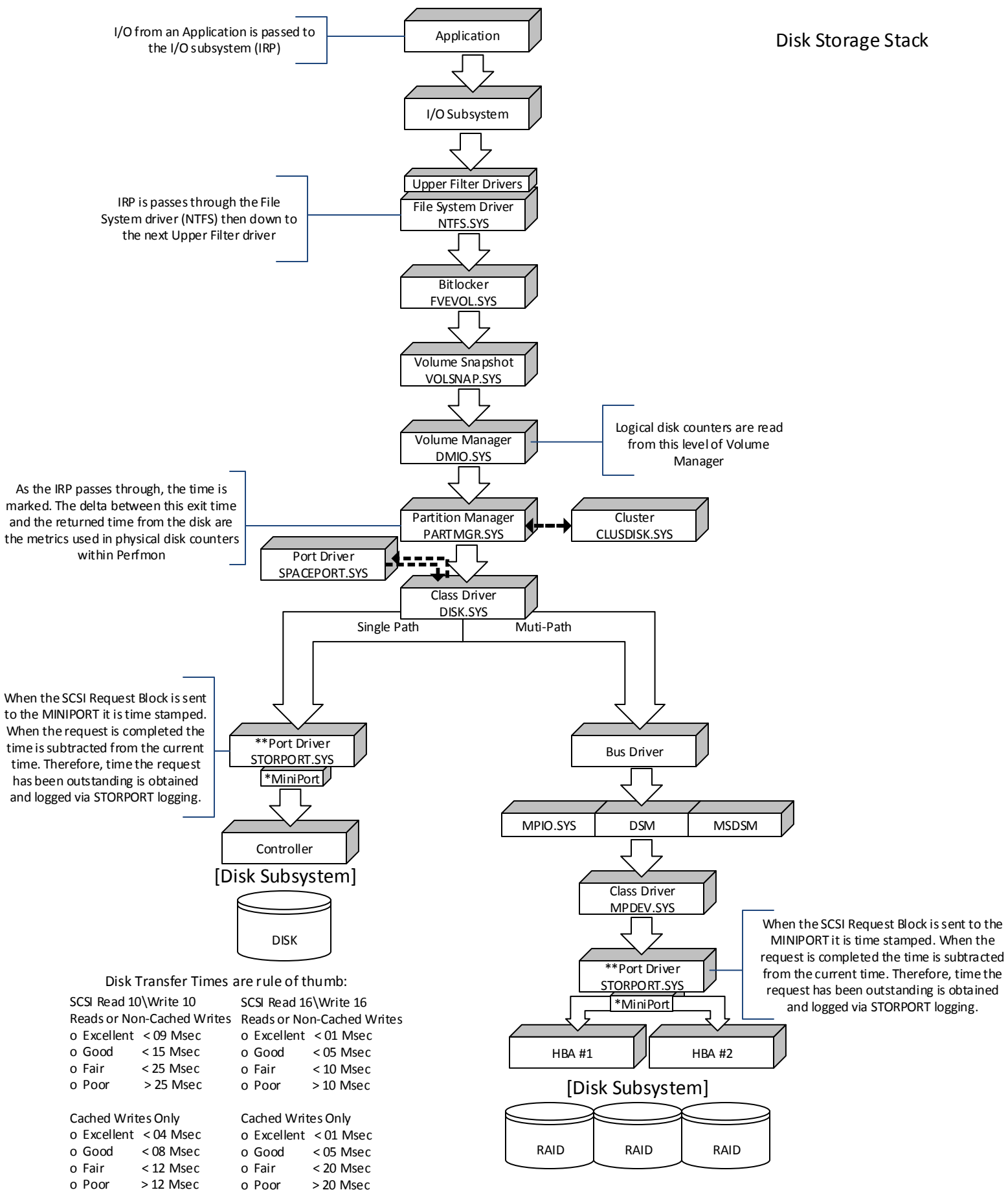


Disk Storage Stack



Disk Transfer Times are rule of thumb:

SCSI Read 10\Write 10 Reads or Non-Cached Writes	SCSI Read 16\Write 16 Reads or Non-Cached Writes
o Excellent < 09 Msec	o Excellent < 01 Msec
o Good < 15 Msec	o Good < 05 Msec
o Fair < 25 Msec	o Fair < 10 Msec
o Poor > 25 Msec	o Poor > 10 Msec

Cached Writes Only	Cached Writes Only
o Excellent < 04 Msec	o Excellent < 01 Msec
o Good < 08 Msec	o Good < 05 Msec
o Fair < 12 Msec	o Fair < 20 Msec
o Poor > 12 Msec	o Poor > 20 Msec

** Port drivers implement the processing of an I/O request specific to a type of I/O port, such as SATA, and are implemented as kernel-mode libraries of functions rather than actual device drivers. Port drivers are almost always written by Microsoft because the interfaces are typically standardized in such a way that different vendors can still share the same port driver. However, in certain cases, third parties may need to write their own for specialized hardware.

* Miniport drivers map a generic I/O request to a type of port into an adapter type, such as a specific HBA. Miniport drivers are actual device drivers that import the functions supplied by a port driver. Miniport drivers are normally written by third party vendors. They provide the interface for the port driver. The exception is when iSCSI is in use. In this case the miniport driver will be MSISCSI.SYS and I/O will be redirected to the network stack (NDIS.SYS).