

## **ANNEXURE-V**

### **SERVICE LEVEL AGREEMENT (SLA) LOT-2 – HARDWARE INFRASTRUCTURE Five (05) Year Comprehensive Onsite Warranty & Support**

#### **1. Objective**

This SLA defines the minimum support obligations, maintenance standards, response times, warranty services, and operational commitments for all hardware supplied under Lot-2 of the National Semiconductor Human Resource Development Program (NSHRDP).

The purpose is to ensure reliable operation of the semiconductor laboratory infrastructure throughout the five-year support period.

#### **2. Contract Duration**

The Vendor shall provide comprehensive onsite support for five (05) years from the date of Final Acceptance Certificate (FAC).

#### **3. Scope**

This SLA covers:

- HPC Servers
- High-End Servers
- Engineering Workstations
- Laptops
- FPGA Kits
- Network Switches
- UPS Systems
- Network Equipment
- Printers
- Scanners
- LED Displays
- All supplied accessories

#### **4. Comprehensive Warranty**

The Vendor shall provide:

- Five-year onsite warranty
- OEM-certified spare parts
- Labour
- Transportation
- Firmware updates
- Diagnostics
- Preventive maintenance

No additional charges shall apply.

#### **5. Service Availability**

| <b>Equipment</b>       | <b>Availability</b> |
|------------------------|---------------------|
| HPC Servers            | 99.90%              |
| Lab Servers            | 99.90%              |
| Network Infrastructure | 99.90%              |
| UPS Systems            | 99.90%              |

|                  |                     |
|------------------|---------------------|
| <b>Equipment</b> | <b>Availability</b> |
| Storage Systems  | 99.90%              |

## 6. Incident Classification

| Priority | Example                                      | Response        | Resolution      |
|----------|----------------------------------------------|-----------------|-----------------|
| Critical | Server down, storage failure, switch failure | 2 Hours         | 48 Hours        |
| High     | Multiple workstation failures                | 4 Hours         | 2 Business Days |
| Medium   | Single workstation/laptop issue              | 1 Business Day  | 3 Business Days |
| Low      | Configuration assistance                     | 2 Business Days | 5 Business Days |

## 7. Onsite Support

The Vendor shall provide onsite technical support for:

- Hardware diagnostics
- Component replacement
- Firmware updates
- Configuration
- Network troubleshooting
- System restoration

## 8. Spare Parts

The Vendor shall maintain local availability of:

- RAM
- SSD/HDD
- Power supplies
- Cooling fans
- RAID controllers
- Network cards
- UPS batteries
- Switch modules
- Optical transceivers

## 9. Equipment Replacement

If critical equipment cannot be restored within forty-eight (48) hours, the Vendor shall provide temporary replacement equipment of equal or higher specifications until permanent repairs are completed.

Permanent replacement shall be completed within fifteen (15) working days.

## 10. Preventive Maintenance

Quarterly preventive maintenance shall include:

Servers:

- Hardware diagnostics
- Firmware updates
- RAID verification
- Temperature monitoring

- Storage health checks

Networking:

- Configuration backup
- Firmware upgrades
- Port testing

UPS:

- Battery testing
- Load testing
- Runtime verification

Workstations:

- Cleaning
- Hardware health checks
- Performance optimization

## **11. Health Monitoring**

The Vendor shall monitor:

- CPU utilization
- Memory utilization
- Storage health
- RAID status
- Temperature
- Power supplies
- Network utilization
- UPS health

Monthly health reports shall be submitted.

## **12. Asset Management**

The Vendor shall maintain:

- Asset inventory
- Warranty records
- Serial numbers
- Firmware versions
- Maintenance history
- Replacement history

## **13. Documentation**

The Vendor shall maintain updated documentation including:

- Network diagrams
- Server configurations
- Asset inventory
- Maintenance records
- Backup procedures
- Recovery procedures

## **14. Escalation Procedure**

Level-1 Field Engineer

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Level-2 Resident Engineer  
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Level-3 Technical Manager  
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Level-4 OEM Support  
↓  
Level-5 Country Manager

### **15. Reporting**

Monthly reports shall include:

- Fault statistics
- Downtime
- Hardware replacements
- Preventive maintenance activities
- Warranty claims
- Outstanding issues
- Recommendations

### **16. Performance Measurement**

The Vendor shall maintain:

- 99.9% Server Availability
- 99.9% Network Availability
- 95% SLA Compliance
- 90% Customer Satisfaction
- Quarterly Preventive Maintenance Completion

### **17. Service Credits**

Failure to meet the agreed SLA targets may result in service credits or contractual penalties as specified in the Contract Agreement.