

DATABASE

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APPLICATIONS INSIGHT



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Making Real Money in the Virtual World

Usually when we think of large commercial software applications we think of e-commerce, ERP and office productivity, not trolls, magic and heroic quests. But those are key features of one of the most successful commercial software applications of 2005, Blizzard Entertainment's massively multi-player online role-playing game (MMORPG), World of Warcraft (WoW). There are some interesting parallels between these types of software, as well as some unique differences.

Launched at the end of 2004, WoW allows the user to participate in a virtual world in which they create a character who advances in the world by performing quests, fighting monsters and creating or gathering items for sale. Players join together informally or in guilds to perform joint tasks or quests, to duel, battle or interact socially. The experience is like being a character in a Lord of the Rings cartoon.

To play WoW, you must both purchase the game (approximately \$50) and pay a monthly subscription fee of about \$12. Blizzard claimed around five million subscribers after the game had been operational for only one year, which amounts to a staggering \$250 million in game sales and monthly subscription revenues of \$62 million. Together that is over a billion dollars of annual revenue generated by this single game.

Unlike most other commercial games

software, WoW requires a continuing significant investment from Blizzard. Usually in the software world, the majority of investment comes from upfront R&D, after which there is very little incremental cost involved in each subsequent sale. However, WoW requires the establishment of a back-end architecture that can support up to 500,000 concurrent users at any given time--not a simple undertaking at all, especially given the highly demanding nature of the clients' interactions with the back end.

Blizzard achieves scalability in WoW through a "divide and conquer" approach: the game is segregated into relatively self-contained "realms" that have fixed limits on the number of concurrent users (about 10,000). Each realm can be supported by dedicated hardware and software, for example, a dedicated back-end Oracle RDBMS instance.

Interesting as WoW is from a software architecture perspective, some of the sociological and economic consequences are even more fascinating. Most virtual environments like WoW have an internal economy; there is a currency that can be used to purchase goods and materials and often players will barter between each other or will sell goods acquired within the game in order to build up the currency needed to buy other goods. What I find fascinating is that these virtual economies are interacting directly with our real world economy.

For instance, you can buy WoW currency ("gold," "silver" and "copper" coins) on eBay instead of earning them within the game. Based on the current "exchange rate" on one site, 500 WoW gold coins will cost you about \$32 or you could sell 500 WoW gold coins and receive \$8. You can also buy or sell rare items or even complete characters--a top-level character can fetch over \$200!

Making a real-world living from the virtual world is not easy, but such "gold farming" businesses are not unheard of. There are persistent rumors of third-world "sweat shops" where low-paid employees spend long hours in the virtual worlds acquiring goods which are sold in the real world. Blizzard and other companies either discourage or forbid such practices as they interfere with game play, lead to virtual "inflation" and have unsettling legal and ethical implications. However, the increasing prevalence of virtual worlds, together with the nature of supply and demand, suggest that in the future at least some of us will make our living working in a virtual world.

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