

This Product Support Policies and Procedure Document (“Procedure Document”) sets forth the policies and procedures that govern how Advanced Network Technology Laboratories Pte Ltd, (“ANTlabs”) will deliver support services to Customers of ANTLabs products. This Procedure Document should be read in conjunction with the **Product Support Agreement** and the **Product Scope of Support** documents. ANTLabs, at its sole discretion, may change this document at any time. The most current version of this Procedure Document can be found on ANTLabs Support Portal.

## Product Support Policies and Procedures

### 1 Definitions

In all Product support matters, the following definitions shall apply:

1. **Product Support Agreement:** Refers to the specific details of the support agreement between ANTLabs and the Customer, defining Type of Coverage, Customer information and InnGate product information.
2. **Product Scope of Support:** This document explains the policies and procedures on how to activate the relevant ANTLabs support for different scenarios.
3. **ANTlabs Support Portal:** Refers to <https://www.antlabs.com/support>
4. **Support Contact:**
  - a. **Phone:**
    - i. **SG:** +65-6100-SUPP (+65-6100-7877)
    - ii. **US:** +1-858-2175147
  - b. **Email:** tech-support@antlabs.com
5. **Business Day:** Refers to local business day, subjected to local definition of work days and public holidays.
6. **Products.** The following are supported products
  - a. InnGate E/G series
  - b. IG 3100
  - c. IG 4 series
  - d. SG 4 series
  - e. ANTLabs Cloud Services (ACS)
7. **Accessories.** The following are support accessories:
  - a. Account Printer AP2100
  - b. Account Printer AP3100
  - c. IG 3100 power adapter
  - d. IG 4110, IG 4100 and IG 4101 power adapter
  - e. 10 GB cards
  - f. SG 4 - SFP+ Multi-mode SR Connectors
  - g. SG 4 - SFP+ Single-mode LR Connectors
  - h. SG 4 - SFP+ Copper RJ-45 30m Transceiver Connectors
  - i. SG 4 – 10 GE Fibre / UTP upgrade
  - j. IG 4210 - 10 GE Fibre Upgrade (per gateway)
  - k. IG 4210 - SFP+ Multi-mode SR Connectors
  - l. IG 4210 - SFP+ Single-mode LR Connectors
  - m. IG 4210 - Sliding Rails Mounting Kit

## 2 Support Activation Procedure

Contact the provided Support Contact for further assistance. The following information should be ready before engaging the Support Contact:

- **Hardware/Software Serial Number:** This will be needed to verify support, warranty and subscription information.
- **IP Address:** Of the gateway to allow remote support. TCP ports 443 and 6000 are needed to be opened.
- **Admin GUI Login Credentials.** This can be a separate account from the main administrator account, specifically reserved for ANTLabs support personnel use. Optionally, the support team may request console login credentials also.
- **Date and Time of Occurrences.** Kindly indicate the time zone of the gateway in question.
- **Description of Problem:** Type of deployment [e.g. hotel, enterprise, hotspot etc.], exact error messages, can the error be duplicated, what are the steps to duplicate the error / fault, changes to network diagram
- **Highlight on any recent changes/upgrades**
- **Results of initial diagnostics and tests performed**
- **Current Configuration**
- **Support contact information.** (Phone number, hand phone number, email address, if different from the Customer Contact information)

If the fault is determined to be a hardware issue, the RMA procedure will be activated. If the fault is determined to be a software issue, the Software Fault Investigation procedure will be activated. A copy of the backup Product Configuration file will be required.

## 3 Returns Material Authorization (RMA) Procedure

### 3.1 General RMA Procedure

1. Information Gathering. Gather the following information for ANTLabs Support Personnel:
  - a. Date and time of occurrence
  - b. Description of the reported issue and current state.
  - c. Hardware and/or software serial number.
2. Perform Visual Inspection
  - a. IG 3100 / IG 4100 / IG 4110
    - i. Ensure the unit is connected to power source.
    - ii. Verify the power adapter LED is lighted up in green when power is on.
    - iii. Verify the Power LED is lighted up in green on the hardware at the front panel indicated
    - iv. A single beep during the boot up process before RAM check is run. (2mins to 2.5mins to be fully booted up)
  - b. InnGate E- / G-series / IG 4200 / IG 4210
    - i. There should be a blue LED lighted up when power source is connected.
3. Functionality Test
  - a. IG 3100 / IG 4100 / IG 4110
    - i. LAN, WAN Ethernet Ports
      1. Link LED will light up in green when it detects network link state (link speed at 100 Based-T).

2. If the link LED light up in red, it just only mean that it is negotiated at 1000 Base-T.
3. Verify if able to get DHCP IP address when directly connected to the LAN port.
4. Verify if able to access the admin GUI via the WAN Ethernet port using peer to peer connection.
  - ii. Connecting serial cable to verify if InnGate login prompt is present.
  - iii. Attempt to restore to factory default.
- b. InnGate E- / G-series / IG 4200 / IG 4210
  - i. Perform hardware diagnostic test and provide the test results to ANTLabs with what has been gathered (see section 5: Hardware Diagnostic Procedure)
4. Download a copy of the RMA Request Form. (From ANTLabs support portal, under RMA procedure)
5. Complete the RMA Request Form and fax/email it back to us.
6. ANTLabs will contact you to determine the RMA requirements and issue you an RMA number. Continue the listed procedure below based on the type of RMA you have.

### 3.2 Standard Hardware (HW) RMA

Under this option, the customer can report a faulty hardware unit to ANTLabs support. Upon confirmation of the hardware fault, the standard RMA process will be triggered. A replacement unit will be shipped out to the customer on the next business day (Singapore Time) after ANTLabs receives the faulty unit<sup>1</sup>. The replacement unit may be new or refurbished at the discretion of ANTLabs.

1. Enter the RMA number onto the RMA Request Form. All returns must be accompanied by an RMA Request Form with a valid RMA number issued by ANTLabs. No returned material will be accepted without a valid RMA number.
2. Attach a copy of the original sales invoice to the RMA Request Form. All returned items must be accompanied by a copy of the original sales invoice to avoid any delay in processing.
3. Ship the RMA unit back to ANTLabs, including the RMA Request Form and Sales Invoice.

The faulty unit must be returned to ANTLabs authorized distributor within twenty (20) days. If not, the full purchase price will be charged to the customer.

This option is only available to IG 3100, IG 4100 , IG 4110 and Accessories.

### 3.3 Advanced Hardware (HW) RMA

This is an enhancement to standard hardware RMA, which improves the turn-around time for the customer.

Under this option, the customer can report a faulty hardware unit to ANTLabs support. Upon confirmation of the hardware fault, the RMA process will be triggered. A replacement unit will be shipped out to the customer on the next business day (Singapore) after ANTLabs receives the completed signed RMA request form before 16:00 (Singapore Time) Monday to Friday<sup>1</sup>. The replacement unit may be new or refurbished at the discretion of ANTLabs.

<sup>1</sup>ANTlabs will use reasonable effort to ship out the replacement unit. However, response time may vary, subject to local customs regulations or replacement unit availability.

1. Enter the RMA number onto the RMA Request Form. All returns must be accompanied by an RMA Request Form with a valid RMA number issued by ANTLabs. No returned material will be accepted without a valid RMA number.
2. Attach a copy of the original sales invoice to the RMA Request Form. All returned items must be accompanied by a copy of the original sales invoice to avoid any delay in processing.
3. Ship the RMA unit back to ANTLabs, including the RMA Request Form and Sales Invoice.

The faulty unit must be returned to ANTLabs authorized distributor within twenty (20) days. If not, the full purchase price will be charged to the customer.

This option is only available to IG 3100, IG 4200 and IG 4210

### 3.3.1 NBD (Next Business Day) Onsite Servicing

This is an advanced hardware replacement / servicing option whereby replacements parts and our support engineer are sent to customer site on the next business day upon confirmation of RMA.

The End User information (customer name, address, contact number) must be present to activate this level of RMA service. Refer to the ANTLabs Support Portal or [Appendix A](#) for a sample of the form. Incorrect or incomplete information about the End User will result in this service delivery and may affect the promised service level agreement.

ANTlabs Support personnel will arrange a mutually agreeable time (with Monday - Friday from 9:00 to 17:00 excluding normally observed local holidays) for the field engineer to be onsite at the End User location to perform the required hardware replacement.

## 4 Software Patches / Hot Fix

ANTlabs will release software patches on a 4-mth cycle at least for non-EOL products. They are typically released in January, May and September. Each patch release may include feature releases, bug fixes and security enhancements. The details of the functionality of the patch will be detailed in the accompanying Patch Release Notes.

A Hot Fix may be released on an as-needed basis to address urgent issues and/or security vulnerabilities within supported products.

## 5 Hardware Diagnostic Procedure

This procedure applies to the following product models:

- InnGate 3.01 E-Series
- InnGate 3.02 E-Series

- InnGate 3.02 Rev.A E-Series
- InnGate 3.10 E-Series
- InnGate 3.10 Rev.A E-Series
- IG 4200
- IG 4210
- SG 4200
- SG 4210
- SG4220
- SG 4300
- SG 4400
- SG4410

Diagnostics of our gateways will be carried out using Diagnostics Quick Tests--one of the options available from the boot menu of the USB Flash Drive for Recovery & Diagnostics (a.k.a. USB installer).

The USB installer comes pre-installed in the following product models:

- InnGate 3.10, 3.10 Rev.A
- IG 4200, 4210
- SG 4200, 4210, 4220, 4300, 4400 and 4410

It does not come pre-installed in the 3.00, 3.01 and 3.02 versions. In the latter cases, the respective USB installer can be created from the appropriate USB images and then inserted into the external USB port of the appliance.

Product Models	USB Installer
InnGate 3.01 E-Series InnGate 3.02 E-Series InnGate 3.02 Rev A E-Series	Insert into external USB port
InnGate 3.10 E-Series InnGate 3.10 Rev.A E-Series IG 4200 IG 4210 SG 4200 SG 4210 SG 4220 SG 4300 SG 4400 SG 4410	Comes pre-installed in appliance

In the log listing, failure is where the text '**Fail**' is highlighted in red. In reporting a failure, it is important to include the Error Code.

The log file should be saved and will be used to support the RMA.

The USB installer's diagnostics option supports saving the diagnostics log file to a FAT-formatted USB drive. This is possible only if the FAT-formatted USB drive is inserted before the BIOS boots up. The log file is saved in DDMMYYsh.txt format.

## 5.1 Diagnostic Steps

### 5.1.1 Prerequisite

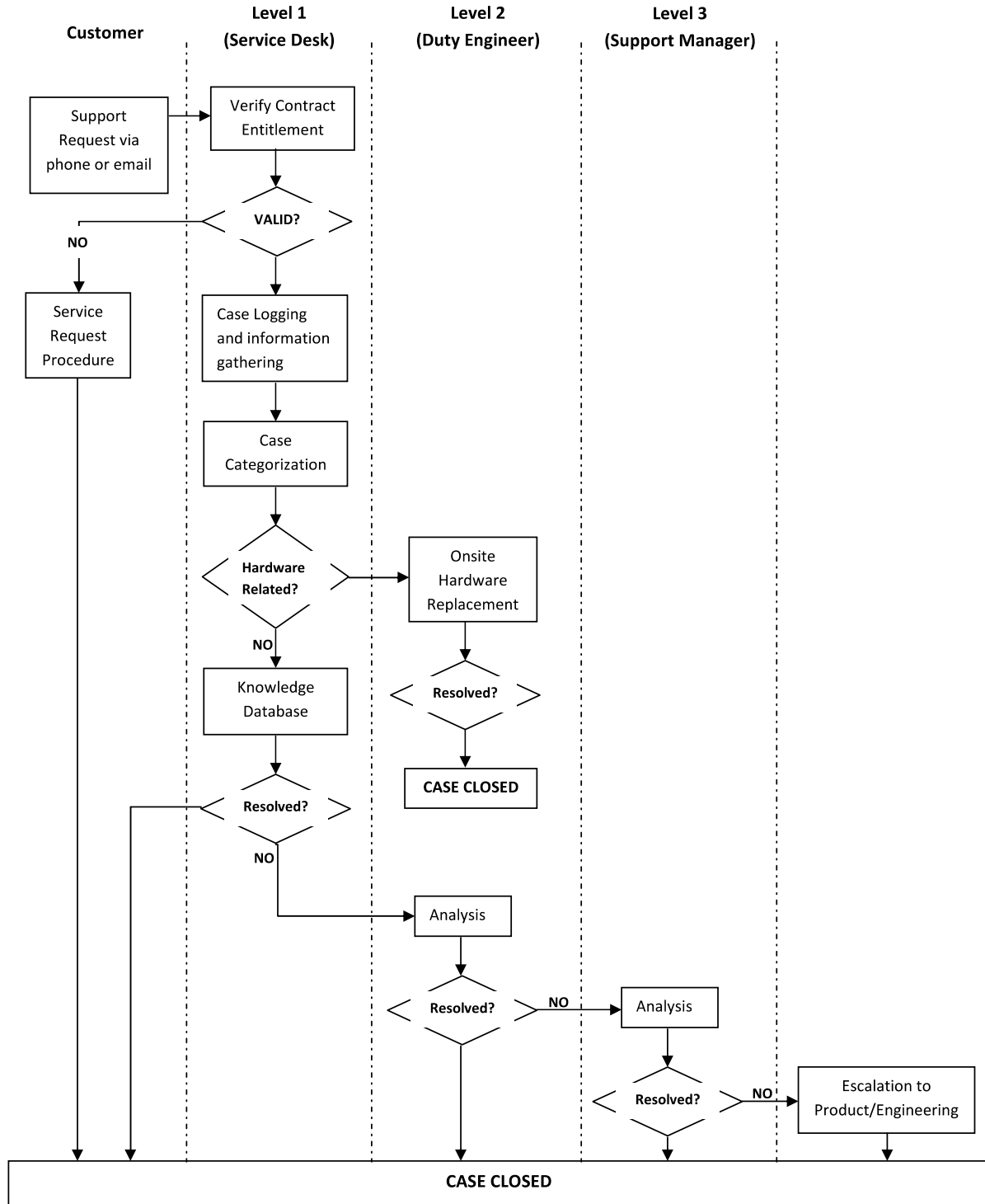
- Access to the machine with the suspected fault
- FAT-formatted USB drive

### 5.1.2 Steps

1. [**For InnGate 3.0x versions only**] Insert USB installer into external USB port.
2. Boot into the USB installer's Recovery & Diagnostics menu. Intercept menu within 3 seconds by pressing Up/Down arrow key.
3. Activate the **Diagnostics Quick Tests** option. Should you see the warning "**No external USB drive detected**", it means the log file will not be saved. You will have to insert an extra USB drive and reboot (Go back to Step 1). If the system has successfully detected your extra USB drive, the log file shall be saved in that drive.
4. [**Proceed only if your external USB drive has been detected**] Press any key to start the diagnostics.
5. At the end of the diagnostics, you will see a reminder to look out for red-highlighted word 'Fail'.
6. Press any key to review the log listing.
7. Use Up/Down/Page Up/Page Down to scroll up/down the log listing.
8. Press <Esc> to exit the log listing.
9. The system shall prompt you to remove external USB drive. Press Ctrl-Alt-Delete.
10. Remove external USB drive. You should safe-keep the log file, which can be used to support RMA.
11. Press Ctrl-Alt-Delete to reboot. If you press any key, you will see the command prompt; you should still proceed to press Ctrl-Alt-Delete

## 6 Support Escalation Procedure

The following diagram illustrates the Support Escalation Procedure:



## 7 Severity Definitions and Response Times

The following are the Severity Definitions and Response Times, as determined by ANTLabs Support Personnel.

Severity	Situation	Definition	Action
<b>S1: Critical</b>	<p>An incident that results in a critical service impact for a Production System:</p> <ol style="list-style-type: none"> <li>1. A complete or substantial loss of service when using a Production System, or</li> <li>2. Major data loss or corruption making an essential part of the Production System, or</li> <li>3. Inability to use a mission critical application within a Production System</li> </ol>	<ol style="list-style-type: none"> <li>1. Production System crashes, freezes or hangs in multiple instances, which is affecting service quality for all users.</li> <li>2. Single or multiple key services unable to start, function and respond normally, which is affecting service quality for all users.</li> <li>3. Data corruption that impacts the normal functionality of system.</li> <li>4. No known existing procedural workaround for reported problem.</li> <li>5. Production System must be bypassed for resolution.</li> <li>6. It includes hardware related issues or fault for Production System</li> <li>7. Persistent occurrence of reported problem.</li> </ol>	<p><b>Follow-up Response</b> on the reported S1 problem: within 3 business days (typically within 1 business day)</p> <p><b>Workaround:</b> Within 3 to 7 business days</p> <p>Once a workaround is available, the problem will be downgraded to an S2 problem.</p>



Severity	Situation	Definition	Action
<p><b>S2: Major Impact</b></p>	<p>An incident that results in some service impact for a Production System, which affects a large number of users</p> <ol style="list-style-type: none"> <li>The functionality of the Production System is adversely affected.</li> <li>Certain functions within the Production System are disabled, but the Production System remains operable.</li> </ol>	<ol style="list-style-type: none"> <li>Single or multiple key services are unable to start, function and respond normally, which are affecting service quality for a large number of users</li> <li>Functionality degradation.</li> <li>No known or existing product workaround for reported problem.</li> <li>Vulnerability is exploited.</li> <li>Performance degradation even when adhering to system specifications.</li> <li>Procedural workaround is available (e.g. reboot, restart of service etc.)</li> <li>Random occurrence of report problem.</li> <li>Failure of one HA gateway</li> </ol>	<p><b>Follow-up Response</b> on the reported S1 problem: within 7 business days (typically within 3 business day)</p> <p><b>Workaround:</b> Within 7 to 14 business days</p> <p>Once a workaround is available, the problem will be downgraded to an S3 problem.</p>
<p><b>S3: Minor Impact</b></p>	<p>An incident that results in service impact for a Production System, which affects a few of specific users.</p>	<ol style="list-style-type: none"> <li>Functionality degradation / lacking for specific type of devices / software.</li> <li>No known or existing product workaround for reported problem.</li> <li>Vulnerability is exploited.</li> <li>Performance degradation even when adhering to system specifications.</li> <li>Procedural workaround is available (e.g. reboot, restart of service etc.)</li> </ol>	<p>Alternative workaround to be recommended.</p>

Severity	Situation	Definition	Action
<b>S4: No Impact</b>	An incident that results in no significant impact on service.  Informational in nature.	<ol style="list-style-type: none"> <li>1. Reports on documentation error or omission of information for existing documentation.</li> <li>2. Security vulnerability with the possibility of being exploited.</li> <li>3. Customer request for new features</li> <li>4. Customer request information on existing feature.</li> <li>5. All other customer requests.</li> </ol>	Alternative workaround to be recommended.

## 8 End of Life Policy

### 8.1 General

ANTlabs Product End-of-Life (EOL) Policy provides customers with a clear timeline of events when a product approaches its end-of-life and how it will be phased out. It provides certainty on how much longer a product will be support after the initial EOL announcements are made.

ANTlabs EOL Timeline is made up of 4 distinct stages, namely:

- EOL Advanced Notice
- EOL Announcement
- End of Software Support (EOSS) Date
- End of Technical Support (EOTS) Date

Each Category of Product will have a default minimum period for each of the above stages and other optional dates. The customer is directed to the specific EOL announcements for all the necessary details.

### 8.2 EOL Advance Notice

The EOL Advanced Notice is only given to Distributors and Resellers (“Partners”) and it serves to help the Partners to better manage their existing and new quotations to customers. An alternative replacement product will also be included in this notice. This advanced notice will typically be given at least one (1) month before the actual EOL Announcement.

### 8.3 EOL Announcement

The EOL Announcement is given (on ANTLabs' website) when a Product is about to enter its end-of-life phase. The announcement will give the actual EOSS, EOTS and other relevant dates that apply to the specific Product. A recommended alternative Product will also be provided to help the customer migrate from the EOL-ed Product to ensure minimal disruption to existing operations. This alternative Product would have already been launched and is generally available.

After the EOL Announcement, customers are still able to purchase new or to renew their existing Support packages for the Product, but planning should be initiated on putting in replacement plan based on the recommended Alternative Product.

Refer to section

Typical EOL Schedule for typical durations from EOL Announcement to EOS and other important dates.

### 8.4 End of Software Support (EOSS) Date

The next major milestone after EOS is the End of Software Support Date. This is the date from which no further patches (both feature enhancements and bug fixes) will be released.

Purchase or renewals of Support packages are allowed for the Product. However, the ability of the technical support team to resolve issues will be on a best effort basis. In addition, purchase of Software Modules is not permitted but upgrades of Software Licenses are still permitted.

Action	Allowable?
Purchase new Product	No
Purchase new Support package	Yes, up to EOTS Date, based on best effort basis.
Renew Support package	Yes, up to EOTS Date, based on best effort basis.
Purchase Software Module	No
Upgrade Software License	Yes

Refer to section

Typical EOL Schedule for typical durations of EOSS for various categories of Products.

### 8.5 End of Technical Support (EOTS) Date

The final major milestone in the Product EOL Policy is the End of Technical Support Date. After this date, purchase or renewals of Support packages are not permitted. This is the end of the Product's lifecycle.

Action	Allowable?
Purchase new Product	No
Purchase new Support package	No

Renew Support package	No
Purchase Software Module	No
Upgrade Software License	No

### 8.6 Typical EOL Schedule

Below is a diagram illustrating the key EOL milestones:



Figure 1 Product EOL Milestones

Refer to specific Product EOL Announcements for actual dates.

### 8.7 Warranty & Support

After the EOL Announcement, customers may continue to purchase new or to renew their existing warranty and support packages with ANTI labs up till the EOTS date. During the EOSS and EOTS periods, ANTI labs will continue to meet existing warranty and support obligations.

As for RMAs, if a chassis or a particular Field Replacement Units (FRU), (e.g. Physical Interface Card (PIC), Flexible PIC Concentrator (FPC), line cards, power supplies and fan trays) are no longer available, ANTI labs will replace the chassis or FRU with a unit of similar or enhanced capability. The replaced chassis and FRU (similar or enhanced version) will be covered by the existing support services contract.

ANTI labs reserves the right to charge for continued support services of any discontinued products. In addition, ANTI labs reserves the right to reduce or amend support services offerings available for renewal under this policy at any time in its sole discretion, with or without notice.

**Appendix A**

Form SA05

Ref No : SACIF -   -   -   **Customer Information Form**

The information provided in this document is for product registration purpose and allow ANTLabs to provide relevant support to all valid ANTLabs hardware and software. With effect from 01 Jan 2013, all Purchase Order to ANTLabs must attach this form with full customer information.

ANTLabs will handle information given in this document on a strictly confidential basis.

Purchase Order No : \_\_\_\_\_

**A: End-Customer Information**

Company Name : \_\_\_\_\_  
 Company Address : \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Country / State : \_\_\_\_\_  
 Contact Person : \_\_\_\_\_  
 Title / Position : \_\_\_\_\_  
 Contact Number : (        ) \_\_\_\_\_  
 Fax Number : (        ) \_\_\_\_\_  
 Email Address : \_\_\_\_\_  
 Hardware Serial No : \_\_\_\_\_ (For purchasing of software module)

**B: For Internal Use Only**

Received and Acknowledged by : \_\_\_\_\_

\_\_\_\_\_  
 Name / Signature

\_\_\_\_\_  
 Date / Time