**Storage Equipment Services**

**Contract of Adherence**

This Storage Equipment Services Contract of Adherence(Hereinafter referred to as the **“Contract of Adherence”**)is made and entered into by and between:

**Mobile Interim Company No.2 S.A.L.,** a company incorporated at the Beirut Trade Register under number /1000382/, and registered at the Lebanese Ministry of Finance under the number /291711/, electing domicile at Beirut Central Building, Bloc B, Fouad Chehab Avenue, Bachoura Region, Beirut, Lebanon.

(Hereinafter referred to as “**MIC2**”)

**AND**

**……………………………………………..**, a company incorporated at the ……………………… Trade Register under number /…………………………/, and registered at the Lebanese Ministry of Finance under the number /………………………../, electing domicile at………………………, …………… Floor, ………………. Road, ……………….. Region, Lebanon, represented in this Contract of Adherence by its ……………………………………...

(Hereinafter referred to as the “**Supplier**”)

Each of the two parties is hereinafter referred to as a ‘**’Party**”’ and collectively as the "**Parties**".

**Preamble:**

Whereas, MIC2 is operating the second mobile network for the account and for the benefit of the Republic of Lebanon, and is in need to purchase: Replace/upgrade services of its storage equipment listed in the Bill of Material attached hereto as Schedule (1) including hardware, switches, backup software and hardware, warranty, other related equipment, professional services and migration from old to new systems when applicable and required by MIC2; in addition to maintenance and support services to the proposed solution by the Supplier through the submitted Technical and Commercial Proposals annexed hereto as Schedule (3) (Hereinafter altogether referred to as the **“Services”**);

To this effect MIC2 has announced for a Request for Proposal to select the best supplier to provide the Services, whereas at the outcome of the abovementioned Request for Proposal, Supplier (……………………….)was selected to provide MIC2 by the Services, as per the terms and condition of the Request for Proposal General Document and its Appendices annexed hereto as Schedule (2), and under the specifications and prices within the submitted Technical and Commercial Proposals annexed hereto as Schedule (3), and according to the terms and conditions of this Contract of Adherence including its Bill of Material and Service Level Agreement annexed hereto as Schedule (1) and Schedule (4);

MIC2 and Supplier wish by the present Contract of Adherence to set out the terms and conditions upon which Supplier shall provide the Services to MIC2;

NOW THEREFORE, in consideration of the above, it is hereby mutually agreed between the Parties as follows:

**1. The Entire Contract of Adherence**

The Preamble above, any Schedule annexed hereto and any Purchase Order issued under this Contract of Adherence shall form an integral part of this Contract of Adherence.

**2. Scope of the Contract of Adherence**

Supplier undertakes to provide MIC2 with the Services to the equipment listed in the Bill of Material attached hereto as Schedule (1), as per the terms and condition of the Request for Proposal General Document and its Appendices annexed hereto as Schedule (2), and under the specifications and prices listed in the submitted Technical and Commercial Proposals annexed hereto as Schedule (3) and/or in the relevant Purchase Order(s) placed by MIC2, and under the terms and conditions of this Contract of Adherence including its Service Level Agreement annexed hereto as Schedule (4).

**3. Order of Services**

**3.1.** MIC2 shall issue a written Purchase Order(s) to the Supplier for the Services required (Hereinafter referred to as the **“Purchase Order(s)”**).

**3.2.** The Purchase Order(s) shall be forwarded by MIC2 to Supplier through an email on the following email address: …………………………………..

**3.3.** The Purchase Order(s) issued by MIC2 under this Contract of Adherence shall only be legally and financially effective in favor of Supplier in light of Supplier’s good intentions and full commitment to its contractual obligations and the proper fulfillment of such obligations.

**4. Delivery and Supply of Services**

**4.1.** Supplier undertakes to deliver and supply any of the Services as ordered by MIC2 in the relevant Purchase Order(s) issued under this Contract of Adherence.

The term **“delivery and supply”** shall mean the satisfactory delivery, installation and implementation of the Services.

The term **“preliminary acceptance certificate (PAC)”** shall mean a preliminary certificate issued by MIC2 evidencing that the ordered Services have been supplied and delivered to MIC2 without being accepted yet by MIC2.

The term **“final acceptance certificate (FAC)”** shall mean a certificate issued by MIC2 evidencing that the ordered Services have been totally supplied and delivered to and accepted by MIC2.

**4.2.** Supplier undertakes and warrants that the Services delivered and supplied under this Contract of Adherence are:

* Conforming to all MIC2’s required specifications as defined in the Request for Proposal General Document and its Appendices annexed hereto as Schedule (2), and as submitted in the Technical and Commercial Proposals annexed hereto as Schedule (3) and/or in each of the relevant Purchase Orders issued under this Contract of Adherence including its Bill of Material and Service Level Agreement annexed hereto as Schedule (1) and Schedule (4).
* Free of any defect whether apparent or hidden.
* In smooth migration end to end with zero outage.

**4.3.** A penalty amounting to 0.5% of the total amount of each of the relevant Purchase Orders shall be applied on Supplier to the benefit of MIC2 for each five (5) calendar days of delay in the delivery and supply of any of the Services and shall have a maximum cap of 10 % of the total amount of each of the relevant Purchase Orders.

The said penalty amount shall be automatically deducted by MIC2 from the amount due to Supplier without the need for any legal claim or action.

The said penalty clause may be excluded from application only in the sole case of mutual consent between the two Parties for its exclusion noting that such consent for exclusion must be expressed only through a written instrument to be signed by both Parties.

**5. Warranty and Indemnity**

**5.1.** Supplier warrants at its own cost and liability that the Services provided and supplied under this Contract of Adherence are conforming to the specifications detailed in the Request for Proposal General Document and its Appendices annexed hereto as Schedule (2), as well as in the submitted Technical and Commercial Proposals annexed hereto as Schedule (3) and/or in the relevant Purchase Order issued under this Contract of Adherence including its Bill of Material and Service Level Agreement annexed hereto as Schedule (1) and Schedule (4).

**5.2.** Supplier shall fully indemnify MIC2, together with its officers, agents and employees, against any claim with respect to damages to property, loss and personal injury, including death, howsoever caused to any personnel, or which may be imposed on or incurred by MIC2 arising directly out of the negligent acts or omissions of Supplier, its agents, or employees during the performance of any work hereunder.

**5.3.** Supplier, its assigned personnel, and any of its employees involved directly or indirectly in the provision and supply of Services shall be individually and jointly responsible for the terms and conditions of this Contract of Adherence.

**5.4.** Supplier is solely and fully responsible for its assigned personnel, their remuneration, allowances, compensations, work hazards and emergencies, and any other rights and obligations that might arise during or in the occasion of their relationship with MIC2. Supplier must carry an insurance policy covering all his staff working on site during and in the occasion of the provision and supply of Services process as well as damages caused by the Supplier’s work on site.

**5.5.** Supplier shall, at its sole expense, defend any suit based upon a claim or cause of action and satisfy any judgment that may be rendered against MIC2 resulting from the works done under this Contract of Adherence.

1. **Liability, Indemnity and Infringement** 
   1. Supplier will be held liable and shall indemnify MIC2:

* For death or personal injury resulting from the acts, misconduct, negligence and/or omission of Supplier Authorized Personnel, employees or agents or contracting parties. Supplier undertakes to settle all damages to any party whatsoever resulting therefrom without any restriction.
* For any physical damage to the tangible property of MIC2 to the extent it is caused by the acts, misconduct, negligence and/or omission of Supplier Authorized Personnel.
* For any damage and/or loss of revenue or traffic caused to MIC2 or MIC2’s existing network, whether such damage and/or loss arises out of any outage, omission, neglect or default of Supplier during or in connection with the provided and supplied Services.
* For any disruption in MIC2’s services and/or for any impact on the environment setup at MIC2’s network, resulting from the acts, misconduct, negligence and/or omission of Supplier or its authorized personnel, employees, agents or contracting parties, the Supplier must recompense and restore as per the requirements to be defined by MIC2 at the time of the disruption and/or impact in addition to the indemnity due to MIC2.
* Against any claim, demand, proceeding, damage, cost, charge or expense whatsoever in respect thereof or in relation thereto.
  1. **Infringement:**

Supplier shall defend MIC2 against any claim that the Services may infringe on a patent or copyright, granted or registered in the Lebanese Territories, provided that MIC2 promptly notifies Supplier of the said claim. Supplier shall has the sole control of the defense and all the related settlement negotiations, and MIC2 shall provide the Supplier by the information and needed assistance for the defense of such claims, all on the Supplier’s full expense and responsibility.

Supplier must indemnify and hold MIC2 harmless from any payment which by final judgments in such suits may be assessed against MIC2 on account of such infringement and shall pay resulting settlements, costs and damages finally awarded against MIC2 by a court of law.

1. **Fees and Prices , Invoicing and Payment**

**7.1. Fees and Prices**

The fees and prices for the Services provided and supplied under this Contract of Adherence shall be determined by MIC2 in each of the relevant Purchase Orders issued under this Contract of Adherence and must comply with the prices for the Services as listed in the submitted Technical and Commercial Proposals annexed hereto as Schedule (3).

* + 1. Supplier undertakes to adhere to the prices for the Services as listed in the submitted Technical and Commercial Proposals annexed hereto as Schedule (3) all through the term of this Contract of Adherence, and must not amend for any reason whatsoever all through the term of this Contract of Adherence unless by reduction where possible.
    2. The fees and prices for the Services as referred to in Clause (7.1.) herein above shall constitute all the financial entitlements of Supplier from MIC2 for the Services under this Contract of Adherence, and shall include all expenses that may be incurred by Supplier in this regards.

* 1. **Invoicing and Payment**

Invoicing and Payment terms for the ordered Services under this Contract of Adherence shall be made in conformity with the terms defined in each of the related issued Purchase Orders in this regards.

* 1. **The Guarantee**

Within fifteen (15) days from issuing any Purchase Order to the Supplier under this Contract of Adherence, the Supplier shall provide MIC2 with an “on first demand” irrevocable Bank Guarantee in an amount to be defined in the relevant Purchase Order, to be issued by an accredited Lebanese qualified Bank listed on the Lebanese Central Bank list of Banks, or by a foreign bank that have received a credit rating of at least a “prime” investment grade (BBB or above).

The said Bank Guarantee shall provide that the issuing bank guarantees (jointly and severally with the Supplier) the payment in fresh currency of the amount of the guarantee to MIC2 upon MIC2’s first request, without any objection or reservation or delay.

The Guarantor shall guarantee the timely, faithful and satisfactory supply, provision and performance of the Supplier to all of its obligations under this Contract of Adherence.

The Supplier shall bear all costs in relation to the issuance and provision of the said Bank Guarantee.

The said Bank Guarantee shall remain valid and effective from the date of issuance of the relevant Purchase Order up to the date MIC2 issues the respective Final Acceptance Certificate (FAC) on the said relevant Purchase Order.

The form and content of the said Bank Guarantee to be pre-approved by MIC2 prior to its issuance.

1. **Tax, duties and levies**

Either party shall be liable for the taxes, duties, levies and other fiscal charges imposed on it by the Laws and regulations in Lebanon including the stamp duty amounting to four per mil.

Supplier shall be liable for all applicable taxes and duties levied outside the Lebanese Territories in relation to this Contract of Adherence.

Supplier shall be liable as well for the non-resident tax imposed by the Lebanese fiscal authorities on foreign companies doing business in Lebanon, therefore the amount corresponding to the Non-Resident Tax prescribed by the fiscal laws in Lebanon as well as the stamp duty will be deducted from the amount due to be paid by MIC2 to Supplier under this Contract of Adherence.

**9. Term and Termination**

**9.1.** This Contract of Adherence shall be effective as of the date of its signature herein below **(the “Effective Date”)** and shall remain valid for Three (3) years thereafter.

Upon the expiration of the abovementioned term, this Contract of Adherence may be renewed for an additional term(s) only upon the prior written consent of the Parties.

**9.2.** MIC2 shall have the right to terminate this Contract of Adherence and/or any Purchase Order issued under it at any time and without having to state the reason(s) for such termination, and without any liability on MIC2, provided that the decision to terminate this Contract of Adherence and/or any Purchase Order issued under it is notified to Supplier thirty (30) days prior to the effective date of termination.

**9.3.** This Contract of Adherence may be terminated by MIC2 upon a thirty (30) days’ written notice with the right to claim compensation if Supplier materially breaches this Contract of Adherence, and fails to cure such breach within fourteen (14) business days after receipt of a written demand for cure from MIC2.The amount of the said compensation shall equal to the total amount of the related Purchase Order to which the breaching acts of Supplier has affected MIC2’s interests.

**9.4.** If at the time of expiry or early termination of this Contract of Adherence the Services ordered by MIC2 as per a given Purchase Order have not been delivered and supplied then this Contract of Adherence shall be deemed extended until the full delivery and supply of such Services, and MIC2 shall nonetheless retain its right to request Supplier to pay compensation for such delayed delivery and supply if the delay is due to Supplier’s default.

**10. Relationship of the Parties**

**10.1.** The relationship of the Parties established by this Contract of Adherence shall be solely that of independent contractors. Nothing contained in this Contract of Adherence shall be construed to make one party the agent for the other or partner of the other for any purpose. Neither Party shall by virtue of this Contract of Adherence have the right or authority to act for, or to bind the other in any way, or to sign the name of the other, or to represent that the other is in any way responsible for its acts and omissions.

**10.2.** This Contract of Adherence shall not produce any legal or material obligations upon MIC2 towards third parties beyond the scope of MIC2’s relationship with Supplier. Any Party who has not signed this Contract of Adherence is not a party thereto.

**11. Non-exclusivity**

This Contract of Adherence is not exclusive towards any of its Parties, therefore either Party shall have the right to contract other third parties for same or similar services covered by this Contract of Adherence.

**12. Confidentiality**

**12.1.** Supplier shall keep in strict confidence and shall use all reasonable endeavors to bind all of its executives, employees, agents and personnel to keep in strict confidence all the information/documents/correspondence received, or which it obtains or to which it has access directly or indirectly from MIC2 in connection with this Contract of Adherence and shall not in any time disclose such information/documents/correspondence to any third party or make use of any such information/documents/correspondence for any purpose other than as required to execute the object of this Contract of Adherence.

Supplier is aware that MIC2 is entitled to disclose any information/documents/correspondence relating to this Contract of Adherence to the Republic of Lebanon represented by the Ministry of Telecommunications without obtaining Supplier’s approval.

**12.2.** The confidentiality provisions contained in this Article (12) shall survive the termination or expiration of this Contract of Adherence.

**13. Assignment**

Supplier shall not assign this Contract of Adherence, totally or partially, or any right or obligation hereunder without the prior written consent of MIC2.

However, MIC2 shall have the right to assign, transfer or purport all of its rights and obligations under this Contract of Adherence to the Republic of Lebanon or any of its designees, having given Supplier prior written notice of such assignment but without having to obtain its consent prior to such assignment.

For the avoidance of doubt, Supplier irrevocably agrees to grant MIC2 the right to assign and/or transfer and further undertakes not to challenge or oppose any such transfer or assignment provided that the Assignee shall be responsible to Supplier for any of the obligations, liabilities, debts or charges of any kind relating to this Contract of Adherence and in existence as at the date of any such assignment.

The Assignee of the present Contract of Adherence shall also have the right of assignment provided for under this Article (13).

**14. Applicable Law and Dispute Resolution**

**14.1** Both Parties agree that the Lebanese Laws and regulations shall apply to any litigation arising out of the application or interpretation of this Contract of Adherence.

**14.2** Disputes arising in connection with this Contract of Adherence shall be settled by the competent courts of Law in Beirut.

**15. Force Majeure**

**15.1** Neither Party is liable for delay or failure to perform any of its obligations under this Contract of Adherence insofar as the performance of such obligation is prevented by a force majeure event. Each Party shall notify the other Party of the occurrence of such a force majeure event and shall use all reasonable endeavors to continue to perform its obligations hereunder for the duration of such force majeure event.

In case force majeure event exceeded one (1) month period, whether continuously or intermittently, either Party has the right to immediately terminate this Contract of Adherence by means of written notice without bearing any liability whatsoever.

In such case, MIC2 shall pay to Supplier the part of the terminated Purchase Order which have been fully delivered, supplied and accepted by MIC2.

**15.2** For the purposes of this Contract of Adherence, a force majeure event means any event, which is unpredictable, beyond the reasonable control of the Party liable to affect performance and external to this Party, always as defined by the Lebanese Laws and Regulations.

**16. Waiver and/or Contradiction**

**16.1** Waiver of any provision herein shall not be deemed a waiver of any other provision herein, nor shall waiver of a breach of any provision of this Contract of Adherence be construed as a continuing waiver of other breaches of the same or other provisions of this Contract of Adherence.

**16.2** Any contradiction between any Purchase Order issued under this Contract of Adherence and the terms and conditions of the Request for Proposal General Document and its Appendices annexed hereto as Schedule (2), then the terms and conditions of the said Purchase Order shall prevail.

**17. Notices**

Both Parties have elected domicile at the addresses mentioned beside their respective names in the preamble. Any **written** notification made to these addresses shall be considered valid unless any Party has notified the other in writing of any change in said address.

**IN WITNESS WHEREOF,** the Parties have caused this Contract of Adherence to be executed in Beirut with effect as of ………………………………………………………. **(“Effective Date”)** by their respective authorized representatives in two originals copies each Party keeping one original.

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| **For and on behalf of**  **Mobile Interim Company No. 2 S.A.L.**  **Salem Itani**  **Chairman General Manager**  **Nibal Matta Salameh** | **For and on behalf of**  **……………………………**  **…………………………….**  **……………………..** |

**Chief Financial Officer**

**SCHEDULE (1)**

**BILL OF MATERIAL (BOM)**

**STORAGE**

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| **Existing Platform: VMAX 250F / Powerstore 1200 / Unity / Isilon** |
| **SAN ALL-FLASH NVME STORAGE SYSTEM SPECS** |
| Proposed storage must provide high-end features and capabilities with dual controllers of minimum 1 TB of cache each to guarantee high performance high performance and availability for business critical applications |
| Storage system must be provided from day 1 with an initial capacity of 850 TiB effective based on RAID6 / Dual Parity Protection, with a minimum of 400’000 of IOPS based on 32KB IO Block Size, and 50 % Reads and 50 % Writes Random IO Profile |
| All the storage capacity/disks must be based on Enterprise TLC NVMe Drives.  QLC NVMe drives and other SSD/SAS drives are not acceptable |
| Storage system must be scalable to 1.5 PetaByte effective capacity from day 1 without the change of the system model/controller that would incur future costs |
| Storage must be provided with 8 x 32 Gbps FC enabled/populated ports from day 1 for SAN connectivity |
| Storage must be provided with 8 x 10 Gbps SFPs enabled/populated ports from day 1 for LAN connectivity |
| Data at Rest Encryption must be supported and Licensed/Enabled from day 1 |
| Management, Snapshot and Replication licenses must be licensed/enabled from day 1 |
| Storage system offered must support NVMe over Fabric (Fiber channel and Ethernet) |
| Storage system must include Compression  Supplier must commit on the provided volume irrespective the data nature  A semestrial review for verification must be done to evaluate the consumption |
| Storage system must be unified (SAN and NAS Services), if not must provide an alternative solution |
| Proposed Storage array must support different host access protocols: FC, iSCSI, FTP, SFTP, CIFS ,NFS and VMware Virtual Volumes (VVols) |
| **FC SAN SWITCHES** |
| Two Brocade or CISCO SAN Switches or equivalent, each switch populated with 96 x 16 Gbps FC ports including SR transceivers (HQ - All-Flash Storage) |
| Additional 4 x 16 Gbps Long Range 10 Km Transceivers per SAN Switch |
| 96 x OM3 50/125 FIBER CABLE LC- LC 5 METER Cables per SAN Switch |
| **HYBRID STORAGE SYSTEM SPECIFICATIONS C73** |
| Storage system must be unified (SAN and NAS Services) |
| Storage must have dual controllers |
| Storage musts be provided from day 1 with a minimum of 4 x 600 GB 15 K SAS Drives and 17 x 6 TB Disk Drives or equivalent/better capacity |
| Storage must be provided with 8 x 10 Gbps SFP + Ethernet connectivity |
| Storage must be provided with 4 x 16 Gbps FC SAN connectivity |
| Storage must be provided with software licenses (Management, Snapshots, Replication, etc...) |
| **HYBRID STORAGE SYSTEM SPECIFICATIONS (FOR CALL CENTER)** |
| Storage system must be unified (SAN and NAS Services) |
| Storage must have dual controllers |
| Storage must be provided from day 1 with a minimum of 21 x 4 TB Disk Drives or equivalent/better capacity |
| Storage must be provided with 4 x 10 Gbps SFP + Ethernet connectivity |
| Storage must be provided with software licenses (Management, Snapshots, Replication, etc…) |
| **SCALE-OUT NAS STORAGE SYSTEM SPECIICATIONS** |
| High end Scale-out NAS Storage platform |
| The Proposed Solution must be a purposed build Scale Out Network Attached Storage (NAS) solution with native NAS capabilities, no gateways and with no virtualization layer or virtualization technology. |
| The NAS cluster must be provided with 360 TB of Net Usable capacity of Performance Storage after Raid, hot spare and other overhead |
| The NAS cluster must be provided with 600 TB of Net Usable capacity of Archive Storage after Raid, hot spare and other overhead |
| The total above capacity of 960 TB Net Usable must be part of the same Cluster, same file system and same namespace to be shared by multiple applications |
| The solution provided must be scalable to at least 10 PetaBytes of capacity (10 times the current capacity) |
| The cluster must be equipped with a minimum of 16 x 10 Gbps SFP + front end ports for connectivity to MIC2 Data Center |
| The cluster must be equipped with two dedicated backend switches with a minimum of 32 ports per switch and a minimum port speed of 40 Gbps or higher per port |
| Solution must have the ability to protect critical data against accidental, premature, or malicious alteration or deletion, and support/configure enterprise class WORM (Write-Once Read Many Feature) |
| Solution must include its only load balancers to cover data/traffic load balancing between controllers/nodes |
| Software licenses must be included as part of the solution (Snapshots, Load Balancing, Quotas Management, Replication, WORM, etc…) |
| Solution must include Real time and historical performance reporting of all components of the storage platform |
| The protocols supported and enabled must be CIFS/SMB, NFS v3 and v4, FTP, HTTP. HDFS is considered as a plus |

**STORAGE FOR DISASTER RECOVERY (DR)**

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| **Storage Specifications for DISASTER RECOVERY** |
| **SAN ALL-FLASH NVME STORAGE (DISASTER RECOVERY SITE) SYSTEM SPECIFICATIONS** |
| Storage must have 200 TiB capacity with a minimum of 90’000 of IOPS based on 32 KB IO Block Size and 50 % Reads and 50 % Writes Random IO Profile |
| Storage system musts be provided from day 1 with an initial capacity of 200 TiB Effective based on RAID6 / Dual Parity Protection |
| All the storage capacity/disks must be based on Enterprise TLC NVMe Drives.  QLC NVMe drives and other SSD/SAS drives are not acceptable |
| Storage system must be scalable to 1.5 PetaByte Effective capacity from day 1 without the change of the system model/controller that would incur future costs |
| Storage must be provided with 8 x 32 Gbps FC enabled/populated ports from day 1 for SAN connectivity |
| Storage must be provided with 8 x 10 Gbps SFPs enabled/populated ports from day 1 for LAN connectivity |
| Data at Rest Encryption must be supported and Licensed/Enabled from day 1 |
| Management, Snapshot and Replication licenses must be licensed/enabled from day 1 |
| Storage system offered must support NVMe over Fabric (Fiber channel and Ethernet) |
| Storage system must include Compression.  Supplier must commit on the provided volume irrespective the data nature.  A semestrial review for verification must be done to evaluate the consumption |
| Storage system must be Unified (SAN and NAS Services), if not must provide an alternative solution |
| Proposed Storage array must support different host access protocols: FC, iSCSI, FTP, SFTP, CIFS ,NFS and VMware Virtual Volumes (VVols) |
| **FC SAN SWITCHES** |
| Two Brocade or CISCO SAN Switches or equivalent, each switch populated with 64 x 8 Gbps FC ports including SR transceivers |
| Additional 4 x 8 Gbps Long Range 10 Km Transceivers per SAN Switch |
| 64 x OM3 50/125 FIBER CABLE LC- LC 5 METER Cables per SAN Switch |

**HYPER-CONVERGED HCI SOLUTION SPECIFICATIONS**

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| **Existing Platform: VXRAIL** |
| **HYPER-CONVERGED HCI SOLUTION SPECIFICATIONS (ADLIEH DATA CENTER)** |
| Hyper-converged solution |
| **5 x Hyper-converged Nodes, each Node with the following specifications:** |
| 2 x Processors 16C/32 T or more |
| 12 x 64 GB RDIMM, 3200MT/s, Dual Rank RAM Memory |
| 2 x 240 GB SSD in RAID1 for the Hypervisor |
| 3 x 800 GB SSD SAS ISE Write Intensive 12 Gbps 512e Drive 10 DWPD for virtual storage Caching |
| 12 x 3.84 TB SSD SATA Read Intensive 6 Gbps 512 2.5 in Hot-plug Drive 1 DWPD for virtual storage Data |
| 2 x Broadcom 57414 Dual Port 10/25 GbE SFP28 Cards or equivalent |
| Enterprise Licenses for the virtual storage |
| 2 Enterprise Hypervisor Licenses |
| Redundant Power Supplies |
| **4 x Top of Rack Switches for the Hyper-Converged Solutions above as per the following:** |
| 2 x ToR Switches with 48 x 10 Gbps SFP + with all ports enabled/licensed |
| Cables and transceivers to connect each of the switches to 5 HCI nodes |
| 2 x ToR Switches with 12 x 10 Gbps SFP + with all ports enabled/licensed |
| Cables and transceivers to connect each of the switches to 5 HCI nodes |

**BACKUP SOLUTION**

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| **Existing Platform: DataDomain, Networker, SourceOne** |
| **BACKUP SOLUTION SPECIICATIONS** |
| **1 x Purpose Build Backup Appliance for MAIN SITE with the following specifications:** |
| Backup Appliance with built in Inline deduplication and compression |
| Backup Appliance provided must be 280 TB Usable Capacity (Before Data Reduction) from day 1 |
| Backup appliance must be provided with 4 x 10 Gbps SFP + ethernet ports and 2 x 16 Gbps FC ports from day 1 |
| Replication License of the backup appliance must be included |
| Backup appliance must support encrypting backed up data in-flight and at rest for security. Licenses for In-Flight and At-rest encryption must be included |
| Backup appliance must include features and licenses for ransomware/cyber attacks protection such as Write Once Read Many WORM / Locking mechanism, Secure System NTP Clock, Dual Role Authorization, End to End encryption at rest and in-flight, Multi-Factor authentication, and secure AD/LDAP Authentication |
| **1 x Purpose Build Backup Appliance for Call Center Site with the following specifications:** |
| Backup Appliance with built in Inline deduplication and compression |
| Backup Appliance provided must be 170 TB Usable Capacity (Before Data Reduction) from day 1 |
| Backup appliance must be provided with 4 x 10 Gbps SFP + ethernet ports and 2 x 16 Gbps FC ports from day 1 |
| Replication License of the backup appliance must be included |
| Backup appliance must support encrypting backed up data in-flight and at rest for security. Licenses for In-Flight and At-rest encryption must be included |
| Backup appliance must include features and licenses for ransomware/cyber attacks protection such as Write Once Read Many WORM / Locking mechanism, Secure System NTP Clock, Dual Role Authorization, End to End encryption at rest and in-flight, Multi-Factor authentication, and secure AD/LDAP Authentication |
| **1 x Purpose Build Backup Appliance for ADLIEH SITE with the following specifications:** |
| Backup Appliance with built in Inline deduplication and compression |
| Backup Appliance provided must be 100 TB Usable Capacity (Before Data Reduction) from day 1 |
| Backup appliance must be provided with 4 x 10 Gbps SFP + ethernet ports and 2 x 16 Gbps FC ports from day 1 |
| Replication License of the backup appliance must be included |
| Backup appliance must support encrypting backed up data in-flight and at rest for security. Licenses for In-Flight and At-rest encryption must be included |
| Backup appliance must include features and licenses for ransomware/cyber-attacks protection such as Write Once Read Many WORM / Locking mechanism, Secure System NTP Clock, Dual Role Authorization, End to End encryption at rest and in-flight, Multi-Factor authentication, and secure AD/LDAP Authentication |
| **BACKUP SOFTWARE** |
| Backup Software License to cover 60 x CPU License |
| Additional Backup Software Licenses to cover 150 TB Capacity License |
| Backup Software to cover physical/bare metal environments, Vmware and HyperV virtual environments (image level and granual level backups) and file server backups and NAS NDMP Backups |
| **BACKUP SOFTWARE (ADLIEH SITE)** |
| Backup Software Licenses for 50 TB Front End Capacity |
| Backup Software to cover physical/bare metal environments, Vmware and HyperV virtual environments (image level and granual level backups) and file server backups and NAS NDMP Backups |
| **BACKUP TAPE LIBRARY SOLUTION** |
| **One Tape Library with the following specifications:** |
| 2 x LTO6 or Higher FC Tape Drives |
| Scalable for at least one additional FC tape drive |
| 20 x LTO6 or higher tape cartridges and 5 x Cleaning cartridge |
| **EMAIL ARCHIVING SOLUTION** |
| Software solution to cover email archiving functionality |
| License must include 850 email exchange mailboxes |
| Must cover design and implementation services of the solution |
| Must cover professional services from the SW vendor for the migration from the existing SourceOne email archiving solution to the new proposed solution |

**VDI FOR CALL CENTER**

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| **Existing Platform: VXRAIL-Vmware** |
| **HYPER-CONVERGED HCI SOLUTION SPECIFICATIONS (CALL CENTER)** |
| **4 x Hyper-converged Nodes, each Node with the following specifications:** |
| 2 x Processors 20 Cores 2.4 GHZ each or more |
| 12 x 32 GB RDIMM RAM |
| 2 x 240 GB SSD in RAID1 for Hypervisor |
| 3 x 400 GB SSD SAS ISE Write Intensive 12 Gbps 512e Drive 10 DWPD for Virtual storage Caching |
| 6 x 1.92 TB SSD SATA Read Intensive 6 Gbps 512 2.5 in Hot-plug Drive 1 DWPD for Virtual storage Data |
| Intel X710 with 4 x 10 Gbps SFP + ports including transceivers or equivalent |
| Virtual Storage Enterprise Licenses |
| 2 Enterprise Hypervisor Licenses |
| Redundant Power Supplies |
| **2 x Top of Rack Switches for the Hyper-Converged Solutions above.**  **Each switch as per the following:** |
| 48 x 10 Gbps SFP+ with all ports enabled/licensed |
| Cables and transceivers to connect each of the switches to 4 HCI nodes |
| **VDI LICENSES** |
| Virtual Desktops Licenses for 210 Users |
| Access Gateway for remote users to connect remotely using Thin Client |
| Thin Client Device with 3 years support (Quantity 210) |

**SERVERS**

|  |
| --- |
| **Existing Platform: 10 Dell Servers** |
| **RACK MOUNT SERVERS and TOR SWITCHES** |
| 14 x Rack Mount Servers, each server with the following specifications: |
| 2 x Processors, each with a minimum of 16 Cores and 2.1 GHZ |
| 24 x 32 GB RAM |
| RAID Controller with a minimum of 8 GB of Cache and support for RAID1/5/6 |
| 2 x 300 GB 15K RPM SAS 12G bps 512n 2.5 in Hot-plug Hard disks or better for OS |
| 2 Cards each with Dual Port 16 Gb Fibre Channel HBA for FC SAN Connectivity |
| 2 x 10 Gbps SFP + Ethernet ports with SR transceivers |
| 2 x 1 Gbps Ethernet ports |
| Dual Redundant Power Supplies |
| Rails with cable management |
| Remote Management port and license |
| **2 x Top of Rack Switches for the servers.**  **Each switch with:** |
| 28 x 10 Gbps SFP + ports per switch |
| 22 x 3m DAC cables per switch |
| Software Licenses inclusive |
| **RACK MOUNT SERVERS and TOR SWITCHES (DISASTER RECOVERY SITE)** |
| **2 x Rack Mount Servers, each server with the following specifications:** |
| 2 x Processors, each with a minimum of 28 Cores and 2.0 GHZ |
| 8 x 64 GB RAM |
| RAID Controller with a minimum of 8 GB of Cache and support for RAID1/5/6 |
| 2 x 480 GB SSD SATA Mix Use 6 Gbps 512 2.5in Hot-plug AG Drive, 3 DWPD |
| One Card with Dual Port 32 Gb Fibre Channel HBA for FC SAN Connectivity |
| One Card with Dual Port 10/25 GbE SFP28 Ethernet |
| 2 x 10 Gbps SFP + Ethernet ports with SR transceivers |
| 2 x 1 Gbps Ethernet ports |
| 2 x enterprise Hypervisors licenses |
| Dual Redundant Power Supplies |
| Rails with cable management |
| Remote Management port and license |
| **2 x Top of Rack Switches for the servers.**  **Each Switch with:** |
| 28 x 10 Gbps SFP + ports per switch |
| 4 x 3m DAC cables per switch |
| Software Licenses inclusive |

**SCHEDULE (2)**

**SCHEDULE (3)**

**SCHEDULE (4)**

**SERVICE LEVEL AGREEMENT (SLA)**

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# Support Services Packages

During the standard warranty period, customers can choose one of four service packages offered to meet the desired levels of availability.

The plan includes telephone support and access to Helpesk. Customers receive updates and notification of upgrades for firmware and software, software patches and bug fixes. They also receive maintenance releases and engineering changes for their systems, with replacement parts as needed. Service problems are also diagnosed remotely to help pinpoint problems and get the system up and running more quickly. To ensure that customers’ problems and issues are dealt with in the most efficient and effective way, there is an escalation path built into every service plan.

The Premier Support Services Package will include the below SLA terms:

* **Single point of contact through HelpDesk.**
* **Service Account Manager.**
* **Notification of software updates and patches.**
* **Bug fixes.**
* **Release updates.**
* **Patches installation****.**
* **Updates to firmware and licensed software.**
* **On-Site hardware problem diagnosis and resolution.**
* **Monthly preventive maintenance.**
* **Semi-annual system performance analysis and tuning.**
* **Annual Support Plan.**
* **Coverage 7 days a week, 24 hours a day.**
* **Response to call (2 hours).**

The response time to provide services effective the escalation time shall be as follows:

* For P1 (Critical/Emergency) incidents, response time 1 hour, restoration time 3 hours, and resolution time 6 hours.
* For P2 (Major) incidents, response time 3 hour, restoration time 6 hours, and resolution time 24 hours.
* For P3 (Non Service Impacting) incidents, restoration time 24 hours, and resolution time 5 calendar days.
* For P4 (other types) incidents, restoration time 8 hours.

# Support Infrastructure

The HelpDesk provides a convenient one stop support contact 24 hours a day, 7 days a week. Customers may request services via multiple channels to ensure that they get instant access to support services.

In order to serve anywhere and anytime, we make available to 24 hours customer service hotline +961 ………………...

For queries, problems, comments, call this number to be connected with someone who will immediately assist or take information and have a specialist call back.

**Service Delivery Procedure**

The Helpdesk is the first point of contact for any problems, queries, and/or advice associated with the maintenance and support services provided.

Designated contact persons from customer should contact the HelpDesk for any support services related to any component of the solution implemented.

The HelpDesk is manned by a dedicated coordinator who receives customer service requests and records any problems on the HelpDesk system. A systematic procedure, described below, ensures that the relevant Customer Services staff is notified immediately to take all necessary remedial actions.

#### Problem Reporting

The HelpDesk is operational 24 hours a day, 7 days a week.

The HelpDesk coordinator assigns a HelpDesk Reference (HDR) Number that is given to the customer for reference and follow-up. Depending on the problem, the HelpDesk coordinator classifies the problem and assigns it to the appropriate support staff:

The following information should be provided at time of logging the call at the HelpDesk:

* Name.
* Location.
* Telephone Number.
* Equipment Type.
* Full description including any error codes and messages.

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# Priority Definition

##### **Priority 1 - High Priority**

An acute problem for a group of users, or all users, causing a major interruption to normal business activities, typically:

* Main System unavailable.
* Major communication node failure or multiple node failure.
* Major degradation in system performance.
* LAN failure.
* Application software or one of its major modules unavailable.
* Virus report.
* Security incident involving suspected improper access to information system.

Problems categorized as Priority 1 require a rapid response with a sustained effort to make a temporary correction that reduces the negative effect on normal operations, until a permanent correction can be implemented. It may also require adjustments or re-configuration of Licensed Programs, which may be accomplished remotely or on-site.

##### 

##### **Priority 2 - Medium Priority**

A problem causing concern to a user or small group of users and affecting normal business activities, where no suitable alternative is available, typically:

* Minor communication node failure no alternative available.
* Minor degradation in system performance.
* Application programs failing to fulfill any part of the specifications.

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##### **Priority 3 - Low Priority**

A problem causing minor concern to a user but not seriously affecting business activities, or a more serious problem but where an alternative is available, typically:

* A peripheral device failure, alternative available.
* PC/Terminal failure, alternative available.
* Minor communication node failure, alternative available.
* Application module unavailable, alternative available.

##### **Priority 4 - Non-Urgent**

A request to carry out work or improve or change a service at a later time, typically:

* Request for enhancements to application functionality.
* Requests to move equipment.
* Consultancy queries.
* Usage queries.

Progress against all calls is reviewed on a daily basis and, where appropriate, progress information relayed to the caller. For Priority 1 and 2 calls, feedback is given every 2 hours. Call originators are provided with information on request on progress by quoting the HDR number.

# Problem Life Cycle

At any point in time the problem will have a status value which indicates, in general terms, the point in its life cycle that the problem has reached. These status values are indicated in the following table:

| **Status** | **Life Cycle Point** |
| --- | --- |
| Open | Call is logged and HelpDesk Reference Number (HDR) is issued to Customer |
| In-Hand | A Customer Services engineer has taken charge of the problem for investigation |
| Sign-Off | Problem has been resolved, awaiting confirmation from user that the problem has been satisfactorily resolved |
| Waiting | Before work can continue an action needs completing by external resources (e.g. waiting for spares or a software patch from the manufacturer |

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# Problem Escalation Procedure

Whenever a problem is logged at the HelpDesk, after initial assessment, it is classified and assigned a priority, as described above, and according to the classification and impact assigned to the appropriate support staff. The support staff calls the customer who reported the problem for further clarification on the problem. The engineer first tries to solve the problem over the phone, if this is not possible he attends to the problem on-site.

The first-line support staff are capable of resolving most problems at customer sites. In special circumstances, a systematic procedure ensures that problems are escalated immediately to second-line support staff for expert advice and assistance.

In order that problems are fixed as quickly as possible and so that there is a satisfactory level of awareness of problems that remain outstanding, levels of escalation apply. This ensures that, as problems remain unresolved, the status of the problem is visible to increasingly higher levels of customer and management. These people investigate the problem to ensure that sufficient resources are allocated to resolve it.

Note that these procedures do not apply to problems with a status of “Waiting”. These are problems that are no longer impacting service, but have a lower priority action remaining that needs to be completed before the call can be cleared. Waiting calls are monitored separately to ensure that they do not remain at this status for an unnecessarily long time.

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# Problem Resolution

#### Once a problem is resolved to the satisfaction of the customer, an Incident Report is generated by the support engineer and signed by the customer.

#### The HelpDesk Coordinator will close the incident only when a customer signed incident report is received.

#### Once the problem is closed the status is changed to Cleared, effectively closing the incident.