

SYSTEMS & FACILITIES

SECTION 1: FACILITY

- 1.1 Sunivy have the Premises and all Facilities and Premises-specific infrastructure necessary to operate the Call Center. In Ho Chi Minh, telemarketing operations will start in its vendor/ partner firm's facility, Sun Ivy, in X Building.
- 1.5 SUNIVY will ensure adequate power for uninterrupted Call Center operations through the use of redundant power supplies and provision of uninterrupted power supply ('UPS') power outlets.
- 1.6 SUNIVY will provide fire safety measures and precautions and building design features that meet all applicable Vietnamese Laws and regulatory requirements and, at a minimum provide adequate fire and smoke detection devices, fire extinguishing devices, fire escapes and adequate fire doors in its telemarketing office/s. SUNIVY will also be responsible for ensuring fire safety standards are adhered to and regularly tested including testing fire evacuation procedures with Personnel working in the Call Center from time to time.
- 1.7 SUNIVY will ensure that all employees working in the call Center premises will be in a reasonably safe and secure environment and that access to Confidential Information shall be strictly monitored and controlled. SUNIVY will provide suitable security arrangements and procedures, including building and floor access, onsite security guards and any other appropriate security procedures.
- 1.8 The Call Center's Agent Workstations shall be ergonomically designed to ensure optimal agent comfort while doing outbound calls. The workstations' dimensions are as specified in the layout plan in this manual.
- 1.9 SUNIVY's Call Center shall be equipped with the following common facilities:
 - Meeting Room/ Boardroom that can fit-in 1 Team (22 pax)
 - Pantry enough to accommodate 3 Telemarketing Teams
 - Training Room enough to accommodate simultaneously 2 Telemarketing Teams
 - Separate office space for all Support Staff (HR and Training, IT/ Technology, QA, Field Team, Finance and Administration)
- 1.10 Entry to the Communications or Server Room is to be located away from a high traffic area of the Call Center. The Communications Room shall have no windows or glass panelling enabling persons outside the room to see its content and minimal and unobtrusive signage must be used to indicate the Communications Room's purpose or its contents.

- 1.11 All IT equipment will be owned and operated by SUNIVY and Sun Ivy. There will be no CUSTOMER-owned network equipment that will be located in the SUNIVY's Communications Room. For every two active communications racks, one passive rack (for patching & floor distribution) shall be provided. SUNIVY shall ensure that all redundant equipment is supported and powered in separate racks.
- 1.12 Power facilities for the Communications Room will be UPS. Completely separate power distribution (from the main distribution board) shall be deployed to dual power rails inside each active rack. SUNIVY will ensure that temperature control is separate from the call Center premises and will be monitored. A 24-hour temperature control will be guaranteed.
- 1.13 SUNIVY, through its partner Sun Ivy, will provide dual diverse transmission access to the Communications Room at the call Center. This requires diverse entry points and cable run all the way from the cable landing sites to the Communications Room.
- 1.14 SUNIVY will provide secure and authenticated entry to the room housing the UPS & Distribution Switch Panel that is responsible for delivering power to the Communications Room and server rooms.
- 1.15 Access to the Communications Room will be via a single door that is separately zoned within the Premises' security and access system. The door will have its own proximity card badge reader to register all entries and exits for the Communications Room.
- 1.16 Proximity card access to the room will only be granted to those personnel who need access to the Communications Room as part of their daily role. All contract personnel not employed by SUNIVY or its partners who require access to the Communications Room must be accompanied by a member of the Facilities or IT staff for the entire duration that they are within the Communications Room.

2. Disaster Recovery

- 2.1 SUNIVY will be responsible for the provision of site redundancy via its business partners' offices and back-up Centers in the event that the SUNIVY's site becomes unavailable.
- 2.2 SUNIVY shall be responsible for promptly advising CUSTOMER of any circumstances that would necessitate the adoption of disaster recovery measures.

- 2.3 In the event that the site is unavailable for any reason, SUNIVY shall be responsible for any restoration activities required on-site or in its area of network control and for prompt advice to CUSTOMER of the ability to revert to normal telemarketing operations.
- 2.4 SUNIVY and its business partners will prepare the documentation of business continuity procedures, and all relevant sections will be provided prior to cutover.

SECTION 2: IT INFRASTRUCTURE

This section outlines the IT infrastructure of SUNIVY's Telemarketing Center. SUNIVY's strategy for IT systems deployment is outlined below:

1. Hardware Required

1.1 SUNIVY shall provide the following equipment, materials and software in its telemarketing call Center to use to assist it to provide the Services:

- LAN application servers, with enough operating capacity
- Standard desktops, configuration as per specification.
- Standard servers, configuration as per specification.
- If necessary or applicable, network-attached storage/ server for business applications
- Redundant wide area network

1.2 SUNIVY shall provide the following desktop equipment for its vital telemarketing call operations and support:

Minimum Desktop Configuration (FPT Lead or CMS Desktop)	
Processor	2.8 GHz Pentium 4., Multithread
Memory	512Mb DDR 2 SDRAM.
Storage	60GB minimum
Monitor	14 to 17 inch TFT (minimum SXGA capability)
Chipset	As is current with the PC vendor, but should have a minimum working life of 24 months
Video card	Minimum 32Mb memory, chipset as is current with the vendor, but should have a minimum working life of 24 months
Sound card	Minimum SoundBlaster 16 compatible.
Network	10 / 100Mbit/1 Gigabit Ethernet , Wake on LAN support & PXE boot support
Ports (Minimum)	1 Serial, 1 Parallel
Input Devices	101 Key Keyboards, Optical Mouse
Footprint	SFF

- 1.3 All desktops will have no CD/RW, DVD/RW or USB ports.
- 1.4 Only the support team and management can connect laptop computers to the LAN.
- 1.5 SUNIVY and its technology partner/s shall provide servers to the following configuration, which are to be installed in a compatible communications rack. The rack and all servers are to be located within the secure Communications Room.

Sample Specifications for Server (Shown below is IBM Blade)	
Processor	3.0GHz Nocona EM64T, Dual 3.0GHz Xeon DP Processor 1MB L2 Cache
Memory	4GB SDRAM
Storage	2x40GB IDE 2x73GB SCSI CD-R Drive
Network	2x10/100/1000 Ethernet connected to chassis, with Wake on LAN support, PXE boot capable
Ports (Minimum)	1 Serial, 1 Parallel, 2 USB II, Infrared
Input Devices	KVM
Chassis	8x10/100/1000 ports on its own switch 4x2Gb fibre ports on its own switch

- 1.7 Servers will provide the following services to the SUNIVY's desktop machines via the Center's LAN:
 - Directory services
 - Exchange services
 - Management layer services
 - Antivirus services
 - Print services
 - Terminal services

1.8 Backup and Restore

- 1.8.1 All calls are to be recorded and kept for a minimum period of 180 days; Customer will have the rights on the recordings as the client.
- 1.8.2 SUNIVY will back up the servers using adequate equipment with a minimum 300GB memory.
- 1.8.3 Sunivy will provide adequate tape media to allow 2 generations of backup to be stored.

2. Software Provided

- 2.1 SUNIVY will provide all business related applications to desktops used for telemarketing. Sunivy will be required to access these applications and use them from the Call Center to provide the Services in accordance with CUSTOMER's required processes and procedures from time to time.
- 2.2 Sunivy must obtain, at its sole cost, software licenses and related maintenance and support services for the following software. Adequate licenses must be obtained for all its personnel who will perform the Telemarketing, Training, and other support purposes:

Base Desktop SOE Software Applications			Required for		
Category	Application Name	Version	Telemarketers	Team Leaders, Managers, QA	Support Personnel
Operating System	Microsoft Windows	XP	✓	✓	✓
Browser	Internet Explorer	7.0	✓	✓	✓
PDF Reader	Acrobat Reader	7.0.5	x	✓	✓
Productivity Suite	MS Office Professional		x	✓	✓
Java Client	Sun Java JRE		✓	✓	✓
Multimedia Suite MPEG Player	Windows Media Player		x	✓	✓
Multimedia Suite Real Video Player	Real Player	8.0	x	✓	✓
Multimedia Suite Flash Player	Macromedia Flash Player	8.0	✓	✓	✓
Shockwave	Shockwave Plug In		x	✓	✓
Quicktime	Quicktime	6.3	x	✓	✓
Visio Viewer	Microsoft Visio Viewer	2002	x	✓	✓
Anti Virus	TrendMicro, NOD32, Norton, etc.		✓	✓	✓
Data compression	Winzip	8.1	x	✓	✓
Terminal Emulation	TTWIN (including SSH)	3.6.1	✓	✓	✓
Database connectivity			✓	✓	x
Remote Control Tool	Microsoft Terminal	5.7	x	x	✓(IT

Base Desktop SOE Software Applications			Required for		
Category	Application Name	Version	Telemarketers	Team Leaders, Managers, QA	Support Personnel
	Service				only)

- 2.3 Sunivy will be responsible for procuring any software or licenses necessary to enable their Telephony System or ACD to communicate both historical and real-time information.
- 2.4 As part of CUSTOMER's future plans in applying the web-based CRM services (Software-as-a-Service solutions) from Salesforce.com, SUNIVY will guarantee that their systems will be fully employable and compatible, once CUSTOMER shall implement or use the said CRM services.

3. Change Management

- 3.1 Sunivy will provide CUSTOMER reasonable written notice of any upgrades or changes to its IT Infrastructure and IT Services that may impact telemarketing operations.
- 3.2 Sunivy may add, modify, alter or change any of the IT Infrastructure without the prior written approval of CUSTOMER. Sunivy will provide CUSTOMER with reasonable written notice of any initiated changes to the IT Infrastructure used to provide telemarketing operations.

4. Roles & Responsibilities

The following definitions are used for the IT support levels identified, as agreed with SUNIVY's business partner Sun Ivy (Sun Ivy has 24X7 IT support and helpdesk system in-place, complemented by experienced IT engineers and staff):

- 4.1 Level 1 IT support provides for the logging and initial analysis of all hardware, software, desktop and network faults. Level 1 Support includes, but is not limited to, the following activities:
 - Logging/ Documenting a service fault
 - Initial analysis, including basic connectivity and power checks, aimed at determining whether the problem is an IT or telecommunications problem and the service area responsible for problem management.
 - Low-level activity to isolate and resolve the problem including, but not limited to, port resets, password resets, and user account resets.
- 4.2 Level 2 support is detailed analysis to isolate and resolve hardware, software, desktop and network faults that have not previously been resolved by Level 1 support. Level 2 support includes, but is not limited to, the following activities:

- Analysis by an IT specialist support personnel to isolate and solve the problem
 - Hardware and software scheduling and monitoring
 - Hardware and software change management
 - Establishing work-arounds and root cause analysis
 - Executing, monitoring and restoring storage backups
- 4.3 Level 3 support is expert analysis to isolate and resolve hardware, software, desktop and network faults that have not previously been resolved by Level 2 support. Level 3 support includes, but is not limited to, the following activities:
- Analysis by a senior IT specialist and subject matter experts to isolate and solve the problem. This includes analysis undertaken by development engineers, programmers and architects.
 - Business application data fixes and data cleanup
 - Business application table fixes
 - Ongoing hardware and software capacity monitoring, planning and reporting
 - Preventative maintenance.
- 4.4 Sunivy, though its partner Sun Ivy, shall be responsible for providing Level 1 to 3 IT and Technology support in the telemarketing Center.
- 4.5 Sunivy will enforce the desktop/LAN user ID and password protection mechanisms including password aging, password complexity, password encryption and password storage and transmission in accordance with SUNIVY's directions. All user-chosen passwords for computers and networks shall be difficult to guess. Sunivy will ensure that its personnel/ users must not construct passwords which are identical or substantially similar to passwords that they had previously employed. Sunivy will ensure that its personnel users must change their passwords at least once every ninety (90) days.
- 4.6 The only exception to the previously mentioned control (item 4.5) is for machine-to-machine or application-to- application accounts. Where these accounts exist, they must not be used by end users. All other controls in this standard still apply.
- 4.7 When a user is given a password to access a system, they must change the password immediately after the first logon.
- 4.8 Sunivy will only grant its personnel (in the call Center) access to systems on a strictly need to know and job role basis. Sunivy will ensure that its systems provide a full audit trail available for every system access request and provide the results of the audit trail to CUSTOMER only upon request. System access

requests include granting of new access rights, changing existing access rights, or removing access rights for a user.

- 4.9 Sunivy will provide all levels of support required for the desktop, and printer devices connected to their LAN, including moves, adds and changes.
- 4.10 Sunivy will provide all levels of support for the servers located in the Communications Room and connected to its LAN.
- 4.11 If applicable/ required, Sunivy will comply with CUSTOMER application support processes from time to time that are required to facilitate the provision of telemarketing services.

5. Support Processes

- 5.1. All new SUNIVY Personnel user requests will be processed using an internal registration process for indirect resources.
- 5.2. The SUNIVY IT Team will use the internal registration process as means for user name registry, troubleshooting purposes, and audits.

6. Helpdesk and Problem Management

- 6.1. Sunivy's partner Sun Ivy will provide IT support services. Hours of IT support provided will support the overall hours of operation for the provision of the Telemarketing Services.
- 6.2. Sunivy will provide an IT/systems/network help desk (Help Desk) to manage to resolution all desktop and server problems (Level 1, Level 2 and Level 3) for the server hardware identified.
- 6.3. Sunivy will have a 24x7 hotline number for a help desk that SUNIVY will establish to be used to manage and resolve end-to-end faults within the IT Infrastructure. Sunivy's help desk will maintain a 24x7 onsite contact list which will can be shared with CUSTOMER on a predefined frequency.
- 6.4. Sunivy's Personnel will log a problem with Sun Ivy's Help Desk, who will take responsibility of managing the problem to resolution

7. Notification & Escalation

- 7.1. Sunivy will inform CUSTOMER by phone of all incidents that are likely to impact Sunivy's ability to comply with the Telemarketing Services. Notification must be

made to a nominated staff member. The nominated staff member's contact details will be noted and kept current with Sunivy's and Sun Ivy's internal Help Desk processes and procedures.

- 7.2. Sunivy will nominate Personnel to be added to internal SLA IT escalation list that will be presented to CUSTOMER. Sunivy will provide the names and contact details for these Personnel to be added to internal escalation systems.
- 7.3. Sunivy will set in place procedures, to be complied by Sun Ivy, for any support request to be escalated if not resolved within the following nominated periods:
 - 15 minutes
 - 60 minutes
 - 90 minutes
 - 120 minutes

8. IT Infrastructure Implementation

- 8.1. Sunivy will provide CUSTOMER with the details of all testing of the solution to be undertaken prior to the first call. This includes testing of the network infrastructure, voice applications, IT Infrastructure and IT applications to be provided (pursuant to SUNIVY and CUSTOMER's agreement).
- 8.2. A network penetration test and IT system penetration test shall be conducted, which must be successfully completed for the IT network solution to be fully accepted prior to the first call. This will also be done during the post fit-out period in the new center. The tests will be conducted by a Manila IT Representative from SUNIVY and Sun Ivy, who will classify the security faults found during the penetration test as major or minor faults. Sun Ivy must rectify all faults in their IT and network systems identified by the penetration test at their sole cost after being advised of the faults.

SECTION 3: NETWORK SERVICES

1. This section defines the Network component of the telephony and network solution, which will be used to deliver the telemarketing services. The Network solution is composed of the following key characteristics:
 - a) Sunivy, through its partner Sun Ivy, will have the required Network in Ho Chi Minh (including owning a "Voice over IP" PABX to support the requirements of the Call Center and Services).

- b) Sunivy will implement a “Voice over IP” based Network solution to provide the Services. Specifically, Sunivy’s VoIP PABX in Ho chi minh will control, manage and route calls to the Call Center on Sunivy’s Network in the Vietnam.

2. SUNIVY’s Site in Ho chi minh

- 2.1 Sunivy, c/o its partner Sun Ivy, has already (in-place) the network equipment required in Ho chi minh to deliver Sunivy’s telemarketing services (described in this section) for CUSTOMER.
- 2.2 The LAN/ WAN interconnectivity and diverse network access are now in-place in SUNIVY’s Ho Chi Minh premises (These premises will be referred to as Sunivy’s communications room for the purposes of this section).

3. SUNIVY’s Equipment to be situated in Ho chi minh

- 3.1 SUNIVY will provide and situate in Ho Chi Minh the components of Sunivy’s Network required to deliver ideally an Automatic Call Distribution (ACD) functionality to support the Telemarketing Services. The key component of this Network will be a “Voice Over IP” PABX.
- 3.2 SUNIVY will provide or procure all the necessary support, maintenance and monitoring of Sunivy’s Network supporting the provision of the Telemarketing Services.

4. ACD and ICM Functionality

- 4.1 Sunivy will provide VoIP PABX with software version supporting CRM Applications required or used by CUSTOMER (i.e. Salesforce.com).
- 4.2 The ACD system will support the following:
 - a) VoIP agents with voice codec to minimise bandwidth utilisation.
 - b) Dual links for system redundancy (Ideal)
 - c) Call Transfer with:
 - i. External call transfer and two or three way conferencing.
 - ii. Least cost routing programming with short code dial transfer codes to be programmed to allow telemarketers to transfer calls to queues in the internal system.

- iii. Ability to make an inquiry call while a customer is on hold and then transfer, take back or three-way conference with the other SUNIVY Personnel and the customer. Sunivy's Personnel would then be able to withdraw or take the call back as required.

4.3 Sunivy will ensure that there are adequate mechanisms in place to prevent Sunivy's Personnel and other users from originating or receiving unauthorised calls (eg: calls that do not relate to the purposes of this agreement such as originating personal calls to Ho chi minh; receiving personal calls from Ho chi minh etc).

5. Call Recording

5.1 Sunivy will provide a call recording application for the purpose of monitoring SUNIVY Personnel performance. CUSTOMER has no requirement as to the make/model of this application as long as the functionality defined below can be offered:

- a) The Call Recording device will reside in physical proximity to Sunivy's platform, thus ensuring all recordings are physically stored in Ho chi minh, thereby eliminating any potential restrictions from privacy legislation.
- b) The access to the call recording application (either by SUNIVY's personnel or CUSTOMER staff remotely) shall be secure. It will be possible for levels of access to be defined on a user basis: users will require passcodes for accessing the system and a log of user ids must be securely maintained and updated to guarantee only qualified people receive and retain access to the call recording application.
- c) Physical storage of recorded calls shall be within a secure environment with controlled access mechanisms. This applies also to any archived tapes or storage devices.
- d) Recorded calls will be available or archived for a maximum of 180 days before deletion. CUSTOMER can access an archived call upon request, although any request made on a Friday, Saturday or Sunday may be provided on the following Monday.
- e) Sunivy will ensure that the equipment it uses in the Call Center complies with the requirements of the Vietnamese Communications Authority.

6. Headsets / Handsets

- 6.1 The choice of headset to be used by Sunivy's Personnel performing the Telemarketing Services is at Sunivy's discretion. However, Sunivy can notify CUSTOMER of the brand and model of devices to be used.
- 6.2 Choice of handset will be largely determined by the ACD deployed by Sunivy. Sunivy may choose hard or soft phone options according to preference.

7. Voice Quality

- 7.1 Sunivy will maintain voice quality of maximum MOS 3.8 (Mean of Scores-International Telecommunications Union standard).
- 7.2 Sunivy will calculate and determine the bandwidth required for the support of the number of telemarketing calls specified, for both voice and data from Sunivy's Ho Chi Minh communications room. This calculation will be performed with the use of Voice codec G.729 and also must include any data component required to maintain and monitor the ACD platform in Ho chi minh. This will set the VPN bandwidth within the data Network (traffic).
- 7.3 Sunivy shall ensure that any remote maintenance activity and monitoring activity is confined to the above specified bandwidth (and VPN), and will always occur without impacting on the Voice Quality specified above.

8. Data Network

- 8.1 Sunivy will provide dual 100M Ethernet LAN interfaces to Sunivy Network.
- 8.2 Sunivy shall provide adequate protection in terms of fire walling between Sunivy's Network and the WAN.

9. Capacity Management

- 9.1 Sunivy will maintain and monitor transmission capacity to be employed, in order to manage both the data and voice networks traffic. Included in this will be a process to report utilisation of each network component on a monthly basis to determine extra build requirements should they be required, or should the telemarketing call center operations capacity shall increase.

10. Support of CUSTOMER Provided Equipment in SUNIVY's Ho Chi Minh Site

- 10.1 Sunivy will maintain a suitable environment in accordance with relevant equipment manufacturer's specifications, for any Transmission and Data Equipment housed on Sunivy's Ho Chi Minh communications room.
- 10.2 SUNIVY will provide all levels of support for all Transmission and Data Equipment.
- 10.3 Sunivy will provide 24x7 access to its Personnel and sub-contracted personnel for the purposes of equipment routine maintenance, fault trouble shooting, and testing for the Transmission and Data Equipment.
- 10.4 Sunivy shall provide fire safety measures and precautions and building design features that meet all Ho Chi Minh or Vietnamese Laws and regulatory requirements and, at a minimum provide adequate fire and smoke detection devices, fire extinguishing devices, fire escapes and adequate fire doors. Sunivy shall also be responsible for ensuring fire safety standards are adhered to and regularly tested including testing fire evacuation procedures. However, test evacuations must not to interfere with provision of Telemarketing Service to CUSTOMER. Sunivy shall inform CUSTOMER within a reasonable time before any proposed test evacuations specifying what steps are to be to be adopted to ensure continued provision of the Services.
- 10.5 Sunivy will ensure adequate power for uninterrupted services 24x7, 365 days per year, through the use of redundant power supplies and provision of UPS power outlets. Sunivy shall put the power systems and processes in place to ensure Transmission and Data Equipment have uninterrupted power, and present this to SUNIVY in-charge for review and approval at least 30 days prior to the Commencement Date. The power requirements include the following:
- a) At least 2 x 240VAC outlets per rack
 - b) Completely separate power distribution (from the main distribution board) to dual power rails inside each active rack. All redundant network equipment to be powered from alternate distribution groups
- 10.6 Sunivy will ensure that temperature is alarmed. A 24-hour temperature control shall be guaranteed. Monthly changing of microfilters in the air conditioning system must be ensured to maintain air quality and airflow. The environmental conditions must in the ranges as follows:

- a) Environment Humidity: 50% +/- 5%.
- b) Room Lighting: 400 lumens.
- c) Temperature Range: 21 degrees Celsius +/- 1 degree.
- d) Clear height above floor: 3 Metres from tiled floor.
- e) Raised floor min clearance: 500mm.
- f) Cabling access min clearance 500mm.
- g) Room air flow: 190Litres per Square Metre per second.

10.7 Sunivy will ensure that all Personnel working in the Ho Chi Minh Communications Room or who are in the Premises to perform services generally in relation to this Agreement will be in a safe and secure environment and that access to secure information is strictly monitored and controlled. The following is required in terms of security:

- a) Access to the room will be via a single door that is separately zoned within the building's security and access system.
- b) The door will have its own proximity card access and CCTV camera to register all entries and exits.
- c) Proximity card access to the room will only be granted to those personnel who need access to the room as part of their daily role.
- d) All contract staff not employed or engaged by Sunivy to perform part of the services hereunder who require access to Sunivy's Ho Chi Minh communications room shall be accompanied by a member of Sunivy's staff or Sunivy's approved 3rd party staff for the entire duration they are within the room.

10.8 Sunivy's Network in Ho Chi Minh used in connection with the provision of the Services or otherwise supporting the provision of the Services must be housed on raised flooring. The communications room at will also have a false ceiling to assist cabling requirements.