

# Rhea VoIP software platform

Bring reliable, interoperable VoIP products to market fast



Rhea is a versatile, mature software platform designed to reduce your time to market for new VoIP products. Based on the industry-standard uClinux operating system, this license- and royalty-free software suite lets you develop a multitude of VoIP applications quickly and efficiently.

At the heart of the platform are Linux's proven dual IPv4/v6 networking stack and an established, certified SIP stack. The IPv4/v6 stack helps future-proof your development by supporting the expansion required for emerging internet applications. It also supports the latest SRTP and TLS-SRTP security protocols. Meanwhile the SIP stack has been verified as interoperable with BroadSoft's BroadWorks – the market's leading VoIP server software – ensuring your VoIP products deliver easy, seamless operation in the field.

Alongside these stacks, Rhea provides a powerful and flexible audio engine that ensures excellent sound quality. It also includes an extensive selection of pre-developed media applications and user interface examples. These speed up system development and let you quickly add new functionality. In addition, a web server and auto-provisioning mechanism give you the option of managing and upgrading your products in the field.

What's more, by combining Rhea with our Natalie DECT / CAT-iq stack you can quickly and easily add cordless accessories such as DECT headsets and handsets to your VoIP application.

## Features

- Certified SIP stack and user agent
- Dual IPv4/v6 networking stack
- Automatic provisioning mechanism & web server
- Powerful and flexible audio engine
- Pre-developed applications
  - User interfaces for text and graphic LCDs
  - Media applications including RSS feeds, internet radio, presence and instant messaging
  - Network phonebook synchronization
  - DECT extensions including handsets and headsets

## Benefits

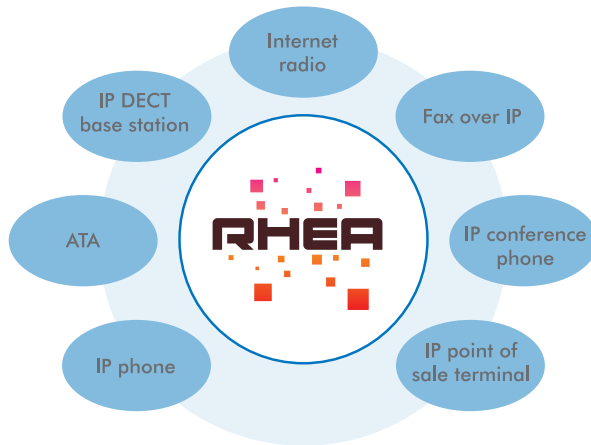
- Reduces time-to-market
- License- and royalty-free
- Based on industry-standard uClinux operating system
- Supports expansion for future Internet applications

## Deliverables

- Full source code of the whole Rhea package
- Comprehensive software development tools suite
- Extensive documentation package
- Hardware development kit

# Technical specifications

One software platform; countless applications



Example VoIP software architecture

MMI	User Interface				Auto provisioning	Web
	High/end MMI	LCD support	Ring & progress tones	Presence	HTTPS - TFTP	
	Text MMI	MP3,WAV, RTTTL	Dial plan	IM	Telnet sever	GoAhead
	Keypad support	Audio player (internet radio)	Phone book (vcards)	RSS feed	TR69	BOA
SIP	SIP Signaling		Call Features			
	SIP UA	RTP, STUN	5 Way conference	Call waiting	Direct IP call	Mute
	UDP, TCP, TLS	SRTP (AES, ARIA)	Call transfer (blind, attended)	Call forward	MWI	Call recording
	NAPTR, DNS	SIP INFO	DND	Hold/Resume	Park/Unpark	Call log
Audio/Networking	Audio			Networking		
	VAD, PLC, CNG	Jitter buffer	Asymmetric codec support	FTP server	NAT	NTP client
	G.711, G.729AB, G.726, G.722, iLBC, T.38	Inband DTMF	4 Channels	DHCP server	Routing	DNS
	PAEC	Sidetone	Tone generator	DHCP client	VLAN	SysLog client
uCLinux	Operating System			Toolchain	Open Source Packages	
	Keypad driver	Ethernet driver	JFFS2	GCC (C, C++)	MiniXml	TrueType fonts
	LCD driver	DECT driver	Threads	XIP	libcurl	openssl
	ALSA	Encryption driver	Module support	Shared libraries	RSS feed	jpeg, png, bmp