

# Notes from an IT Service Shop

## EMAIL

There's More to It  
than You Think

Some users take email for granted assuming all systems work pretty much the same and that issues inherent with one type of system also exist in all other systems.

While the quality of service is, often times, a reflection of the email service provider more than the type of system being used, other factors can play a part in the overall experience for the user.

This article will review the history of email, how it evolved and the types of systems available today.

Email can have several spellings: E-mail, eMail or email. The preferred spelling is simply email. The first true email system was created in 1965, MIT's CTSS MAIL. CTSS stood for compatible time-sharing system. The system relied on users being logged in to the same mainframe computer to send/receive messages. Other email systems at the time, PROFS (IBM) and Unix mail which were incompatible with each other.

The first email network was Arpanet (Advanced Research Projects Agency Network) in 1971. This was also the first packet switching

network that eventually evolved into the Internet. Funding was originally supplied by the U.S. Department of Defense. The use of the @ sign for user name@ user computer originated on Arpanet, which was shut down in the late 1980s.

There were also several LAN-based email systems in the 1980s that permitted communication between PCs on that network only. cc:Mail, Lotus Notes, Lantastic, and Banyan's Vines were among these systems.

During the dial-up days of communication, the offline email reader became prevalent.

These allowed users to download and then read email, and prepare responses, without being connected to a network. This technology is still used today in Microsoft® Outlook™ and similar email client programs.

With Internet availability now widespread, the vast amount of email users employ an Internet Service Provider to handle the sending and receiving of email.

Most use an email client, a software program that accepts and writes email messages to the hard drive and also sends messages over the Internet to recipients. The most common email client is Microsoft Outlook, which also stores contacts, calendar entries, notes and tasks. A scaled down version of Outlook, Outlook Express, has been discontinued. Other email clients include Eudora® and Pegasus.

The most widely used email servers are POP3 (post office protocol) for incoming messages and SMTP (simple mail transfer Protocol) for outgoing messages.

The email client contacts the appropriate SMTP server via the Internet to send messages from the local system. The SMTP server contacts the appropriate Domain Name Server (DNS) to locate the server for the recipient. Once that server is found, the receiving server routes the message to the POP3 incoming server.

Communication is achieved through a series of ports. For example, POP3 is usually port 110 and SMTP is port 25. However, some ISPs use different ports for their servers.

Another type of incoming server that can

be used in place of POP3 is IMAP (Internet Mail Access Protocol) which is more advanced than POP3 and uses port 143.

Most POP3 and IMAP services have Web mail available to users. The interface can vary from ISP to ISP, but the functionality is similar. This allows the user to check and send email from any computer.

A generic Web mail service, [www.mail2web.com](http://www.mail2web.com), allows users to check email by merely entering their email address and password.

Many companies requiring additional features, including mobile email, have chosen to use Microsoft® Exchange server. Exchange offers features such as calendar, contacts and tasks that can always be in sync with a variety of devices, including smartphones and tablets.

Calendars can be shared with other users without a technician setting them up. Email can be accessed using the Outlook Web Access (OWA) from any computer connected to the Web. The interface looks identical to that of Microsoft Outlook.

One of the strongest features of Exchange is the ability to keep all email folders updated, no matter from what device activity occurs. As an example, an email sent from a smartphone will appear in the sent items folder on the server, not just reside temporarily on the phone itself.

But Exchange is not the only way to keep all folders synchronized. A growing trend is cloud email, which places all layers of email management on remote servers. While most email systems have a cloud component, true cloud email stores nothing on-premise. All email management is performed by the hosting company, thus reducing costs and time required by a hotel.

There are drawbacks to cloud email such as security concerns, lack of Internet access during storms or other significant events, and endless subscription fees.

InterContinental Hotel Group has taken this approach by moving to Google's email system, replacing Microsoft Outlook. Subscription fees can be significantly less with Google than a similar service offered by Microsoft.

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