UNITIA®

Scalable & Convenient Messaging System

HTTP(s) API Integration Document Version 1.0

INTRODUCTION

Unitia® is a multi-Channel Gateway with supports of enterprise-class features, Gateway is built easily customized to meet the specific needs of messaging exchange growing business (SMS, Voice & E- mails). Designed for performance, high traffic loads and full in-memory execution. Strong message routing algorithms, provides flexibility to define rule-based routing based on various criteria like Sender ID, source, destination and many combinations. Auto reconnection and re-routing mechanism managing peak hours or link failover, multiple retries for high availability services. Gateway serving highly scalable message delivery done through HTTP, RESTful & SMPP protocols, intelligent routing can be configured in real-time through an API or a web backend.
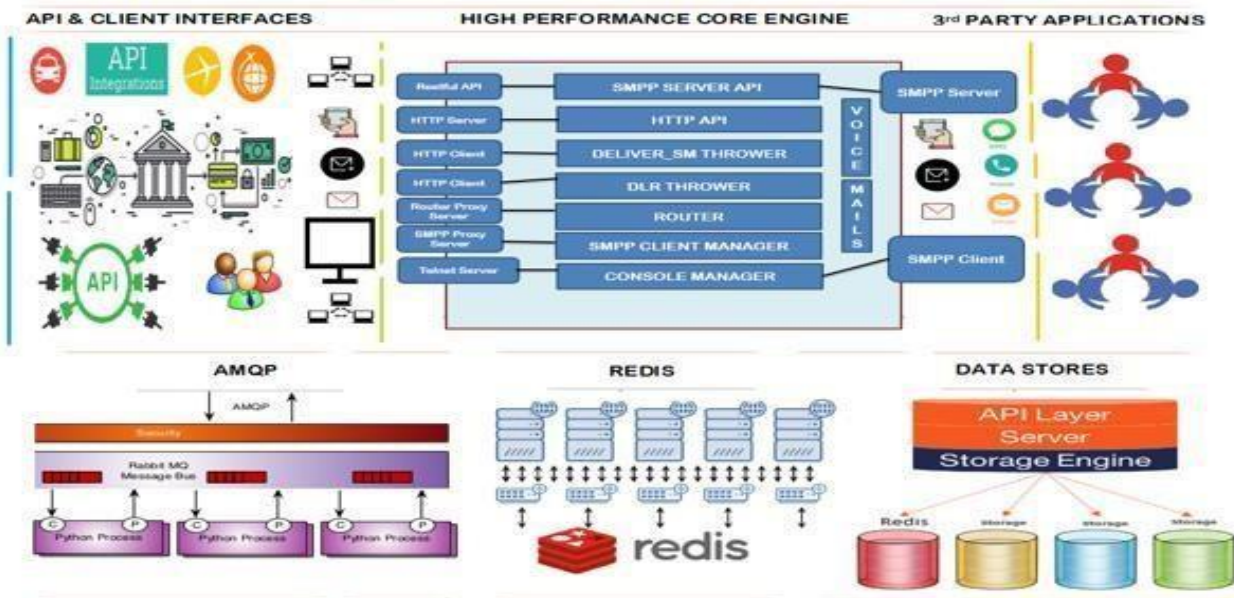
UNITIA® PRODUCT FEATURES

Gateway is designed for performance, high traffic loads and full in-memory execution.

- SMPP Client / Server
- HTTP Client / Server
- Based on AMQP broker for store & forward mechanisms with Priorities
- Message retries & routing: Simple & static, Round robin, Failover, Least cost, sender ID, Source, Destination, error code wise etc.
- Support for – RSA / DES / 3DES / AES / HTTPS (SSL Certificates)
- Flexible billing support, Standard message filtering & Advanced message filtering configurations
- Supports Unicode for sending out multilingual SMS
- Supports easy creation and sending of specialized / binary SMS like mono Ringtones, WAP Push, Vcards
- Supports concatenated (multipart) SMS contents (long SMS)
- DND Scrubber
- Compliance - Security regulations (VA & VAPT etc)
- Messaging platform able to send, receive and process various categories of SMS services like Broadcast, Scheduled Events, Interactive SMS
- Support for International SMS & Country wise Telco configuration.
- Intelligent & dynamic solution - Migrating existing user accounts & API's
- Pick alerts – Any Source (DB, Files or AMQP)
- Missed Call, VMN, Long Codes, MO configuration and Management
- Voice OBD & Delivery Management
- E-mails MTA configuration & Delivery Management
- Senderid, Templates & Approvals process
- User Management & Admin Interface
- RBAC support (Role Based Access Controls & Menu Driven mappings)
- Support for Maker & Checker users
- Global UI & Campaign Management - UI Sending & Reseller white labelled panel. Support for Click per Lead / Click per Action & Data Analytics (SMS, Email & Voice)
- MIS Automation, Settlement, Reconciliation, SLA & Dispute Management.
- Flexible billing support & Billing APIs
- Customer Self Service & Back Office Portal for Operations.

GETTING STARTED

- HTTP API – HTTP API technical specification

ARCHITECTURE OVERVIEW

Unitia® composed of several components with scoped responsibilities:

- **HTTP(s) API**: A HTTP Server to be used by third party application to send MT SMS (Mobile Terminated)
- **SMPP Client Manager**: A PerspectBroker providing facilities to add, remove, list, start, stop SMPP client connectors,
- **Telco Router**: A PerspectBroker providing facilities to manage message routes, groups, users, http connectors and filters,
- **DLR Thrower**: A service for delivering acknowledgement receipts back to third party applications through HTTP
- **Restful API**: A Restful API to be used by third party application to send MT SMS (Mobile Terminated) and launch batches,
- **SMPP Server API**: Server to be used by third party application to send and receive SMS through a stateful TCP protocol

HTTP(s) API – INTERFACE SPECIFICATIONS

This document is targeted at software designers/programmers wishing to integrate SMS messaging as a function into their applications using HTTP protocol, e.g. in connection with WEB-server, unified messaging, information services etc. Messages can be transmitted using HTTP protocol, the following requirements must be met to enable the service:

- You need an Unitia® user account
- You need sufficient credit on your Unitia® gateway user account
- MT is referred to Mobile Terminated, a SMS-MT is an SMS sent to mobile

HTTP(s) API Product Features

- Data is transferred using HTTP GET requests.
- Send and receive SMS through Unitia® connectors (Multiple Telco connects)
- HTTP(s) API Supports Single & Bulk Message (Bulk via
- Mobile number comma separated)
- Receive HTTP Callbacks for delivery notification (DLR Receipts) when SMS-MT is received (or not) on mobile station.
- Send and receive long (more than 160 characters) SMS & Text / Unicode / binary content
- Account balance status

Sending SMS

In order to deliver SMS-MT messages, Data is transferred using HTTP GET requests. The gateway accepts requests at the following URL: https://api.unitiapro.com/send & will be used once the Gateway accounts created.

HTTP(s) Request Parameters

When calling Gateway's URL from an application, the below parameters must be passed (at least mandatory ones), the API will return a message Id on success, see HTTP request & response.

The following table gives the list of parameters required for sending message through Unitia® Gateway using the HTTP API.

Fields	Parameter Value	Parameter Description	Presence
To	Destination Address	Destination address, only one address is supported per request	Mandatory
From	Originating Address	Originating address, in case rewriting of the sender's address is supported or permitted by the SMS-C used to transmit the message, this Sender is transmitted as the originating address	Mandatory
msgType	Text, Unicode & Flash Messages	EM - English Message UM – Unicode Message FM – Flash Message Dynamic Message Identifier if msgType not sent – Either Text or Unicode (Mandatory if Flash Message to be sent, msgType = FM)	Optional
Username	Test User	Gateway Username	Mandatory
Password	Test Password	Gateway User password	Mandatory
Content	Text	SMS Text	Mandatory
Scheduletime	Schedule Date & Time	Scheduled time to deliver this message in the format of YYYY/MM/DD/HH/MM, Default is null	Optional
Param1	Text (30 char. max)	Client generated unique id for client's reference; It should be alpha numeric and less than 30 digits.	Optional
entityid templateid	Numeric - DLT Parameter	If Entity & Template Ids are not set, scrubbing will happen at Unitia (SMS gateway) level & identifying and passing the template id / entity ID / header id to operator taken care by Unitia, without asking enterprise to pass the additional parameters in API channel. If Entity & Template Ids are set, Customer also has a provision of passing the template id/entity ID/header id in the API channel & template validation / scrubbing will happen at the DLT platform.	Optional

HTTP(s) Response API

When the request is validated, a PDU is set up with the provided request parameters and sent to the routed connector through a Gateway, a Gateway ACK-id is returned: **{"ackid":"20fff210-65bf-4454-ba3a adb62122ce11","code":"100","rtime":"2020-08-13 14:11:45","status":"Platform accepted"}**

Receiving DLR's

When configured through Callback dlr-* fields when Sending SMS-MT, a delivery receipt (DLR) will be sent back to the application URL (set in Callback-URL) through HTTP GET method. DLR Thrower service will consider reshipment of the same message if dlr-thrower/max_retries is not reached.

To get auto delivery response push at your end you need to provide us a URL that shall read below parameters from query string.

HTTP PARAMETERS FOR DLR

Parameters	Examples	Presence	Notes
Ackid	16fd2706-8baf-433b- 82eb-8c7fada847da	Always	Gateway message Id for Tracking
Rtime	yymmddhh24miss	Always	Message Request Time
From	WECARE	Always	Sender ID (Source Address)
Status	301	Always	Delivery Status
Ctime	yymmddhh24miss	Always	Carrier Delivered Time
Usercredit	2	Always	Parts of the SMS
To	919740697288	Always	Mobile Number
Username	Test	Always	User Name
Param1	123456789	Always	Customer specific CRM Key

Note:

- Due to restrictions in the HTTP protocol & to avoid collision with reserved HTTP characters, all special characters must be encoded with UTF-8 (Special Character Hexa Decimal Encodings)
- Example: & = %26, + = %2B, % = %25, =%23, ~ = %7E, ^ = %5E, New Line (\n) = %0

GSM03.38 Character Set

GSM 03.38

	x0	x1	x2	x3	x4	x5	x6	x7	x8	x9	xA	xB	xC	xD	xE	xF
0x	@	£	$	¥	è	é	ù	ì	ò	Ç	LF	Ø	ø	CR	Å	å
1x	Δ	_	Φ	Γ	Λ	Ω	Π	Ψ	Σ	Θ	Ξ	ESC	Æ	æ	ß	É
2x	SP	!	"	#	¤	%	&	'	(	)	*	+	,	-	.	/
3x	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
4x	¡	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
5x	P	Q	R	S	T	U	V	W	X	Y	Z	Ä	Ö	Ñ	Ü	§
6x	¿	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
7x	p	q	r	s	t	u	v	w	x	y	z	ä	ö	ñ	ü	à
1B 0x												FF				
1B 1x					^											
1B 2x									{	}						\
1B 3x													[	~	]	
1B 4x																	
1B 5x																
1B 6x						€										
1B 7x																

ISO – 8859-1 Character Set

ISO/IEC 8859-1

	x0	x1	x2	x3	x4	x5	x6	x7	x8	x9	xA	xB	xC	xD	xE	xF
0x								unused								
1x																
2x	SP	!	"	#	$	%	&	'	(	)	*	+	,	-	.	/
3x	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
4x	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
5x	P	Q	R	S	T	U	V	W	X	Y	Z	[	\	]	^	_
6x	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
7x	p	q	r	s	t	u	v	w	x	y	z	{	|	}	~	
8x								unused								
9x																
Ax	NBSP	¡	¢	£	¤	¥	¦	§	¨	©	ª	«	¬	SHY	®	¯
Bx	°	±	²	³	´	µ	¶	·	¸	¹	º	»	¼	½	¾	¿
Cx	À	Á	Â	Ã	Ä	Å	Æ	Ç	È	É	Ê	Ë	Ì	Í	Î	Ï
Dx	Ð	Ñ	Ò	Ó	Ô	Õ	Ö	×	Ø	Ù	Ú	Û	Ü	Ý	Þ	ß
Ex	à	á	â	ã	ä	å	æ	ç	è	é	ê	ë	ì	í	î	ï
Fx	ð	ñ	ò	ó	ô	õ	ö	÷	ø	ù	ú	û	ü	ý	þ	ÿ

Gateway Error Codes

Error Code	Description	Status
0	SMS Delivered Successfully	DELIVRD
100	Platform Successfully Accepted For SMS Delivery	ACCEPTD
101	Username not Registered	REJECTD
102	Invalid password	REJECTD
103	Account Deactivated	REJECTD
104	Mobile number value invalid	REJECTD
105	Message value invalid	REJECTD
106	Scheduletime Parsing error (Format of YYYY/MM/DD/HH/HH)	REJECTD
107	Invalid Scheduletime parameter value	REJECTD
108	Schedule feature disable for the account	REJECTD
109	Invalid Mobile Value	REJECTD
110	Sent Queue fail in Interface Level	REJECTD
111	Mobile Number Series Not Registered in Numbering Plan Table	REJECTD
112	Route Group Not Available in Route table	REJECTD
113	Msgtype not Available for particular split group in split group table	REJECTD
114	Split group not available in split group table	REJECTD
115	Route group not available in route group table	REJECTD
116	SMSCID not available in Gateway (MT Interceptor)	REJECTD
117	Message Rejected due to Optout mobile number for that account	REJECTD
118	Mobile number not registered in opt-in list for that account	REJECTD
119	Message Rejected due to mobile number blacklisted by Platform	REJECTD
120	Message Rejected due to Sender ID blacklisted by Platform	REJECTD
121	Message Rejected due to SMS pattern is blacklisted by Platform	REJECTD
122	Message Rejected due to SMS pattern is filtered by Account Level	REJECTD
123	Message Rejected due to Mobile number Registered As DND	REJECTD
124	Message Rejected due to Invalid Country code	REJECTD
125	Message Rejected due to unable to predict the feature code for message	REJECTD
126	Message Rejected due to unable to connect the Gateway (MT Interceptor)	REJECTD
127	Message Rejected due to Senderid not registered in platform	REJECTD
128	Message Rejected due to Invalid Credit for that Account	REJECTD
129	Message Rejected due to Gateway (MT Interceptor) Unavailability	REJECTD
130	Message Rejected due to Duplicate SMS received	REJECTD
131	Message Rejected due to Customer IP not Whitelisted in the Platform	REJECTD
132	Message Rejected due to Invalid Hexadecimal Message Content	REJECTD
133	Message Rejected due to Invalid Hexadecimal UDH Content	REJECTD
134	Message Rejected due to International Delivery disabled For this Account	REJECTD
135	Message Rejected due to Promo Delivery disabled For this Account	REJECTD
136	Message Rejected due to Invalid Response from Gateway (MT Interceptor)	REJECTD
200	Message Submitted to Gateway Successfully	SUBMTD

300	Absent Subscriber	FAILED
301	Unknown_Subscriber	FAILED
302	Unidentified_Subscriber	FAILED
303	Absent Subscriber	FAILED
304	Absent Subscriber	FAILED
305	Network Failure	FAILED
306	Unidentified subscriber	FAILED
307	Unknown_Subscriber	FAILED
308	Unknown Failures	FAILED
309	Absent Subscriber	FAILED
310	Illegal Subscriber	FAILED
311	DLT Not Registered	FAILED
312	Unknown Failures	FAILED
313	Unknown Failures	FAILED
314	Unknown Failures	FAILED
315	Unknown Failures	FAILED
316	Unknown Failures	FAILED
317	Unknown Failures	FAILED
318	Unknown Failures	FAILED
319	Invalid destination address	FAILED
320	Unknown Failures	FAILED
321	Unknown Failures	FAILED
322	Unknown Failures	FAILED
323	Message delivery receipt expired	FAILED
324	Message Waiting List Full	FAILED
325	Unknown Failures	FAILED
326	Operator Blacklist Failed	FAILED
327	Service Barred	FAILED
328	Message delivery receipt expired	FAILED
329	Absent Subscriber	FAILED
330	Subscriber Busy For MT-SMS	FAILED
331	Absent Subscriber	FAILED
332	Unknown Failures	FAILED
333	Absent Subscriber	FAILED
334	Subscriber Busy For MT-SMS	FAILED
335	Network Failure	FAILED
336	Message delivery receipt expired	FAILED
337	Message delivery receipt expired	FAILED
338	Absent Subscriber	FAILED
339	The network does not support SMS	FAILED
340	Subscriber Busy For MT-SMS	FAILED
341	Subscriber is unregistered	FAILED

342	Absent Subscriber	FAILED
343	Unknown Failures	FAILED
344	Unknown Failures	FAILED
345	Unknown Failures	FAILED
346	Absent Subscriber	FAILED
347	Unknown Failures	FAILED
348	Unknown Failures	FAILED
349	Senderid is not whitelisted	FAILED
350	Unknown_Subscriber	FAILED
351	Senderid is not whitelisted	FAILED
352	Unknown subscriber	FAILED
353	Message delivery receipt expired	FAILED
354	Unknown Failures	FAILED
355	Unknown Failures	FAILED
356	Absent Subscriber.	FAILED
357	Unknown Failures	FAILED
358	Unknown Failures	FAILED
359	Memory Capacity Exceeded	FAILED
360	Unknown Failures	FAILED
361	Unknown Failures	FAILED
362	Unknown Failures	FAILED
363	Absent Subscriber.	FAILED
364	Unknown Failures	FAILED
365	Unknown Failures	FAILED
366	Unknown Failures	FAILED
367	Senderid is not whitelisted	FAILED
368	Unknown Failures	FAILED
369	Unknown Failures	FAILED
370	Absent Subscriber.	FAILED
371	Memory Capacity Exceeded/dlrrecpt not received	FAILED
372	Memory Capacity Exceeded/dlrrecpt not received	FAILED
373	Absent Subscriber.	FAILED
374	Absent Subscriber.	FAILED
375	Unknown Subscriber	FAILED
376	Unknown Subscriber	UNDELIV
377	Absent Subscriber.	UNDELIV