JAVAMAIL API - IMAP SERVERS

IMAP is Acronym for **Internet Message Access Protocol**. It is an Application Layer Internet protocol that allows an e-mail client to access e-mail on a remote mail server. An IMAP server typically listens on well-known port 143. IMAP over SSL *IMAPS* is assigned to port number 993.

IMAP supports both on-line and off-line modes of operation. E-mail clients using IMAP generally leave messages on the server until the user explicitly deletes them.

Package **com.sun.mail.imap** is an IMAP protocol provider for the JavaMail API that provides access to an IMAP message store. The table below lists the interface and classes of this provider:

Class/Interface	Description
IMAPFolder.ProtocolCommand	This a simple *interface* for user-defined IMAP protocol commands.
ACL	This is a class. An access control list entry for a particular authentication identifier *userorgroup*.
IMAPFolder	This class implements an IMAP folder.
IMAPFolder.FetchProfileItem	This a class for fetching headers.
IMAPMessage	This class implements an ReadableMime object.
IMAPMessage.FetchProfileCondition	This class implements the test to be done on each message in the folder.
IMAPSSLStore	This class provides access to an IMAP message store over SSL.
IMAPStore	This class provides access to an IMAP message store.
Rights	This class represents the set of rights for an authentication identifier *forinstance, auseroragroup*.
Rights.Right	This inner class represents an individual right.
SortTerm	A particular sort criteria, as defined by RFC 5256.

Some points to be noted above this provider:

- This provider supports both the IMAP4 and IMAP4rev1 protocols.
- A connected IMAPStore maintains a pool of IMAP protocol objects for use in communicating with the IMAP server. As folders are opened and new IMAP protocol objects are needed, the IMAPStore will provide them from the connection pool, or create them if none are available. When a folder is closed, its IMAP protocol object is returned to the connection pool if the pool .
- The connected IMAPStore object may or may not maintain a separate IMAP protocol object that provides the store a dedicated connection to the IMAP server.

The IMAP protocol provider supports the following properties, which may be set in the JavaMail Session object. The properties are always set as strings; the **Type** column describes how the string is interpreted.

Name	Type	Description
mail.imap.user	String	Default user name for IMAP.
mail.imap.host	String	The IMAP server to connect to.
mail.imap.port	int	The IMAP server port to connect to, if the connect

		method doesn't explicitly specify one. Defaults to 143.
mail.imap.partialfetch	boolean	Controls whether the IMAP partial-fetch capability should be used. Defaults to true.
mail.imap.fetchsize	int	Partial fetch size in bytes. Defaults to 16K.
mail.imap.ignorebodystructuresize	boolean	The IMAP BODYSTRUCTURE response includes the exact size of each body part. Normally, this size is used to determine how much data to fetch for each body part. Defaults to false.
mail.imap.connectiontimeout	int	Socket connection timeout value in milliseconds. Default is infinite timeout.
mail.imap.timeout	int	Socket I/O timeout value in milliseconds. Default is infinite timeout.
mail.imap.statuscachetimeout	int	Timeout value in milliseconds for cache of STATUS command response. Default is 1000 *1second*. Zero disables cache.
mail.imap.appendbuffersize	int	Maximum size of a message to buffer in memory when appending to an IMAP folder.
mail.imap.connectionpoolsize	int	Maximum number of available connections in the connection pool. Default is 1.
mail.imap.connectionpooltimeout	int	Timeout value in milliseconds for connection pool connections. Default is 45000 *45seconds*.
mail.imap.separatestoreconnection	boolean	Flag to indicate whether to use a dedicated store connection for store commands. Default is false.
mail.imap.auth.login.disable	boolean	If true, prevents use of the non-standard AUTHENTICATE LOGIN command, instead using the plain LOGIN command. Default is false.
mail.imap.auth.plain.disable	boolean	If true, prevents use of the AUTHENTICATE PLAIN command. Default is false.
mail.imap.auth.ntlm.disable	boolean	If true, prevents use of the AUTHENTICATE NTLM command. Default is false.
mail.imap.proxyauth.user	String	If the server supports the PROXYAUTH extension, this property specifies the name of the user to act as. Authenticate to the server using the administrator's credentials. After authentication, the IMAP provider will issue the PROXYAUTH command with the user name specified in this property.
mail.imap.localaddress	String	Local address *hostname* to bind to when creating the IMAP socket. Defaults to the address picked by the Socket class.
mail.imap.localport	int	Local port number to bind to when creating the IMAP socket. Defaults to the port number picked by the Socket class.
mail.imap.sasl.enable	boolean	If set to true, attempt to use the javax.security.sasl package to choose an authentication mechanism for login. Defaults to false.
mail.imap.sasl.mechanisms	String	A space or comma separated list of SASL mechanism names to try to use.
mail.imap.sasl.authorizationid	String	The authorization ID to use in the SASL authentication. If not set, the authentication ID *username* is used.
mail.imap.sasl.realm	String	The realm to use with SASL authentication mechanisms that require a realm, such as DIGEST-MD5.

mail.imap.auth.ntlm.domain	String	The NTLM authentication domain.
mail.imap.auth.ntlm.flags	int	NTLM protocol-specific flags.
mail.imap.socketFactory	Socket Factory	If set to a class that implements the javax.net.SocketFactory interface, this class will be used to create IMAP sockets.
mail.imap.socketFactory.class	String	If set, specifies the name of a class that implements the javax.net.SocketFactory interface. This class will be used to create IMAP sockets.
mail.imap.socketFactory.fallback	boolean	If set to true, failure to create a socket using the specified socket factory class will cause the socket to be created using the java.net.Socket class. Defaults to true.
mail.imap.socketFactory.port	int	Specifies the port to connect to when using the specified socket factory. Default port is used when not set.
mail.imap.ssl.enable	boolean	If set to true, use SSL to connect and use the SSL port by default. Defaults to false for the "imap" protocol and true for the "imaps" protocol.
mail.imap.ssl.checkserveridentity	boolean	If set to true, check the server identity as specified by RFC 2595. Defaults to false.
mail.imap.ssl.trust	String	If set, and a socket factory hasn't been specified, enables use of a MailSSLSocketFactory. If set to "*", all hosts are trusted. If set to a whitespace separated list of hosts, those hosts are trusted. Otherwise, trust depends on the certificate the server presents.
mail.imap.ssl.socketFactory	SSL Socket Factory	If set to a class that extends the javax.net.ssl.SSLSocketFactory class, this class will be used to create IMAP SSL sockets.
mail.imap.ssl.socketFactory.class	String	If set, specifies the name of a class that extends the javax.net.ssl.SSLSocketFactory class. This class will be used to create IMAP SSL sockets.
mail.imap.ssl.socketFactory.port	int	Specifies the port to connect to when using the specified socket factory. If not set, the default port will be used.
mail.imap.ssl.protocols	string	Specifies the SSL protocols that will be enabled for SSL connections. The property value is a whitespace separated list of tokens acceptable to the javax.net.ssl.SSLSocket.setEnabledProtocols method.
mail.imap.starttls.enable	boolean	If true, enables the use of the STARTTLS command *ifsupportedbytheserver* to switch the connection to a TLS-protected connection before issuing any login commands. Default is false.
mail.imap.starttls.required	boolean	If true, requires the use of the STARTTLS command. If the server doesn't support the STARTTLS command, or the command fails, the connect method will fail. Defaults to false.
mail.imap.socks.host	string	Specifies the host name of a SOCKS5 proxy server that will be used for connections to the mail server.
mail.imap.socks.port	string	Specifies the port number for the SOCKS5 proxy server. This should only need to be used if the proxy server is not using the standard port number of 1080.
mail.imap.minidletime	int	This property sets the delay in milliseconds. If not set,

		the default is 10 milliseconds.
mail.imap.enableimapevents	boolean	Enable special IMAP-specific events to be delivered to the Store's ConnectionListener. If true, unsolicited responses received during the Store's idle method will be sent as ConnectionEvents with a type of IMAPStore.RESPONSE. The event's message will be the raw IMAP response string. By default, these events are not sent.
mail.imap.folder.class	String	Class name of a subclass of com.sun.mail.imap.IMAPFolder. The subclass can be used to provide support for additional IMAP commands. The subclass must have public constructors of the form public MyIMAPFolder *StringfullName, charseparator, IMAPStorestore, BooleanisNamespace* and public MyIMAPFolder*ListInfoli, IMAPStorestore*

In general, applications should not need to use the classes in this package directly. Instead, they should use the APIs defined by javax.mail package *andsubpackages*. Applications should never construct instances of IMAPStore or IMAPFolder directly. Instead, they should use the Session method getStore to acquire an appropriate Store object, and from that acquire Folder objects.

Examples to use IMAP server is demonstrated in chapter Quota Management.