

Bookit Intelligent SMS

Implementation Requirements

Confidential

Change History

Revision	Date	Handled by	Comments
1.0	May 24th 2006	Jouni Takala	Preliminary first release
1.1	June 5th 2006	Jouni Takala	Minor updates

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1. REFERENCES

- [1] **BookIT Intelligent SMS Architecture**
- [2] **BookIT Intelligent SMS Enterprise Server Interface Specification**
- [3] **BookIT Intelligent SMS Gateway Interface Specification**
- [4] **BookIT Intelligent SMS Charging Interface Specification**
- [5] **BookIT Intelligent SMS Administration Guide**
- [6] **BookIT Intelligent SMS Installation Guide**
- [7] **BookIT Intelligent SMS Hardware Configurations**
- [8] **BookIT Intelligent SMS Monitoring**
- [9] **BookIT Intelligent SMS Software Components and Versions**

2. OVERVIEW

Bookit Intelligent SMS (iSMS) platform architecture is described in reference [1]. The components (network elements) are presented in Figure 1. The platform can be divided to three functional elements; Enterprise Server, Service Center and Service Gateway. The Enterprise Server is the interface to the Enterprise applications whereas the Service Gateway provides the access to the end users. The Service Center is the actual engine to control the iSMS functions.

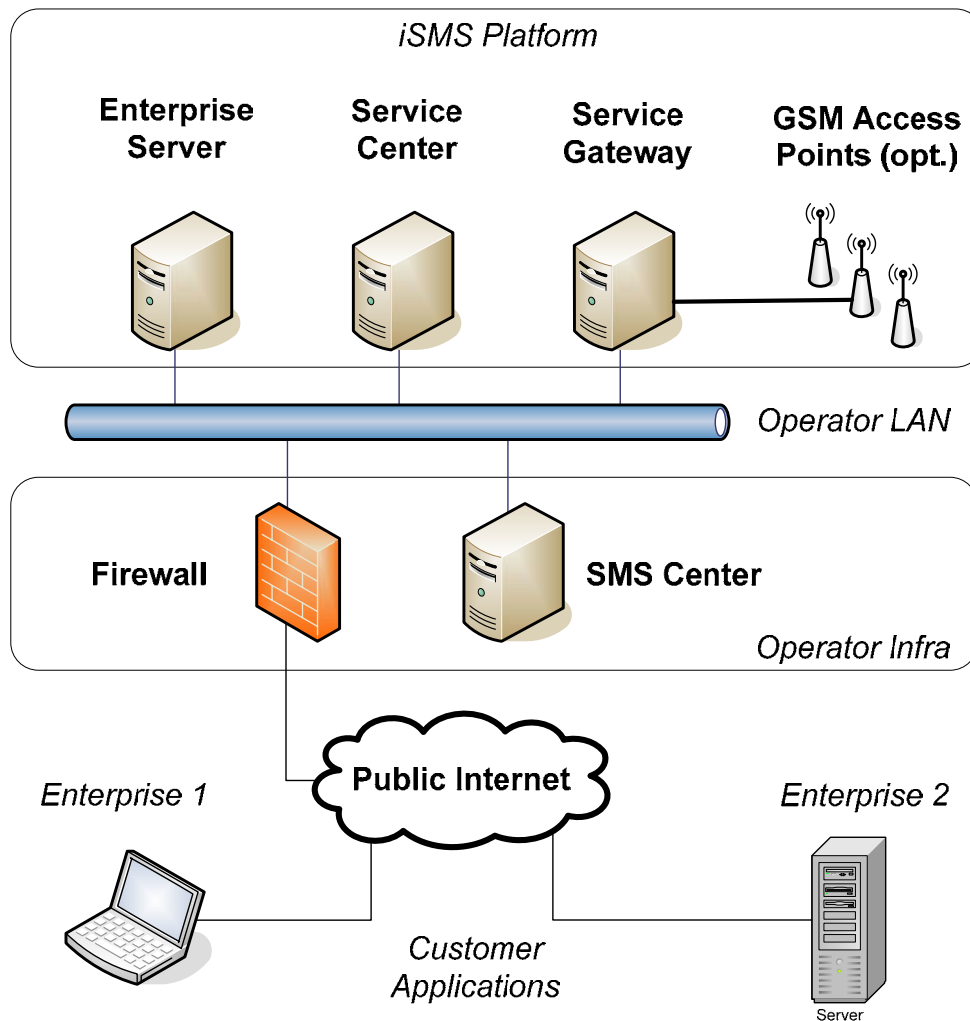


Figure 1. Intelligent SMS Servers

This document lists the implementation requirements for the standard (non-redundant) configuration. High availability options will be offered later for operators who need higher service level and higher capacity. The implementation requirements are applicable for both configurations, though. The hardware options are explained in reference [7].

3. BASIC INFRASTRUCTURE AND INTERFACES

The standard iSMS hardware can be installed into one standard cabinet and the only external connections are the electricity and LAN connections (optional radio interface). The black box model of the iSMS platform is shown in Figure 2.

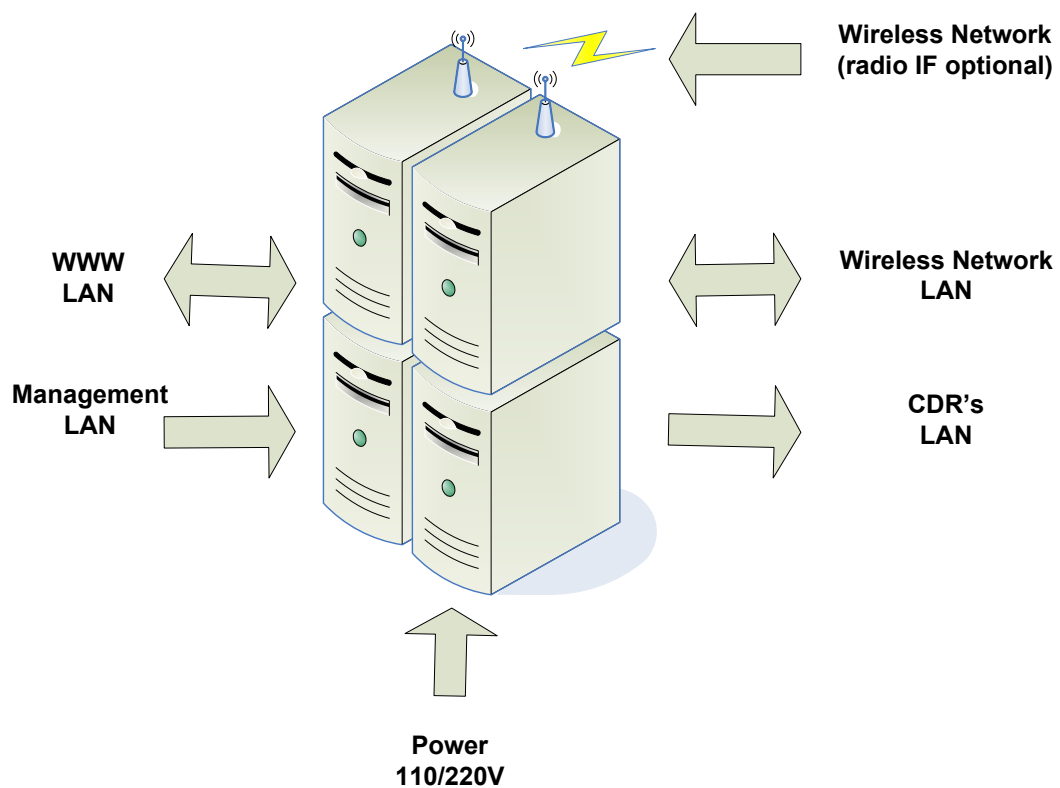


Figure 2. *Intelligen SMS Interfaces*

3.1 Physical Requirements for the Equipment Room

3.1.1 Space requirements

All the iSMS hardware fits into one HP 10000 series 36U cabinet. The physical dimensions of the cabinet are:

Dimension	Unit
Height	175 cm
Width	100 cm
Depth	60 cm
Weight	100 kg

Table 1. Cabinet Dimensions

Access to the equipment is protected by a door on both sides of the cabinet. Both doors can be locked.

3.1.2 Environmental Requirements

The hardware should be installed in a temperature controlled room with operating temperature range within 10°C-35°C and relative humidity 10%-90%. The heat dissipation of the equipment is 2508 BTU/hr per server. The amount of servers depends on the configuration, at minimum 3 servers.

3.1.3 Electrical Requirements

The power requirement for the iSMS servers is 735 W (rated input) per server. The voltage requirement is 220V/50Hz. Uninterruptible Power Source (UPS, not included in the hardware) is recommended in the mains connection to guarantee highest possible service level.

3.2 Network Connections

3.2.1 Connections to the Public Internet

The platform requires a network connection with a fixed IP address and a valid domain name visible in the public Internet as well as an access to a name server. Firewall rules are described in detail in the installation documentation, reference [6].

3.2.2 Internal Connections

The internal connections are standard 10/100 Ethernet LAN connections. The network interface cards are installed in the servers and the cables are included in the shipment.

3.2.3 Connections to GSM Signalling and Radio Network

The access to the signalling network (typically to SMSC) is via standard CIMD2 interface, over TCP. Other supported (not tested) interfaces are listed in the iSMS Gateway Interface documentation, reference [3]

The (optional) return path for the messages is a standard GSM radio interface. Dedicated GSM access points are used, and each access point requires a standard SIM card. The access points can be located on top of the server cabinet, or in a remote location behind the LAN connection. The remote option requires specific hardware and should be taken into account when ordering the system. See reference [3].

3.3 Charging Interface

Charging data is stored in the Service Center database and can be accessed with general purpose database management tools to generate billing reports for each customer separately. For details, see reference [4]

3.4 Management Interface

The management of the customer data is performed with general purpose database management tools. When a new customer (typically an enterprise) is added, relevant sender records with id's, shared secrets, reply url-addresses etc. are inserted to the database. For details, see reference [5].

Shell-scripts can be used to make backups of the database and log-files. The scripts will be adapted to the customer specific environment in the customisation phase of the installation.

Monitoring capabilities are described in reference [8].

4. STEPS FOR IMPLEMENTATION

4.1 Shipping

The hardware is shipped to the Operator site by Nokia with all the SW components pre-installed. SW components and versions are listed in reference [9].

4.2 Installation

The installation should be performed according to the BookIT Installation documentation, reference [6]. Some operator specific configuration (including defining IP-addresses, sender numbers etc) is required. A Nokia trained administrator is recommended for the installation and configuration work. Configuration and administration work is described in the Administration Guide, reference [5].

4.3 Testing

After installation the functionality of the equipment is tested according to a test plan and a test report is written for a customer approval.

Task	Man working days
Network and configuration planning, test plan	10 days
Unpacking and checking	1 day
Preconfiguration	4 days
Physical Installation	2 days
Configuration	4 days
Testing and reporting	4 days
Total	25 days

Table 2. Tentative Implementation Work Estimates