Loop-iNMS Integrated Network Management System

Features

- User friendly GUI (Graphical User Interface)
- GUI client runs on PC/Windows 2000, or XP operating systems
- Server software runs on Sun Solaris or PC Linux.
- Database Server: Oracle 10g
- End-to-end service management
- Fully supports all SNMP functions including commands, alarms, and statistics gathering
- Scaleable up to 50 separate GUI clients concurrently logged into the iNMS server
- Allows viewing and printing of all node statistics and alarm reports. Configurable report design that provides routine and on-demand reports
- Enriched topology management integrated with GIS geographic maps (Optional Component) that provide zoom-in/zoom-out, drag-and-drop functionality Views, like optical cable connection, cross-connection, panel view, and resource tree increase service availability
- NE auto-discovery*
- Robust and reliable configuration management that scales to add additional network elements in distributed system architecture
- Efficient performance monitoring that real-time and history PM data at the NE level and circuit level.
- Alarm management that provides automatic notification via e-mail, GSM message (SMS)*, and audio alarm with advanced filtering system
- Root Cause Analysis (RCA) provides accurate fault diagnosis on NEs and managed circuits by status and severity levels
- System Access Security with Role-based user access control. The access privileges can be customized through any combination of operation functions, geographical locations/areas, and NEs
- Support Customer Management, Advanced Circuit Diagnostics, and server Self-Management
- Advanced optional functions include Docket Management (DM), North-bound Interface (NBI), Root Cause Analysis (RCA), Clock Distribution Map (CAM), System redundancy and protection (Disaster Recovery (DR) and High Availability (HA)) *

* Future Option

Description

Loop-iNMS, Integrated/Intelligent Network Management System, is a set of intelligent software programs used for providing a GUI (graphical user interface) for the management of a communications network containing Loop Telecom products, which can be categorized into 3 groups below:

(1) TDM Access, which includes E1 CSU/DSU, HDSL CSU/DSU, and IDSL CSU/DSU;
(2) Optical Transmission, which includes SDH ADM (Add-Drop Multiplex), WDM, FOM*
(3) IP/Ethernet devices*

The GUI feature runs on user supplied PC running Windows 2000/XP. Via LAN or WAN, up to 50 separate GUI clients can be concurrently logged into the iNMS.

Workforce management is facilitated by multiple levels of login security, which provide the network manager great flexibility in work assignments. The hierarchical grouping featuring cities, buildings, and rooms allow rapid access to the desired network elements. Automatic detection of network elements facilitates the topology construction procedure*.

All SNMP provided functions are available in Loop-iNMS. This includes the execution of all commands, the gathering of all statistics, and the display of all alarm conditions in real time. Maps and reports can be printed as well as viewed directly from the iNMS GUI clients.

The support of Southbound Interface with NEs includes SNMP v1, v2c, v3*, and more (upon request). The Northbound Interface support includes CORBA and more (upon request). Loop iNMS is flexibly designed in a way to support potentially all types of Southbound and Northbound protocol sets. Customization adaptation into different protocols is allowed and upon request.

Loop-iNMS Architecture
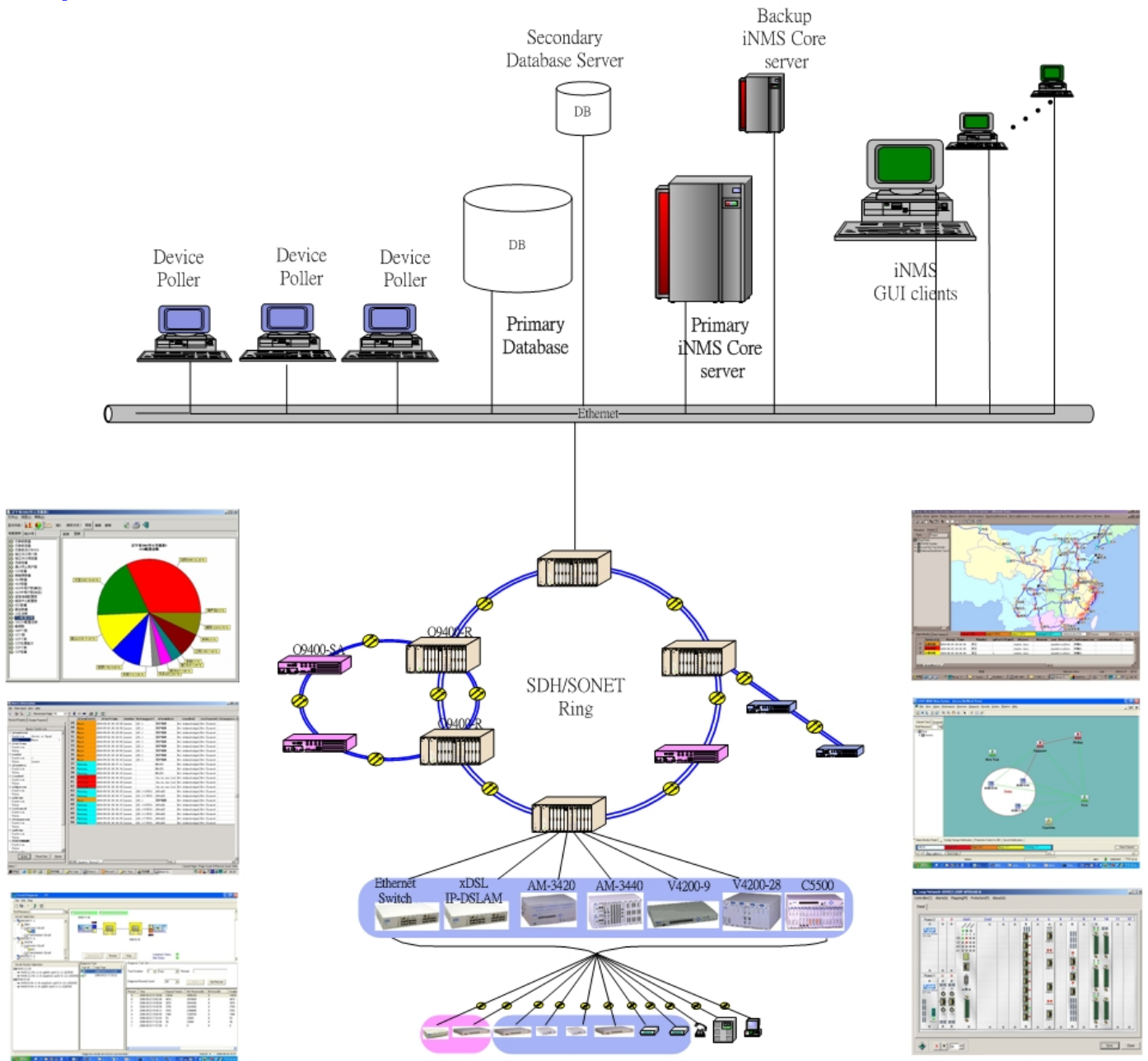
- The Loop-iNMS basic components are Device Poller, iNMS core and iNMS GUI Clients as shown in the top part of the diagram.
- The Loop-iNMS is capable of managing all the devices from Loop, as shown in the bottom half of the diagram.

iNMS Main Core

- Runs either on Solaris/Sun server or Linux/Regular PC server
- Self-sustaining iNMS core is the background engine supporting FCAPS services
- Optional Engine of advanced feature of "North-bound interface" is upon request
- Supports TCP/IP socket connections for DPs, iNMS server, Database server, and GUI clients running on different PCs and servers to manage a large network when required
- Redundancy option is supported

DP (Device Poller)
- Runs either on Solaris/Sun server or Linux/Regular PC server
- Manages the South-bound interface to the NE using SNMP protocol
- Provide regular polling of the current status of every NE
- Presents all real-time status change to iNMS GUI client for display
- Supports regular polling of Performance data
- Management Protocols supported between NE and DP are: SNMPv1, v2c, or v3 (Future Option)

GUI Clients
- Runs on Windows PC installed with Windows 2000 or XP Professional.
- Supports up to 50 concurrent GUI clients.

Loop-iNMS Basic Function

Topology Management
- Offers topology view for:
    - Optical cable connection topology
    - Transmission NE connection topology
    - Access NE connection topology
    - All NE connection topology
    - Panel view of equipment (NE)
    - Circuit Router view
    - NE internal cross-connection view
    - Menu tree view
    - Network monitoring view
- Supports zooming in and zooming out for topology views
- Allows users to create a desired layout to reflect the actual network
- Offers drag-and-drop approach for a user to create an NE icon

Configuration Management
- Provides configuration collection
- Supports multi-condition query, adding, deleting, and modifying operation on configuration information stored in the iNMS database
- Supports configuration synchronization
- Provides remote control on NE's configuration
- General Parameters Setting
- Activation & Release of Cross-Connections
- Synchronization clock-source setting
- Remote download of software for upgrading or maintenance
- Remote download NE configuration from NMS using NE original configuration file stored in NMS
- Provides NE-level cross-connection configuration

Circuit Management
- Provides circuit management for:
    - Setup
    - Deletion
    - Query
    - Modification
    - Display and Highlight on GUI topology
    - Database commitment for circuit information
- Provides multi-conditional query, adding, deleting, and modifying operation on circuit information stored in the database
- Principles for circuit selection: options of shortest path, minimum hop, load balancing, and minimal cost
- Provides a list of un-finished fall-back plan for trouble shooting and rescue operation afterward

- Supports TDM Circuit rate including:
  - N x 64K,
  - E1,
  - T1,
  - E3,
  - DS3,
  - STM-1/4 (Future Option)
  - N x VC12 (N=1 to 63 for Ethernet pipe) (Future Option)
  - N x VC3 (N=1 to 3 for Ethernet pipe) (Future Option)
  - N x VC4 (N=1 to 4 for Ethernet pipe) (Future Option)
- Supports circuit route discovery for existing circuits.
- Supports circuit deletion

Alarm Management
- NE alarm/ event collection
- Alarm filtering
- Circuit-level alarm
- Alarm display
- Alarm history
- Alarm notification

User & Security Management
- Supports adding, deleting, and modifying operation on user account and a group of users
- Provides operation privilege and scope assignment
- Provides history command log for 3 to 12 months
- Supports multi-condition query on history command log records
- Supports Command Log

Diagnosis Management
- Supports three (3) types of diagnosis:
  - NE level diagnosis
  - Circuit level quick diagnosis
  - Circuit level advanced diagnosis
- Supports diagnosis report generation

Performance Monitor
- Supports two (2) types of performance monitoring:
  - Performance monitoring at NE level
  - Performance monitoring at circuit level

Report Management (RM)
- Supports generation of automatic & periodical report and on-demand report
- Supports report export to MS. Excel format (for MS 2003 or later)
- Supports pre-defined & fixed Report template

iNMS Self-management
- Supports real-time monitoring on iNMS software processes
- Supports real-time monitoring on the status of connection between NEs and DPs
- Supports database backup and recovery
- Supports database disk usage monitoring
- Supports iNMS local disk usage monitoring
- Provides on-line help for OAM&P operation (Future Option)
- Provides Time & Date Synchronization once a day between iNMS and NEs

Loop-iNMS Advanced Optional Components

Docket Manager (DM)
- Provides Alarm Docket, Resource Docket and Circuit Docket and General Docket
- Provides Docket Management system resembling email system
- Supports Docket export as a trouble ticket
- Offers Docket tracking system with open date and closing date
- Offers Statistics of Dockets closed, open and pending

North-bound Interface (NBI)
- Supports CORBA NBI per TMF.814
- Supports proprietary COBRA NBI (customization required)
- Proprietary COBRA NBI components including Inventory, Fault/Alarm, Performance, Service Provision, and etc.
- Detail NBI components are available by project cases

Root Cause Analysis (RCA)
- User-defined Fault Policies.
- Root Cause Analysis based on Fault Policies

Clock Distribution Map (CDM)
- The Clock Distribution Map for TDM Network (both 64k Access and SDH transmission (Future Option))
- Clock Loop Detection manually or in periodically scheduled manner

System Redundancy and Protection
- Disaster Recovery (DR) Solution (Future Option)
    - Provides geographical system protection with dual iNMS services and a independent system on each site
    - DR status monitoring by iNMS GUI clients
    - DR protection switching by iNMS GUI clients manually
    - DR Database (DB) synchronization automatically
- High Availability (HA) Solution (Future Option)
    - Provides local system protection with dual iNMS servers to ensure iNMS is available at anytime
    - HA status monitoring by iNMS GUI clients
    - HA protection switching automatically or manually
    - HA Database (DB) synchronization automatically

Third-party Hardware System

Hardware Recommendation table

Note 1: Hardware system shall be provided by SI or end-customer.

Note 2: This recommendation is for reference only. Please consult with Loop representative for precise hardware spec and quantities.

Item	Name	Mandatory/ Optional	Suggested Model	Remarks
1	Sun Server with Solaris	M	Small Sun M3000 (w/Oracle) Sun Netra T5220 (wo/Oracle) Sun T2000 (wo/Oracle) Medium Sun M4000 (w/Oracle) Sun Netra T5440 (wo/Oracle)	Used as the Loop-iNMS main server if Sun Server is Preferred. (Selection recommendation is shown below)
2	PC Server with Linux	M	Small Intel Dual-core PC server (rack mount or standalone) Medium Intel Quad-core PC server (rack mount or standalone)	Used as the Loop-iNMS main server if low-cost PC server is preferred.
3	Desk-top PC with 19" (or above) LCD and Windows 2000/XP Pro.	M	Intel dual-core PC	Used as the Loop-iNMS GUI client(s)
4	Tape Library	O	none	Optional for Sun Server Automatic backup of the database.

Sun Server Specification Recommendation

Note: This recommendation is for reference only. Please consult with Loop representative for precise hardware spec and quantities.

Note: For project needing more than 100 NEs, please consult with Loop FAE for recommendation.

Sun Server	Sun M3000 Small	SunNetra T5220 Small	Sun M4000 Medium	SunNetra T5240 Medium
Typical Application	Below 100* NEs	Below 100* NEs	Below 200* NEs	Below 200* NEs
CPU (SPARC64 VII, UltraSPARC T2, or UltraSPARC T2 Plus)	1 x dual 2.52 GHz	1 x dual 1.2 GHz	2 x dual 2.4 GHz	2 x dual 1.2 GHz
Power Supply	1*AC	1*DC	2*AC	2*DC
L2 Cache per Processor	5MB	4 MB	5MB	4 MB
Memory	4 GB	4 GB	8 GB	8 GB
10000 rpm Disk Drive	2 x 146 GB	2 x 146 GB	2 x 146 GB	2 x 73 GB
Operating System	Solaris 10	Solaris 10	Solaris 10	Solaris 10
Oracle license number required (if database service is running on the server).	2	2	3 (0.75 license per CPU Core)	2 (0.75 license per CPU core)
Slide rail kit	1	1	1	1
Graphic Interface	Recommended	Recommended	Recommended	Recommended
Screen Monitor	Recommended	Recommended	Recommended	Recommended

PC Server Specifications

Note: This recommendation is for reference only. Please consult with Loop representative for precise hardware spec and quantities.

Item	PC Server for iNMS Core (Rack Mounted) IBM x3550 M2 Server	PC Server for iNMS Core (Standalone) IBM x3400 M2 Server
Typical Application	Below 100* NEs	Below 100* NEs
CPU	1* Xeon Dual-Core (1.86 GHz or above)	1* Xeon Dual-Core (1.86 GHz or above)
Memory	8GB or above	8GB or above
Hard disk	584GB/7200rpm or above	584GB/7200rpm or above
DVD R/W	DVD R/W	DVD R/W
Sound card & Speaker	Sound interface and Speakers	Sound interface and Speakers
NIC	10/100/1000M	10/100/1000M
Graphics	ATI RN50(ES1000) w/16MB SDRAM or equivalent	ATI RN50(ES1000) w/16MB SDRAM or equivalent
Mouse	USB Wheel or Optical Mouse	USB Wheel or Optical Mouse
Monitor	19" LCD (1024*768) (Optional)	19" LCD (1024*768) (Optional)
Oracle license number required (if database service is running on the server).	2	2
Operating System	CentOS Linux V5.3	CentOS Linux V5.3

Desktop PC Specifications for GUI client

Item	Desktop PC for GUI Client
Typical Application	For all numbers of NEs
CPU	Intel Core 2 Due (2.4 GHz or above)
Memory	2GB or above
Hard disk	160GB/7200rpm or above
DVD R/W	DVD R/W
Sound card & Speaker	Sound interface and Speakers
NIC	10/100/1000M
Graphics	ATI Radeon Xpress 200 graphics or equivalent
Mouse	USB Wheel or Optical Mouse
Monitor	19" LCD (1024*768) or above
Operating System	Windows 2000/XP Professional

Third-party Software

Item	Name	Mandatory/ Optional	Description	Remarks
1	Microsoft Excel	M	One for each GUI client	MS Excel is required for various report functions on iNMS. The report function will NOT work without MS Excel. (for MS 2003 or later)
2	Oracle Database (To be purchased from Loop as a bundle)	M	(1). Oracle Standard Edition One (SE1) bundled with Loop iNMS	(1). Standard Edition One (SE1) per CPU core license (2). Applicable only for database server with 1 ~ 2 CPU core. Each CPU core requires a license (3). For redundant database server, each CPU shall be counted separately also
			Or (2).Oracle Standard Edition (SE) bundled with Loop iNMS	1). Database server with 3 or 4 CPU cores. Each CPU core requires a license 2). For redundancy case, all CPU shall be counted on all redundant servers
			Or (3). Oracle Enterprise Edition (EE) bundled with Loop iNMS	1). Database server with more than 4 CPU cores, EE version shall be used. Each CPU core requires a license 2). For redundancy case, all CPU cores shall be counted on all redundant servers

Standards

ITU-T M.3100—Generic Network Information Model.
ITU-T M.3200—TMN Management Service: Overview.
ITU-T M.3400—Management Functions

Loop-iNMS Ordering Information

To order the Loop-iNMS products, you must select **one Main Core** and then the options you require for that Main Core. If you are ordering several Main Cores, they must be ordered individually in separate orders.

Note: If you already have a Main Core and wish to upgrade it, leave the Main Core off of your order form and simply list the option or options you require and provide Loop with the serial number of the iNMS product you have already purchased.

■ **iNMS Main**

Please select the iNMS Main Core if desired. If you're puchasing additional options for an existing network, leave this off of the order form.

iNMS Main Core	Description	Note
Loop-iNMS-Main-**pf**	Loop-iNMS Main Core Server Software (not including hardware, database software and installation). Warranty: one year after shipment. The Main system includes Basic Functions: Alarm, Configuration, Circuit manager, Diagnosis Manager, Performance manager, Basic Report manager.	• Order maximum of 1 • Where **pf** is defined in tables below • Linux version is Future Option

■ **iNMS Backup**

Please Select the Backup if desired. If a Backup Core is not desired, leave it off of the order form.

iNMS Backup Core	Description	Note
Loop-iNMS-Backup-**pf**	Loop-iNMS Backup Core Server Software (not including hardware, database software and installation). Warranty: one year after shipment. The Main system includes Alarm, Configuration, Circuit manager, Diagnosis Manager, Performance manager, and Basic Report manager.	• Order maximum of 1 • Where **pf** is defined in tables below • Future Option

■ **iNMS HA Software**

Please Select the High Availability (Redundancy) Control Software if desired. If HA is not desired, leave it off of the order form.

iNMS HA Software	Description	Note
Loop-iNMS-HA-**pf**	Loop-iNMS HA (High Availability) Software license for each server. This HA software is in charge to monitor and control the iNMS services to run over the redundant servers.	• Each server requires a license. • Where **pf** is defined in tables below • The HA and DR options are mutually exclusive. You can order only either one of the two. • Future Option

■ **iNMS DR Software**

Please Select the Disaster Recovery (Redundancy) Control Software if desired. If DR is not desired, leave it off of the order form.

iNMS DR Software	Description	Note
Loop-iNMS-DR-**pf** *	Loop-iNMS DR (Disaster Recovery) Software license for each server. This DR software is in charge of redundancy status monitoring, database replication, and DR protection switching.	• Each server requires a license. • Where **pf** is defined in tables below • Future Option

■ **iNMS GUI Clients**

Please specify the number of GUI clients you will be serving.

GUI Clients	Description	Note
Loop-iNMS-GUI	Each Loop-iNMS GUI client software license, not including Windows OS, MS Excel, Geographical Map, and H/W	• Order from 1 to 50

■ **iNMS Feature Options**

Please specify which iNMS types you need. You may choose any or all of the available features.

iNMS Feature	Description	Note
Loop-iNMS-RCA-**pf**	Loop-iNMS Root Cause Analysis Subsystem	• Order maximum of 1
Loop-iNMS-DM-**pf**	Loop-iNMS Docket Management Subsystem	• (Any feature ordered will fit both Main and Backup Core)
Loop-iNMS-CDM-**pf**	Loop-iNMS Clock Distribution Map Subsystem.	• Where **pf** is defined in tables below
North Bound Interface (NBI) components are available upon requests		

Where **pf** is the platform selection (Choose the same platform for all **pf**)

pf =	Description	Note
Solaris	Solaris on Sun server platform	
Linux	Linux on Intel x86 platform	Future Option

■ **iNMS NE Management Licenses**

The total number of network element (NE) licenses you need is the sum of numbers of NE for each NE type.

iNMS NE License (Devices List)	Description	Note
Loop-iNMS-AM3440A	Each AM3440-CHA NE management license	
Loop-iNMS-AM3440B	Each AM3440-CHB NE management license (Future Option)	
Loop-iNMS-AM3440C	Each AM3440-CHC NE management license	
Loop-iNMS-C5500	Each C5500 NE management license (Future Option)	
Loop-iNMS-C5600	Each C5600 NE management license (Future Option)	
Loop-iNMS-H3300S	Each H3300-S NE management license in conjunction with AM3440	
Loop-iNMS-H3310	Each H3310 NE management license in conjunction with AM3440	
Loop-iNMS-H3900S	Each H3900-S NE management license in conjunction with AM3440	
Loop-iNMS-V4100	Each V4100 NE management license	• Please specify, for each NE type, the actual number (n) of NEs
Loop-iNMS-V4209	Each V4200-9 NE management license	
Loop-iNMS-E15002S	Each E1500-2S NE management license in conjunction with AM3440	
Loop-iNMS-O9300	Each O9300 NE management license (Future Option)	
Loop-iNMS-U3500S	Each U3500-S NE management license in conjunction with AM3440	
Loop-iNMS-O9100	Each O9100 NE management license (Future Option)	
Loop-iNMS-O9400S	Each O9400S NE management license (Future Option)	
Loop-iNMS-O9400R	Each O9400R NE management license (Future Option)	
Loop-iNMS-O9500	Each O9500 NE management license (Future Option)	

- **Oracle license embedded with Loop-iNMS**

Please Select the appropriate Oracle license if desired.

Oracle Edition	Description	Note
Loop-iNMS-Oracle-SE1	Oracle Standard Edition One (SE1) embedded with Loop iNMS	1). Standard Edition One (SE1) cost per CPU core price 2). Applicable only for database server with 1 ~ 2 CPU cores, each CPU core requires a license 3). For redundancy case, all CPU cores shall be counted on all redundant servers. 4). Including 1-year maintenance service from Loop 5). Upgrade of Oracle shall through Loop
Loop-iNMS-Oracle-SE	Oracle Standard Edition (SE) embedded with Loop iNMS	1). Database server with 1 or 2 or 3 or 4 CPU cores, each CPU core requires a license 2). For redundancy case, all CPU cores shall be counted on all redundant servers 3). Including 1-year maintenance service from Loop 4). Upgrade of Oracle shall through Loop
Loop-INMS-Oracle-EE	Oracle Enterprise Edition (EE) embedded with Loop iNMS	1). Database server with more than 4 CPU cores, each CPU core requires a license 2). For redundancy case, all CPU cores shall be counted on all redundant servers. 3). Including 1-year maintenance service from Loop 4). Upgrade of Oracle shall through Loop

- **iNMS Software Maintenance Agreement (SMA)**

Purchase the 1st year of SMA is mandatory. Please specify how many **years of iNMS SMA** you desire to purchase. The iNMS software upgrade and patches are only available within the maintenance period purchased.

Note: Software maintenance packages are available only in yearly basis starting from date of purchase of iNMS. The price quoted for the new SMA applies only before the expiration of the current SMA.

iNMS Type	Description	Note
Loop-iNMS-SMAB	iNMS annual Software Maintenance Agreement (SMA) Bronze including: - Access to software patches and upgraded version - 5x8 (GMT+8) e-mail consulting	• Please order the number of years of SMA coverage you wish to purchase. • Customer with existing iNMS running shall reinstate any expired SMAB/SMAP before making any new order of iNMS software components and services.
Loop-iNMS-SMAS	iNMS annual Software Maintenance Agreement (SMA) Sliver including: - Access to software patches and upgraded version - 5x8 (GMT+8) e-mail consulting - 5x8 real-time (GMT+8) consulting via phone call and IMs (MSN, Skype,…) - 5x8 (GMT+8) field problem remote diagnosis - Remote commencement of software patching/upgrade - Remediation Planning & Suggestion. - Operational Guidance	• New purchase of iNMS components and services will NOT reinstate the expired SMA automatically. • All remote support activities, if purchased, are made possible through remote supporting tools, such as VPN or remote desktop. It's the end customer's responsibility to provide all necessary remote access connections and tools at the customer side.
Loop-iNMS-SMAG	iNMS annual Software Maintenance Agreement (SMA) Gold including: - Access to software patches and upgraded version - 7x24 e-mail consulting - 7x24 real-time consulting via phone call and IMs (MSN, Skype,…) - 7x24 field problem remote diagnosis - Remote commencement of software patching/upgrade - Remediation Planning & Suggestion. - Operational Guidance	

Loop-iNMS-SMAP	iNMS annual Software Maintenance Agreement (SMA) Platinum including: - Access to software patches and upgraded version - 7x24 e-mail consulting - 7x24 real-time consulting via phone call and IMs (MSN, Skype,…) - 7x24 field problem remote diagnosis - Remote commencement of software patching/upgrade - Remediation Planning & Suggestion. - Operational Guidance - Field on-site support for 10 working days annually	
Loop-iNMS-RSMA	iNMS annual Reinstatement of SMA (Software Maintenance Agreement)	• If the purchased SMA has expired, you may retain the maintenance service by reinstating your SMA by purchasing RSMA for all prior unpaid year(s), before ordering the SMA for current year. • Customer with existing iNMS running shall reinstate any expired SMA before making any new order of iNMS software components and services. • Please order the number of years of RSMA coverage you wish to purchase.

■ **iNMS Service**

Loop-iNMS service is available from Loop. **To the service charges quoted below, traveling, food, and lodging cost for the service must be added and will be quoted separately.**

iNMS Type	Description	Note
Loop-iNMS-Site-Install	On-site installation service by Loop engineer.	• Please order the number of service days you wish to purchase. • 5 working man days per person minimum. (a man day is 8 working man hours)
Loop-iNMS-Site-Training	On-site iNMS training courses including: - Overview of iNMS system - iNMS Security and Administration - iNMS Views - iNMS Topology - iNMS Circuit - iNMS Diagnosis - iNMS Performance - iNMS Report - iNMS System Monitor - iNMS Workshop	• Please order the number of training days you wish to purchase. • 3 working man days per person minimum. • Excluding facility, food, and class room preparation for the audiences.
Loop-iNMS-Site-Support	Technical On-Site Support services for software upgrade, integration, trouble-shooting , network design consulting and testing (such as POC, PAT, and UAT)	• Please order the number of service days you wish to purchase. • 3 working man days per person minimum. • If the SMA (Software Maintenance Agreement) expires, please reinstate it first before you can order this service.
Loop-iNMS-Site-Dedicate	Long-Term Dedicated Engineer On-Site Support	• To be discussed case by case with local partners.

Loop-iNMS-NP	Network Planning Services including: - new network solution design, - network expansion planning - network DCN design.	• Please order the number of service days you wish to purchase. • 3 working man days per person minimum. • It's conducted at Loop Factory
Loop-iNMS-Factory-Training	Factory iNMS training courses including: - Overview of iNMS system - iNMS Security and Administration - iNMS Views - iNMS Topology - iNMS Circuit - iNMS Diagnosis - iNMS Performance - iNMS Report - iNMS System Monitor - iNMS Workshop	• Please order the number of service days you wish to purchase. • 3 working man days per person minimum. • It's conducted at Loop Factory.

■ **Accessories**

User's Manual	
Loop-iNMS-UM	User's Manual (paper copy). **Note:** A CD version of the manual is already included as standard package.

■ **Ordering Example:**

Ordered Item	Quantity	Note
Loop-iNMS-Main-Linux	1	Maximum is 1
Loop-iNMS-GUI	5	Fill in the number of GUI clients required
Loop-iNMS-RCA-Linux	1	Maximum is 1
Loop-iNMS-CPFS-Linux	1	Maximum is 1
Loop-iNMS-CDM-Linux	1	Maximum is 1
Loop-iNMS-AM3440	430	NE Management License of 430 *AM3440
Loop-iNMS-V4200-9	30	NE Management License of 30* V4200-9
Loop-iNMS-H3300	4000	NE management License of 4000*H3300
Loop-iNMS-Oracle-SE	4	4 licenses for a database server with 4 CPU cores
Loop-iNMS-SMAP	1	1 extra year of Software Maintenance Agreement -Basics
Loop-iNMS-Site-Install	10	10 days of on-site installation service by Loop engineer