Webmail

Webmail (or **web-based email**) is any email client implemented as a web application accessed via a web browser. Examples of webmail providers include AOL Mail, Gmail, Outlook.com and Yahoo! Mail.[1] Practically every webmail provider offers email access using a webmail client, and many of them also offer email access by a desktop email client using standard email protocols, while many internet service providers provide a webmail client as part of the email service included in their internet service package.

As with any web application, webmail's main advantage over the use of a desktop email client is the ability to send and receive email anywhere from a web browser. Its main disadvantage is the need to be connected to the internet while using it. There exist also other software tools to integrate parts of the webmail functionality into the OS (e.g. creating messages directly from third party applications via MAPI).[2]

History

Early implementations

In the early days of the web, in 1994 and 1995, several people were working on enabling email to be accessed via a web browser. In Europe, there were three implementations, Soren Vejrum's "WWW Mail",[3] Luca Manunza's "WebMail",[4][5] and Remy Wetzels' "WebMail",[6] whereas in the United States, Matt Mankins wrote "Webex".[7] Three of these early applications were perl scripts that included the full source code available for download. Remy Wetzels' version was a CGI program written in C on Unix.

Also in 1994, Bill Fitler, while at Lotus cc:Mail in Mountain View, California, began working on an implementation of web-based email as a CGI program written in C on Windows NT, and demonstrated it publicly at Lotusphere on January 24, 1995.[8][9][10][11]

Soren Vejrum's "WWW Mail" was written when he was studying and working at the Copenhagen Business School in Denmark, and was released on February 28, 1995.[12] Luca Manunza's "WebMail" was written while he was working at CRS4 in Sardinia, with the first source release on March 30, 1995.[13] Remy Wetzels' "WebMail" was written while he was studying at the Eindhoven University of Technology in the Netherlands for the DSE[14][15] and was released early January, 1995. In the United States, Matt Mankins, under the supervision of Dr. Burt Rosenberg at the University of Miami,[16] released his "Webex" application source code in a post to comp.mail.misc on August 8, 1995,[7] although it had been in use as the primary email application at the School of Architecture where Mankins worked for some months prior.

Meanwhile, Bill Fitler's webmail implementation was further developed as a commercial product which Lotus announced and released in the fall of 1995 as cc:Mail for the World Wide Web 1.0, thereby providing an alternative means of accessing a cc:Mail message store (the usual means being a cc:Mail desktop application that operated either via dialup or within the confines of a local area network).[17][18][19][20]

Early commercialization of webmail was also achieved when "Webex"—with no relation to the

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web conferencing company—began to be sold by Mankins' company, DotShop, Inc., at the end of 1995. Within DotShop, "Webex" changed its name to "EMUmail", which would be sold to companies like UPS and Rackspace until its sale to Accurev in 2001.[21] EMUmail was one of the first applications to feature a free version that included embedded advertising as well as a licensed version that did not. As Hotmail developed a foothold on the free email address market, EMUmail started MollyMail, a service to let one check their existing email from the web.[22] After the Accurev acquisition, the EMUmail webmail line was killed in favor of the SMTP.com email delivery service which is still sold today.[23]

Widespread deployment

As the 1990s progressed, and into the 2000s, it became more common for the general public to have access to webmail because:

- many Internet service providers (such as EarthLink) and web hosting providers (such as Verio) began bundling webmail into their service offerings (often in parallel with POP/SMTP services);
- many other enterprises (such as universities and large corporations) also started offering webmail as a way for their user communities to access their email (either locally managed or outsourced);
- webmail service providers (such as Hotmail and RocketMail) emerged in 1996 as a free service to the general public, and rapidly gained in popularity.

In some cases, webmail application software is developed in-house by the organizations running and managing the application, and in some cases it is obtained from software companies that develop and sell such applications, usually as part of an integrated mail server package (an early example being Netscape Messaging Server[24][25]). The market for webmail application software has continued into the 2010s.

Rendering and compatibility

Email users may find the use of both a webmail client and a desktop client using the POP3 protocol presents some difficulties. For example, email messages that are downloaded by the desktop client and are removed from the server will no longer be available on the webmail client. The user is limited to previewing messages using the web client before they are downloaded by the desktop email client. However, one may choose to leave the emails on the server, in which case this problem does not occur. The use of both a webmail client and a desktop client using the IMAP4 protocol allows the contents of the mailbox to be consistently displayed in both the webmail and desktop clients and any action the user performs on messages in one interface will be reflected when email is accessed via the other interface. There are significant differences in rendering capabilities for many popular webmail services such as Gmail, Outlook.com and Yahoo! Mail. Due to the varying treatment of HTML tags, such as <style> and <head>, as well as CSS rendering inconsistencies, email marketing companies rely on older web development techniques to send cross-platform mail. This usually means a greater reliance on tables and inline stylesheets.

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Privacy concerns

Although every email service provider can read the emails stored on its servers (unless encrypted), specific concerns have been raised about webmail.[26] Most popular webmail services tend to use so-called targeting ads[27][28] and online spam-filters (instead of a client-based filter). These services search through email for certain target words and even though service providers may claim that no human reads the emails[28] some providers have been forced to make it possible for users to opt out of this feature.[29] Because web browsing is the expected way of viewing the inbox, webmail providers store emails for a longer time than usual providers, which often delete the email from their servers after they have sent it to the email client.

Another concern is the fact that many webmail service providers are based in the U.S.A. and are therefore subject to the Patriot Act, which means that U.S. authorities can demand that a company must hand over whatever information it has about a user, without necessarily letting the user know, regardless of the country in which the user lives or where the information is stored.[30][31][32]

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