

**Matricea de conformitate pentru Enterprise Storage Systems (Sisteme de stocare)**

*(Se completează de către operatorul economic)*

**Tabel de autoevaluare și verificare a cerințelor tehnice**

**Instrucțiuni generale pentru ofertanți:** Pentru fiecare cerință, furnizați referințe specifice la documentația tehnică care justifică conformitatea. Includeți numerele de pagină, referințele capitolelor și/sau linkuri web directe către documentația oficială a producătorului.

| No.                                       | Category / Requirement                                        | Proposed Model / Component / Configuration | Technical Documentation Reference | Page / Chapter | Manufacturer's Web Link | Self evaluation compliance Status                                                                        |
|-------------------------------------------|---------------------------------------------------------------|--------------------------------------------|-----------------------------------|----------------|-------------------------|----------------------------------------------------------------------------------------------------------|
| <b>1. GENERAL REQUIREMENTS</b>            |                                                               |                                            |                                   |                |                         |                                                                                                          |
| 1.1                                       | New and non-refurbished equipment (manufactured min. Q1 2025) |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 1.2                                       | Enterprise-grade from recognized international manufacturer   |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 1.3                                       | Mutually compatible components, manufacturer certified        |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 1.4                                       | Rack-mountable 2U-4U, EIA-310 standard compliant              |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 1.5                                       | Complete mounting kit (rails and brackets included)           |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| <b>2. ARCHITECTURE &amp; AVAILABILITY</b> |                                                               |                                            |                                   |                |                         |                                                                                                          |
| 2.1                                       | Symmetric Active-Active controller                            |                                            |                                   |                |                         | <input type="checkbox"/> Compliant                                                                       |

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|                           | architecture                                                      |                                            |                                   |                |                         | <input type="checkbox"/> Partially<br><input type="checkbox"/> N/A                                       |
| 2.2                       | Minimum guaranteed availability 99.9999%                          |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 2.3                       | Write cache remains active during controller failure              |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 2.4                       | System operational with single controller (50% failure tolerance) |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 2.5                       | Non-disruptive software updates                                   |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| <b>3. FAULT TOLERANCE</b> |                                                                   |                                            |                                   |                |                         |                                                                                                          |
| 3.1                       | Continuous operation - power line failure tolerance               |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 3.2                       | Automatic failover - any controller failure                       |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 3.3                       | Data integrity - 2 simultaneous drive failures                    |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |

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| 3.4                                  | Traffic rerouting - FC or iSCSI port failure           |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| <b>4. STORAGE CAPACITY</b>           |                                                        |                                            |                                   |                |                         |                                                                                                          |
| 4.1                                  | Minimum 200 TB usable capacity (before data reduction) |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 4.2                                  | Enterprise SSD with TLC/eTLC technology or equivalent  |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| <b>5. CONTROLLERS</b>                |                                                        |                                            |                                   |                |                         |                                                                                                          |
| 5.1                                  | Minimum 2 redundant controllers in HA configuration    |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 5.2                                  | Active-Active configuration with balanced workload     |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 5.3                                  | Hot-swappable controllers                              |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| <b>6. RAID &amp; DATA PROTECTION</b> |                                                        |                                            |                                   |                |                         |                                                                                                          |
| 6.1                                  | RAID 6 support (2 disk failure tolerance)              |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |

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| 6.2                             | Optional RAID 5, RAID 10 or equivalent                 |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| <b>7. CACHE (if applicable)</b> |                                                        |                                            |                                   |                |                         |                                                                                                          |
| 7.1                             | Minimum 256 GB cache total per controller              |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 7.2                             | Protected cache (mirroring or battery backup)          |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 7.3                             | Optimized for IOPS and low latency                     |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| <b>8. PERFORMANCE</b>           |                                                        |                                            |                                   |                |                         |                                                                                                          |
| 8.1                             | Minimum 300,000 IOPS with inline data reduction        |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 8.2                             | Performance parameters: 70% read/30% write, 16KB block |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 8.3                             | Maximum 1 ms latency under full load                   |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 8.4                             | Performance validation with vendor benchmark           |                                            |                                   |                |                         | <input type="checkbox"/> Compliant                                                                       |

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|                                         | tools                                                                    |                                            |                                   |                |                         | <input type="checkbox"/> Partially<br><input type="checkbox"/> N/A                                       |
| <b>9. SUPPORTED PROTOCOLS</b>           |                                                                          |                                            |                                   |                |                         |                                                                                                          |
| 9.1                                     | Mandatory: FC and iSCSI                                                  |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 9.2                                     | Optional: NVMe/FC, NVMe/TCP                                              |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 9.3                                     | Multipath I/O for all protocols                                          |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| <b>10. REPLICATION &amp; CLUSTERING</b> |                                                                          |                                            |                                   |                |                         |                                                                                                          |
| 10.1                                    | Synchronous replication for Active-Active between 2 locations up to 300m |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 10.2                                    | Zero RPO (Recovery Point Objective)                                      |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 10.3                                    | Flexible replication for 1 or more LUNs                                  |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| <b>11. DATA REDUCTION FEATURES</b>      |                                                                          |                                            |                                   |                |                         |                                                                                                          |
| 11.1                                    | Inline                                                                   |                                            |                                   |                |                         | <input type="checkbox"/> Compliant                                                                       |

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|                      | deduplication at block and volume level        |                                            |                                   |                |                         | <input type="checkbox"/> Partially<br><input type="checkbox"/> N/A                                       |
| 11.2                 | Inline compression                             |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 11.3                 | No restrictions on other functionalities       |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 11.4                 | Complete licensing on perpetual basis included |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| <b>12. SNAPSHOTS</b> |                                                |                                            |                                   |                |                         |                                                                                                          |
| 12.1                 | Minimum 365 snapshots per volume               |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 12.2                 | Delta storage only (space-efficient)           |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 12.3                 | No performance impact (degradation)            |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| <b>13. SECURITY</b>  |                                                |                                            |                                   |                |                         |                                                                                                          |
| 13.1                 | AES-256 encryption for all stored data         |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially                                 |

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| 15.1                                                     | Per controller: min. 1 x 1GbE for management                             |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 15.2                                                     | Per controller: min. 2 x 32Gb FC (SFP+ included)                         |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 15.3                                                     | Dedicated replication ports per controller min. 2 x 32G FC or equivalent |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 15.4                                                     | Connectivity cables included                                             |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| <b>16. MINIMUM MANDATORY SUPPORTED OPERATING SYSTEMS</b> |                                                                          |                                            |                                   |                |                         |                                                                                                          |
| 16.1                                                     | Microsoft Windows Server                                                 |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 16.2                                                     | Red Hat Enterprise Linux                                                 |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 16.3                                                     | VMware vSphere/ESXi                                                      |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| <b>17. POWER SUPPLY</b>                                  |                                                                          |                                            |                                   |                |                         |                                                                                                          |
| 17.1                                                     | Minimum 2 hot-swappable                                                  |                                            |                                   |                |                         | <input type="checkbox"/> Compliant                                                                       |



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|                                                          | redundant PSUs                         |                                            |                                   |                |                         | <input type="checkbox"/> Partially<br><input type="checkbox"/> N/A                                       |
| 17.2                                                     | 1+1 or N+1 redundancy configuration    |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 17.3                                                     | IEC C13-C14 power cables, minimum 0.6m |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| <b>18. CERTIFICATION &amp; COMPLIANCE - EU STANDARDS</b> |                                        |                                            |                                   |                |                         |                                                                                                          |
| 18.1                                                     | CE Marking                             |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |
| 18.2                                                     | Declaration of Conformity (DoC)        |                                            |                                   |                |                         | <input type="checkbox"/> Compliant<br><input type="checkbox"/> Partially<br><input type="checkbox"/> N/A |

**Instrucțiuni adiționale pentru completarea matricei de conformitate pentru Ofertanți:**

**1. Coloana Model/Componentă/Configurație propusă:**

- Specificați numărul exact(part number/SKU) al modelului/componentei și configurația;
- Includeți orice componente opționale necesare pentru conformitate cu cerințele tehnice stabilite în documentația de atribuire;
- Enumerați versiunile de firmware/software și termenul de valabilitate (perpetual sau în ani - valoare exactă) a subscripției/support, dacă sunt incluse în ofertă și relevante pentru conformitate.

**2. Coloana de referință a documentației tehnice:**

- Furnizați titlul documentului și versiunea/data;
- Exemple: „Fișă tehnică de produs v3.2”, „Manual de specificații tehnice 2024”;
- Includeți mai multe documente, dacă este necesar (separate prin punct și virgulă).

**3. Coloană pagină/capitol:**

- Furnizați numere de pagină specifice (de exemplu, „p. 15-17”);
- Capitole/secțiuni de referință (de exemplu, „Capitolul 4.2.1”);
- Folosiți formatul: „Nume\_document: Pagina\_X” pentru referințe multiple.

**4. Coloana cu linkuri web ale producătorului:**

- Furnizați adresa URL directă către documentația oficială a producătorului;
- Linkurile trebuie să fie accesibile public sau, dacă sunt restricționate: includeți credențiale

de acces;

- Format: <https://manufacturer.com/product/documentation>.

**5. Coloana Autoevaluare - stare conformitate:**

- **Conform:** Îndeplinește pe deplin cerințele specificate;
- **Parțial:** Îndeplinește cerința cu condiții/exceptii (explicați în note);
- **N/A:** Nu se aplică soluției propuse (furnizați o justificare).

**Declarație:** Prin completarea și semnarea acestei matrice de conformitate, ofertantul certifică faptul că toate informațiile furnizate sunt corecte și pot fi verificate prin intermediul documentației și/sau linkurilor web la care se face referire.

**Reprezentantul ofertantului:**

- Numele: \_\_\_\_\_
- Funcția: \_\_\_\_\_
- Data: \_\_\_\_\_
- Semnătura: \_\_\_\_\_