

Intel vs. AMD Comparison: Cross Platform Manageability Comparison Research

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1. Introduction

The document provides a comparison of some key aspects of hardware-level management capabilities provided by Intel vPro and AMD Ryzen Pro. This review is based on publicly available resources and testing with an 11th-generation Intel vPro system and an AMD Ryzen 4750U-based system.

2. Setting up Management Environment

This section compares the processes involved and their complexities for setting up Intel and AMD remote management environments. In the context of Intel, this meant installing the Intel Endpoint Management Assistant software, often referred to simply as “**Intel EMA**” or **EMA**, and for AMD, this meant installing the AMD Management Console, known also as **AMC**.

Intel EMA is a web application, and once this application is installed, a user may administer endpoints by logging into the application via their web browser. The installation process installs the EMA web application into IIS in the local system.

To install Intel EMA, a user downloads an executable self-extracting archive from <https://downloadcenter.intel.com/download/28994/Intel-Endpoint-Management-Assistant-Intel-EMA->. Upon extracting the archive’s contents, the user must run EMAServerInstaller.exe. This installer offers a few options, including the option to install the EMA server.

One challenge in the installation process was that the user first had to install the Microsoft SQL Server themselves manually. EMA also requires that the IIS web server is available. This means that installation of EMA is not completely seamless, though the installation wizard itself is fairly simple and installation was achieved without issue.

To install AMC, the installer package was downloaded from: <https://developer.amd.com/tools-for-dmtf-dash/>. This software is very easy to install via its simple installation wizard. The software management interface itself is provided by a Windows application with a simple interface.

3. Setting Up Endpoints

After setting up the ‘client’, endpoints had to be set up to be managed. This section compares this process with respect to the Intel and AMD solutions.

Intel

The process for setting up systems are configurable endpoints in the Intel vPro scenario did not require physical access. Users were able to login as a “tenant administrator” to the Intel EMA application, define an “Intel AMT Profile” in a few steps, and then have EMA automatically generate an Agent binary with this provisioning profile embedded. At this point the user would download the newly generated agent binary and then install this on



any systems they wish to be remotely manageable. Each system with the binary is installed then appears as a manageable endpoint in EMA without additional configuration.

The 'deployment process' for setting up systems as manageable endpoints in EMA may be described as a three-step process, as follows:

- Create Intel AMT profile
- Create Endpoint Group
- Generate Agent Installation Files

Intel vPro has the ability to set systems up as manageable endpoints by running a small agent installation program, with no physical access necessary.

AMD

In the AMD scenario, a user must have physical access to the system that they wish to setup for remote management. The user must reboot the system in question, enter the BIOS configuration menu, and then enable "DASH" and set an authentication credential. The requirement to have physical access to each system to make these BIOS configuration changes may present challenges in real-world scenarios.

4. Hardware-Level Management Features Comparison

This section compares several feature sets of the management systems offered by Intel vPro and AMD.

4.1 In-Band Management

Intel vPro

Intel vPro also allowed in-band access via both WiFi and wired access.

AMD Ryzen Pro

In-band access was possible via both WiFi and wired (i.e. ethernet).

4.2 Out-of-Band Management

Intel vPro

Intel vPro offers out-of-band management via both WiFi and wired connection.

AMD Ryzen Pro

In the AMD scenario, out-of-band management was possible only via a wired connection, and not via WiFi. Systems that are connected via WiFi are therefore not manageable via the out-of-band access channel.



4.3 Cloud Connectivity

Intel vPro

Intel vPro offers management over the cloud so that systems can be administered wherever they have an Internet connection.

AMD Ryzen Pro

The AMD Manageability solution does not offer management via the cloud.

4.4 Batch Management

Intel vPro

Intel vPro (via EMA) provides for administration of multiple devices at once, i.e. batch management.

AMD Ryzen Pro

Batch management of systems on a per-group basis (i.e. "Remote Workers", "Sales Employees", etc) is apparently not possible via the AMC client.