

IBM Lotus Notes 第 8 版用戶端：使用強化配額(Quota)功能

級別：中級

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進一步瞭解 IBM Lotus Notes 第 8 版的強化配額功能，藉此限制新建的行事曆項目、待辦事項與備忘錄。

編輯附註：本文所述，均指 IBM Lotus Notes 第 8 版的強化配額功能。在產品本身或其說明文件中，並未使用「強化配額」四字，但就 IBM Lotus Notes 第 8 版而言，它卻是形容全新配額功能的最佳名稱。

在 IBM Lotus Notes 7.0.2 中導入的新功能，可讓您更密切控管郵件檔案配額。現在，您可以限制透過 Lotus Notes 用戶端新建的備忘錄、行事曆項目與待辦事項。本文屬於 Joseph Anderson 所撰「[瞭解 IBM Lotus Domino 郵件資料庫的配額](#)」一文的附錄，它說明如何在 Lotus Notes 用戶端功能中，納入您公司的配額原則。您也可以參閱 Lotus Support Technote「[對於在本端新建郵件、行事曆項目或伺服器型郵件檔案強制執行配額 \(Enforcing quotas on new mail or Calendar entry creation in local or server based files\)](#)」。

本文探討者，屬於進階管理功能，我們在文中稱該功能為「強化配額」功能。這個功能的配置，需要予以監控，特別是在更新期間，以避免遺失舊式的 notes.ini 參數。

功效

「強化配額」功能的主要功效，在於預防使用者的郵件資料庫超出其備忘錄、行事曆或待辦事項新建的配額。在導入這個功能之前，配額限制是在使用者儲存文件時執行。您也可以透過「配置設定」文件，於遞送郵件伺服器的郵件時，啟用配額檢查。客戶指出，郵件遞送配額執行過於嚴格，而且伺服器配額功能無法充分地控制配額執行。

一旦啟動「強化配額」功能，它就會新增參數至 Notes.ini 檔，列出使用者配額的相關詳細資料，如清單 1 所示。

清單 1：範例 INI 參數

```
Saurabh Calla_LastMailDbSize=16498 (The size of the mail file)
Saurabh Calla_LastMailDbWarningQuota=0 (Mail file warning quota)
Saurabh Calla_LastMailDbMaxQuota=0 (Mail file DB Quota)
LastMailDbSizeCheckTime=03/14/2007 10:39:49 AM (Last time mail file size was checked)
```

系統將新增這些 INI 設定，並且根據郵件輪詢間隔進行重整，您可以透過 **Lotus Notes** 用戶端偏好設定，配置郵件輪詢間隔。您可以透過原則文件，將用於啟動與配置此功能的所有 INI 設定，委派給個別的 **Lotus Notes** 用戶端使用者。請參閱 [Lotus Domino 8 管理者說明](#)，進一步瞭解新建原則的相關資訊。

當使用嘗試新建備忘錄、行事曆項目或待辦事項時，**Lotus Notes** 用戶端將行核對，確認使用者並未超出配額。如果使用者超出其配額，系統隨即顯示錯誤訊息，並且不許使用者新建文件。假如使用者已超出警告臨界值，但尚未超出配額，則系統將顯示另一個警告訊息，使用者仍可繼續新建文件。您可以透過郵件範本或 **Lotus Notes** 用戶端中的 INI 設定，來自訂前述兩種訊息。本文的下一節，將進一步對自訂作業詳加說明。

行事曆管理員，能使用額外的 INI 參數，一旦行事曆管理員存取某原則的郵件檔案（且他是該檔案的代理人），此 INI 參數就會新增至 **Notes.ini** 檔：

```
DELEGATED_MAIL_FILE1=tom
jones_mh2/mwh6/us!!mail\tjones.nsf_2005/5/13
DELEGATED_MAIL_FILE2=michael
jones_mh2/mwh6/us!!mail\mjones.nsf_2005/5/13
```

INI 參數尾端的日期，顯示的是該郵件檔案前一次的存取時間。在 **Notes.ini** 中最多可以有十個項目，因此，如果行事曆管理員存取第十一個使用者的郵件檔案，則最舊的 INI 就會遭到覆蓋、改寫。

配置

本節探討的是，配置「強化配額」功能之際，應予牢記的重點。

控制頻率

下列 INI 參數有助您對於何時從伺服器擷取郵件檔案大小資訊，予以更深入控制。

```
CheckQuotaWhenLessThan80=30
```

CheckQuotaWhenLessThan90=15

CheckQuotaWhenLessThan100=5

這些是預設參數，您可以另行定義如 CheckQuotaWhenLessThanNN where NN = 10、20 等等。

例如，CheckQuotaWhenLessThan80=30 設定將告知 Lotus Notes 用戶端，當使用者郵件檔案小於或等於其配額的 80% 時，每隔 30 分鐘檢查郵件檔案大小變更。

附註：這些 INI 參數仍然受限於新郵件輪詢間隔。因此，如果在 Lotus Notes 用戶端中所設定的新郵件輪詢間隔為 15 分鐘，則最短的變更檢查時間仍為 15 分鐘，如表 1 所示。

表 1：控制配額檢查頻率的 INI 參數

INI 設定	用戶端郵件輪詢間隔	有效的最短檢查時間
CheckQuotaWhenLessThan90=20	15	30
CheckQuotaWhenLessThan90=15	15	15
CheckQuotaWhenLessThan90=5	15	15

重新啓動新建文件

以下 INI 參數，容許使用者透過代理程式，在郵件檔案內重新啓動新建文件功能。唯有當郵件檔案是在伺服器而非本端使用時，才能執行這個代理程式。它會擷取配額值、警告臨界值與目前的郵件檔案大小，並且適當設定 INI 值。一旦郵件檔案大小縮減，使用者即能新建備忘錄、待辦事項與行事曆項目。這個參數並非用以迴避這項新功能，而是用來更新已儲存 INI 值的方法。選擇 **Actions - Tools - Reactivate Mail Send Functions** 來重新啓動新建文件功能。

\$REACTIVATE_MAIL_QUOTA=1

配置使用者訊息

清單 2 中的 INI 參數，可自訂訊息，供使用者查看，如超過配額的錯誤訊息等。這些 INI 參數屬於選用性，郵件範本中尚儲存有預設文字供使用。

清單 2：用於配置使用者訊息的 INI 參數

```
Over Quota Message INI: QUOTA_OVER_MSG=<msg txt>
Over Quota Warning Message INI: QUOTA_WARNING_MSG=<msg txt>
Over Quota Message Title INI: QUOTA_OVER_TITLE=<title txt>
Over Quota Warning Message Title INI: QUOTA_WARNING_TITLE=<title txt>
```

下列訊息與警告文字，僅適用於行事曆與排程：

Over Quota Message INI: CS_QUOTA_OVER_MSG=<msg txt>

Over Quota Warning Message INI: CS_QUOTA_WARNING_MSG=>msg txt>

附註：設定 INI 參數，將置換掉原本儲存於範本中的文字。

啓動

若要啓動此功能，請將下列參數新增至使用者的 **Notes.ini** 檔。直到下一次郵件輪詢間隔發生時，這個功能才會完整運作，並且將配額資訊儲存於 **Notes.ini** 檔。

Check_Quota_On_Mail_Create=1

使用情境

本節說明此新功能與說明文件的使用方式，您可以據此進行自訂。

更密切控制配額原則

配額的設計，原本是做爲伺服器端的解決方案，協助企業更有效地管理其磁碟空間。其原理即由使用者清理其郵件檔案，以避免發生超出配額的情況。然而，管理者不能強迫已超出配額的使用者，令其縮減郵件檔案，使用者仍能繼續傳送及接收郵件，因此，他們可以在儲存郵件時忽略配額錯誤訊息。現在，由於新的用戶端型配額功能限制了郵件、行事曆項目與待辦事項的新建，使用者就不得不採取動作了。系統還可顯示新的自訂訊息，對使用者提供實用了相關資訊 這些訊息包括企業原則、保存訊息的步驟，以及執行郵件重新啓動代理程式的步驟。

伺服器配額侷限

「強化配額」功能，還有助於解決現行配額處理機制中的部分侷限。

使用者若是超出配額，目前的伺服器配額功能可以限制使用者在其郵件檔案中儲存文件，但是無法限制他們傳送郵件。這種方式難免導致一些問題，特別是在行事曆項目方面，倘若超出配額的使用者，在其行事曆中建立會議，會議文件將無法儲存在使用者本身的郵件檔案內，這麼一來，雖然所有的受邀者都收到會議訊息，會議主持人在自己的行事曆中卻看不到任何項目，以致無法進行個人查詢或

者重新排程。採用了新的配額功能，使用者就無法在行事曆中新建會議項目，迫使他先行縮減自身的郵件檔案大小。

伺服器配額功能的另一項侷限，在於使用者可以傳送郵件給自己，由於依預設，超出本身配額的使用者仍能接收郵件，他們便可利用這個技巧規避配額控制。您則可以啓用 **Lotus Domino Server Configuration** 文件中的路由器配額強制執行，防範這種行爲，並阻止路由器遞送郵件給超出配額的使用者。對於大部分的環境而言，這個方法顯得過於嚴格，因爲限制接收郵件將降低使用者的生產力。實施新的配額功能之後，使用者還是可以接收郵件；他們只是無法新建備忘錄、行事曆項目或工作。

現今有許多組織，爲了遵循聯辦法規與命令，必須儲存員工傳送與接收的電子郵件。但如同前述，伺服器型配額功能無法有效達成法規遵循的要求，新的配額功能則能避免超出配額的員工傳送郵件，因此，它可以確保唯有本身的郵件檔案能夠保留副本時，才會遞送電子郵件。

自訂作業

您可以從範本中，找到新配額功能的大部分程式碼。大部分的工作，都在 **CheckQuotas script** 檔案庫中執行，這個檔案庫還包含使用者會收到的訊息，例如，當使用者嘗試新建行事曆項目但已超出配額時，所接獲的訊息。這種種訊息，包括了表格 2 中所列的郵件範本參數，對應的 INI 參數也一併列出。郵件範本程式碼預設使用 INI 參數，如果它們出現，將替換掉原有的郵件範本參數。

表 2：比較 INI 與郵件範本配置參數

郵件範本參數	INI 參數	說明
OVERQUOTAMSG	QUOTA_OVER_MSG	訊息顯示對象：超出配額但嘗試新建備忘錄的使用者。
QUOTAWARNINGMSG	QUOTA_WARNING_MSG	訊息顯示對象：已跨越郵件檔案配額警告臨界值，但還未超出配額的使用者。
CS_OVERQUOTAMSG	CS_QUOTA_OVER_MSG	訊息顯示對象：已經超出配額，但仍試圖新建行事曆項目的使用者。
CS_QUOTAWARNINGMSG	CS_QUOTA_WARNING_MSG	訊息顯示對象：已跨越郵件檔案配額警告臨界值，但還未超出配額的使用者。
REACT_MSG_ONSERV	N/A	訊息顯示對象：嘗試對其本端郵件檔案執行郵件重新啓動代理

		程式的使用者。
REACT_MSG_FINISHED	N/A	在郵件重新啓動代理程式順利完成時所顯示的訊息。
REACT_MSG_STARTED	N/A	在執行郵件重新啓動代理程式之前取得使用者核准時所顯示的訊息。
QUOTALIMITTXT	N/A	在顯示使用者目前配額值時，所呈現的文字。
DBSIZETXT	N/A	在顯示使用者目前郵件檔案大小時，所呈現的文字。
QUOTAWARNINGTXT	N/A	在顯示使用者目前警告臨界值時，所呈現的文字。
OVERQUOTATITLE	QUOTA_OVER_TITLE	超出配額錯誤訊息所在視窗的標題。
QUOTAWARNINGTITLE	QUOTA_WARNING_TITLE	超出警告臨界值訊息所在視窗的標題。

您可以修改這些在 **CheckQuotas script** 檔案庫中找到的參數，從而享有更多的彈性，即透過郵件範本自訂作業，即刻修改訊息。在郵件範本與 INI 參數之間有功能重複，如 **OVERQUOTATITLE** 參數與 **QUOTA_OVER_TITLE** INI 參數。然而，也有部分的郵件範本參數並無對應的 INI 參數。

超出配額檢查

超出配額的檢查，理當發生於 Memo、Reply、Reply with History、To Do、_Calendar Entry 與 Special\Phone Message 表格中的 QueryOpen 事件期間。如果使用者超出配額，則會先執行配額檢查程式碼，然後，訊息框中隨即顯示儲存於 **OVERQUOTAMSG** 參數的文字。假如使用者尚未超出配額，但已越過警告臨界值，則會顯示配額警告訊息 (**QUOTAWARNINGMESSAGE**)。這個作業也會套用至新建行事曆項目，在這些案例中，將使用 **CS_OVERQUOTAMSG** 與 **CS_QUOTAWARNINGMSG** 訊息。

您可以在執行這個執行碼之前、期間或之後執行作業，例如，將使用者接獲的配額錯誤訊息通知，記錄至管理資料庫。

附註：修改郵件範本涉及升級變更。每個組織都必須針對自訂郵件範本與額外管理作業，權衡其間的得失。

郵件重新啓動代理程式

由於配額 INI 值僅在新郵件輪詢期間才會更新，因此超出配額使用者需要更快速的方式，來重新啓用其郵件建立功能，郵件重新啓動代理程式，可提供使用者此功能，您可以撰擇 **Actions - Validate – Reactivate Mail Send Functions** 來執行代理程式。開始執行後，這個代理程式將取得目前的資料庫大小、配額值與警告臨界值，並且改寫對應的 INI 參數，然後，使用者即可重新啓動用戶端，以收取各項數值。如果新的郵件資料庫大小低於配額，則使用者的郵件與行事曆建立功能就會還原。假如使用不肯將其郵件檔案的大小縮減至配額範圍內，以便執行代理程式，則使用者自然無法恢復建立郵件的能力。這個代理程式無法在使用者的郵件檔案本端副本上執行，超出配額的使用者要是不想使用代理程式，則他們必須等待下一次的用戶端新郵件輪詢，才能接收新值。

功能侷限

本節將說明這個新功能的侷限，以及有效落實此功能的若干考量事項。

您應該注意下列限制：

- **新郵件輪詢**。其中一項侷限，關乎此功能與新郵件輪詢之間的相依關係。如此一來，配額檢查便不會即時執行，因此，超出配額的使用者仍然可以編寫訊息，直到 Lotus Notes 用戶端執行新郵件輪詢。郵件輪詢設定各有不同，這個間隔也可能很長，畢竟此參數是由使用者定義的。
- **Notes.ini 的使用者修改**。使用者可以修改 Notes.ini，以變更所儲存的值，例如，使用者可將配額值 (Saurabh Calla_LastMailDbMaxQuota) 變更爲 0，這個值容許使用者傳送郵件。然而，在下一次執行新郵件輪詢時，此一虛值 (false value) 將遭到改寫。此外，使用者也可以移除 INI 參數 Check_Quota_On_Mail_Create=1，此舉將停用 Lotus Notes 用戶端上的功能。在其他原則推送予使用者之前，此值將無法重建。
- **需要推送的 INI 參數**。INI 參數必須推送至使用者的用戶端，才能生效，您大可運用原則來執行此作業，但建立與維護這些原則不免形成額外負擔，對於目前尚未使用郵件檔案原則的組織而言，負擔更爲明顯。
- **可修改的郵件檔案範本**。支援此功能的完整程式碼，可在郵件範本中找到，懂變通的使用者，可以存取此範本程式碼，並且修改它，以規避執行配額檢查。使用者也可以修改郵件檔案的內容，拒絕繼承未來的設計變更，避免已修改的程式碼遭到回復。

考量事項

充分運用此功能的關鍵，在讓使用者瞭解企業的郵件配額與原則，郵件原則並非

簡單易懂之事，而且配額執行有賴使用者積極抑制其郵件檔案大小。就這方面而言，新功能大有助益，因為它能顯示更多相關資訊，而且可以對使用者施加更多壓力，要求他們縮減其郵件檔案大小。最後，為縮減使用者郵件檔案大小，組織應當決定適用於其使用者社群的最佳實務與方法配套，其中包括郵件歸檔與郵件保留。

Joseph Anderson 的「[瞭解 IBM Lotus Domino 郵件資料庫的配額](#)」一文，提供部分配額落實的最佳措施，其中包括制訂原則，指導使用者如何縮減其郵件檔案大小，建議使用的方法之一是，讓使用者採用 Lotus Domino 中的保存功能，該功能可讓使用者將電子郵件放置於本端資料庫，予以長期儲存。使用者也可以建立多重保存檔，以便整理所儲存的電子郵件，此舉不但能縮減其郵件檔案大小，還有助於分類電子郵件，以利更迅速地執行擷取與搜尋作業。

總結

本功能新增的工具，能供管理者搭配使用現有原則，順利執行配額。其主要功效在使用者超出其配額時，用以節制使用者新建備忘錄與行事曆項目。而此功能的自訂作業，可讓您強制要求使用者採取動作，並且提供使用者更多相關及時資訊，藉此強化您現有的配額原則。

資源

Level: Intermediate

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Learn about the Enhanced Quota feature in IBM Lotus Notes V8 that lets you restrict the creation of new calendar entries, to do items, and memos.

Editor's note: In this article, we refer to the Enhanced Quota feature in IBM Lotus Notes V8. This feature name is not used in the product or its documentation, but this name best describes the new attributes of quotas in IBM Lotus Notes V8.

A new feature introduced in IBM Lotus Notes 7.0.2 allows tighter control over mail file quotas. You now can restrict the creation of new memos, calendar entries, and to do items through the Lotus Notes client. This addendum to the original developerWorks article by Joseph Anderson, "[Understanding quotas for IBM Lotus Domino mail databases](#)," explains how to incorporate the Lotus Notes client

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feature into the quota policies for your company. You can also refer to the Lotus Support technote, "[Enforcing quotas on new mail or Calendar entry creation in local or server based mail files.](#)"

This article deals with an advanced administration feature, which in this article we call the Enhanced Quota feature. The configuration of the feature needs to be monitored, especially during upgrades, to ensure that legacy INI parameters are not left behind.

Functionality

The main functionality provided by the Enhanced Quota feature is the ability to prevent a user whose mail database has exceeded its quota from creating a new memo, calendar entry, or to do item. Prior to this new feature, quotas were enforced when the user saved a document.

You can also enable quota checks when routing mail through the Configuration Settings document for the mail server. Customers indicated that the mail-routing quota enforcement was too strict, and the server-based quota functionality did not allow enough control over quota enforcement. Once the Enhanced Quota feature is activated, it adds parameters to the Notes.ini file listing details about the user's quota as shown in listing 1.

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Listing 1. Example INI parameters

```
Saurabh Calla_LastMailDbSize=16498 (The size of the mail file)
Saurabh Calla_LastMailDbWarningQuota=0 (Mail file warning quota)
Saurabh Calla_LastMailDbMaxQuota=0 (Mail file DB Quota)
LastMailDbSizeCheckTime=03/14/2007 10:39:49 AM (Last time mail file size was checked)
```

These INI settings are added and refreshed according to the mail poll interval, which you configure through the Lotus Notes client preferences. All INI settings for activating and configuring this feature can be delegated to the individual Lotus Notes client users through policy documents. See the [Lotus Domino 8 Administrator Help](#) for more information on creating policies.

When a user attempts to create a new memo, calendar entry, or to do item, the Lotus Notes client verifies that the user has not exceeded the quota. If the user has exceeded his quota, an error message is displayed, and the user is not allowed to create a new document. If the user has exceeded the warning threshold but not the quota, then another warning message is displayed, and the user can continue to create a new document. You can customize both messages either through the mail template or through the INI settings in the Lotus Notes client. This customization is described in more detail in the next section of this article.

Calendar managers use an additional INI parameter. When a calendar manager accesses a principle's mail file for which he is the delegate, this INI parameter is added to the Notes.ini file:

```
DELEGATED_MAIL_FILE1=tom jones_mh2/mwh6/us!mail\tjones.nsf_5/13/2005
```

```
DELEGATED_MAIL_FILE2=michael jones_mh2/mwh6/us!mail\mjones.nsf_5/13/2005
```

The date at the end of the INI parameter indicates when the mail file was last accessed. There can be a maximum of ten entries in the Notes.ini. If the calendar manager accesses an eleventh user's mail file, the oldest INI is overwritten.

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Configuration

This section covers key points to keep in mind when configuring the Enhanced Quota feature.

Controlling frequency

The following INI parameters allow more control over when the mail file size information is retrieved from the server:

```
CheckQuotaWhenLessThan80=30
```

```
CheckQuotaWhenLessThan90=15
```

```
CheckQuotaWhenLessThan100=5
```

These represent the default parameters, and others can be defined such as

CheckQuotaWhenLessThanNN where NN = 10, 20, and so on.

For example, the CheckQuotaWhenLessThan80=30 setting tells the Lotus Notes client to check for mail file size changes every 30 minutes when the user mail file is less than or equal to 80% of its quota.

NOTE: These INI parameters are still constrained by the new mail poll interval. Therefore, if the new mail poll interval in the Lotus Notes client is set to 15 minutes, then the minimum time for checking for changes is 15 minutes as shown in table 1.

Table 1. INI parameters to control frequency of quota checks

INI setting	Client mail poll interval	Effective minimum check time
CheckQuotaWhenLessThan90=20	15	30
CheckQuotaWhenLessThan90=15	15	15
CheckQuotaWhenLessThan90=5	15	15

Reactivating new document creation

The following INI parameter allows a user to reactivate the ability to create new documents through an agent in the mail file. This agent can be run only when using the mail file on the server, not locally. It retrieves the quota value, warning threshold value, and the current mail file size and sets the INI values appropriately. If the mail file size has been reduced, the user can create new memos, to do items, and calendar entries. This parameter is not a method to circumvent the new feature, but a way to update the stored INI values. Choose Actions - Tools - Reactivate Mail Send Functions to reactivate the ability to create new documents.

```
$REACTIVATE_MAIL_QUOTA=1
```

Configuring user messages

The INI parameters in listing 2 customize the messages the user can see, such as the over-quota error message. These INI parameters are optional as the default text is stored in the mail template.

Listing 2. INI parameters for configuring user messages

```
Over Quota Message INI: QUOTA_OVER_MSG=<msg txt>
Over Quota Warning Message INI: QUOTA_WARNING_MSG=<msg txt>
Over Quota Message Title INI: QUOTA_OVER_TITLE=<title txt>
Over Quota Warning Message Title INI: QUOTA_WARNING_TITLE=<title txt>
```

The following are the message and warning text for calendar and scheduling only:

```
Over Quota Message INI: CS_QUOTA_OVER_MSG=<msg txt>
```

```
Over Quota Warning Message INI: CS_QUOTA_WARNING_MSG=>msg txt>
```

NOTE: Setting the INI parameter overrides the text stored in the template.

Activation

The feature is activated by adding the following parameter to the user's Notes.ini file. The feature is not fully operational until the next mail poll interval occurs, and the quota information is stored in the Notes.ini file.

```
Check_Quota_On_Mail_Create=1
```

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Use scenarios

This section describes the uses for the new feature and documents where customizations can be made.

Tighter control of quota policies

Quotas were originally designed as a server-side solution to help companies manage their disk space more efficiently. The rationale was that users would clean out their mail files to remain under quota. Administrators, though, could not force users who had gone over their quota to reduce the size of their mail files. Users continued to send and receive mail, and they ignored the quota error messages that displayed when they saved mail. Because the new client-based quota feature prevents users from creating mail, calendar entries, and to do items, the user is forced to take action. The new customizable messages displayed to the user provide useful and pertinent information. These messages can include company policies, steps to archive messages, and even steps to run the mail reactivation agent.

Server quota limitations

The Enhanced Quota feature also helps to resolve some limitations in the current quota-handling mechanism.

The current server quota feature prevents users from saving any documents to their mail files once they are over quota but does not prevent them from sending mail. This can cause problems, especially with calendar entries. If a user who is over quota creates a meeting in his calendar, the meeting document is not stored in his own mail file. All the invitees receive the meeting message, but the meeting chair does not have an entry in his calendar for personal reference or rescheduling purposes. By using the new quota feature, the user cannot create the new calendar entry for the meeting unless he first reduces the mail file size.

Another limitation to the server quota feature is the ability for users to send mail to themselves. Because users who exceed their quota can, by default, still receive mail, they can use this trick to bypass the quota controls. This behavior can be prevented by enabling router quota enforcement in the Lotus Domino Server Configuration document, thus preventing the router from routing mail to over-quota users. This approach, though, is considered too strict for most environments because it reduces users' productivity by preventing the receipt of mail. By implementing the new quota feature, users can still receive mail; they simply cannot create new memos, calendar entries, or tasks.

Many organizations today need to store emails sent and received by employees to comply with federal regulations and mandates. As discussed previously, the server-based quota by itself cannot effectively achieve the results required by compliance regulations. The new quota feature prevents employees from sending mail when over quota, thus ensuring that email is routed only when a copy can be retained in their mail file.

Customizations

The code for the new quota feature is mostly in the template. The bulk of the work is done in the CheckQuotas script library. This library also contains the messages that the user can receive, for example when the user attempts to create a new calendar entry and is over quota. These messages include the mail template parameters listed in table 2. The corresponding INI parameters are also shown. The mail template code defaults to using the INI parameters if they are present, overriding the mail template parameters.

Table 2. Comparison between INI and mail template configuration parameters

Mail template parameter	INI parameter	Description
OVERQUOTAMSG	QUOTA_OVER_MSG	The message displayed to the over-quota user who attempts to create a new memo.
QUOTAWARNINGMSG	QUOTA_WARNING_MSG	The message displayed to the user who has crossed the warning threshold for the mail file quota, but has not gone over quota.
CS_OVERQUOTAMSG	CS_QUOTA_OVER_MSG	The message displayed to the over-quota user who attempts to create a new calendar entry.
CS_QUOTAWARNINGMSG	CS_QUOTA_WARNING_MSG	The message displayed to the user who has crossed the warning threshold for the mail file quota, but has not gone over quota.
REACT_MSG_ONSERV	N/A	The message displayed to the user who attempts to run the mail reactivation agent on his local mail file.

REACT_MSG_FINISHED	N/A	The message displayed when the mail reactivation agent completes successfully.
REACT_MSG_STARTED	N/A	The message displayed to get approval from the user before running the mail reactivation agent.
QUOTALIMITTXT	N/A	The text to use when displaying the current quota value to the user.
DBSIZETXT	N/A	The text to use when displaying the current mail file size to the user.
QUOTAWARNINGTXT	N/A	The text to use when displaying the current warning threshold value to the user.
OVERQUOTATITLE	QUOTA_OVER_TITLE	Title for the window containing the over-quota error message.
QUOTAWARNINGTITLE	QUOTA_WARNING_TITLE	Title for the window containing the over-warning threshold message.

These parameters, found in the CheckQuotas script library, can be modified, thus giving you some flexibility to modify messages on the fly through mail template customization. There is overlap in functionality between the mail template and INI parameters, such as the OVERQUOTATITLE parameter and QUOTA_OVER_TITLE INI parameter. There are some mail template parameters, however, that do not have corresponding INI parameters.

Over-quota check

The check for an over-quota situation occurs during the QueryOpen event in the Memo, Reply, Reply with History, To Do, _Calendar Entry, Special\Phone Message forms. The quota check code is executed first and checks if the user is over quota. If so, the text stored in the OVERQUOTAMSG parameter is displayed in a message box. If the user is under quota but over the warning threshold, the quota warning message (QUOTAWARNINGMESSAGE) is displayed. This also applies to the creation of new calendar entries. In those cases, the CS_OVERQUOTAMSG and CS_QUOTAWARNINGMSG messages are used.

You can execute operations prior to, during, and after this code. For example, a notification that a user received a quota error message could be logged to an administration database.

NOTE: Making mail template modifications introduces upgrade challenges. Each organization has to weigh the benefits of customizing the mail template against the additional management effort.

Mail reactivation agent

Because the quota INI values are updated only during the new mail poll interval, over-quota users need a faster way to re-enable their mail creation ability. The mail reactivation agent gives the users this ability. The agent can be run by choosing Actions - Validate – Reactivate Mail Send Functions. When run, this agent gets the current database size, quota value, and warning threshold and overwrites the corresponding INI parameters. The user then restarts the client to pick up the values. If the new mail database size is lower than the quota, the user's mail and calendar creation abilities are restored. If the user does not lower the size of his mail file to a level below the quota prior to running the agent, the user does not regain the ability to create mail. This agent cannot be run on the local copy of the user's mail file. If over-quota users do not use the agent, they must wait until the next time the client polls for new mail for the new values to be picked up.

Feature limitations

This section covers some limitations of the feature as well as some considerations to effectively implement the feature.

You should be aware of these limitations:

- **Polling for new mail.** One limitation is the dependence of the feature on polling for new mail. As a result, the quota check does not occur in real time. Therefore, a user who goes over quota can still compose messages until the Lotus Notes client polls for new mail. Depending upon the mail poll settings, this could be a long interval because this parameter is user-defined.
- **User modification of Notes.ini.** A user could modify Notes.ini to change the stored values. For example, a user could change the quota value (Saurabh Calla_LastMailDbMaxQuota) to 0, allowing the user to send mail. This false value, however, is overwritten the next time the new mail poll is executed. In addition, a user could also remove the INI parameter, Check_Quota_On_Mail_Create=1, which disables the feature on the Lotus Notes client. This value is not recreated until another policy is pushed to the user.
- **INI parameters that need to be pushed down.** To be effective, the INI parameters need to be pushed down to the users' clients. You can do this using policies, but overhead is involved in creating and maintaining these policies. This is especially true for organizations that are not currently using mail file policies.
- **Mail file template that can be modified.** The code behind this feature is entirely located in the mail template. A savvy user could access this template code and modify it to not execute the quota check. The user could also change the properties for the mail file to not inherit future design changes, preventing the modified code from being reverted.

Considerations

The key to utilizing this feature properly is educating users about corporate email quotas and policies. Email policies are not foolproof, and quota enforcement requires users to be active in helping keep their mail file sizes down. This new feature can help in this regard by displaying more

relevant information and by putting more pressure on users to reduce their mail file size. In the end, organizations need to determine the appropriate set of best practices and approaches that are applicable to their user communities in reducing their mail file size, including archiving and mail retention applications.

Joseph Anderson's article, "[Understanding quotas for IBM Lotus Domino mail databases](#)," provides some best practices for implementing quotas. They include setting up policies for how users can reduce their mail file size. One recommended method is to have users utilize the archiving feature in Lotus Domino, which lets users place emails in local databases and archives for long-term storage. Users can also create multiple archives for organizing their stored emails. Not only does this help reduce the size of their mail files, but it can help with cataloguing their emails for faster retrieval and searching.

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Conclusion

This feature adds another tool for administrators to be used in conjunction with existing policies to help enforce quotas. The main functionality provided is the ability to prevent users from creating new memos and calendar entries once they have exceeded their quota. The customizations possible with this feature let you augment their existing quota policies by forcing users to take action and by providing more pertinent and timely information to the user.

Resources

Learn

- Get started with [IBM Lotus Notes and Domino V8 technical content](#).
- Read the developerWorks article, "[Understanding quotas for IBM Lotus Domino mail databases](#)."
- Read the developerWorks article, "[Best practices for large Lotus Notes mail files](#)."
- Read the developerWorks article, "[Sizing your IBM Lotus Domino mail servers](#)."
- Read the developerWorks article, "[Lotus Notes and Domino 8 Reviewer's Guide](#)."
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