



Alert (18)

A mailbox can be full even if the Class of Service limit has not been reached

TO: All Field Service Engineers and Customer Technical Support Specialists

FROM: Avaya, Inc. Product Technical Support

SUBJECT: How a mailbox can be full even if the Class of Service limit of 135 messages has not been reached.

DATE: 01/20/99

AFFECTED SYSTEMS: Octel 250/350 systems

DESCRIPTION: This document describes the reason that a mailbox can become full even if the Class of Service allowance of 135 messages has not been reached.

The User Record

Each Mailbox in the system is also called a "User Record". A User Record that is used as a Mailbox contains two distinct areas.

- A Body, which contains information about the mailbox setup from menu 8 and 9.1.
- A Message Directory, which contains "pointers" to both Messages and Personal Group List members.

Some Facts

- The User Record has a fixed maximum record size of 4k or 4096 bytes of data. The Body is fixed at 1024 bytes of data. The Message Directory can be from 0 to 3072 bytes of data.
- The size of the User Record expands up to the maximum size as needed to accommodate new pointers to Personal Group List and Message entries.
- Pointers to Messages and Group List members vary in length depending on the type of entry.
- The Class of Service allows "Max Messages (total): 135". This is the maximum number of pointers to messages that can be in the Message Directory of a User Record.
- The Class of Service allows "Max No. of Group Lists: 15" and "Number of Destinations per List: 25". This is the maximum number of pointers to

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Personal Group List members that can be in the Message Directory of a User Record. 15 X 25 members = 375 entries.

- A Mailbox will be FULL if it reaches the Class of Service limits.
- **A Mailbox will be FULL if it reaches the physical size limit of the User Record even if it hasn't reached the Class of Service limits.**

Group List Member Pointers

The Message Directory area contains pointers to the users Personal Group List members.

- A pointer for a Personal Group List member of a Mailbox that is on your system uses 2 bytes of space.
- A pointer for a Personal Group List member of a Mailbox on a remote system (via networking) can use up to 14 bytes of space.

Message Pointers

Message Pointers are used for a wide range of functions. Not only do they point to regular messages for that mailbox, they point to FAX messages, networked messages, returned network and FAX messages, and special messages and phrases for Data Module or IVR applications. All of the pointers take up a various lengths of space in the Message Directory.

- A pointer for a single message that was sent from a Mailbox to a Mailbox on the same system uses 11 bytes of space.
- A pointer for a message left by a caller forwarded to the mailbox may use from 11 to 22 bytes of space.
- A pointer for a message that was sent via the "send copy" function in a mailbox will contain the original message pointer and the "introduction" pointer. This will be 22 bytes in length. (11 + 11 bytes each). This message forwarded again with another introduction will use up 33 bytes in the recipients Message Directory, (11 + 11 + 11). And so on. **This message will count as 1 message against your Class of Service limit even though it takes up the physical space of 3 message pointers!**
- A pointer for a message received via an analog networking node uses 22 bytes of space.
- A pointer for a message received via a digital networking node will retain each "introduction" or "segment" of the message. At the minimum, it will use 22 bytes of space. If the message contains many introductions or segments, it will take up 11 bytes times the number of segments but only count as 1 message against your Class of Service limit.
- A pointer for a FAX message uses at least 22 bytes of space.
- A mailbox that is close to reaching the physical size limit will not say that it's full to the user (since it's not), even if another user attempts to send a multi-segment message to it and it says it's full to them. This is because it may have enough room for a single segment message but not enough for more than that.

There are many combinations of pointers in the Message Directory portion of the mailbox not explained above. Because of the variable length of these pointers it is possible to fill the physical capacity of the mailbox before the Class of Service limits are reached.

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Examples

The examples below show 3 types of users on a system. They will not fit your scenario exactly as all users and system usage are different. They are provided to give you an idea of what type of user may have this issue.

Typical User

- Class of Service allows 135 messages.
- User has no Personal Group List members.
- User likes to retain many messages but deletes them every few weeks.
- User typically receives messages from outside callers.
- User typically receives a few Fax's a day, prints then deletes them.
- User receives few forwarded messages from other users.
- User receives a few message from remote nodes via both Analog and Digital Networking.
- ***This user will probably hit the 135 message limit before the physical User Record gets full.***

Heavy User

- Class of Service allows 135 messages.
- User has 10 Personal Group lists with 25 members each, some entries are to users on other systems (networked).
- User has to retain important messages for business reasons.
- User receives many messages that have been forwarded around the company multiple times.
- User receives many messages from outside callers that contain ANI information.
- User receives many messages from other users on remote nodes via Analog and Digital Networking.
- User receives many Fax's via Telephone Answering and Networking. Does not delete them after printing.
- ***This user may hit the physical size limit of the User Record even if the 135 message limit has not been hit.***

Power User

- Class of Service allows 135 messages.
- User has all 15 Personal Group lists full with 25 members each, many members are to users on other systems (networked).
- User retains all messages for business reasons
- User receives many messages that have been forwarded around the company multiple times.
- User receives messages from outside callers that contain ANI information.
- User receives many Fax's via remote nodes via Analog and Digital Networking.

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- User receives many messages from other users on remote nodes via Analog and Digital Networking. Many messages from the Digital node have been forwarded copies with many introductions.
- User may send a copy of an important message back to themselves with their own introduction as a reminder.
- User uses Future Delivery messages sent to themselves as reminders.
- ***This user will probably hit the physical size limit of the User Record even if the 135 message limit has not been hit.***

RESOLUTION:

If a user is reaching the physical limit of their mailbox before the Class of Service limit and they don't change the way the mailbox is being used, try the following.

- Create a second Mailbox for Power Users to store messages that are not needed on a daily basis. They can use this second Mailbox as an Archive Mailbox. Just send copies of important messages to this mailbox then delete the original copy in the users normal mailbox.
- Use Visual Messenger to download important messages to the local storage of your PC or Server, then delete the message from the mailbox.
- Create System Distribution Lists for your power users so they can free up some physical space in their mailbox by not needing to have Personal Group List pointers.

If you have any questions, contact Aria TAC at 408-922-1822.

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