

Intel vPro Technology: Creating a custom setup.bin file

If you load up a full management console, the Intel SCS console, and so forth - the capability exists to create a setup.bin file with a predefined number of records containing the PID, PPS, and new password. This file is used to "pre-provision" Intel AMT clients. This is done by placing the setup.bin file on a FAT-16 formatted USB flash drive, inserting that drive into the Intel AMT system, powering it up, and accepting prompts to pre-provision the system. A previous post talks about when a setup.bin file might be too large - <http://communities.intel.com/thread/1181>

However, this raises a number of questions

What if the default password is not "admin"? The SCS console and some system management console does not allow the default admin password to be anything except "admin" What if a VAR or a pre-staging environment ONLY wants to pre-provision systems, yet does want to setup the SCS console or other management console? All that is desired is to generate the setup.bin file What if the target system is Intel AMT 3.0 or higher, and distribution of non-persistent certificate hashes is desired? What if other properties in the MEBx (management engine BIOS extension) need to be set, such as a custom setting for the ProvisionServer in a specific domain? What if the Intel AMT 3.0 or higher system needs to be set to pre-shared key instead of remote configuration (difference of TLS-PSK vs. PKI-CH)? What if an existing setup.bin file needs to be checked for valid records?

These are all viable questions from real-world experience. Are you familiar with the updated version of the USBfile.exe utility?

To obtain - download the Intel AMT DTK source code available at <http://www.intel.com/software/amt-dtk/>. This will require accepting a license agreement and so forth.

Extract all the files\folders, and locate "USBFile.exe".

A few important notes:

Both version 1 and 2 setup.bin files can be created, viewed, or summarized with this utility Version 2 of the setup.bin file works ONLY with Intel AMT 3.0 and higher Version 2 of the file enables pre-provisioning for both pre-shared key and remote configuration modes Version 2 of the file enables for custom settings of Intel MEBx fields (e.g.

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ProvisionServer FQDN, certificate hash management, etc) Intel AMT systems that are ALREADY in a setup or configured will not respond to a setup.bin file. As each record of the setup.bin is used, it is invalidated. Once created, save an unused copy of the setup.bin file to import the keys into Intel SCS or target system management console. If needed, export the provisioning keys from an existing Intel SCS or system management console to generate a distributable setup.bin. Note that only unused keys can be exported. (If a future resource or post needed on setup.bin file handling, how to export used keys, and so forth - add a comment\reply)

If you run the file at a command prompt, the following guidance will be provided

```

C:\Documents and Settings\spabercr>"C:\Documents and Settings\spabercr\Desktop\
SBFile2.exe"

*** Intel(R) AMT USB file writer and viewer sample v2.0***

syntax:
USBfile -create <usb output file name> <current MEBx password>
        <new MEBx password> [-v 1|2] [-amt]
        [-dns <DNS suffix>] [-fqdn <prov server fqdn>]
        [-ztc 0|1]
        [-gen <num of records>]
        [-xml <xml file name>]
        [-pid <pid> -pps <pps>]
        [-hash <cert file name> <friendly name>]
        [-redir <n>]
USBfile -view <usb file name>

-v 1|2: the setup file version, 2 by default
-ant: this will set the manageability selection value to AMT
-dns <DNS suffix>: sets the PKI dns suffix name (up to length 255)
-fqdn <prov server fqdn>: string up to length 255
-ztc 0|1: enable/disable PKI Configuration
-xml <xml file name>: if -gen is chosen the PSK records that
        are created will be dumped to the given file
-gen <num of records>: create the requested number of consumable records

        By default, a single non-consumable record is created.
        If this option is chosen, a PSK pair will be randomly
        generated for each record.
-pid <pid> -pps <pps>: a psk pair - this is ignored if -gen was chosen
-hash <certificate file name> <friendly name>: to compute and add the
        hash of the given root certificate file. The file provided
        must contain the root certificate data only. Up to three
        certificate hashes may be specified.
-redir <n>:
        This is an integer that is calculated as follows:
        bit 0 : 1 (Enable) or 0 (Disable) - SOL feature
        bit 1 : 1 (Enable) or 0 (Disable) - IDER feature
        bit 2 : 1 (Enable) or 0 (Disable) - Username/password
        authentication type of the SOL/IDER in the ME FW

Examples:
USBfile -create setup.bin admin Admin22@ -v 1 -gen 10 -xml setup.xml
USBfile -create setup.bin admin Admin22@ -pid AAAA-AAAA
        -pps AAAF-AAAF-AAAF-AAAF-AAAF-AAAF-AAAF-AAAF
USBfile -view setup.bin

Notes:
1. The BIOS requires a binary file with the name "setup.bin"
2. If version 1 is chosen, the only valid options are -xml as well as
   either -gen (to generate multiple PSK records) or -pid and -pps (to
   create a single PSK record). All other optional flags will be ignored.

C:\Documents and Settings\spabercr>"C:\Documents and Settings\spabercr\Desktop\
SBFile.exe"

*** Intel(R) AMT USB file writer and viewer sample ***

syntax:
USBfile -create <usb output file name> <xml output file name>
        <current MEBx password> <new MEBx password> <number of records>
USBfile -view <usb output file name>

```

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A handy tool to have with you - especially in the pre-staging process of Intel AMT systems.