New Rooms and Resources features in Lotus Notes/Domino 7

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December 06, 2005

In this article, we look at all the new Rooms and Resources features introduced in Notes/Domino 7.

In a previous developerWorks Lotus article, we briefly reviewed the Rooms and Resources (R&R) design pre-Domino 7. We then proceeded to a technical discussion of the new R&R system's architecture for Domino 7. That article was intended to be helpful in getting up to speed on the new R&R system, so we recommend reading it before proceeding with this one. If, however, you are solely interested in the new R&R features for Domino 7 (but not the technical underpinnings), then just read on.

In Domino 7, we revised how some existing things worked in the R&R template, and added new features. We even added some new R&R-related features to the mail template, to make using R&R even easier. All changes and additions described in this article are found in the new Resource Reservations template, with the exception of the new features in the mail template. (New mail features are described in the latter part of this article.)

It is worth restating something that we mentioned in the previous article: all new R&R features for Domino 7 are usable by any version of the Notes client. You do not need to upgrade all your Notes clients to release 7 to get the benefit of the new R&R system and R&R features (although we strongly recommend that your Notes client is within two releases of the Domino server you are using). The exceptions to this are the new Calendaring and Scheduling (C&S) additions to the Notes mail template for R&R; these do require a Notes 7 client.

This article is intended for all Notes users and administrators.

What's new for Rooms and Resources in Domino 7

Let's start with a look at the new Rooms and Resources (R&R) features in Domino 7. In addition to several view-level changes that were briefly touched on in the previous developerWorks Lotus article, we have added several new abilities and features to the template.

Due to the redesign of the R&R system for Domino 7, there is one minor change to the resource booking user experience that should be pointed out before we get into the new features. Because
of the pre-Domino 7 design of the R&R template, users used to have the (sometimes incorrect) expectation that, "If I can save the reservation request in the database, then my reservation was accepted, and only I have that room/resource." While this often was the case, it was not always so. If you want to understand why, and how we redesigned the R&R system to make double-booking a thing of the past, then you need to check out the previous article on Rooms and Resources. In an effort to make this behavior change clear to users, the Reservation Request form was updated to include a notice to this effect along the top (see figure 1):

**Figure 1. New booking message**

![New booking message](image)

**Note:** In the interest of brevity, the phrase "room or resource" will be simply referred to by the word "room" throughout the rest of this article. Wherever you see a reference to "room," it applies equally to a resource. Any actual differences, if any, will be noted as necessary.

**Sametime integration**

The most visible addition to R&R functionality in Domino 7 is that we have Sametime-enabled the R&R database, both at the view level (see figure 2)...

**Figure 2. Sametime integration (view level)**

![Sametime integration (view level)](image)

...and at the reservation level (see figure 3):

**Figure 3. Sametime integration (reservation level)**

![Sametime integration (reservation level)](image)

This means you can now quickly create an email to a reservation owner, send them an instant message, or add them to your contact list. If you need to have a particular room, and another person already has it reserved, you can easily get in touch with them and try to arrange a room swap.
Automatic reminder notices

While we have long advocated reserving rooms and resources using C&S from your mail file, many users have gotten into the habit of creating "directly booked" reservations in the R&R database, in an effort to ensure they have the room first. Later, they use C&S to send out meeting invitations to all participants, including the room they previously reserved -- they simply ignore the resulting "declined" response from the room, because they already reserved it directly (and obviously, this "new" invitation has to be declined). Unfortunately, this means that there is a disconnect between the actual calendar entry in the user's mail file, and the reservation in the R&R database. Changes or cancellations made to the calendar entry are not going to be applied to the reservation request in the R&R database.

This practice can lead to extra bookings that never move, but that are no longer correct or accurate. Previously, the only solution was for the user to remember to go back into the R&R database, and manually change or remove the reservation request. Many customers have noticed this (as have we), and asked if there were some solution. To address this, we added the autoreminder feature in Domino 7. This feature generates an email reminder that is sent to reservation requestors, reminding them of their upcoming reservations, and providing them with doclinks back to each reservation they have in the R&R database. If the reservation is one they still want, they do not have to take any action. If the reservation is one they do not want, they can easily follow the provided doclink to the reservation, and delete it, thus freeing up the room for someone else.

This feature is configured on a per-site basis, using the Site profile in the R&R database. The feature is highly configurable by administrators. When this feature is enabled, the administrator can configure several different options. The first determines whether or not autoreminders should be sent for all rooms in the site, or just selected rooms. This allows administrators to have autoreminders sent only for rooms that are in high demand, or just rooms that require extra attention.

The second option allows administrators to determine who should get an autoreminder -- every room requestor ("All reservations"), or just those who have created reservations directly in the database instead of using C&S ("Manually created reservations only"). Reservations created using C&S will be kept in sync with the copy in the requestor's mail file, so there is very little likelihood that they need to be reminded of their upcoming reservations. Most administrators will likely select "Manually created reservations only," so that only users who have a higher likelihood of "orphaning" or abandoning their reservations get sent the autoreminder.

The third option allows administrators to decide how frequently autoreminder emails are sent out. The default value is Weekly on Sunday. This setting means that on Sunday, the system will generate a reminder notice to all applicable users for requests that begin starting the next day, Monday, through the following Sunday. This should give users who forget to remove unnecessary reservations a gentle reminder, with plenty of opportunity for them to remove it and make the room available to others. However, if this is not sufficient enough for administrators with users who just cannot quite "get the hint," the Daily setting sends reminders on a more frequent basis. When you choose this option, you can send out reminders on a customizable set of intervals (see figure 4):
The administrator has the ability to send up to three autoreminders per reservation. In figure 4, the administrator has decided to send the first autoreminder 14 days in advance, the second autoreminder 7 days in advance, and the final one 2 days in advance. If you only want to send out two autoreminders, set the last setting to 0, and no third autoreminder notice will be sent. With this feature, users should have no excuse for not removing reservations they create that they no longer need because they forgot they had reserved the conference room 6 months ago. The autoreminder notice provides them with both reservation information and links to each reservation.

A sample autoreminder looks like figure 5.

Users can easily open reservations they no longer need, and delete them using the Action Bar buttons, thus making the room available for others to reserve. In some cases, you may have several reservations for that room, but you only see one link, because the administrator configured the autoreminder to "Manually created reservations only" instead of "All reservations," and the other reservations were created using C&S from your mail file.

Limit future reservations

Another usability feature controls how far into the future users can reserve rooms. Customers have reported that some users like to reserve rooms well into the future just in case they may need a room someday. This can lead to a shortage of available rooms, because users have reserved them for very long periods of time without actually needing them. To help prevent this form of
"cyber-squatting," we added the Limit Future reservations feature to Domino 7. This feature allows administrators to set a limit on how far into the future users can reserve a room.

This setting is configured on a per-room basis, just like availability hours are. We added the feature under the Availability Settings section of the Resources document. There are two ways that an administrator can configure the feature: limit reservations by a particular number of days into the future, or limit reservations by a specific date. Limiting by a specific number of days is the default setting when enabled, with a default limit of 90 days. This means that users can reserve that room for any date between today and 90 days from today. If you try to reserve a room beyond the configured number of days, you will receive a decline notice from the Rooms and Resource Manager for the dates beyond the limit, or you will be prevented from saving the request if you are attempting to book directly in the R&R database itself. The decline response distinguishes between the room being unavailable due to a conflict, and the requested dates being too far into the future. Users attempting to create reservation requests directly in the R&R database are given more specific feedback about what the limit is (see figure 6).

**Figure 6: Decline dialog due to limit future setting**

The limiting-a-room-by-a-specific-date setting is useful for when a room becomes out of commission for any number of reasons, such as renovations for an unknown length of time, or the decommissioning of a room.

**Quick Reservations**

Customers have asked for the ability to quickly book a reservation without searching for a room or picking sites. Prior to Notes/Domino 7, the reservation request form allowed a user to select dates and times, and then search for an available room by either picking the site and room, or by searching for any available room based on the date/time entered. To speed up the room reservation process, we created the Quick Reservation feature. This feature is for times when you know the room you want, and that it is available at the times you want it for. Simply enter the desired room, date, and time, then click Save and Close.

The Quick Reservation form has fewer settings to change, and has no availability searching controls that the normal reservation request does, so it loads faster. In addition to the Quick Reservation action button, we included quick reservation ability into the right-mouse click menu. When a Quick Reservation is created, the Date, Start time, End time and Resource Name of the new Quick Reservation request are based upon a reservation currently selected within the current view. By inheriting the data from existing reservations, we have further accelerated the reservation request process for users. All you need to set is the desired date and time before saving the request. Figure 7 shows the Quick Reservation form.
Although we removed the room searching abilities in the interest of speed, we did give the user the ability to change the room that we defaulted in for them. Simply clicking on Select room will bring up the list of possible rooms that can be requested. We did not remove the actual availability verification done before saving a request, so users will be told if the room is actually available (or not) before their request is saved.

**Transfer Reservation**

By far, the most popular new addition to R&R for Domino 7 is the Transfer Reservation feature. Prior to Domino 7, the only way for users to give up or trade their reserved room with someone else was to do a somewhat choreographed set of near-concurrent cancellation and reservation request actions, which did not guarantee that someone else could not get the room in the meantime.

We noticed that our internal power users had developed a different means to trade rooms: they simply verbally agreed to a room swap or surrender, and then put the other person's name in the Reservation Description field. They did this because it was the only way they could give away reservations or safely trade them with someone. This alternative to the cancel/reserve dance was easy to do, but it did not give the current request owner actual control over the reservation; the original requestor still had to make any changes.

For Domino 7, we decided to address the issue and make the process of either giving away or trading a reservation to someone else both easy and simple. So we came up with the Transfer Reservation feature. Reservation owners can quickly and easily give their reservation to someone else, by clicking the Transfer Reservation action button on any reservation they created directly in the R&R database, and then providing the name of the new request owner (see figure 8).
Figure 8: Transfer Reservation

Clicking OK will immediately make the specified person the request owner. They can now reschedule the request, cancel it, move it to another room, or even transfer it to someone else. Trading rooms now becomes as simple as having each user transfer their reservations to each other. There is no cancel/request dance that has to occur; the changes are immediate with no chance of someone else reserving the room out from under the other users.

In addition to reservation owners being able to give or trade reservations with someone else, administrators now have the ability to transfer reservations to other people as well. This is useful for times when the reservation owner is unavailable because they are on vacation, have left the company, or are otherwise unable to perform the transfer themselves. No longer will administrators have to go in and delete reservations from someone who left the company, so that the replacement users can create their own reservations. This feature has been by far the most popular new R&R feature we added for Domino 7, based on feedback we have received, both internally and externally from the Domino 7 Beta program.

Calendaring & Scheduling with Rooms and Resources

Notes 7 Calendaring & Scheduling was also given some attention in relation to R&R. Many users report that while their company may have lots of rooms or resources, they only routinely use a few. Typically, these are the ones nearest or most conveniently located to the user. To make the task of selecting a room easier, we have added the Preferred Room feature to the Notes 7 mail template. The Preferred Room feature holds the names of those rooms that you prefer to use for meetings, and offers up that list to the user for making a selection before the list of all possible rooms or resources.

Users will likely first see something similar to figure 9 when they use the Room or Resource picker on the meeting invitation form. Clicking the picker button will result in a dialog appearing that has just their preferred rooms in it.
If the desired room is not in the list, simply change the address book/directory from Preferred Rooms to any other address book/directory, then select any room you want. The feature is also designed to learn what each user considers to be a preferred room. If a meeting invitation contains a room that is not already in your preferred rooms list, you are prompted to specify whether or not it should be added (see figure 10).

From this dialog, you can decide whether or not the room should be added to your preferred rooms list, and whether or not the system should continue to learn from future reservations. The preferred rooms feature can also be configured manually, by selecting the Calendar & To Do - Rooms and Resources tab of the mail file Preferences (see figure 11). On the bottom half of that tab is where the preferred rooms and resources are configured.
Figure 11. Preferred Room configuration

Clicking Manage Rooms List lets you change the current list in any way you like. If a room is no longer in service (or is no longer one you prefer), you can easily remove it from your list. Adding a room is as simple as double-clicking the room name from the picker, and then clicking OK to return to the Preferences dialog. In addition, if you had previously selected "Do not prompt me again" (see figure 10), but later change your mind, this is where you can reset this setting. Clicking "Prompt me to add rooms to my list when scheduling meetings" (see figure 11) will reset the feature to the original defaults.

The Preferred Room settings are also used for the "Find Room(s)" or "Find Resource(s)" actions found under the Find Room or Resource action button. The Scheduler dialog that is used to search for an available room has a new option on it: "Limit search to preferred rooms for this site." If this checkbox is selected before clicking Search, Notes will only look for rooms on your preferred rooms list that are also part of the specified site. Otherwise, the system will search for all available rooms in the specified site. This extra filtering makes it easier for users to ignore rooms they do not care about when trying to find a room for their meeting. For example, without the preferred room filter, you have to scroll through the list of all available rooms (in a relatively small window) to see if some particular room is available. However, if you click the checkbox first, Notes will limit the search to a more manageable list.

The preferred room feature makes using R&R in an enterprise environment much less daunting. It also works well for smaller installations, where users have fewer choices, but only use a subset of them.

The other R&R-related additions to the Notes 7 client were made to the room selection dialogs. Now, when you select an address book to choose rooms, you will find more information available (see figure 12).
Figure 12. Room selection dialog

If a room has any kind of owner restrictions on it, then a "ghostbusters" icon (red circle with a diagonal slash through it) will be displayed in front of its name (see figure 12). This allows you to tell at a glance that the room has some owner restrictions on it, and so your request may not be automatically processed and accepted/declined. In addition, other information, such as room capacity or description, is also displayed (without you having to scroll the pane in the dialog) by simply moving your mouse over a room name. The detailed information about the room will be displayed in a textual popup above the room selection dialog, giving you more room information without scrolling, so you can find the room for the job more quickly than before.

Conclusion

Rooms and Resources functionality in Domino 7 has undergone a very large overhaul and face lift. In addition to the entire redesign of the underlying architecture, several new features were added to Rooms and Resources along with some enhancements for the C&S users. Many of the new features added were based on customer feedback and requests, as well as based on observing our internal R&R deployment and polling our more active users. Nearly all of these new features are useable by both Notes 7 clients and earlier versions of the Notes client, which means upgrades of the installed client base are not required to begin using these great R&R features.

We have tried hard to improve and enhance both the user's experience as well as the administrator's ability to control their R&R installations.
Related topics

- The developerWorks Lotus article, "Rooms and Resources design in Lotus Notes/Domino 7," explains how we've improved the design and function of the Rooms and Resources feature in Lotus Notes/Domino 7.
- For more information about all the features in Lotus Notes 7.0, see the developerWorks: Lotus article, "New features in Lotus Notes and Domino Designer 7.0."
- And for more information about new features in Lotus Domino 7.0, see the article, "New features in Lotus Domino 7.0."
- See the Lotus Notes/Domino product page for more information about the Lotus Notes and Domino products.

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