

| CRAO338" Qualification Vender List Ver:2.0 |      |           |             |          |          |                 |                                       |       |      |              |
|--|------|-----------|-------------|----------|----------|-----------------|---------------------------------------|-------|------|--------------|
| HGST HDD                                   |      |           |             |          |          |                 |                                       |       |      |              |
| Product Name                               | Type | Vendor    | Form Factor | Format   | Capacity | Interface Speed | Series                                | Cache | RPM  | Encryption   |
| Enterprise Hard Drives                     |      |           |             |          |          |                 |                                       |       |      |              |
| HUH721212ALE604                            | SATA | HGST      | 3.5"        | 512e     | 12TB     | 6Gb/s           | Ultrastar He12                        | 256MB | 7200 | N/A          |
| HUS728T8TALE6L4                            | SATA | HGST / WD | 3.5"        | 512e     | 8TB      | 6Gb/s           | Ultrastar® DC HC320 (7K8)             | 256MB | 7200 | Secure Erase |
| HUS722T2TALA604 / 1W10002                  | SATA | HGST / WD | 3.5"        | 512n     | 2TB      | 6Gb/s           | Ultrastar DC HA210 (7K2)              | 128MB | 7200 | N/A          |
| HUS726T6TALE6L4                            | SATA | HGST / WD | 3.5"        | 512e     | 6TB      | 6Gb/s           | Ultrastar DC HC310 (7K6)              | 256MB | 7200 | N/A          |
| HUS726T4TALE6L4                            | SATA | HGST / WD | 3.5"        | 512e     | 4TB      | 6Gb/s           | Ultrastar DC HC310 (7K6)              | 256MB | 7200 | N/A          |
| Seagate HDD                                |      |           |             |          |          |                 |                                       |       |      |              |
| Product Name                               | Type | Vendor    | Form Factor | Format   | Capacity | Interface Speed | Series                                | Cache | RPM  | Encryption   |
| Seagate Enterprise Capacity 2.5 HDD        |      |           |             |          |          |                 |                                       |       |      |              |
| ST2000NX0403                               | SATA | Seagate   | 2.5"        | 512n     | 2TB      | 6Gb/s           | Exos 7E2000 (Enterprise Capacity V.3) | 128MB | 7200 | N/A          |
| ST2000NX0253                               | SATA | Seagate   | 2.5"        | 512E     | 2TB      | 6Gb/s           | Exos 7E2000 (Enterprise Capacity V.3) | 128MB | 7200 | N/A          |
| ST1000NX0333                               | SAS  | Seagate   | 2.5"        | 512e     | 1TB      | 12Gb/s          | Exos 7E2000 (Enterprise Capacity V.3) | 128MB | 7200 | N/A          |
| ST1000NX0313                               | SATA | Seagate   | 2.5"        | 512e     | 1TB      | 6Gb/s           | Exos 7E2000 (Enterprise Capacity V.3) | 128MB | 7200 | N/A          |
| Product Name                               | Type | Vendor    | Form Factor | Format   | Capacity | Interface Speed | Series                                | Cache | RPM  | Encryption   |
| Seagate Enterprise Capacity 3.5 HDD        |      |           |             |          |          |                 |                                       |       |      |              |
| ST8000NM0045                               | SATA | Seagate   | 3.5"        | 4Kn      | 8TB      | 6Gb/s           | Exos 7E8 (Enterprise Capacity V.5)    | 256MB | 7200 | N/A          |
| ST10000NM0146                              | SATA | Seagate   | 3.5"        | 4Kn      | 10TB     | 6Gb/s           | Exos X10 (Enterprise Capacity V.6)    | 256MB | 7200 | N/A          |
| ST12000NM0007                              | SATA | Seagate   | 3.5"        | 512e     | 12TB     | 6Gb/s           | Exos X12 (Enterprise Capacity V.7)    | 256MB | 7200 | N/A          |
| ST14000NM0018                              | SATA | Seagate   | 3.5"        | 512e     | 14TB     | 6Gb/s           | Exos X14 (Enterprise Capacity)        | 256MB | 7200 | N/A          |
| ST2000NM0008                               | SATA | Seagate   | 3.5"        | 512n     | 2TB      | 6Gb/s           | EXOS 7E2                              | 128MB | 7200 | N/A          |
| ST8000NM000A                               | SATA | Seagate   | 3.5"        | 512e     | 8TB      | 6Gb/s           | EXOS 7E8                              | 256MB | 7200 | N/A          |
| ST16000NM001G                              | SATA | Seagate   | 3.5"        | 512e/4Kn | 16TB     | 6Gb/s           | EXOS X16                              | 256MB | 7200 | N/A          |
| ST10000NM017B                              | SATA | Seagate   | 3.5"        | 512e     | 10TB     | 6Gb/s           | EXOS 7E10                             | 256MB | 7200 | N/A          |
| ST18000NM000J                              | SATA | Seagate   | 3.5"        | 512e/4Kn | 18TB     | 6Gb/s           | EXOS X18                              | 256MB | 7200 | N/A          |
| ST20000NM007D                              | SATA | Seagate   | 3.5"        | 512e/4Kn | 20TB     | 6Gb/s           | EXOS X20                              | 256MB | 7200 | N/A          |
| ST22000NM001E                              | SATA | Seagate   | 3.5"        | 512e     | 22TB     | 6Gb/s           | Exos X22                              | 512MB | 7200 | N/A          |
| ST8000NM001A                               | SAS  | Seagate   | 3.5"        | 512e     | 8TB      | 12Gb/s          | EXOS 7E8                              | 256MB | 7200 | N/A          |

|               |      |         |      |          |      |        |           |       |      |          |
|---------------|------|---------|------|----------|------|--------|-----------|-------|------|----------|
| ST10000NM018B | SAS  | Seagate | 3.5" | 512e     | 10TB | 12Gb/s | EXOS 7E10 | 256MB | 7200 | N/A      |
| ST16000NM002G | SAS  | Seagate | 3.5" | 512e/4Kn | 16TB | 12Gb/s | EXOS X16  | 256MB | 7200 | N/A      |
| ST18000NM004J | SAS  | Seagate | 3.5" | 512e/4Kn | 18TB | 12Gb/s | EXOS X18  | 256MB | 7200 | N/A      |
| ST20000NM002D | SAS  | Seagate | 3.5" | 512e/4Kn | 20TB | 12Gb/s | EXOS X20  | 256MB | 7200 | N/A      |
| ST22000NM000E | SAS  | Seagate | 3.5" | 512e     | 22TB | 12Gb/s | Exos X22  | 512MB | 7200 | N/A      |
| ST18000NM0092 | SATA | Seagate | 3.5" | 512e/4Kn | 18TB | 6Gb/s  | EXOS 2x18 | 256MB | 7200 | standard |

**WD HDD**

| Product Name           | Type | Vendor    | Form Factor | Format | Capacity | Interface Speed | Series                     | Cache | RPM  | Encryption |
|------------------------|------|-----------|-------------|--------|----------|-----------------|----------------------------|-------|------|------------|
| Enterprise Hard Drives |      |           |             |        |          |                 |                            |       |      |            |
| WD4000FYYZ-01UL1B2     | SATA | WD        | 3.5"        | 512n   | 4TB      | 6Gb/s           | WD Re                      | 64MB  | 7200 | N/A        |
| HUH721212AL5200        | SAS  | HGST / WD | 3.5"        | 512e   | 12TB     | 12Gb/s          | Ultrastar® DC HC520 (He12) | 256MB | 7200 | N/A        |
| WUS721010AL5204        | SAS  | WD        | 3.5"        | 512e   | 10TB     | 12Gb/s          | Ultrastar® DC HC330        | 256MB | 7200 | N/A        |
| WUS721010ALE6L4        | SATA | WD        | 3.5"        | 512e   | 10TB     | 6Gb/s           | Ultrastar® DC HC330        | 256MB | 7200 | N/A        |
| WUH721818AL5204        | SAS  | WD        | 3.5"        | 512e   | 18TB     | 12Gb/s          | Ultrastar DC HC550         | 512MB | 7200 | N/A        |

**Toshiba HDD**

| Product Name           | Type | Vendor  | Form Factor | Format | Capacity | Interface Speed | Series      | Cache | RPM   | Encryption |
|------------------------|------|---------|-------------|--------|----------|-----------------|-------------|-------|-------|------------|
| Enterprise Hard Drives |      |         |             |        |          |                 |             |       |       |            |
| MG05ACA800A            | SATA | Toshiba | 3.5"        | 4Kn    | 8TB      | 6Gb/s           | Capacity    | 128MB | 7200  | N/A        |
| AL14SEB120N            | SAS  | Toshiba | 2.5"        | 512n   | 1.2TB    | 12Gb/s          | Performance | 128MB | 10k   | N/A        |
| AL14SXB90EE            | SAS  | Toshiba | 2.5"        | 512e   | 900GB    | 12Gb/s          | Performance | 128MB | 15000 | N/A        |
| MG05ACA800E            | SATA | Toshiba | 3.5"        | 512e   | 8TB      | 6Gb/s           | Capacity    | 128MB | 7200  | N/A        |
| MG03ACA300             | SATA | Toshiba | 3.5"        | 512e   | 3TB      | 6Gb/s           | Capacity    | 64MB  | 7200  | N/A        |
| MG04ACA100N            | SATA | Toshiba | 3.5"        | 512e   | 1TB      | 6Gb/s           | Capacity    | 128MB | 7200  | N/A        |
| MG04SCA60EE            | SAS  | Toshiba | 3.5"        | 512e   | 6TB      | 12Gb/s          | Capacity    | 128MB | 7200  | N/A        |
| MG04ACA600E            | SATA | Toshiba | 3.5"        | 512e   | 6TB      | 6Gb/s           | Capacity    | 128MB | 7200  | N/A        |
| AL13SXB60EE            | SAS  | Toshiba | 2.5"        | 512e   | 600GB    | 12Gb/s          | Performance | 128MB | 15000 | N/A        |
| AL15SEB24EQ            | SAS  | Toshiba | 2.5"        | 512e   | 2.4TB    | 12Gb/s          | Performance | 128MB | 10500 | N/A        |
| AL14SEB18EQ            | SAS  | Toshiba | 2.5"        | 512e   | 1.8TB    | 12Gb/s          | Performance | 128MB | 15000 | N/A        |
| MG08ADA800E            | SATA | Toshiba | 3.5"        | 512e   | 8TB      | 6Gb/s           | MG08-D      | 256MB | 7200  | N/A        |
| MG06ACA10TE            | SATA | Toshiba | 3.5"        | 512e   | 10TB     | 6Gb/s           | Capacity    | 256MB | 7200  | N/A        |
| MG07SCA14TE            | SAS  | Toshiba | 3.5"        | 512e   | 14TB     | 12Gb/s          | Capacity    | 256MB | 7200  | N/A        |
| MG07ACA14TE            | SATA | Toshiba | 3.5"        | 512e   | 14TB     | 6Gb/s           | MG07ACA     | 256MB | 7200  | N/A        |
| MG09ACA18TE            | SATA | Toshiba | 3.5"        | 512e   | 18TB     | 12Gb/s          | MG09        | 256MB | 7200  | N/A        |
| MG10ACA20TE            | SATA | Toshiba | 3.5"        | 512e   | 20TB     | 6Gb/s           | MG10        | 512MB | 7200  | N/A        |

|             |      |         |      |      |      |        |          |       |      |          |
|-------------|------|---------|------|------|------|--------|----------|-------|------|----------|
| MG08SDA800E | SAS  | Toshiba | 3.5" | 512e | 8TB  | 12Gb/s | MG08-D   | 256MB | 7200 | N/A      |
| MG08SCA16TE | SAS  | Toshiba | 3.5" | 512e | 16TB | 12Gb/s | MG08SCA  | 512MB | 7200 | N/A      |
| MG08ACA16TE | SATA | Toshiba | 3.5" | 512e | 16TB | 6Gb/s  | MG08     | 256MB | 7200 | N/A      |
| MG09SCA18TE | SAS  | Toshiba | 3.5" | 512e | 18TB | 12Gb/s | MG09     | 256MB | 7200 | Standard |
| MG06SCA10TE | SAS  | Toshiba | 3.5" | 512e | 10TB | 12Gb/s | Capacity | 256MB | 7200 | N/A      |
| MG10SCA20TE | SAS  | Toshiba | 3.5" | 512e | 20TB | 12Gb/s | MG10     | 512MB | 7200 | N/A      |

**SATA SSD**

| Product Name                             | Type   | Vendor   | Form Factor | Interface | Capacity | Interface Speed | FW              | Note |
|--|--------|----------|-------------|-----------|----------|-----------------|-----------------|------|
| MTFDDAK1T9TGA-1BC1ZABYY                  | Micron | SSD      | 2.5"        | SATA      | 1.92TB   | 6Gb/s           | 5400 PRO Series |      |
| MZ7L3480HCHQ-00A07 PM893 Series          | SSD    | Samsung  | 2.5"        | SATA      | 480GB    | 6Gb/s           |                 |      |
| MZ7L33T8HBLT-00A07 PM893 Series          | SSD    | Samsung  | 2.5"        | SATA      | 3.84TB   | 6Gb/s           |                 |      |
| MZ7KM1T9HMJP-0005 (SM863a)               | SSD    | Samsung  | 2.5"        | SATA      | 1.92TB   | 6Gb/s           |                 |      |
| SSDSC2KB480G701 (Series DC S4500)        | SSD    | Intel    | 2.5"        | SATA      | 480GB    | 6Gb/s           |                 |      |
| SSDSC2KB960G701 (Series DC S4500)        | SSD    | Intel    | 2.5"        | SATA      | 960GB    | 6Gb/s           | 100             |      |
| XA960LE10063                             | SSD    | Seagate  | 2.5"        | SATA      | 960GB    | 6Gb/s           |                 |      |
| XA480LE10063                             | SSD    | Seagate  | 2.5"        | SATA      | 480GB    | 6Gb/s           |                 |      |
| SRE100-960G00210000                      | SSD    | Phison   | 2.5"        | SATA      | 960GB    | 6Gb/s           |                 |      |
| SRE100-480G00210000                      | SSD    | Phison   | 2.5"        | SATA      | 480GB    | 6Gb/s           |                 |      |
| MZ-7LH1T9NE 883 DCT Series               | SSD    | Samsung  | 2.5"        | SATA      | 1.92TB   | 6Gb/s           |                 |      |
| SEDC500M/3840G DC500M Series             | SSD    | Kingston | 2.5"        | SATA      | 3.84TB   | 6Gb/s           |                 |      |
| SEDC500M/1920G DC500M Series             | SSD    | Kingston | 2.5"        | SATA      | 1.92TB   | 6Gb/s           |                 |      |
| SEDC500M/960G DC500M Series              | SSD    | Kingston | 2.5"        | SATA      | 960GB    | 6Gb/s           |                 |      |
| SEDC500M/480G DC500M Series              | SSD    | Kingston | 2.5"        | SATA      | 480GB    | 6Gb/s           |                 |      |
| ASR1100SS-240GT-B                        | SSD    | Adata    | 2.5"        | SATA      | 240GB    | 6Gb/s           |                 |      |
| SSDSC2KG019T8 D3-S4610 Series            | SSD    | Intel    | 2.5"        | SATA      | 1.92TB   | 6Gb/s           |                 |      |
| KHK61RSE960G                             | SSD    | Toshiba  | 2.5"        | SATA      | 960GB    | 6Gb/s           |                 |      |
| MTFDDAK3T8TDS-1AW1ZABYY (5300 PRO)       | SSD    | Micron   | 2.5"        | SATA      | 3.84TB   | 6Gb/s           |                 |      |
| MTFDDAK1T9TDS-1AW1ZABYY (5300 PRO)       | SSD    | Micron   | 2.5"        | SATA      | 1.92TB   | 6Gb/s           |                 |      |
| SSB1K9GTLCW-D2-SME1720GBT ESM1720 Series | SSD    | Phison   | 2.5"        | SATA      | 1.92TB   | 6Gb/s           |                 |      |
| SSB480GTLCW-D2-SME1720GBT ESM1720 Series | SSD    | Phison   | 2.5"        | SATA      | 480GB    | 6Gb/s           |                 |      |
| SSB960GTLCW-D2-SME1720GBT ESM1720 Series | SSD    | Phison   | 2.5"        | SATA      | 960GB    | 6Gb/s           |                 |      |
| SSB240GTLCW-D2-ESW1710GBT ESW1710 Series | SSD    | Phison   | 2.5"        | SATA      | 240GB    | 6Gb/s           |                 |      |
| SSB480GTLCW-D2-ESW1710GBT ESW1710 Series | SSD    | Phison   | 2.5"        | SATA      | 480GB    | 6Gb/s           |                 |      |
| SSB960GTLCW-D2-ESW1710GBT ESW1710 Series | SSD    | Phison   | 2.5"        | SATA      | 960GB    | 6Gb/s           |                 |      |
| SSB240GTLCG-D2-SME520GBT ESM1220 Series  | SSD    | Phison   | 2.5"        | SATA      | 240GB    | 6Gb/s           |                 |      |
| SSB480GTLCG-D2-SME520GBT ESM1220 Series  | SSD    | Phison   | 2.5"        | SATA      | 480GB    | 6Gb/s           |                 |      |

| SSB960GTLCG-D2-SME520GBT ESM1220 Series | SSD  | Phison  | 2.5"        | SATA      | 960GB    | 6Gb/s           |    |      |
|---|------|---------|-------------|-----------|----------|-----------------|----|------|
| SSB1K9GTLCG-D2-SME520GBT ESM1220 Series | SSD  | Phison  | 2.5"        | SATA      | 1.92TB   | 6Gb/s           |    |      |
| <b>SATA SSD</b>                         |      |         |             |           |          |                 |    |      |
| Product Name                            | Type | Vendor  | Form Factor | Interface | Capacity | Interface Speed | FW | Note |
| MZILT7T6HMLA-00007 PM1643 Series        | SSD  | Samsung | 2.5"        | SAS       | 7.68TB   | 12Gb/s          |    |      |
| XS960SE70084 Nytro 3332 Series          | SSD  | Seagate | 2.5"        | SAS       | 960GB    | 12Gb/s          |    |      |