AMI Solutions for OCP
Open Compute Project

AMISolutions™ for OCP

Founded over 30 years ago, American Megatrends Inc. (AMI) has a long history of enabling IT vendors with a comprehensive set of BIOS, UEFI, utilities, remote management, storage, and more. AMI's close working relationship with key industry partners and leading IHVs and ISVs, gives AMI unique insight into the requirements of manufacturers and integrators designing and building solutions based on the Open Compute Project (OCP) specifications.

There are many concerns facing IT administrators managing cloud optimized servers in large scale-out data centers. Challenges include firmware updates, bare metal provisioning, security and employing system-level tools and diagnostics. As a core enabling company for the OCP (platform environment), AMI understands the requirements and challenges of data center designers.

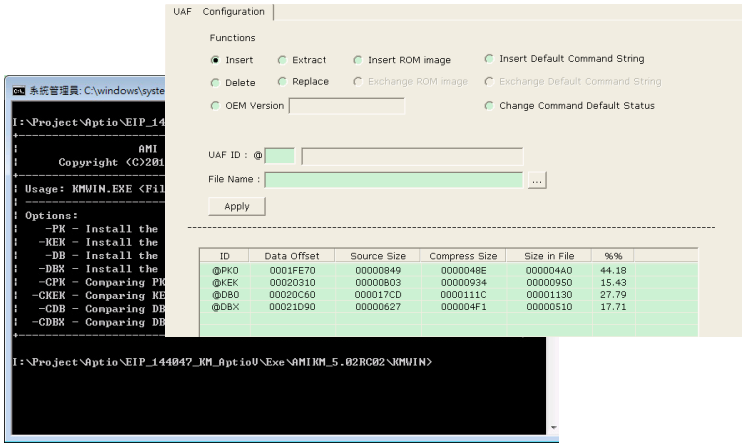
From System Utilities to ROM utilities, Diagnostics and Extensible Management Architecture tools, as well as robust tools and utilities that extend an OCP customer's platform capabilities; AMI has the experience to offer a full spectrum of solutions that allow OCP integrators the flexibility to customize firmware solutions at the component level as well as system-level tools and utilities for extended levels of configurability and customization.

In addition, AMI offers a complete line of solutions for total in/out-of-band management for platforms and devices across an OCP enterprise, including board-level service processors, extensive platform management applications as well as chassis and rack management solutions, ideal for OCP environments.

SYSTEM LEVEL UTILITIES OVERVIEW

System level utilities from AMI offer OCP platform manufacturers and their customers the ability to configure, manage and customize system firmware in an active operating system (OS) environment.

AFU (AMI Firmware Update) is a utility used to update the system BIOS under various operating systems. Key features include reading and flashing system ROM images via a command line interface (CLI) tool and programming OEM activation keys. Supported Operating Systems include EFI, Windows, Linux and BSD.

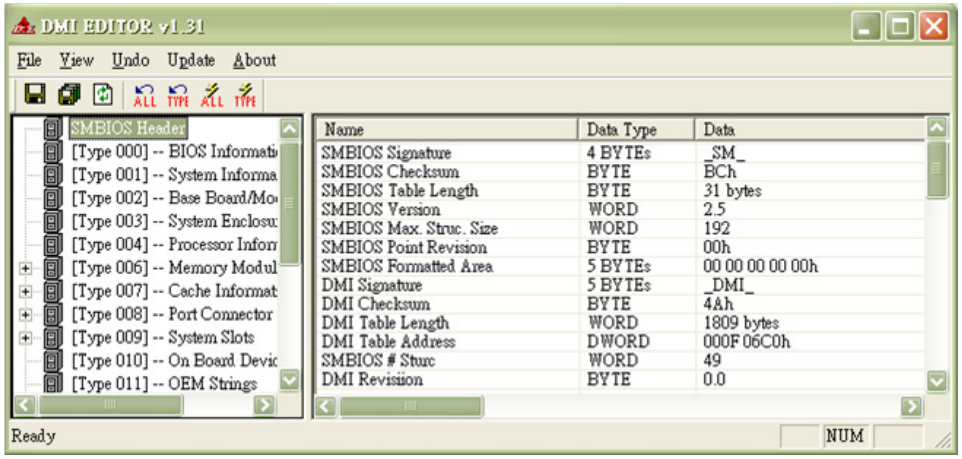


AMIKM (AMI Key Management) is a utility program that is used to provision OEM keys for UEFI SecureBoot. Features include writing Platform Key (PK), Key Exchange Key (KEK) and signature database to the system.

Once a system is in the SecureBoot setup mode, this utility can be used to update keys into the firmware. This can be popular if administrators want to take full ownership of the platform so that they can use their own Platform Key. Updating with personalized keys will allow in-house signed utilities to run in the UEFI SecureBoot environment.

AptioV Desktop Management Interface Edit (DMIEdit)

DMIEdit allows you to modify strings and settings associated with SMBIOS tables. This utility works with Aptio firmware that has SMBIOS support. It can be used for programming AssetTag or SerialNumber information as well.



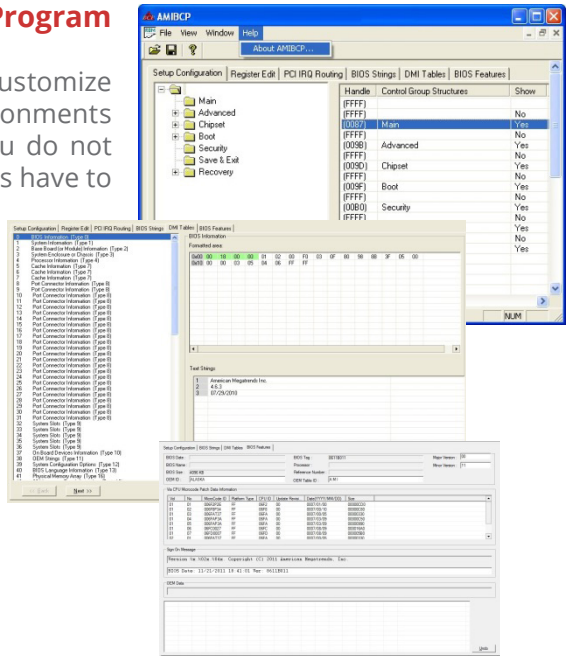
Administrators can modify a number of SMBIOS tables with DMIEdit, which includes; BIOS, system base board, chassis and processor Information. Also, OEM Strings, system configuration options and portable battery and system power supplies can be modified. Please refer to the DMI specification at www.dmtf.org for further information on table structures.

ROM Level Utilities Overview

ROM level utilities allow administrators to modify a ROM that can then be flashed onto multiple platforms. Aptio V offers a number of customization options suitable for OCP environments.

Aptio V American Megatrends BIOS Configuration Program (AMIBCP)

AMIBCP allows OEMs or system integrators an easy way to customize some of the Aptio features in Microsoft® Windows® environments without coding a single executable file. This means that you do not have to contact American Megatrends for when minor changes have to be made in your system's Aptio firmware.

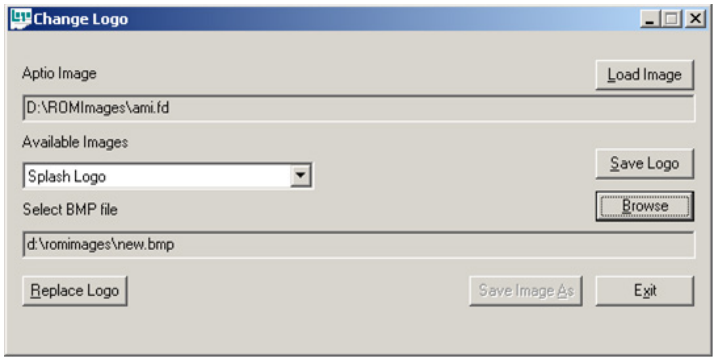


With AMIBCP, you can customize an Aptio firmware image via a simple GUI interface. The AMIBCP Firmware Configuration Program allows you to configure the Aptio system setup questions and defaults, edit PCI IRQ routing table information, view and edit Aptio strings and static DMI tables, and more.

AMI Solutions for OCP
Open Compute Project

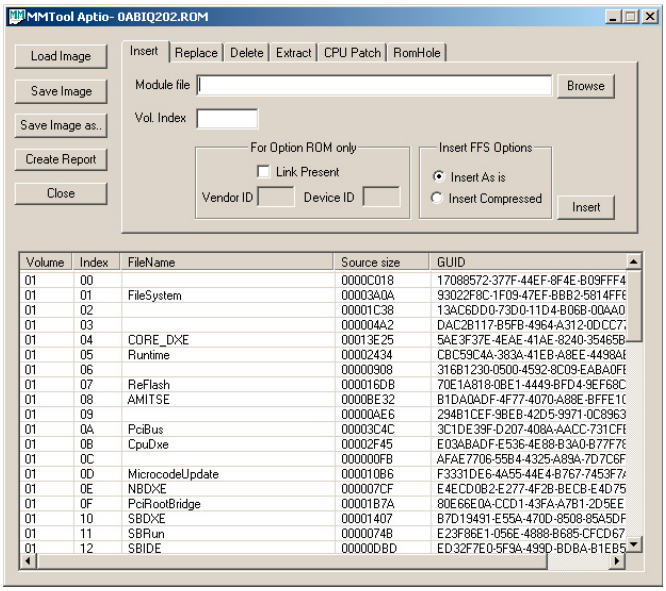
AMISolutions™ for OCP

AMI ChangeLogo
AMI ChangeLogo Tool allows OEMs to replace the logo inside the Aptio firmware file or Capsule file with a new one. This is a simple utility that allows them to change the logo displayed on the SplashScreen. Supported image formats include JPEG and PNG. The tool can be operated from either a command line utility or user friendly graphical interface.



AMI MMTool
AMI MMTool (Module Management Tool) allows administrators to manage firmware file modules that are contained in the Aptio firmware image; all without requiring a firmware rebuild.

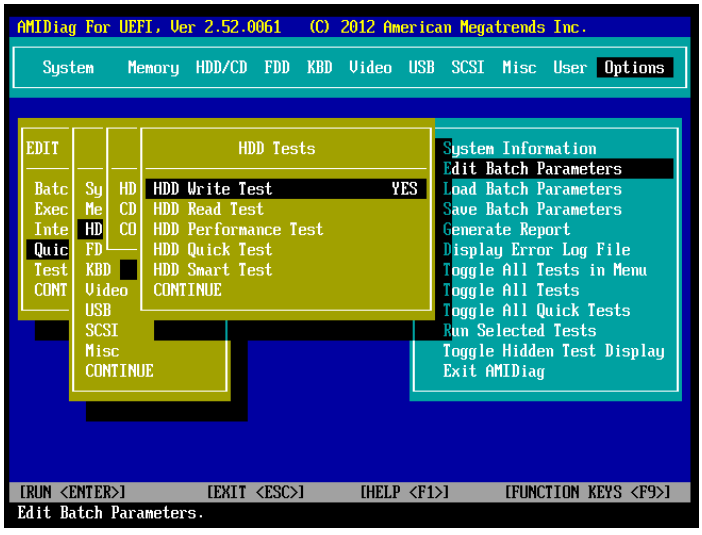
The user friendly GUI-based tool runs in a Windows® environment and can display all the modules contained in the firmware image. The tool can also be used to add, remove or update UEFI drivers. The tool also allows easy changing of Legacy OpRoms. A command line tool version is also available.



AMIDiag™ for UEFI
AMIDiag is the only complete hardware diagnostic solution for the Unified Extensible Firmware Interface (UEFI) available in the market today. AMIDiag for UEFI operates independently from the operating system, offering great advantages to OCP customers.

AMIDiag for UEFI provides comprehensive hardware testing with a familiar user interface, and supports UEFI-compliant AMI and third-party hardware drivers for device-specific testing.

AMIDiag for UEFI also has the ability to be embedded directly into the BIOS ROM, which can add value and increased functionality to the BIOS. This means that it can be launched directly from ROM rather than from mass storage devices, leading to improved execution speed and diagnostic capabilities, which is particularly useful if media has gone bad.



For additional testing capabilities, a software developer kit (SDK) is available for customized testing parameters. The SDK can create tests that will be included into the base set of tests supported by AMIDiag.

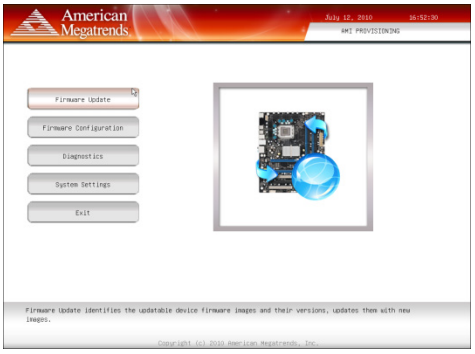
AMI Solutions for OCP
Open Compute Project

AMISolutions™ for OCP

AMI Extensible Management Architecture

AMI Extensible Management Architecture integrates firmware configuration, firmware update, hardware diagnostics and pre-OS applications in a feature rich graphical UEFI environment. AMI EMA provides a simplified system management.

AMI EMA consists of various UEFI components: Firmware Update, Firmware Configuration, Diagnostics and System Settings. The AMI EMA Interface serves as a "launcher" for these components.



AMI EMA uses AMI's Extensible Setup Architecture (ESA) libraries to build powerful graphical applications in UEFI. The Graphics Driver & Menu Rendering Engine support mouse & touch interfaces, multiple output resolutions, UNICODE multi-language support and proportional font rendering. AMI ESA also enables graphical themes, allowing multiple applications to use a common look and feel based on a small number of graphical elements. This feature enables rapid development of OEM themes.

Design Services & Source Code Licensing

AMI provides a wide variety of Engineering Services to its valued customers around the globe, including custom Design Services for hardware, software and firmware solutions, as well as Platform Validation and Testing Services at multiple AMI international locations for guaranteed, fault-proof testing of clients' hardware, software and firmware products for pre-launch quality and reliability.

Thanks to its long history of innovation and industry leadership, AMI understands perfectly how to design superior products for maximum results in minimum time. For more information about the wide range of services available AMI, please contact the AMI Sales Department so an AMI Sales Representative can explore your Design Services needs with you in detail.

American Megatrends

American Megatrends Inc. | ami.com
5555 Oakbrook Parkway, Bldg. 200
Norcross, GA 30093 | 770.246.8600

AptioV

For more information: https://ami.com