

V.92 Technology

Q. What is V.92?

A. V.92 is a new standard in 56K modem technology that was determined by the International Telecommunications Union in June, 2000. This standard is an enhancement of the existing V.90 standard and will enhance the Internet experience of millions of customers throughout the world by allowing faster upload speeds, quicker connection times, and streamlined call handling.

Q. What is the ITU?

A. The International Telecommunications Union (ITU) is a formal, worldwide telecommunications standards body. The ITU is a charter organization of the United Nations (UN) and is based in Geneva, Switzerland.

Q. What does it mean for a standard to be determined by the ITU?

A. At the ITU, standards development occurs via a two-stage process. First, the active participants agree on, or “determine,” a technical specification. Traditionally, modem manufacturers develop and ship products based on the determined standard, because at that time, all technical aspects are agreed upon. The V.92 standard was announced as “determined” on July 4, 2000.

Second, agreement is sought among all the member countries of the UN. Once agreement is reached, the standard is considered “decided,” or “ratified.” V.92 was ratified on November, 2000.

Q. What options does V.92 allow that V.90 does not?

A. In addition to an overall refinement of V.90 technology, V.92 enables three major new functions: “Modem on Hold,” “Quick Connect,” and “V.PCM Upstream.” To receive the full benefit of each of these features, both the user’s modem and the ISP’s server equipment need V.92 upgrades.

“Modem on Hold” allows a modem user to suspend a data call, answer an inbound voice call, then re-establish the data call without ever losing the connection. This permits less intrusive use of a modem in the home and fuller utilization of a single phone line. (Note: This feature requires Call Waiting service from the local phone company.)

“Quick Connect” enables the modem to shorten the initial connect time on a call. The modem can compare the new call to the previous call, and if the line conditions are similar (as will often be the case when calling the same POP on the same phone line), it can bypass portions of the training sequence. This may reduce connect time by 50% or more in some cases.

“V.PCM Upstream” facilitates faster upstream communication with upload speeds reaching 48,000 bits per second (V.90 upstream speeds were limited to 31,200 bps.) The modem user can choose to favor fast downstream communication or to favor a more “balanced” communication flow which will increase upstream data rates while slightly reducing downstream rates. This extra flexibility is ideal for sending large e-mail messages, spreadsheets, presentations or photos, or uploading files.

Q. When will V.92 products be available?

A. U.S. Robotics expects to ship V.92 products by the end of the first calendar quarter of 2001. The company will only ship these products when interoperability testing between U.S. Robotics and major head-end providers has been accomplished.

Q. Will current V.90 products be upgradable?

A. Yes. Many U.S. Robotics products will be upgradable to the new V.92 standard via software download from the U.S. Robotics site at www.usr.com/v92

Q. Will upgrades to V.92 be free?

A. In all cases, the V.92 upgrade will be free for current V.90 U.S. Robotics customers. More complete product upgrade information will be available at launch.