What makes MediaClone SuperImager® Plus Forensic line of products different from others?

MediaClone **SuperImager® Plus** Forensic line of products configured with Open Dual OS of Linux/Windows, making them unique, multi-purpose multi-use, and a complete forensic investigation tool. It takes advantage of the latest hardware in the market with outstanding performance, supporting the latest digital storages of NVMe and using the newest technology of Thunderbolt 3.0/4.0 with a bandwidth of 40 Gigabit/s.

CPU:
MediaClone uses the latest Intel-based i7/i9 Desktop CPU that has major advantages:
- Overclocking
- Powerful calculation capabilities, such as running multiple parallel HASH (all 4 hash engines of MD5, SHA-1, SHA-2, SHA-512 can be used in the same run) and encryption operations (AES256), and with no limitation on the number of sessions.
- Scalable solution with optional add-on hardware
- Adaptation to new technology, such as NVMe and Thunderbolt 3.0/4.0
- Network connectivity is given.

Compared to Embeded Solutions:
- Long design cycle
- More investment into hardware and software development means that you could already be behind with the new technologies when you finish the product's design.
- Not flexible to adapt to new technologies
- Limited performance with limited calculation capabilities
- Rigid design – limited to the original design and cannot be changed.
- It doesn't use an open OS; everything is hardcoded – which is more susceptible to mistakes.
- Low-cost and compact

Operating System:

MediaClone line of products is configured with a dual open Linux OS/Windows 10 Pro- or Windows 11 Pro. Linux OS is more secure and flexible. It allows the user to add or remove functionality and features, provides an easy connection to a network, easy viewing and editing, and gives the ability to install and use third-party applications.

Dual Open OS:
MediaClone units are configured with a dual open OS of Ubuntu and Windows 10 Pro or Windows 11 pro, allowing the user to take advantage of both worlds of Windows and Linux in the same unit.

Windows 10/11 allows installing and using third-party applications that can run only on Windows OS, like EnCase, FTK, Axiom, Belkasoft, Nuix, Cellebrite, MSAB, and more.

Summary: What makes MediaClone unique in the marketplace?

- MediaClone line of products does not use is not an embedded solution. MediaClone line of products uses the latest and greatest of the existing technologies in the marketplace (the latest chipsets, motherboards, CPU, memory, and controllers), which gives the product a huge advantage of performance and flexibility in an adaptation of new storage devices.
- All of MediaClone's competitors have forensic products that do simple imaging; no one else uses a dual OS that enables the user to perform other forensic tasks with the unit. A full investigation/analysis can be performed using the unit itself, eliminating the need to carry laptops and other hardware like the forensic bridges that create a bandwidth bottleneck. In addition, the MediaClone units can be used to capture cellphones and tablets or as triage data collection units.
- MediaClone offers some models with Thunderbolt 3.0/4.0, and only a few vendors can provide a portable product with Thunderbolt 3.0/4.0 ports. Thunderbolt 3.0/4.0 (40Gb/s) brings extreme speed when connecting storage devices and TB devices (NVMe) and helps with the connectivity of legacy devices like SCSI, 1394, FC, etc.
- MediaClone's new NVMe line of products is an example of the quick adaptation to new technology. It is designed with U.2 ports that support all kinds of NVMe storages (U.2, M.2, and PCIe), unlike competitors that provide only M.2 NVMe.
- Product design: MediaClone products are all made of metallic material to provide EMI shielding. The idea was to use fewer cables and easy drive insertions for Rugged Portable models. For Lab Dekstop models, the idea was to use an open tray concept for better drive's ventilation and easy plugging.
- Overall all MediaClone product designs are very flexible, expandable, and easily adaptable to new technology, interfaces, and storage devices.

"Things that might be obvious to one person might not be for another"

Portable Platforms are consolidated devices, usable for many tasks and therefore make it very economical, built with off-the-shelf hardware and a regular OS (Windows, Linux)

Pros:

- **Adaptation:** Portable Platforms have a faster and easier adaptation to new technologies (upgrade from i7-10th generation to i7-11th generation CPU can take a few days)
- **Better Hardware:** Portable Platforms have better performances since they take advantage of the faster hardware available in the market: Faster SATA (today using SATA-3 controllers), Faster PCIe bus (today using PCIe -4 bus), Faster Memory (today using DDR4/5 XMP), Faster USB (today using USB3.2 and TB4.0) and a much better multi-core CPU.
- **Balancing Multi-Core CPU**: Running multi-session operations on Portable Platforms utilizing the multi-core CPU is easy to accomplish without extra coding.
- **Network connectivity:** 10Gigabit/s, VPN, iSCSI are all automatically given with the OS of the Portable Platforms, compared to a lot of effort and coding to incorporate those in embedded systems
- **Encrypted Storage:** Easily can be supported by the OS of the Portable Platforms (like using USB, e-SATA Encrypted storage)
- **New storage Interfaces:** Portable Platforms avoid dealing with new storage interfaces on the hardware level. It saves many debugging and headaches and has a place for errors.
- **Time to Market:** The legging time between a new technology introduced to the market and the time that Forensic investigators will encounter those devices and need some tools to support it is less than a year. (for Embedded solutions, development can take two years)
- **Designs Cycle Time:** A Portable Platforms development can take a short frictional time that it can take to develop an Embedded solution
- **Data Accelerators:** Compressing data and saving space is an easy task on a Portable Platform using the OS to do the job.

Cons:

- **Cost:** Portable Platforms are expensive to make, primarily when built with premium, high-quality hardware.
- **Rugged Designs:** Portable Platforms with a ruggedized design need to follow the COTS criteria. It is an electronics enclosures criterion with five categories: Shock and Vibration

resistance, Electromagnetic Compatibility, Thermal Management, I/O cabling, Resistant to a harsh environment, and Reliability and maintainability).

- Part of the challenge in designing a robust Portable Platform is the need to deal with power dissipation. For example, Mobile CPU uses low power, but their performances do not match the full desktop CPU used by the Portable Platforms.
- **Security:** Some OS are more susceptible to malware attacks like Windows vs. Linux. But any unit connected to the internet will be at risk, even if it is just for f/w or s/w updates, whether it is a Portable Platform or Embedded Solution. Here are a few pieces of advice to avoid issues with viruses and malware: Plugging USB storage devices into the Portable Platform without automatic mounting is an excellent measure to prevent viruses and malware. Also, scanning and cleaning the malware from the Evidence drive before starting Forensic Analyzing is a good practice.

Myth:
Performances are better and faster on embedded solutions. This myth belongs to the past. Today new technologies developed for different market segments (CPU, Memory, and Storage) are much faster.

End-User, what is good for you?
- Economical Solution
- Faster Solution
- Multi-Tasking
- Consolidate Solution
- Easy to Maintain
- Fewer Hardware Issues
- No Yearly Fees

The Challenges of today's Computer Forensic Investigator in the Field
- Data become extremely large
- Encounter unknown hardware interfaces
- Encounter data in different platforms and formats
- Too many devices need to be "isolated" and then image in a short period
- Dealing with new NVMe storage
- Dealing with many types and encryptions of cell phones and tablets

Please check what we can offer as A Digital Forensic Platform.
https://www.media-clone.net/Digital-Forensics-Imaging-Investigation-Platform-s/1477.htm

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