VMware Guidelines for Virtual Appliances

Best Practices:

- When building a virtual appliance, be sure to specifically follow these practices:
  - o Create a SCSI virtual disk (for ESX compatibility)
  - o Split the virtual disk into 2GB partitions (for FAT32 compatibility)
  - o Create a virtual disk large enough to accommodate your solution and any additional files it will create (configuration files, log files, database files, etc.)
  - o Set the disk up to pre-allocate space (to avoid disk fragmentation, performance issues, and failures if sufficient space is not available when required -- empty disk space will compress well)
- Package the virtual appliance with the virtual disk converted and ready for use on VMware ESX (required)
- Package the virtual appliance with the virtual disk ready for use on VMware Server / VMware Workstation / VMware Player

Security:

- Commit to keeping the virtual appliance up-to-date with security patches. Critical security updates should be provided within 48 hours.
- Provide a "safe computing" statement that confirms the fact that your virtual appliance does not include any malware, spyware, viruses, etc.
- Provide new virtual appliances within one week of releasing a new point version of your solution.
- Provide MD5 Checksums for downloads you offer on your site (to allow users to verify the integrity of their download).

Documentation:

- Provide detailed product and virtual; appliance documentation (Getting Started Guide, sample use cases, etc.).

Notes on Building a Base Virtual Appliance (Contains Operating System Only)

An operating system virtual appliance is built and supported by the vendor who owns the operating system distribution itself. These virtual appliances are targeted at people who wish to use a general purpose operating system inside a virtual machine (people who have a standard corporate desktop but prefer to use a different OS for development or other tasks; people who want to evaluate different operating systems; etc.). In addition to all of the "common" certification requirements listed above, the following list describes the requirements for vendors building operating system virtual appliances that would like their appliances to be VMware Certified Virtual Appliances:

- Create a virtual appliance with the "typical" install of the latest OS
- Create a virtual disk large enough to accommodate a full install of your OS + a "typical" server stack (LAMP, etc). A 10-20GB virtual disk should be sufficient.
- Create a clear licensing policy that informs users whether they are permitted to use the virtual appliance as a base for other virtual appliances that they may in turn distribute to third parties (provide links to terms and procedures if permission is required).

Notes on Reference Implementation Virtual Appliances:

A "reference implementation" virtual appliance is built to serve the needs of a specific application or class of application. Unlike more "appliance-like" virtual appliances, this type of virtual appliance is not locked down and allows the user to modify the reference configuration to suit their needs. An example of this class of virtual appliance would be an appliance built to serve J2EE applications. Such an appliance would include a pre-installed and pre-configured operating system, J2EE application server, and optionally a basic install of a database server. This class of appliance would allow the user to tweak the underlying OS, the J2EE application server, and the database server to meet their needs. The user of this class of appliance would be free to add additional components as necessary to serve the requirements of their specific application. In addition to all of the "common" certification requirements listed above, the following list describes the requirements for vendors building reference implementation virtual appliances that would like their appliances to be VMware Certified Virtual Appliances:

- Create a virtual appliance with the minimal install of the latest OS required by your stack.
- Create a clear licensing policy that informs users whether they are permitted to use the virtual appliance as a base for other virtual appliances that they may in turn distribute to third parties (provide links to terms and procedures if permission is required).
- Provide a clear statement that describes the supported use cases for your virtual appliance (demo, evaluation, production use, etc.).

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