

# E-Mail Filtering in Android

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**Abstract: E-mail filtering has recently become an important issue due to the increasing popularity of the electronic mail communication. Therefore, there is a constant need to improve the detection of unsolicited messages, or spam. Many researchers have applied machine learning techniques for filtering spam messages, and they were proven to be successful. This mail filtering helps the users to classify the mails and stored it in different folders such as spam mails, family mails, any important mails and some other mails. So that users don't have to sort out their mails.**

## I. INTRODUCTION

Emails are parts of everyday life. Users use emails to communicate with friends, families, e-business and colleagues allowing ease for communication. Email is widely used to synchronize real time communication, which inconsistent with its primary goals.

Because of the high volume of email received daily the mailbox is easily congested. Messages range from organization knowledge to conversations with a broad horizon of topics. Users may find it difficult to prioritize successfully process the contents of incoming messages.

We propose a new effective method for managing information in email, reducing email overloads by the method of grouping emails based on user's activities.

We propose email grouping where incoming mails are identified and grouped into appropriate activities and related messages are grouped in the same activity.

## II. PROPOSED SYSTEM

The present invention includes systems and methods for dynamic electronic-mail filters for mobile devices. Because mobile device displays are so small, a user may wish to be notified of only those e-mail messages that are urgent, time sensitive, or otherwise desirable. E-mail messages addressed to the user are received by an e-mail server, which forwards the messages to a mobile computing device associated with the user. To make it more convenient for the user to distinguish desirable messages from unidentified spam, commercial messages, and various other types of undesirable messages, the user may be notified concerning only the desirable messages.

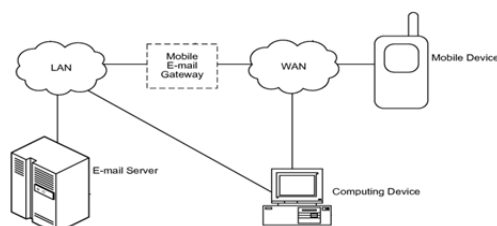


Figure 1 is an illustration of an exemplary implementation of a system for electronic-mail filtering for mobile devices in a communications network.

FIG. 1 is an illustration, of an exemplary implementation of a system for electronic-mail filtering for mobile devices in a communications network. In communications network, e-mail messages may be received by e-mail server and transmitted over a local area network (LAN) such as an office communications network to a computing device. E-mail messages may also be forwarded through a wide area network (WAN) such as the Internet to a mobile device. In some embodiments, system may further include a mobile e-mail gateway.

A network should be generally understood as a group of associated devices (e.g., computing devices) that may be communicatively connected to one another. Communications network may relate a variety of computing devices coupled to one another via a variety of communications channels (e.g., mobile telephone base stations, Internet and so forth). In that regard, networks should be interpreted as being inclusive rather than exclusive.

E-mail server may be any combination of computer hardware and software configured to receive and transmit e-mail messages. E-mail server may be, for example, an enterprise server, such as that found in any number of corporate entities and businesses, configured to be accessed by multiple computing devices, such as computing device. In one example, the e-mail server may be a Microsoft Exchange server, and computing device may access e-mail on the e-mail server through a client software application (not shown) such as Microsoft Outlook. E-mail server may also store e-mail inboxes, contact lists, and various other types of data. Computing device may communicate with the e-mail server over a local area network (LAN), which may be communicatively coupled to a wide area network (WAN) such as the Internet.

LAN and WAN are both computer networks providing communication services to computing devices in a certain geographic area. As indicated by their names, local area network (LAN) covers a small local area, in comparison to wide area network (WAN) which may cover a larger geographic area. An example of LAN may be a private network, such as in a home network or office network. An example of WAN is the Internet. An e-mail server, such as e-mail server, may communicate with various computing devices in the network, such as computing device, through LAN. Computing device may be any of a variety of desktop, laptop, personal computers, etc., configured to communicate with other devices through LAN or WAN. WAN further allows for communication with mobile devices, such as mobile device. Such communication may require the presence of a mobile e-mail gateway.

Mobile device is inclusive of any variety of mobile devices that may communicate over the Internet. Such

communication may include a wireless or landline mobile network. Mobile device are inclusive of cellular telephones, smart phones, PDAs, wireless e-mail devices, handheld computers, and the like. A variety of mobile networks and communications channels for enabling Internet access are well known in the art.

In some embodiments, a mobile e-mail gateway may reside on e-mail server. Alternatively, communications network may include a mobile e-mail gateway as a separate apparatus. Mobile e-mail gateway may provide mobile device with message synchronization or access to e-mail messages stored on e-mail server. Mobile e-mail gateway may further be configured to evaluate an e-mail message to determine whether the message is urgent, time-sensitive, or otherwise desirable to a particular recipient. Desirability may be based on various user specifications.

For example, a message from an e-mail address in the user's contacts database may be desirable. Other desirable messages may include, for example, a message from an e-mail address used by the user to address an outgoing message or a message with the same key words in the subject lines as an outgoing message previously or concurrently sent by the user. Operating in conjunction with e-mail server, mobile e-mail gateway allows for a copy of the desirable message to be provided to the mobile device, which may also include a notification concerning the receipt of the desirable messages. Notifying the user concerning the receipt of desirable messages allows the user to quickly review an e-mail inbox on mobile device without having to distinguish the desirable messages from undesirable messages.

Mobile e-mail gateway allows for the desirable messages to be filtered from undesirable messages. In some embodiments, only the desirable messages are delivered to mobile device. Alternatively, all messages may be delivered to mobile device but only the desirable messages are automatically displayed. Undesirable messages may be hidden from view until requested by the user.

Using information such as e-mail addresses in a contacts database to determine message desirability allows for updates to e-mail filtering without further effort for the user. For example, if a user adds a new contact to the contacts database, mobile e-mail gateway can use the updated information in determining message desirability. In some embodiments, new e-mail addresses used by the user to address outgoing messages may be automatically added to a contacts database associated with the user. Information used to determine desirability of an email message may

further include key words used in subject lines or a message body. As the user sends outgoing messages, information concerning the email address of the addresses, keywords in subject lines or message body and so forth may be saved and referred to later by mobile email gateway.

### III. CONCLUSION

This project represents an idea that will give service to the users and reduce the efforts. Technologies were created by human beings for human beings to reduce his/her efforts and this project delivers an idea that can reduce the user's effort to check their mail and identify the required mails fast which gets stored in folders.

### IV. FUTURE SCOPE

We have presented an overview of the proposed solutions to extract important words in email messages to provide a better summary. This is another better way of generating useful summaries.

Though there are a lot of works offering methods for classification of email into folders, there is no one previous scientific work and experimental study showing classification of messages into thematically groups.

Our system would also be able to group emails messages to user's activities and provide a mechanism for emails that needs attention.

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