**FlexApp™ Using VHDs vs. VMDKs**

## Summary

ProfileUnity's FlexApp and ProfileDisk technologies offer the flexibility to choose between using VHDs or VMDKs. With these technologies applications, user profiles, and user data are stored inside a virtual hard disk (VHD) on the network or a VMware virtual machine disk (VMDK) on storage visible to the ESXi host.  A VHD looks like a local file system but can be mounted from anywhere on the network that we want to host our applications. VMDKs also look like a local file system but are mounted from the storage visible to the ESXi host where the desktop is running. Using a virtual disk has a number of benefits including IOPS reductions, file system compression, and application portability.

At Liquidware, a question we frequently get asked is, "Should I use a VHD or a VMDK?". The answer is that it depends. Not all features in these technologies are supported on both platforms.

## Feature Comparison Chart

Use this ProfileUnity feature comparison chart to help guide you in deciding which is the best storage option per feature for your environment.

| Feature | VHD | VMDK/FlexDisk |
|---|---|---|
| ProfileDisk | Supported | Supported |
| ProfileDisk RDSH | Supported (starting in v6.7.0) | Not Supported |
| FlexApp: Computer-level | Supported | Supported (starting in v6.7.0) |
| FlexApp: User-level | Supported | Supported |
| FlexApp: User Group-level | Supported | Supported |
| FlexApp: Attach Now | Not Supported | Supported |
| FlexApp: Click-to-Layer (version 6.7.0 and higher) | Supported | Not Supported |
| FlexApp: Click-to-Layer for Published Apps (version 6.7.0 and higher) | Supported | Not Supported |
| FlexApp: Cached Mode Application Deployment | Supported | Not Supported |
| FlexApp: Use of Other ProfileUnity UEM Filters | Supported | Not Supported |
| FlexApp: Cloud Storage, AWS S3, Google GCS and Azure Blob | Supported | Not Supported |

## Deployment Differences

One of the most powerful features of ProfileUnity is the User Environment Management filters that can be leveraged during the assignment of FlexApp Layers. Please note that filters apply to VHD-based FlexApp packages/layers but not to VMDK-based FlexApp layers. VMDK-based FlexApp layers currently support user, group and basic machine assignments. The primary reason for the difference in VHD vs.

VDMK package types centers on architecture. The ProfileUnity Configuration INI-based workflow does not apply to the VMDK-based assignments controlled by vCenter.