



Apple + Intel: Changes in Sight

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What has changed? This is the how Steve Ballmer, CEO of Microsoft, questioned whether Apple's decision to include Intel chips in its systems is going to modify the market situation of the software behemoth and Steve Jobs' company. However, this news – surprising for some in spite of the insistent rumors in recent months – does indeed entail some changes.

Since the Motorola processors in Apple computers were replaced by IBM's PowerPC chips, there has been no sign that Apple was going to undertake a substantial change. But the combination of different factors has convinced Steve Jobs to switch to Intel.

To start with, there are fewer compatibility problems now thanks to a tool called Rosetta, which translates PowerPC instructions into Intel's x86 platform. Although this type of binary translation has always been deficient, it seems that the company that developed the engine that Rosetta uses – Transitive, a start-up situated in Silicon Valley – and Apple have been successfully testing the new technology for some time now. In fact, at a recent world meeting of developers, Jobs put the Rosetta through its paces without any problems.

Besides, several companies have announced the development of universal applications. While Mac developers promise programs that are capable of working on both platforms (Intel and IBM), Microsoft announces the creation of future Mac versions. Bruce Chizen, the CEO of Adobe Systems, has made it clear that his company will do everything it can to help Apple's transition.

The relationship between Apple and Intel has every chance of benefiting both companies in the long term, above all thanks to Intel's contribution: the Centrino platform, virtualization technology and the recent developments in security such as the LaGrande technology.

Apple, for its part, is completely geared to providing an integrated platform and will help Intel develop hardware components that are compatible with software.

Highlights

1 This is the second time Apple has changed the architecture of its computers. Back in the nineties, Apple decided to substitute Motorola's 68,000 family of processors for the architecture of the PowerPC chips, developed jointly by IBM and Motorola.

2 The Intel and IBM chips are based on completely different architectures, so the software already developed that wants to run on Apple's new computers will need to have new versions launched. Some users have already voiced their concern for this problem of incompatibility.

3 According to analysts, this decision can favour the appearance of clones and will show up the difference in price between a Mac and a PC based on Windows. But it will also increase the competitiveness of the Macs insofar as they will be faster and more than likely cheaper than the current models.

4 At present, Apple barely has 2% of the global market share in personal computers. However, the overwhelming success of its iPod audio player has boosted the sale of its Mac computers and has placed the company as one of the leading innovators in design and software.

So far, the changeover to the Intel platform could mean that Apple software might run on Macintosh clones, a high risk for Jobs if we keep in mind that he has always subsidized software development through sales of hardware.

However, the LaGrande technology will, in the main, prevent this from happening: it comes with a cryptographic key that stops the MacOS from running on systems not produced by Apple. In other words, it will let an Apple computer work with Windows but will not allow a clone to do the same with the MacOS.

The agreement between Apple and Intel will eventually help develop a series of key products for the future of the company in Cupertino. First of all, it is expected that the Intel's chip Pentium M will contribute to the launch of new portable computers, key to the Apple business and up to now hampered by the technical limitations of the IBM's G5 processor.

Secondly, it will help the possible launch of a videogame version for the iPod, based on Intel's Xscale chips. This will open up a whole new series of opportunities in the world of entertainment.

What does the future hold for us? It is difficult to know the answer to that question but what is very clear is that things have changed, even if Steve Ballmer is not convinced.