Speak Freely History

A brief history of Speak Freely:

When I moved to Europe in May of 1991 to help organise
Autodesk's European Software Centre, I realised that one
thing I'd miss is being able to listen in on design
meetings and talk with individual developers without
running up huge phone bills. Autodesk had a dedicated
56 Kb leased line between headquarters in California and
the European Software Centre which was used primarily
for transmitting software updates but which was nearly
idle in the overlap hours between Europe and California.
Since all of our software developers had Sun workstations
which came with audio hardware, I decided to see if I
could put the pieces together so we could talk and/or
broadcast meetings over the leased line. Since raw
Sun mu-law audio requires 64 Kb and I only had 56 Kb
to work with, I hammered in a decimation/expansion scheme
to reduce the bandwidth to 32 Kb. (It remains today, in
a more refined form, as "Simple compression".) I knew
very little about audio encoding at the time--obviously
ADPCM would have been a far better choice, but I was
ignorant of it and I'm not sure a public domain implementation
of it existed in 1991. I first experimented with an RPC
implementation which worked fine over a LAN but was
hopeless over the leased line, which was routed over a
satellite link and had high latency; I finally settled
on UDP as the only viable protocol, a decision
independently reached by the designers of RTP years
later.

Anyway, the first release of what was then called
NetFone was posted on July 11, 1991. Release 2 was
posted on September 12, 1991 and consisted of cleanups
and bug fixes.

That's where things stood until Release 3 on December
13, 1994, which corrected some compiler warnings on
the ANSI compiler which replaced Sun's original K&R
cc.

I didn't really get back into development mode until
the summer of 1995, when I discovered the public
domain implementation of GSM which is still used in
Speak Freely. This, along with Phil Karn's DES (which
I had used in a number of other programs over the
years), and the Silicon Graphics audio drivers supplied
by Paul Schurman made up NetFone release 4, posted on
August 2, 1995. This was the first version able to
run on a typical Internet connection as opposed to a
leased line, albeit still limited to Sun and Silicon
Graphics workstations.

NetFone release 5 followed on August 28, 1995 and added
IDEA encryption as well as fixes to features in release 4.

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Netfone 5.1 was released on September 2, 1995, and
was the first to include the log.doc file.  The program
was renamed Speak Freely as of release 5.2 on
September 21, 1995 and all subsequent development is
documented in the log.

The Windows version began as a port of NetFone 5 (aka 5.0)
and all development following its initial release on
August 23, 1995 is described in the Windows development
log.
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Last Modified: June 26, 1999 by Brian C. Wiles