedout forms and controls in script file.
- SMM Communication Support
- Support to indicate system modification by AMISCE.
- Support to reboot and shutdown after system modification.
- Support to create and Update new Variable from command line
- Support to create Utility Indication variable to indicate variable modification by AMISCE
- Support for providing user and admin password in file.
- Shows help string of setup questions in script file.
- Support for wildcard Smbios string.
- Supports expression evaluation for options.
- Support for Order list control export and import.
- Support to compare the scripts

Supported Operating Systems

The AMISCE is supported by the following operating systems:

- Redhat Linux, Centos and APM X-Gene Linux for ARM.

4.1.1 Pre-Requisites

None

Compatibility

- Requires UEFI BIOS with “SceHiiInterface” eModule label SceHiiInterface_01 or later.
- Requires AfriVariable module.
- Requires AFRI module label AFRI_01 or later.
- Password feature requires ‘AmiSetupNvLock’ BIOS module for NVRAM variable update protection. The module can be found at:
- Aptio V: $/AptioV/Source/Modules/AMISetupNVLock labeled AmiSetupNvLock_4 or later If present, TSE token RT_ACCESS_SUPPORT_IN_HPKTOOL and RT_ACCESS_FOR_EFIVARSTORE must be enabled. You must have superuser privilege to import or update variables.

Limitations

- X-Gene Linux supports legacy UEFI variable interface only so variables access is limited to 1024 bytes of data.
- Some Linux versions for ARM processor fail to publish FIDT in acpi directory so user must add “/d” to command line.
- Minimum / maximum values of a numeric control are not exported to the script file
- Expression evaluation can only be done if NVRAM variables will have runtime service access. Questions with value stored in inaccessible variables will not be output to the script.

Version History

4.1.2 SceLnxArm

Ver 5.05.09.0010 07/08/2024

Issues Fixed

- Support NVR2 nvram format (Integrate ExtFlags to NVR2.flags). (EIP – 775512)
- Support both PLDM data format V1 and V2. (EIP - 793908)
- Support BitFieldVarstore setup options. (EIP - 798372)

Ver 5.05.08.0009 08/30/2023

Issues Fixed

- Fixing the issue of stack smashing detected unknown terminated. (EIP - 753848 / EIP - 755687)
- Add support for NVR2 nvram format. (EIP - 753756)

4.1.3 Ver 5.05.07.0008 05/12/2023

Issues Fixed

- Fixing the issue of space lost in the output script file. (EIP - 742809)

4.1.4 Ver 5.05.06.0007 02/14/2023

Issues Fixed

- To sync the code change that fixed the segmentation fault on centOS 9. (EIP - 726594)

4.1.5 Ver 5.05.05.0006 09/30/2022

Issues Fixed

- Fixing the issue of not allocating enough buffer for package list in AmiSetupLib. (EIP - 704485, EIP - 690244)

4.1.6 Ver 5.05.04.0005 08/01/2022

Issues Fixed

- Fixing the issue of allocating memory failed. (EIP - 688257)

4.1.7 Ver 5.05.02.0003 03/15/2022

Issues Fixed

- Skip the unicode character directly, rather than replacing unicode with space. (EIP - 621658)
- Fixing the issue of allocating memory failed when importing pldm data: memory size cannot be zero. (EIP - 623355)
- Fix the issue of exporting script file different in EFI and Linux. The structure size is different in EFI and Linux. (EIP - 634216)
- Report the error message that BIOS needs a reset to expand the size of Hii database. (EIP - 626858)

4.1.8 Ver 5.04.1147 01/22/2021

Issues Fixed

- Exported (with /ndef) PldmDataSize is more than BCP FV size.(EIP - 573294)

- Pldm Export failed in MS Server: Grantley Mayan City Refresh SVN platform and Lenovo-SVR 4S Cedar Island platform. (EIP - 569392)

4.1.9 Ver 5.04.1140 11/03/2020

Issues Fixed

- Pldm import failed in AMD Platform (EIP – 565003)
- Pldm Export failed in Idaville platform (EIP – 557115)
- Duplicate Question warning needs to be suppressed when requested mapping lang is not having any duplicate entries (EIP – 574244)

New Features

- SCE compare 2 script file and output the difference to a new script file. (EIP – 569353)

4.1.10 Ver 5.04.1139 06/23/2020

Issues Fixed

- Single Question export failed in SceLnxArm 5.04.1138, application getting crashed. (EIP – 548590)

4.1.11 Ver 5.04.1138 06/15/2020

New Features

- Include variable name and guid associated to the setup question in advanced script. (EIP – 490026)
- SCE Command Line Option to Output "Value Only". (EIP - 526545)
- Control default value needs to be taken from HII default instead of NVRAM. (EIP – 524681)
- Support for displaying Trace messages. (EIP - 539054)
- Order list control defaults support in Pldm. (EIP - 534904)
- Issues Fixed
- Check for leading/trailing spaces during SMBIOS platform validation not working. (EIP - 522646)

4.1.12 Ver 5.04.1136 11/28/2019

Issues Fixed

- SCELNX crashes after disabling AmiSetupNVlock setup question. (EIP – 501882)

New Features

- Order list control support in SCE. (EIP - 496294)
- Expression evaluation support for Order list. (EIP – 505743)
- Order list control support in pldm. (EIP - 500565)

4.1.13 Ver 5.03.1131 08/30/2019

New Features

- Need to analyze about support to provide warning for controls which need system reset based on reset_required flag. (EIP - 476729)
- SCE helpstring support and check box value validation. (EIP - 472304)
- Added support for wildcard Smbios string. (EIP - 483555)

4.1.14 Ver 5.03.1125 17/12/2018

New Features

- SCE need to support BIN file directly as a password format. (EIP - 441672)
- Form "Network Stack Configuration" is not shown in SCE dump with UefiNetworkStack_27. (EIP - 434661)

4.1.15 Ver 5.03.1121 06/09/2018

New Features

- SCE completed flag. (EIP – 404656)
- Need to Add Reboot/Shutdown switch in SCE. (EIP – 408091)
- Modified SCE to prefer existing driver overusing RuntimeMemoryHole. (EIP – 398938)
- Implementation of SMBIOS Locking in SCE (EIP - 409021).
- Command line option to update/create new NVRam variable in SCE(EIP - 411146)
- Option to hide banner in SCE. (EIP - 291217)
- Negative number input support for SCE utility. (EIP - 256676)
- Support to read single question from command line. (EIP - 286488)
- Option to hide banner in SCE. (EIP - 291217)
- SCE needs to handle default mapping language x-AMI and x-UEFI-AMI the same. (EIP - 278203)
- Introduce a new switch with SCE tool, which can output grayout and suppress items in one dumped file. (EIP - 288280)
- Suppressed form's all control should be in commented out format with /ce switch. (EIP - 292718)
- Date/Time control support. (EIP – 364015)
- Support for exporting single question default value. (EIP - 353737)

4.1.16 Ver 5.02.1094 06/12/2017

Issues Fixed

- [REF-46700] in Skylake '5.11_VEB_1ASOH033' BIOS, 'VR Config Enable' setup question is not suppressed in PLDM script which is exported with /sp switch. (EIP 271361)
- SCE does not work in Redhat 7.3.(EIP 348471)
- AMISCE Utility throws "Error:FAILS TO GET IMMUTABLE FLAG" when validated in Cent OS 7.3. (EIP 360229)
- SceLnxArm failed to export NVRAM. (EIP 325288)
- Typographical error (EIP 236384)
- Windows and Linux version SCE tool still dump hidden options when using parameter /v /g /sp (EIP 225595)
- Warning during import is not suppressed by the /q flag. (EIP 246565)

- EIP 228818 - CRC32 value does not correct.
- EIP 228818 – Variable Write always returned success. As a result, password always appeared to be accepted.

New Features

- SCE needs to handle default mapping language x-AMI and x-UEFI-AMI the same.
- (EIP 278203)
- AFRI runtime access replaces SSI. Note: This version is not backward compatible with a BIOS with SSI.
- Change question value from command line (EIP: 234918)
- Support for PLDM export and import (EIP: 190945, 241871, 243898)
- Function request for disabling boot options via SCE tool. (EIP 235175)

4.1.17 Ver 5.01.1075 01/22/2015

New Features

- Support for Linux running on AARCH64 ARM CPU.

Platforms Tested

- Mustang

OS Version Tested

- RedHat Preview Release for ARM release 1.3.
- Applied Micro x-Gene.

Chapter 5

5 EFIARM

Release

- V5.05.09.0010 07/08/2024

Deliverables

- SceEfiArm
- AMI_Aptio_5.x_AMISCE_User_Guide_NDA.pdf
- AMI_Aptio_5.x_AMISCE_Release_Notes_NDA.pdf

Component Versions

Below is a list of the version numbers of the components that make up this release.

- SceEfiArm 5.05.09.0010

Features

The following features are supported:

- Generates Setup Question script with relevant information for modification by user.
- NVRAM values can be updated based on modifications to Setup Question script file.
- Ability to modify the defaults for the Setup Question controls.
- Verbose mode for detailed generation of the script file.
- Reads NVRAM variables and HII database from BIOS at run time to create files that can be used as input to a setup emulation program. The NVRAM script file may be edited as text. Implemented for Windows.
- Loads the NVRAM script file created above and updates NVRAM.
- Command line operation.
- Supports UEFI 2.0 and UEFI 2.1 BIOS or later.
- Optional user password check
- APTIOV Support
- Supports mapping language.
- Supports blocking of migration.
- Supports expression evaluation.
- Unlocks protected variable update with administrator password.
- Support to change user/admin password.
- Passwords may be entered as scan codes.
- Supports suppression of duplicate questions.
- Support to export only questions whose value is different from default.
- Aptio V BIOS Identification.
- Get SMI port from ACPI table
- Support to change question values from command line.
- Support for PLDM export and import.
- Support for efivarstore type variables.
- Support for negative numbers as values for controls.
- Support to hide banner.

- Support to read single question value from command line.
- Support to identify suppressed and grayedout forms and controls in script file.
- Removed dependency of SmiVariable module.
- SMM communication support.
- Support to indicate system modification by AMISCE.
- Support to reboot and shutdown after system modification.
- Support to create and Update new Variable from command line
- Support to create Utility Indication variable to indicate variable modification by AMISCE
- Support for providing user and admin password in file.
- Shows help string of setup questions in script file.
- Support for wildcard Smbios string.
- Supports expression evaluation for options.
- Support for Order list control export and import.
- Support to compare the scripts.

Supported Operating Systems

The AMISCE is supported by the following operating systems:

- UEFI Shell for ARM.

5.1.1 Pre-Requisites:

None

Compatibility

- Requires “SceHiiInterface” eModule support to be provided by UEFI BIOS. Label SceHiiInterface_01 or later.
- Requires AfriVariable module for raw variable export.
- Requires AFRI module label AFRI_01 or later.
- Password feature requires ‘AmiSetupNvLock’ BIOS module for NVRAM variable update protection. The module can be found at:
- Aptio V: $/AptioV/Source/Modules/AMISetupNVLock labeled AmiSetupNvLock_4 or later
  If present, TSE token RT_ACCESS_SUPPORT_IN_HPKTOOL and RT_ACCESS_FOR_EFIVARSTORE must be enabled.

Limitations

- Minimum / maximum values of a numeric control are not exported to the script file.
- Expression evaluation can only be done if nvram variables will have runtime service access.

Version History

5.1.2 SceEfiArm

Ver 5.05.09.0010 07/08/2024

Issues Fixed

- Support NVR2 nvram format (Integrate ExtFlags to NVR2.flags). (EIP – 775512)
- Support both PLDM data format V1 and V2. (EIP - 793908)
- Support BitFieldVarstore setup options. (EIP - 798372)

Ver 5.05.08.0009 08/30/2023

Issues Fixed

- Fixing the issue of stack smashing detected unknown terminated. (EIP - 753848 / EIP - 755687)
- Add support for NVR2 nvram format. (EIP - 753756)

5.1.3 Ver 5.05.07.0008 05/12/2023

Issues Fixed

- Fixing the issue of space lost in the output script file. (EIP - 742809)

5.1.4 Ver 5.05.06.0007 02/14/2023

Issues Fixed

- To sync the code change that fixed the segmentation fault on centOS 9. (EIP - 726594)

5.1.5 Ver 5.05.05.0006 09/30/2022

Issues Fixed

- Fixing the issue of not allocating enough buffer for package list in AmiSetupLib. (EIP - 704485, EIP - 690244)

5.1.6 Ver 5.05.04.0005 08/01/2022

Issues Fixed

- Fixing the issue of allocating memory failed. (EIP - 688257)

5.1.7 Ver 5.05.02.0003 03/15/2022

Issues Fixed

- Skip the unicode character directly, rather than replacing unicode with space. (EIP - 621658)
- Fixing the issue of allocating memory failed when importing pldm data: memory size cannot be zero. (EIP - 623355)
- Fix the issue of exporting script file different in EFI and Linux. The structure size is different in EFI and Linux. (EIP - 634216)
- Report the error message that BIOS needs a reset to expand the size of Hii database. (EIP - 626858)

5.1.8 Ver 5.04.1147 01/22/2021

Issues Fixed

- Exported(with /ndef) PldmDataSize is more than BCP FV size.(EIP - 573294)
- Pldm Export failed in MS Server: Grantley Mayan City Refresh SVN platform and Lenovo-SVR 4S Cedar Island platform. (EIP - 569392)

5.1.9 Ver 5.04.1139 11/03/2020

Issues Fixed

- Pldm import failed in AMD Platform. (EIP – 565003)
- Pldm Export failed in Idaville platform. (EIP – 557115)
- Duplicate Question warning needs to be suppressed when requested mapping lang is not having any duplicate entries. (EIP – 574244)

New Features

- SCE compare 2 script file and output the difference to a new script file. (EIP – 569353)

5.1.10 Ver 5.04.1138 06/15/2020

New Features

- Include variable name and guide associated to the setup question in advanced script. (EIP – 490026)
- SCE Command Line Option to Output "Value Only". (EIP - 526545)
- Control default value needs to be taken from HII default instead of NVRAM. (EIP – 524681)
- Support for displaying Trace messages.(EIP - 539054)
- Order list control defaults support in Pldm.(EIP - 534904)

Issues Fixed

- Check for leading/trailing spaces during SMBIOS platform validation not working.(EIP - 522646)

5.1.11 Ver 5.04.1136 11/28/2019

Issues Fixed

- SCELNX Crashes after disabling AmiSetupNVlock setup question. (EIP - 501882)

New Features

- Order list control support in SCE. (EIP - 496294)
- Expression evaluation support for Order list. (EIP – 505743)
- Order list control support in pldm. (EIP - 500565)

5.1.12 Ver 5.03.1131 08/30/2019

New Features

- Need to analyze about support to provide warning for controls which need system reset based on reset_required flag. (EIP - 476729)
- SCE helpstring support and check box value validation. (EIP - 472304)
- Added support for wildcard Smbios string. (EIP - 483555)

5.1.13 Ver 5.03.1125 17/12/2018

New Features

- SCE need to support BIN file directly as a password format. (EIP - 441672)
- Form "Network Stack Configuration" is not shown in SCE dump with UefiNetworkStack_27. (EIP - 434661)

5.1.14 Ver 5.03.1121 06/09/2018

New Features

- SCE completed flag. (EIP – 404656)
- Need to Add Reboot/Shutdown switch in SCE. (EIP – 408091)
- Implementation of SMBIOS Locking in SCE (EIP - 409021).
- Command line option to update/create new NVRam variable in SCE (EIP - 411146)
- Option to hide banner in SCE. (EIP - 291217)
- Negative number input support for SCE utility. (EIP - 256676)
- Support to read single question from command line. (EIP - 286488)
- Option to hide banner in SCE. (EIP - 291217)
- SCE needs to handle default mapping language x-AMI and x-UEFI-AMI the same. (EIP - 278203)
- Introduce a new switch with SCE tool, which can output grayout and suppress items in one dumped file. (EIP - 288280)
- Suppressed form's all control should be in commented out format with /ce switch. (EIP - 292718)
- Date/Time control support
- Support for exporting single question default value

5.1.15 Ver 5.02.1092 02/08/2016

Issues Fixed

- Newline character in subtitle (with /v) causes import syntax error (EIP 236384)
- Windows and Linux version SCE tool sometimes dump hidden options when using parameter /v /g /sp (EIP 225595)
- Warning during import is not suppressed by the /q flag. (EIP 246565)

New Features

- AFRI runtime access replaces SSI. Note: This version is not backward compatible with a BIOS with SSI.
- Change question value from command line (EIP: 234918)
- Support for PLDM export and import (EIP: 190945, 241871, 243898)
- Function request for disabling boot options via SCE tool. (EIP 235175)

5.1.16 Ver 5.02.1081 07/23/2015

Issues Fixed

- EIP 228818 - CRC32 value does not correct.
- EIP 228818 – Variable Write always returned success. As a result, password always appeared to be accepted.

5.1.17 Ver 5.02.1077 06/01/2015

New Features

- Support for UEFI Shell running on AARCH64 ARM CPU.

Platforms Tested

- Mustang label 5.014_Mustang_0ACDY_027

OS Version Tested

- UEFI Shell

Chapter 6

6 WINARM

Release

- Ver 5.05.09.0010 07/08/2024

Deliverables

- SceWinArm.exe
- AMI_Aptio_5.x_AMISCE_User_Guide_NDA.pdf
- AMI_Aptio_5.x_AMISCE_Release_Notes_NDA.pdf

Component Versions

Below is a list of the version numbers of the components that make up this release.

- SceWinArm 5.05.09.0010

Features

The following features are supported:

- Generates Setup Question script with relevant information for modification by user.
- NVRAM values can be updated based on modifications to Setup Question script file.
- Ability to modify the defaults for the Setup Question controls.
- Verbose mode for detailed generation of the script file.
- Reads NVRAM variables and HII database from BIOS at run time to create files that can be used as input to a setup emulation program. The NVRAM script file may be edited as text. Implemented for Windows.
- Loads the NVRAM script file created above and updates NVRAM
- Command line operation.
- Supports UEFI 2.1 BIOS or later.
- Optional user password check
- APTIOV Support
- Supports mapping language.
- Supports blocking of migration.
- Supports expression evaluation.
- Unlocks protected variable update with administrator password.
- Support to change user/admin password.
- Supports suppression of duplicate questions.
- Support to export only questions whose value is different from default.
- Aptio V BIOS Identification.
- Support to change question values from command line.
- Support for PLDM export and import
- AFRI interface replacement for SSI
- Support on secure boot enabled systems.
- Support for efivarstore type variables
- Support for negative numbers as values for controls
- Support to hide banner.

- Support to read single question value from command line.
- Support to identify suppressed and grayed out forms and controls in script file.
- SMM Communication Support
- Support to indicate system modification by AMISCE.
- Support to reboot and shutdown after system modification.
- Support to create and Update new Variable from command line.
- Support to create Utility Indication variable to indicate variable modification by AMISCE.
- Support for providing user and admin password in file.
- Shows help string of setup questions in script file.
- Support for wildcard Smbios string
- Supports expression evaluation for options.
- Support for Order list control export and import
- Support to compare the scripts.

Supported Operating Systems

The AMISCE is supported by the following operating systems:

- Windows 10 ARM64

Pre-Requisites:

- None

Compatibility

- Requires UEFI BIOS with “SceHiiInterface” eModule label SceHiiInterface_01 or later.
- Requires AfriVariable module.
- Requires AFRI module label AFRI_01 or later.
- Password feature requires ‘AmiSetupNvLock’ BIOS module for NVRAM variable update protection. The module can be found at:
- Aptio V: $/AptioV/Source/Modules/AMISetupNVLock labeled AmiSetupNvLock_4 or later
- If present, TSE token RT_ACCESS_SUPPORT_IN_HPKTOOL and RT_ACCESS_FOR_EFIVARSTORE must be enabled. You must have superuser privilege to import or update variables.

Limitations

- Minimum / maximum values of a numeric control are not exported to the script file
- Expression evaluation can only be done if NVRAM variables will have runtime service access. Questions with value stored in inaccessible variables will not be output to the script.

Version History

6.1.1 SceWinArm

6.1.2 Ver 5.05.09.0010 07/08/2024

Issues Fixed

- Support NVR2 nvram format (Integrate ExtFlags to NVR2.flags). (EIP – 775512)
- Support both PLDM data format V1 and V2. (EIP - 793908)
- Support BitFieldVarstore setup options. (EIP - 798372)

6.1.3 Ver 5.05.08.0009 08/30/2023

Issues Fixed

- Fixing the issue of stack smashing detected unknown terminated. (EIP - 753848 / EIP - 755687)
- Add support for NVR2 nvram format. (EIP - 753756)

6.1.4 Ver 5.05.07.0008 05/12/2023

Issues Fixed

- Fixing the issue of space lost in the output script file. (EIP - 742809)

6.1.5 Ver 5.05.06.0007 02/14/2023

Issues Fixed

- Fixing the issue of getting attribute of variable 0. (EIP - 727301)
- Fixing the issue of displaying error while intentionally setting wrong password to re-lock it. (EIP - 727301)
- To sync the code change that fixed the segmentation fault on centOS 9. (EIP - 726594)

6.1.6 Ver 5.05.05.0006 09/30/2022

Issues Fixed

- Fixing the issue of not allocating enough buffer for package list in AmiSetupLib. (EIP - 704485, EIP - 690244)

6.1.7 Ver 5.05.04.0005 08/01/2022

Issues Fixed

- Fixing the issue of allocating memory failed. (EIP - 688257)

6.1.8 Ver 5.05.02.0003 03/15/2022

Issues Fixed

- Skip the unicode character directly, rather than replacing unicode with space. (EIP - 621658)
- Fixing the issue of allocating memory failed when importing pldm data: memory size cannot be zero. (EIP - 623355)
- Fix the issue of exporting script file different in EFI and Linux. The structure size is different in EFI and Linux. (EIP - 634216)
- Report the error message that BIOS needs a reset to expand the size of Hii database. (EIP - 626858)

6.1.9 Ver 5.04.1147 08/26/2021

- The initial version.



Platforms Tested

- Ampere label 5.15_QuickSilver_0ACOI_026

OS Version Tested

- Windows 10 ARM64