

**SPESIFIKASI TEKNIKAL PEMBEKALAN, PEMASANGAN PERKAKASAN BAGI SISTEM STORAN MSN SERTA PERKHIDMATAN SOKONGAN TEKNIKAL DAN WARANTI**

| Bil      | Perkara                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Kuantiti | Kos /unit (RM) | Kos Keseluruhan (RM) |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------|----------------------|
| <b>A</b> | <b>Perkakasan (Hardware )</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |          |                |                      |
| 1        | <p>Perkakasan Storan</p> <p>Spesifikasi;<br/> <i>Rack mountable form factor - max 4U   Processor - Intel® Xeon 4 cores/</i><br/> <i>Min 256GB RAM PER controller   Disk Bay min 100TB usable with NL SAS HDD - max disk bay up to 10,824 TB with expansion units   PCIe Expansion Slot - Gen 4x8 Slot x 2   Interface - Min On board support 4x 10GE SFP+ Per Controller   Storage - Supports 3.5" (SAS, NL-SAS, SED HDD),min 24 x 3.5" NL-SAS HDD   Unified Storage Features,Central Management System.</i></p> <p>Waranti perkakasan: 3 Tahun</p> | 1        |                |                      |
| <b>B</b> | <b>Pemasangan dan konfigurasi</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |          |                |                      |
| 2        | <i>Setup/Configuration/Deployment for new external Unified SAN Storage</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1 Lot    |                |                      |
| <b>C</b> | <b>Sokongan Teknikal (1 Tahun)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |          |                |                      |
| 3        | <i>8x5 Coverage / Unlimited Telephone support / 6 hours Telephone Support Response Time / 3 Incident Onsite Support /NBD Onsite Support respond time / Escalation Management Assessment &amp; Recommendation Service One Preventive Maintenance Contract Period 12 Months</i>                                                                                                                                                                                                                                                                       | 1 Lot    |                |                      |
|          | <b>Kos Keseluruhan (RM)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |          |                |                      |

JADUAL PEMATUHAN SPESIFIKASI TEKNIKAL PEMBEKALAN, PEMASANGAN PERKAKASAN BAGI SISTEM STORAN MSN SERTA PERKHIDMATAN SOKONGAN  
TEKNIKAL DAN WARANTI

| Bil      | Spesifikasi                                                              | Mandatori (M)<br><i>Desirable</i> (D) | Pematuhan<br>(Yes/No) | Keterangan |
|----------|--------------------------------------------------------------------------|---------------------------------------|-----------------------|------------|
| <b>A</b> | <b>Perkakasan Storan (Waranti: 3 Tahun)</b>                              |                                       |                       |            |
| <b>1</b> | <b>SAN Storage:</b>                                                      |                                       |                       |            |
|          | <i>Quantity:</i>                                                         | M                                     |                       |            |
|          | <i>Product Model:</i>                                                    | M                                     |                       |            |
|          | <i>Product Brand:</i>                                                    | M                                     |                       |            |
|          | <i>Technical Specifications:</i>                                         |                                       |                       |            |
|          | <i>Must be rack mountable form factor</i>                                | M                                     |                       |            |
|          | <i>Maximum 4U</i>                                                        | M                                     |                       |            |
| <b>2</b> | <b>Processor:</b>                                                        |                                       |                       |            |
|          | Minimum Intel® Xeon 4 cores                                              | M                                     |                       |            |
| <b>3</b> | <b>Memory</b>                                                            |                                       |                       |            |
|          | Minimum 256GB RAM PER controller                                         | M                                     |                       |            |
| <b>4</b> | <b>Disk Bay</b>                                                          |                                       |                       |            |
|          | <i>Minimum 100TB Usable with NL SAS HDD</i>                              | M                                     |                       |            |
|          | <i>Maximum disk bay can supports up to 10,824TB with expansion units</i> | M                                     |                       |            |
|          | <i>All disk bay must come with full functional disk bracket</i>          | M                                     |                       |            |
| <b>5</b> | <b>PCIe Expansion Slot</b>                                               |                                       |                       |            |
|          | <i>(Gen 4x8 Slot) x 2</i>                                                | M                                     |                       |            |
| <b>6</b> | <b>Interface</b>                                                         |                                       |                       |            |
|          | <i>Minimum On board support 4x 10GE SFP+ Per Controller</i>              | M                                     |                       |            |
| <b>7</b> | <b>Storage</b>                                                           |                                       |                       |            |
|          | <i>Supports 3.5" SAS, NL-SAS, SED HDD.</i>                               | M                                     |                       |            |

| Bil      | Spesifikasi                                                                        | Mandatori (M)<br>Desirable (D) | Pematuhan<br>(Yes/No) | Keterangan |
|----------|------------------------------------------------------------------------------------|--------------------------------|-----------------------|------------|
|          | Min 24 x 3.5" NL-SAS HDD                                                           | M                              |                       |            |
| <b>8</b> | <b>Unified Storage Features</b>                                                    |                                |                       |            |
|          | Support XEVO OS                                                                    | M                              |                       |            |
|          | Support RAID level 0 / 1 / 3 / 5 / 6 / 10 / 30 / 50 / 60 / 5EE / 6EE / 50EE / 60EE | M                              |                       |            |
|          | Support Thin Provisioning / Deduplication / Compression                            | M                              |                       |            |
|          | Support Thin Provisioning (QThin) with space reclamation                           | M                              |                       |            |
|          | Support Dual-Active (Active/Active) SAN controllers                                | M                              |                       |            |
|          | Support Snapshot (QSnap), block-level, differential backup                         | M                              |                       |            |
|          | Support Writeable snapshot, Remote Replication (QReplica) and Traffic shapping     | M                              |                       |            |
|          | Support QSLife to monitor and analyze the activity of SSDs                         | M                              |                       |            |
|          | Support QSRAID for SSD endurance optimization                                      | M                              |                       |            |
|          | Support Flexible storage pool ownership                                            | M                              |                       |            |
|          | Support Write-through and write-back cache policy                                  | M                              |                       |            |
| <b>9</b> | <b>Central management System</b>                                                   |                                |                       |            |
|          | System information of devices connected                                            | M                              |                       |            |
|          | Shut down / Turn On / Restart                                                      | M                              |                       |            |
|          | System notification of devices connected                                           | M                              |                       |            |
|          | Task Status Display                                                                | M                              |                       |            |
|          | Account Management                                                                 | M                              |                       |            |
|          | Performance Monitoring                                                             | M                              |                       |            |
|          | Firmware Update                                                                    | M                              |                       |            |
|          | Network Setting (IP/LACP/Cluster)                                                  | M                              |                       |            |
| <b>B</b> | <b>Pemasangan dan konfigurasi</b>                                                  |                                |                       |            |
|          | Setup/configuration/Deployment for new external Unified SAN Storage                | M                              |                       |            |

| Bil      | Spesifikasi                                   | Mandatori (M)<br>Desirable (D) | Pematuhan<br>(Yes/No) | Keterangan |
|----------|-----------------------------------------------|--------------------------------|-----------------------|------------|
|          | Product and Operation user manual             | M                              |                       |            |
|          | Technical transfer of technology on operation | M                              |                       |            |
| <b>C</b> | <b>Sokongan Teknikal (1 Tahun)</b>            |                                |                       |            |
|          | 8x5 Coverage                                  | M                              |                       |            |
|          | Unlimited Telefon Support                     | M                              |                       |            |
|          | Max 6 hrs Telephone Support Response          | M                              |                       |            |
|          | Min 3 Incident Onsite Support                 | M                              |                       |            |
|          | NBD Onsite Support respond time               | M                              |                       |            |
|          | Escalation Management                         | M                              |                       |            |
|          | Assessment & Recommendation Service           | M                              |                       |            |
|          | Minimum One (1) Preventive Maintenance        | M                              |                       |            |