# VDK

*Voip Development Kit*

*Give VOIP to your ideas*



**NetResults**
Next Generation Network Engineering
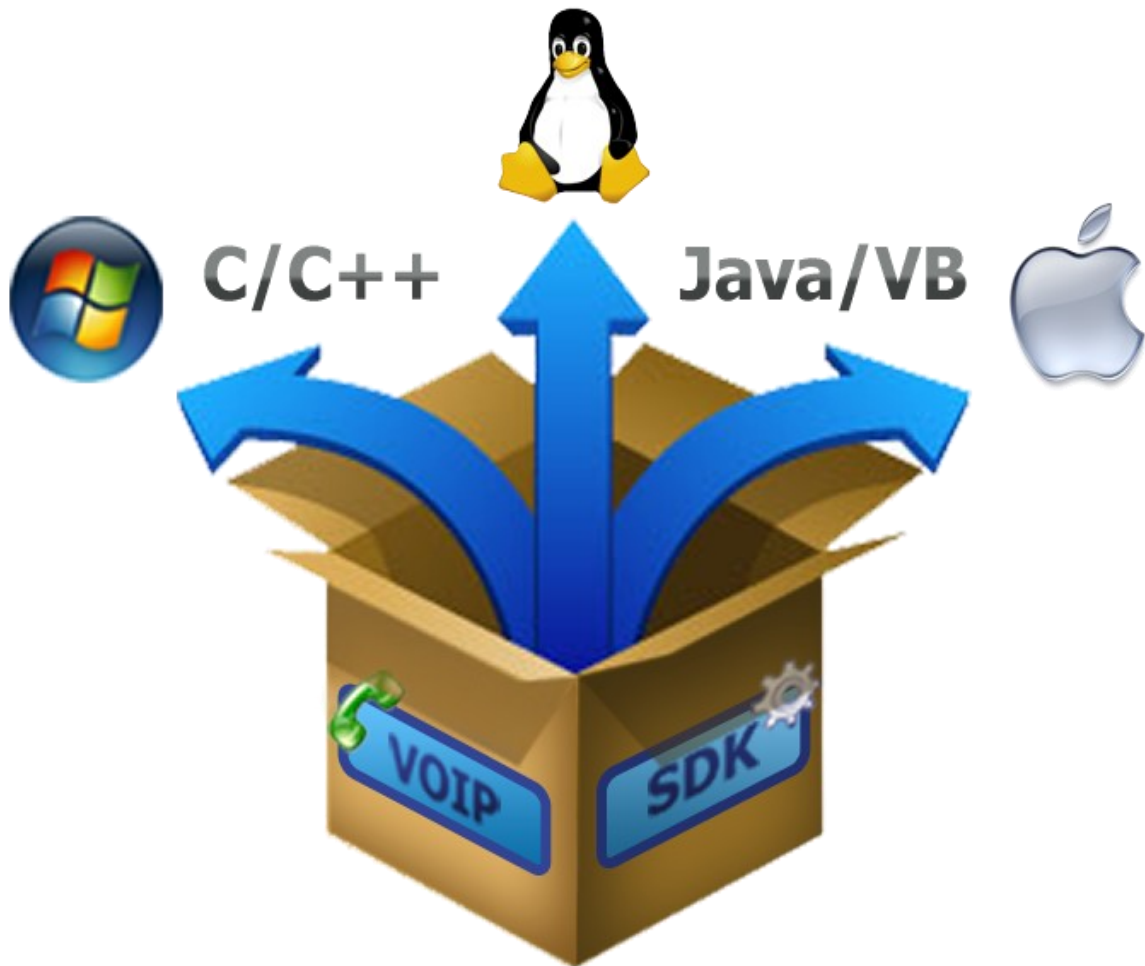
Thanks to the **convergence** phenomenon, all the telecommunication ser - vices will be available through the Internet. For this reason, making a communication service means to create a set of softwares  for certain types of terminals (PCs, mobile phones, etc.).

Google, Skype and Facebook, available for both mobile phones and PCs, are examples of this scenario.

Developing multimedia services needs both computer knowledge (to im - plement the basic idea of the service,  design the user interfaces and choose the hardware platforms  to be used) and  deep telecommunications skills  (to handle the transfer of information among terminals, i.e. through the Internet or the mobile network, and, possibly, to be able to interoperate with third party infrastructure).

The engineering aspects needed for the development of **convergent applications**, especially those related to telecommunication issues,  are often a restraint to the development of new products by software houses, because of the high development costs and the probability to obtain a low quality final result.

**VoIP Development Kit (VDK)** is a library of  software functions that includes all the engineering technicalities needed to develop new, **high quality**, convergent telecommunications services in an   extremely **easy and rapid** way.

With the support of the **VDK** library*,*  software houses will be able to include in their products multimedia components such as: conference calls, VoIP connections and video messaging[*], all based on the Internet services, without worrying about the problems related to the networking issues.

In this way **VDK** allows to dramatically decrease the develop - ment time of this kind of applications while, at the same time, adding  innovation to  existing solutions and increasing develop -
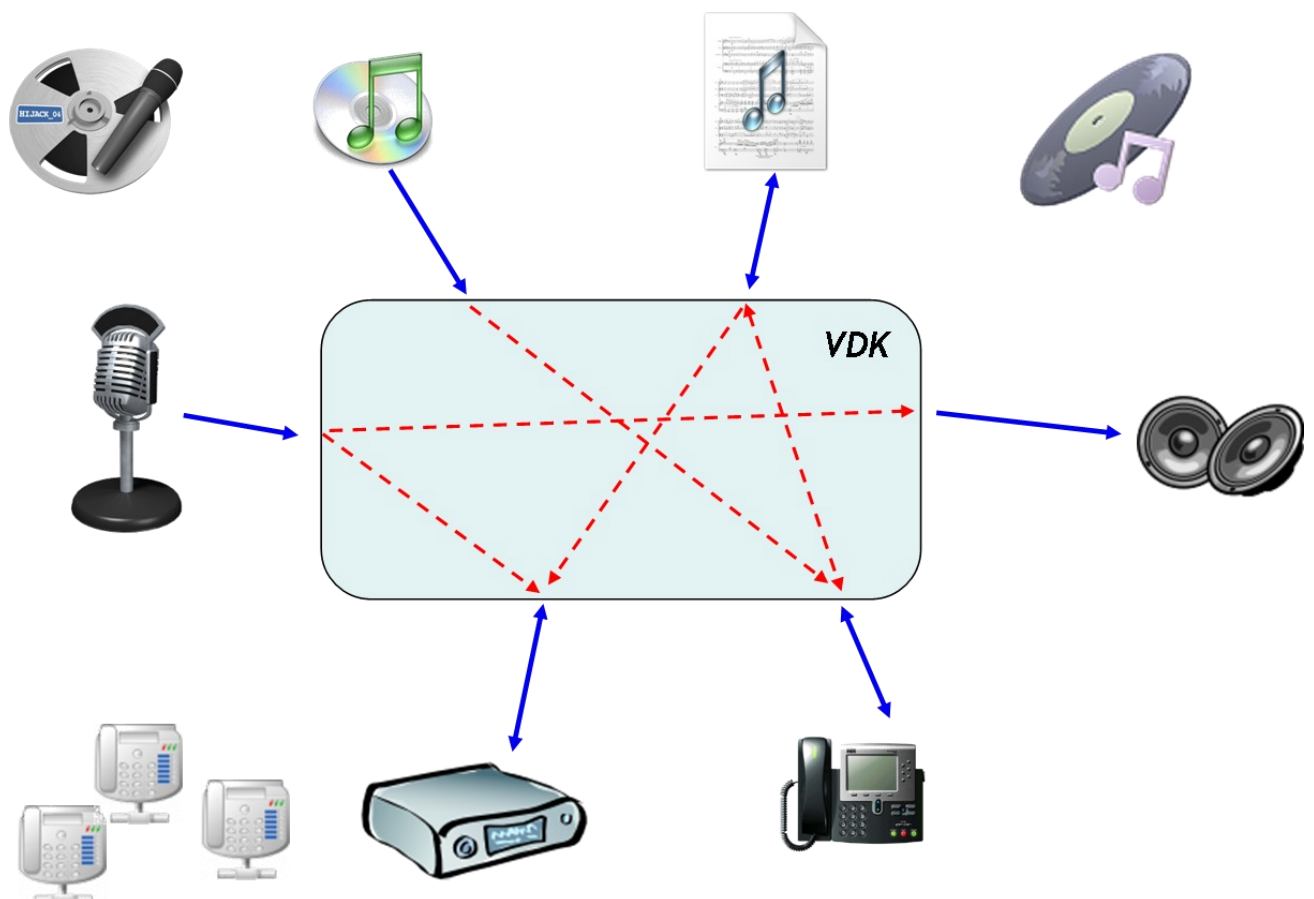
**VDK** is an innovative product  as it presents, first of all, a new concept in the development of multimedia VoIP applications, including in a single tool  some very different communication technologies (VoIP, IMS[*], mobile networks[*], DLNA[*], etc.).

**VDK** has also a flexible plug - in system that    allows experienced users to de - velop new   components to be used with the library. While keeping the imple - mentation details hidden (i.e. for **top secret** codecs)  it is possible to allow third parties to be involved in new scenarios. In these cases it will always be possible to use the library,  enjoying the  simplicity of developing complex applications and the quality of the software created, but without revealing to third parties important  technical details.

**VDK** is the complete toolkit to easily develop multimedia VoIP applications for the Internet.

Innovative features in brief:

- **Extreme rapidity of development.** You can create a fully functional softphone in less than 10 minutes!
- **Maximum flexibility**. It's possible to make communications among SIP lines, MP3 or Wav files, loudspeakers and microphone, etc. with very few lines of code
- **Superb quality of communication** thanks to advanced PLC algorithms and high-quality codecs
- **SMS/MMS support**\*
- **Multi-platform** (runs on Windows Vista/XP, Linux, MacOS X and Windows Mobile\*)
- **Can be used by a variety of programming languages** including C/C++, Java, Visual Basic, C#

Technical features list:

- **Dynamically loadable codecs** (G711, AMR\*\*, Speex, G726, G729\*\*, iLBC and GSM already provided)
- **Voice Activity Detection**, **Silence Suppression** and **Comfort Noise Generation**
- **DTMF reception and generation** (In-band, RFC2833, SIP INFO)
- **Adaptive dejitter buffer**
- **NAT friendly**
- **Multi-line conference**
- **Play and Record files in all the major audio formats**
- **Multiple I/O Device support**
- **Multiple audio framework support** (DirectSound, WinMME, Alsa, OSS, CoreAudio)
- **Do-not-disturb**
- **Connection-based volume settings**
- **Full support to multi-core architectures**

\* Available in future versions
\*\* Need a separately purchased license

**NetResults S.r.l.**
**University of Pisa Spinoff Company**

Polo Tecnologico di Navacchio
Via Giuntini, 63
T. +39 050 754 730
F. +39 050 754 707
56023 Navacchio di Cascina (PI) - ITALY

**www.netresults.it  -  www.voipdevkit.com**
**info@netresults.it  -  vdk@netresults.it**