New Version

The overall development of **HDClone X.6** revolved heavily around **cloud services**. This update also **emphasizes security, virtualization, communication, and compatibility with modern systems and devices.**

HDClone X.6 is optimized for network environments, supporting both Internet and local area network (LAN) connections. The **Miray Cloud natively offers** fully location-independent storage for data and images **up to 1 TB**. Additionally, HDClone X.6 is well-suited for use with **local or own cloud solutions**, now supporting **HTTPS alongside SMB, FTP, and FTPS for direct image deployment**. The release also features extended network capabilities: Android and **iOS devices** can be used for **USB tethering**, while support for LAN, USB-LAN, and WLAN adapters has been enhanced, ensuring broader compatibility for HDClone/L.

In terms of **security**, focus was placed on multiple aspects. The new **Secure SMB Mode** enables secure backups to network drives even on Windows systems, thereby preventing the SMB share from being accessed by other software, including malware and Windows itself. Network drives can now be used in accordance with the **QUIC standard**, which particularly facilitates **secure network shares in the cloud**. Another security aspect are the **audit-proof PDF reports, which** can be generated with the option to create **qualified signed PDF/A** files. This feature provides customers with verifiable documentation of your work.

When it comes to **virtualization**, HDClone has been enhanced to include support for the widely-used **virtual disk format QCow2** (e.g. Proxmox) and for **Smart backups and copies of LVM volumes**. This notably allows the migration and **backups of entire Proxmox instances.**

HDClone X.6 now simplifies **communication** by supporting **LAN via Thunderbolt** in the self-booting variants. In particular, this allows **NetDisk to be used directly over a Thunderbolt** connection, enabling a peer-to-peer setup as an alternative to a standard LAN connection.

Details about HDClone's ongoing improvements can be found online in the HDClone changelog at:
https://www.miray-software.com/Changelog/HDClone

New Features

Secure SMB – Protected In The Network | 15.0 PE and up

No need to worry about your network backups being accessed by malware. Unlike standard server or NAS integration, secure SMBs remain concealed from other programs and even the host operating system, providing complete protection against unauthorized access. Create backups and images directly from Windows to the network with confidence, knowing your data is completely safe.

Auto Update – Keep Your Version Current | 15.0 PE and up

The newly integrated Auto Update function makes updating HDClone effortless. Whether you're using a Windows installation, a portable program directory, or a bootstick, Auto Update will fully automatically download and install the latest service updates.

Customize Your Startup Screen | 15.0 AE and up

Choose which app tab to display upon startup or configure your own Favorites tab with your most frequently used apps.

HTTPS Deployment – Use Images Online | 15.0 PE and up

Whether via LAN or the internet, you can now import backups and images directly from a web server or the cloud using an HTTPS link. This streamlined process eliminates the need to save them locally, saving both time and storage space.

Save Login Credentials | 15.0 PE and up

Now save the network resources used (SMB/NAS, FTP, HTTP/HTTPS and WLAN) and, optionally, also their credentials. These will then be available immediately upon the next program start, even when using different program versions (e.g. in Windows and self-booting).

SmartImages and Copies of LVM Volumes | 15.0 PE and up

Disks initialized with the Linux "Logical Volume Manager" (LVM) are now fully supported by Smart apps for backup, copying, migration, and import (e.g. deployment). Only the written areas of the disk are processed, resulting in smaller image sizes and faster transfer rates.

QCow2 Images for Virtualization | 15.0 PE and up

This widely-used open-source image format for virtual disks is now fully supported. QCow2 images can be created and restored (deployment) or converted to a different image format.

Proxmox VE – Backup and Migrate | 15.0 PE and up

HDClone now enables seamless backup, copying, and migration of entire Proxmox environments (Proxmox VE) with its Smart Apps.

SMB with QUIC – Cloud Network Drives | 15.0 PE and up

The QUIC protocol allows efficient use of SMB network shares over the internet and in the cloud. HDClone automatically establishes QUIC connections with the corresponding servers.

NetDisk via Thunderbolt and P2P-LAN | 15.0 PE and up

The NetDisk technology, which mirrors disks over the network, now supports Thunderbolt and direct LAN connections. In these cases, the configuration is fully automatic.

USB Tethering For iOS Devices | 15.0 PE and up

HDClone now supports direct wireless network connections in the self-booting variants via USB tethering with iOS/iPadOS devices. In addition to existing Android support, this allows HDClone to connect to WLAN or the internet using virtually any smartphone or tablet.

HDClone/L with Optional Firmware | 15.0 PE and up

To improve device support in the Linux-based, self-booting version of HDClone, optional firmware modules that are not available in the Linux kernel can now be automatically downloaded and installed when the bootmedium is created.

FlashRefresh App – Newly Structured | 15.0 PE and up

The FlashRefresh app now supports "Smart" by only refreshing the occupied areas, significantly reducing the time required. In addition, Trim can now be performed from directly within the app.

Windows ReFS – Current Version | 15.0 PE and up

HDClone's support for the ReFS file system has been extended to the latest official version 3.14.

CLI Assistant – For HDClone CLI Users | 15.0 PE and up

In SmartImage, SmartCopy, Backup, BitImage, BitCopy, Restore, DirectRestore, and other applications, HDClone's CLI version allows users to configure settings for a process and then view them as commands for direct use in the CLI.

PDF Reports – Audit-proof Signatures | 15.0 PE and up

Present your clients with verifiable proof of your services online in PDF format, with the option to include your company logo or you can generate the document in PDF/A format with a qualified digital signature.

Online features (optional) ————————————

Online Slots – Flexible Activations | 15.0 PEP and up

The concept of online slots is similar to an online token: HDClone can be used one slot at a time, regardless of location. An optional waiting queue function is also available, which allows HDClone to automatically wait for the next available slot.

Remote Access via Browser | 15.0 PE and up

As an optional feature, HDClone can be equipped with a remote access function via web browser, available across all variants – in Windows, self-booting, and in Linux. It supports multiple licenses within a single account and requires a fee-based online service extension.

Cloud Storage – Maximum Ease | 15.0 PE and up

The optional, fully integrated cloud storage offers seamless functionality similar to a local storage medium. Images (and other files) can be saved directly to the cloud without the need for local intermediate storage. This not only saves valuable storage space but also reduces time spent on file management, enabling more effective collaboration with HDClone.

Feature Matrix

The table below provides an overview of the main features that have been added to HDClone, along with their availability in the respective editions. Unfilled dots (□) indicate that, while the feature is available, it cannot be used to its full extent when working with the edition in question.

Ver. New Features in HDClone X.6	FE	BE	SE	AE	PE	EE
15.0 **Secure SMB** – Protected In The Network					■	■
15.0 **Auto Update –** Keep Your Version Current		■	■	■	■	■
15.0 **Customize Your Startup Screen**				■	■	■
15.0 **HTTPS Deployment** – Use Images Online					■	■
15.0 **Save Login Credentials**					■	■
15.0 **SmartImages and Copies of LVM Volumes**					■	■
15.0 **QCow2 Images for Virtualization**					■	■
15.0 **Proxmox VE** – Backup and Migrate					■	■
15.0 **SMB with QUIC** – Cloud Network Drives					■	■
15.0 **NetDisk** via Thunderbolt and P2P-LAN				■	■	■
15.0 **USB Tethering** For iOS Devices				■	■	■
15.0 **HDClone/L** with Optional Firmware					■	■
15.0 **FlashRefresh App** – Newly Structured					■	■
15.0 **Windows ReFS** – Current Version		□	□	□	■	■
15.0 **CLI Assistant** – For HDClone CLI Users					■	■
15.0 **PDF Reports** – Audit-proof Signatures					■	■
15.0 [optional]**Online Slots** – Flexible Activations					□	■
15.0 [optional]**Remote Access** via Browser					■	■
15.0 [optional]**Cloud Storage** – Maximum Ease					■	■