



## Technical Data Sheet - message master® xsp

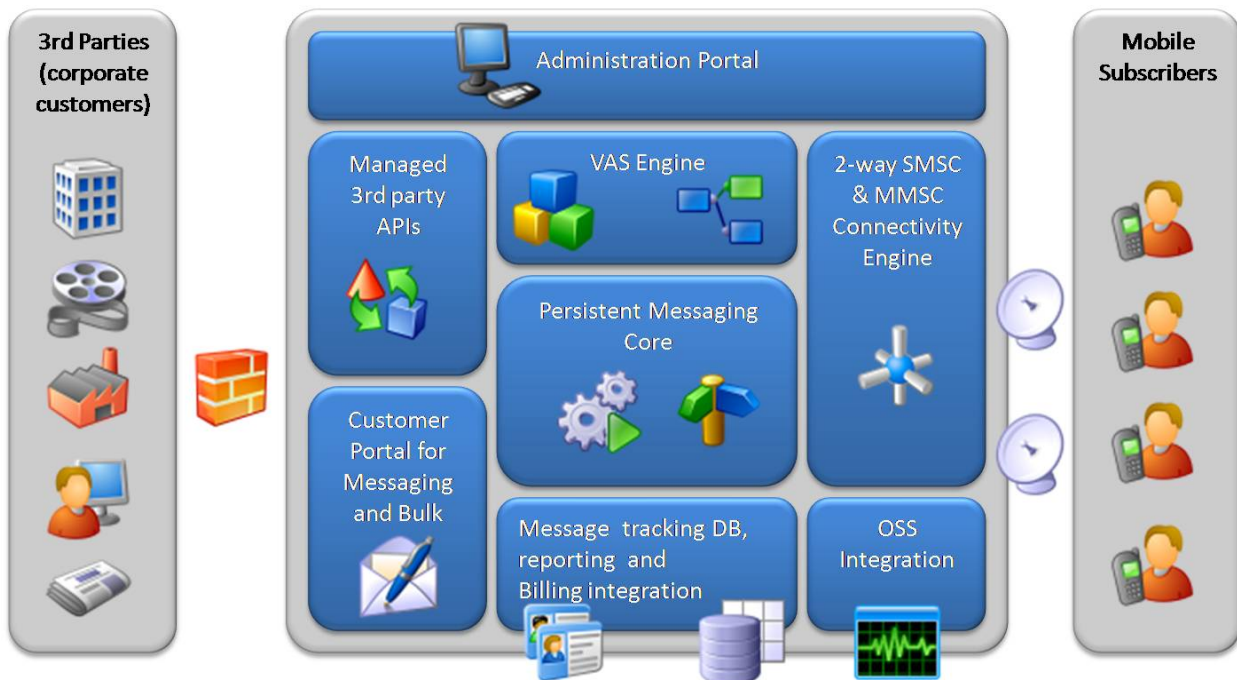
### Overview

message master® xsp is a leading mobile messaging software for building and operating two-way SMS and MMS applications. Targeting wireless ASPs, mobile operators and any business looking into providing of value-added mobile messaging applications message master® xsp offers far more than simple SMS or MMS gateway products. The unique combination of a state-of-the-art SMS, EMS and MMS gateway engine, an open, scalable architecture and a powerful application designer empowers you to build mobile messaging services quicker than your competition and to serve your customers best. The design of message master® xsp targets two major areas:

1. The operation of gateways to connect custom and 3<sup>rd</sup>-party applications with SMS, EMS and MMS
2. The design, hosting and operation of value-added mobile messaging services
3. The rapid offering of bulk and corporate messaging services

### Architecture

message master® xsp provides a great deal of features and connectivity options:





## Key benefits

Feature	Benefits
SMS and MMS Messaging gateway software with application support	Comprehensive platform for service providers and mobile telcos to design and operate a broad range of SMS and MMS services
Full support of all SMS features and protocols	Offers scalability, unlimited opportunities for development and evolution of your SMS applications and services.
Integration of latest MMS standards and protocols	MMS-based value added services can be realized easily and enlarge the product and service range of your company.
Different editions available (based on the same core modules)	Offers excellent scalability and adopts your investment to your actual requirements. Upgrading is simple.
Graphical user interface for application development and management	Reduces complexity of creating mobile applications and services.
Web based Administration Portal for management of users and access rights, as well as for monitoring of system events and message traffic.	Offers simple user administration, convenient system monitoring and a statistic overview of the message traffic.
Application Support (SDP-like)	Features like Scripting Engine and rule-based application designer support and accelerate roll-out of new service ideas
Broad range of interfaces including web services, etc.	Integration into any IT environment, bridging telecommunication with IT
XML-based software architecture	Guarantees longevity through openness for future standards and secures your investment. Clear path towards MMS (Multimedia messaging service)
Unique information and message routing system (AMR – Advanced Mobile Routing)	Accelerates application design and enables deployment of sophisticated mobile messaging applications



## Key features

message master® xsp is a leading tool for rapid development of mobile messaging applications.

Feature	Description	Your benefits
Multiple application support	message master® xsp works as an independent middleware thus enabling multiple applications to utilize the messaging services	ASPs and enterprises can use message master™ xsp as a backbone for a broad range of multiple applications and services.
Multiple messaging connectivity	message master® xsp supports unlimited number of multiple SMSC/MMSC connections or multiple GSM devices.	Provides almost unlimited scalability.
2-way SMS and MMS	message master® xsp provides full support for sending and receiving SMS and MMS.	Let's you build powerful and interactive SMS- and MMS-based applications and services.
Encapsulation of messaging	message master® xsp provides a powerful messaging engine leaving your application independent.	Companies, system integrators and ASPs can focus on application development by being supplied with a solid, tested and proven messaging server.
Persistency	message master® xsp works with an internal database for message transaction.	Persistency is guaranteed for system state, inbound and outbound messages. The underlying database type can be chosen freely (e.g. SQL Server, Oracle).
Latest Web Services interfaces	State-of-the-art SOAP and .NET interfaces for 3 <sup>rd</sup> party applications and content providers including WES API for Microsoft Connected Services Framework	Seamless integration with new and upcoming application integration standards.
Open application interfaces	Offers various interfaces for application developers including JAVA, COM, HTTP, SMTP and XML.	Application developers and system integrators can freely choose the best-fitting mechanism for integration of mobile messaging.
Content interfaces	message master® xsp provides interfaces for content access via XML, ODBC, HTTP(S), LDAP, SMTP, SAP.	Availability of content interfaces accelerates the integration of mobile messaging into existing IT infrastructure.
Content application support	message master® xsp has a flexible, build-in system for content access, content extraction, content formatting and content routing.	The availability of content routing enables powerful and speedy interactive, messaging applications and m-commerce services.
Application Engine	A Scripting Engine is available to run multiple scripts (VB Script, Jscript) on incoming messages or triggered automatically.	Unlimited options for designing messaging applications.
E-mail connectivity	message master® xsp provides interfaces to mail servers via SMTP and POP3.	Simplifies the integration of mobile messaging into existing e-mail infrastructure and the deployment of mobile e-mail applications.



Feature	Description	Your benefits
Support for all industry-standard SMSC- and MMSC protocols	message master® xsp offers support for all four communication protocols including UCP, SMPP, CIMD2, Sema OIS, Nokia EAIF, MM7.	Guarantees SMSC/MMSC connectivity with all network operators worldwide.
Local and remote configuration	With a web based Administration Portal as well as a convenient GUI via TCP/IP remote access message master® xsp offers both local and remote configuration.	Application developers and IT staff can operate, maintain and manage the system from any location and have full remote access to all features and system status monitoring.
Predefined user profiles	message master® xsp comes with built-in user profiles for administrators, power-users and standard users.	The assignment of user rights will be simplified and standardized.
Easy deployment and configuration	message master® xsp is an "out-of-the-box" product.	IT staff can set-up the product often without local consultancy or extra on-site deployment staff.
Automated number and prefix routing	The product comes with a number and prefix routing engine. When using multiple GSM device and SMSC/MMSC connections the system allows choosing the appropriate network operator.	By routing the messages via the appropriate connection the costs for message transmission can be significantly reduced.
Logging and statistics	message master® xsp logs all system events and message transaction in a database and provide appropriate statistics through the web portal.	ASPs have full overview on overall and per-user message traffic.
Information and message routing	message master® xsp comes with a unique, XML-based system of information and message validation, formatting and routing – called AMR.	The superior concept of AMR is the basis for creating almost any type of mobile application or service. Besides the system enables least-cost routing.
Unicode Support	Good support for Unicode messaging (SMS and MMS) as well as display of messages in international character sets	Seamless deployment in all regions including Arabic countries, Asia, etc.
Bulk Messaging	Optional Bulk Campaign Manager for running fully managed and parallel SMS and MMS campaigns. Web Portal for campaign and list management.	Extensive support for using SMS and MMS for mobile marketing.



## SMS features

Feature	Description
Open GSM hardware support	GSM devices can be used for two-way SMS messaging based on international ETSI standards. Guarantees usability with various device types.
SMSC protocols and connectivity	message master® xsp offers support for:  Protocols: SMPP 3.x (compliant up to 5.x), UCP, CIMD2, SemaOIS, Sonic MQ, proprietary HTTP Vendors: LogicaCMG, Sema, Huawei, Tecore, Ericsson, Nokia, Siemens, Alcatel, Comverse, Materna, etc.
SMS formats	message master® xsp supports a wide range of SMS formats including 7bit ASCII, 8bit binary, User Data Header SMS (UDH - for operator logos, picture messages, ringing tones, WAP OTA settings, vCAL entries, WAP bookmarks, etc.) and Unicode SMS.
Support for long SMS	message master® xsp supports several standards for long SMS messages including NBS, concatenated messages, simple enumeration and WDP.
EMS support	message master® xsp provides full EMS support.
Multiple connection support	message master® xsp supports unlimited number of multiple SMSC connections or multiple GSM devices.
VSMSC capabilities	The pro-version of message master® xsp is shipped with an internal SMPP server enabling a virtual SMSC with other SMPP clients being able to submit SMS via message master™.
Additional SMS features	message master® xsp support delivery notifications, direct display and blinking messages.
Prepared campaign management.	message master® xsp provides enhanced interfaces to define bulk lists and to trigger campaigns.

## MMS features

The message master® xsp professional edition includes MMS functionality whereas the message master® xsp standard or classic editions require the additional MMS-add on. Existing customers of message master® xsp can upgrade their system to MMS-functionality.

Feature	Description
MMS messaging application server	message master® xsp provides you a powerful tool to design and operate MMS-based services. wASPs and network operators are enabled to create a wide range of multimedia applications and services.
MMS Sending & Receiving via GPRS hardware (MM1)	Support for the MM1 communication protocol which supports sending, receiving and delivery receipts via PC-connectable GPRS hardware/modem.
MMS transmission via MMSC connectivity	The product supports high-quality MMS transmission using a direct connection to MMSCs.



Feature	Description
Support for major MMSC communication protocols (MM7, PAP, Nokia EAIF and SMTP)	message master® xsp offers support for:  Protocols: MM7 up to version 5.6.0 as specified by 3GPP in TS 23.140 V6.6.0, EAIF versions 1.0, 1.1, 2.0, 2.1, and 3.0, MM1 - version 1.0 Vendors: Ericsson, Nokia, LogicaCMG, Materna, Comverse, Alcatel
Support of MMS transmission via SMTP to MMSCs	message master® xsp offers support of message transmission to the MMSC via SMTP communication protocol (MM4).
Support for PAP MMSC protocol	message master® xsp offers support of PAP (Push Access Protocol) communication protocol.
Support of all multimedia formats according MMS specification	The message master® module supports all multimedia file formats, e.g. pictures (jpg, wbmp, gif), audio (midi, amr), text (txt). The list of support content can be configured.
Support of multiple MMSC connections	message master® xsp supports a (theoretically) unlimited number of multiple MMSC connections.
MMS delivery to all MMS capable mobile devices	message master® xsp allows the MMS transmission to numerous MMS-capable mobile phones, e.g. Nokia, SonyEricsson, Siemens, etc. ).
Automatic failure resilience	message master® xsp is shipped with an included Store-and-Forward-Engine

## Infrastructure requirements

	Requirements
Hardware	Pentium 4 (3.2 GHz recommended) 1 GB RAM (2 – 3 GB recommended), 3 GB HD space, CD-ROM drive, 100 MBit LAN connection (minimum)
Operating System	Microsoft Windows 2003
GSM hardware	ETSI compliant GSM device provided serial COM port connectivity, e.g. Wavecom, Siemens, Ericsson, Nokia
SMSC/MMSC Connectivity	A permanent Internet connection or direct leased line to the network operator SMSC/MMSC (requirements depend on your local network operator)
Database	message master® xsp is shipped with a MS SQL Server Desktop Edition database for logging purposes by default. A SQL server or Oracle database is recommended for better performance.  In case the message database, e.g. SQL Server or Oracle, is installed on the same machine as message master(tm) and additional memory of 1GB RAM along with sufficient harddisk space is required
Other software	Windows Components required:



	<ul style="list-style-type: none"><li>▪ Message Queuing</li><li>▪ Internet Information Server Services</li><li>▪ WSE 2.0 SP3</li><li>▪ .NET Framework 2.0</li></ul>
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## Feature matrix for xsp editions

The following matrix is to give an overview on the differences of the four editions of message master® xsp. It does not include all technical features of the overall product.

Edition/ Feature	classic	standard	standard mmsc	professional
<b>Mobile Messaging</b>				
Sending and receiving SMS/EMS, WAP Push via GSM modems (two-way MO/MT)	o	o	o	o
Support for multiple, parallel GSM modems	o	o	o	o
Direct SMSC connectivity via UCP, SMPP, CIMD2, SemaOIS for SMS and EMS (two-way) via multiple, parallel links	o	o	o	o
Premium SMS services	o	o	o	o
SMPP server (SMPP messaging API)	-	optional	optional	optional
Message splitting/long messages	Various standards	Various standards	Various standards	Various standards
Persistent Messaging and Store & forward engine	o	o	o	o
<b>Multimedia Messaging</b>				
Direct MMSC connectivity via MM7 and Nokia EAIF	optional	optional	o	o
2-way MMS via GPRS Modems (MM1 protocol)	optional	optional	o	o
Premium MMS services	-	-	o	o
MM7 Server for MMSC Access Management	-	-	-	optional
Max. message throughput per hour (single server installation) *	5 SMS/sec	10 SMS/sec up to 36,000 SMS	10 SMS/sec, 2 MMS/sec up to 36,000 SMS	50 SMS/sec, 10 MMS/sec up to 150,000 SMS
<b>General and application platform features</b>				
XML based, modular architecture	o	o	o	o
Database logging	o	o	o	o
User and access management	o	o	o	o
User client licenses	500	1000	1000	5000
Billing/CDR generation	o	o	o	o
Workload balancing, clustering	-	-	-	o
Message Tracking and Reporting	o	o	o	o
Message flow rule system	o	o	o	o
Application Scripting	optional	optional	optional	optional
SMS/MMS Campaign Manager	optional	optional	optional	optional
<b>3rd party APIs</b>				
Web Services interface (.NET and SOAP)	o	o	o	o
Database API	o	o	o	o
HTTP interface	o	o	o	o



Edition/ Feature	classic	standard	standard mmsc	professional
SMTP/E-SMTP/POP3 (e-mail)	o	o	o	o
COM/Active X/JAVA client SDK	o	o	o	o
ASCII file interface	o	o	o	o
Command line	o	o	o	o
XML interface	o	o	o	o
SQL databases via ODBC	o	o	o	o
Web sites via HTTP(S) (Web scraping)	o	o	o	o
LDAP directory servers	o	o	o	o
Selection of suitable applications				
Mobile marketing services	o	o	o	o
Wireless ASP platform	Entry level product	o	o	o
Mobile portal solutions	-	o	o	o
Carrier-class SMS/EMS/MMS applications	-	-	-	o

## Reference customers

message master® xsp has been deployed with over 500 companies in more than 50 countries. Here is a small list of reference customers:

o2 Germany, Proximus Belgium, Roche Switzerland, Siemens Germany, Movil de Entel Bolivia, Ericsson Australia, Microsoft Ireland, Telenor Business Solutions Norway, Steria UK, Daimler Chrysler Services Fleetboard Germany, Symantec Canada, Arabian Radio Network Dubai, Orascom Tunisia, Dairygold Ireland, T-Mobile Germany, Agilent Technologies Italia, ebclosion Guatemala, Celtel Tanzania

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