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Using

to Manage

Resources



Microsoft Exchange



Leading email management experts, Essential Computing, share their tips on getting the most out of Microsoft Exchange<sup>TM</sup> or Office 365 to manage company resources. In these increasingly cost-conscious times, organisations are keen to get the most out of limited and expensive resources such as meeting rooms, work spaces, equipment and even catering.

The ability to streamline the process of making and responding to resource requests, however, is vital.

This white paper looks at the **'native' functionality** available in Microsoft Exchange<sup>™</sup> and Outlook<sup>™</sup> to aid the process of managing resources.

Importantly, it highlights tips for getting the most out of Exchange resources, including the best strategies for approaching a resource booking project.

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## Booking Rooms & Resources: Why Use Exchange?

For many organisations Microsoft Outlook has become the **#1 business application** that staff open 'first thing', and stay connected to all day long.

As a consequence, the Outlook calendar application is widely used to schedule the 'working week'.

Even the 'traditionalists' that have previously resisted getting to grips with an electronic diary have started using Outlook calendar to manage both their work and even their personal schedules. *This is a trend that has been driven in part by easy synchronisation with mobile devices*.

Apart from convenience for end users, there's so many aspects of Exchange and Outlook that make it particularly adept at supporting an organisation's scheduling needs. These include:

- Easy checking of co-worker availability
- Support for different locations and time zones
- The ability for staff to share calendars and allow colleagues (e.g. a PA) to make diary bookings on their behalf
- Strong support for remote and mobile workers
- Roles-based access rights and privileges that are tightly managed using Active Directory

So, the concept of booking rooms and resources, like catering or video conferencing equipment, using the same system is highly appealing.

This document takes a closer look at the inbuilt capabilities in Microsoft Exchange and Outlook designed to help you manage the booking of rooms and other corporate resources more effectively.

It also includes tips to help you deploy Exchangebased resource booking for your organisation.

## Features for Managing Resources

With Exchange 2007 some key new features designed to help you manage resources were introduced, namely dedicated resource mailboxes, advanced mailbox policies, automatic request handling and enhanced calendar views. As these services remain in Exchange 2010 and 2013, it is worth an explanation:

#### **Dedicated Resource Mailboxes**

With Exchange 2007 two types of mailboxes were introduced that were specifically designed to represent objects and not people. These are:

- Room mailboxes. These can be used to represent conference rooms, meeting rooms, training rooms and even hot-desks in different locations.
- Equipment mailboxes. These can be used to represent 'floating' resources such as a portable computer projector, flip chart, or pool car.

In addition to supporting new mailbox types, the Active Directory schema was extended to support the addition of **customised resource properties.** 

Examples include 'Room Capacity' and other descriptive attributes that will help users select the resources they need. *More on this later...* 

#### **Advanced Policy Creation**

Prior to Exchange and Outlook 2007, all resource bookings were either:

- a) Subject to manual approval
- b) Automatically accepted or rejected depending on whether the resource was free or not in Exchange

With later versions of Exchange and Outlook you now have the option to define more sophisticated policies to help with processing resource bookings.

For example, you can specify rules for:

- Maximum meeting duration,
- Times during which resources can't be booked (e.g. not outside normal working hours),
- Levels of staff that are authorised to book certain rooms without manual approval (this feature can leverage existing roles defined in Active Directory).

You can also define automated responses to requests that explain why a booking was rejected (or made subject to manual approval).

#### Prior to Exchange 2007....

In versions of Microsoft Exchange prior to 2007, if you attempted to use existing features to manage room bookings you basically had to 'fudge' the system.

Two main techniques were used:

Public Folders. Using this method, a public folder was configured for each resource to allow designated people (either end users or a designated 'moderator') to insert new calendar items.

Although this approach gave visibility of resource availability (provided staff knew where to look), the downside was that it was not associated with the Outlook calendar appointment booking process and could easily be neglected.

**Pseudo Mailboxes.** This approach involved creating virtual user accounts using suitable names to represent each of your resources.

Users wanting to book a resource would then invite the resource just as they would the other attendees to the planned meeting.

Organisations using this method would typically implement the Auto Accept Agent, an agent that checked the availability of the resource mailbox based on the resource's schedule and accepted or declined meeting requests.

Although this approach used an additional mailbox licence, it fitted more easily into the workflow involved in booking a meeting.

It did however need improving on, for example, users would find it hard to locate the right 'resource mailboxes' from their address list. It was also difficult to cope with any degree of complexity, such as restrictions on who could and couldn't book a particular room.

#### Automated Request Handling

Working hand-in-hand with the resource policy creation, there's a dedicated 'agent' that, if enabled, automatically processes requests according to these pre-defined policies. This is called the **Resource Booking Attendant** (RBA).

The RBA looks at the account policy settings associated with the resource, and can, for example:

- Automatically accept 'in policy' requests.
- Forward 'out-of-policy' requests to nominated members of staff for approval.
- Automatically send a 'tentative' response back to the requester in the absence of a 'clear cut' policy decision.
- Automatically provide information back to end users in the event of a declined request (e.g. this resource is only available to manager level and above).

An example of a 'tentative' message received by a user is as follows:

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NTO D	Ø From Subject	Received Sax Cy	Aspones (P
Date: Tel	ler		
195	Meetin_ Accepted Weekly meeting	Man 19/9 5 KB	1
2	Here I (byte knuth) Weekly meeting	Mon 15/0. 6 KB	V
2	Project Accepted: Weekly meeting	Mon 19/9 5 KB	1
Date: 080			
19	Administra EDOS 612 Text 2	Vied 27/0 14 10	Ň
100	Admini., EOOL 617 Test 1	Wed 27/8 14 KB	
1.1	EASAL. DOL Test 5	Wed 20/8- 12 40	
ind.	EASAd., IDOL Test 4	Wied 29/8 12 KB	
100	EASAd. EDOL Feet 3	Wed 20/8 12 KB	
11	EASAd BOX Test 2	Wed 20/6 12 KB	
10	Admini, Managed Folder Test 2	Fill \$52952	- X
Menu 1 ( Menu 10)	Sight Junch) (nt suid) testatively accepted. () Avril 2010 12 84: 15 89. (avril 2010 Junch) Political Cancer Mi	artinin Boson 1	_
Yourre	quest was received and is ;	pending approval.	
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An example of a request for approval sent to a resource administrator is below. Notice that the reason for needing approval (in this case, a recurring meeting) is explained in the message.

Adm	inistrator			*	-	4	Actions +
						01 Marc	8 2011 1812
• Recei	ved for Conference Suite,						
+ Tenta	tively accepted by Conference Suite on 01/03/2031 38-1	15					
I	Occurs every Tuesday from 10:00 to 10:30 effective 22/03/2011.	1	?	×			
Where:	Conference Suite						
This c	out-of-policy resource request was for	varded	to you	u for y	our	appro	oval.
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	St. Ce						
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From here, the resource administrator can easily accept or decline a request with further explanation as to why a request has been rejected.



#### Viewing Resource Bookings

As well as receiving resource requests via email, resource administrators can get an overall view of all relevant bookings via Outlook calendar.

To enable this view from Outlook 2007, create a New Group Schedule: from the Calendar Function select Actions>View Group Schedules>New and then select group members.

In Outlook 2010/2013 there's also a new Calendar Groups option on the 'ribbon' that performs a similar function.

In each case you can elect to show calendars side-byside or overlaid.

The screen below shows an example of the Outlook calendar side-by-side view created by adding a group of 3 room calendars (shown to the right of the resource administrators own calendar).



In order to give staff responsible for administrating resources (e.g. room managers, reception staff, catering staff) visibility of requests and bookings they need to be given what is termed 'delegated access' to resource mailboxes.

## Features to Help Users Book Resources

Also introduced with Exchange and Outlook 2007 were some features designed to make it easier for end users to locate and book resources. These included:

#### **Easier Scheduling**

When booking a meeting, users can have a **Scheduling Assistant** which makes it easier to search for meeting times when all attendees and resources are available. Users can adjust the date and duration of the meeting to get a better fit. The **Suggested Times** information shows optimal times for attendees and resources.

New icons help differentiate between the different types of resource.

Potential times of availability are colour-coded and labelled as **Good**, **Fair** or **Poor** (see screen shot overleaf).

#### Personal Availability Settings

A service that goes hand-in-hand with the improved scheduling is the option for end users to customise their own personal settings within the **Outlook Calendar Options.** 

So, for example, if you normally like to keep Fridays free for a quick get-away, you can specify this so that the Scheduling Assistant will automatically take this into consideration when selecting the 'best fit' for your meeting.

#### **Easier Resource Selection**

Prior to Exchange 2007, resources would appear listed alongside staff members in the Global Address List (GAL).

This led to techniques such as adding a pre-fix to resource names so that all available rooms etc could be viewed as a group. For example:

> Z\_Meeting Room 1 Z\_Meeting Room 2 Z\_Conference Suite

Outlook users can now specifically look for rooms, equipment etc by selecting the new Outlook Calendar **Add Rooms...** button.

By clicking this button users get to see and select just rooms and resources.

To further aid the selection of resources, users can now see additional attributes including room capacity and a brief description of additional features which can be tailored as required (see later in this document).

#### **Improved Room Selection**

In Outlook 2010 & 2013 users can now navigate available rooms according to **location**.

The Room Finder also remembers the previously used location and places at the top of the list for easy access on the end user's next meeting request (see our tips section later in the document).

#### **Improved Responses**

Also introduced with Exchange 2007 was a new process called the **Calendar Attendant** which keeps track of all meetings and makes sure all requests are always up-to-date, even where staff are not logged into Outlook.

For example, the Calendar Attendant will automatically show new meeting requests that have not yet been accepted as 'tentative' in your calendar, without you having to do anything.

This service helps avoid double bookings, which is especially important when booking meeting rooms.

So for example, if a member of staff tries to book a resource that requires manual approval, they will immediately receive a tentative accept message.

Likewise a tentative booking will be made with the resource and received by the member of staff assigned to that resource.



## Tips to Help With Exchange Resource Management

Here are some tips to help when creating Exchange resources for your enterprise:

#### 1 Understand What's Viable - Involve Key Decision Makers

Whatever version of Exchange and Outlook you're using, we recommend the IT team starts with some test resource booking examples to familiarise yourself with what's possible.

To really make progress on automating resource bookings for your organisation, however, you need to include the people who are responsible for managing room and other relevant resources.

Working as a team you should consider what's involved in existing procedures for booking resources so you can fully understand what restrictions and work flows apply.

What resources do you want to manage?

Prepare by listing all the rooms and equipment you want to make book-able and determine the attributes and restrictions that apply, such as

- room capacity
- fixed equipment (e.g. built in projection)
- must be booked 24 hours in advance

Next, work out who is going to be involved in servicing any requests for rooms and resources. For example, reception or facilities staff may be responsible for provisioning meeting rooms and IT staff may need to set up AV equipment..

Bear in mind that you may have different resource administrators in different office locations.

## 2 Keep Resources Simple

Although it's possible to define additional attributes that describe the features of a room such as 'WhiteBoard' or 'VideoConferencing', or the type of resource, such as 'TeaAndBiscuits', it is only viable to take a very simplistic approach. For example, there is no way to indicate the number of people for which say, 'TeaAndBiscuits' would be needed for, or at the time it would be required (other than the meeting start).

Further dialog would be needed between the designated 'catering delegate' and the requestor.

To help with this we advise you pay attention to default replies back to the requestor on how to confirm their request with the relevant staff member. This is a good article:

http://exchangeserverpro.com/exchange-2013-resource-schema-room-equipment-mailboxes/

### **3** Be Responsive to Facitilies Staff

## Those responsible for servicing resource requests need careful consideration.

First off, they may not be comfortable with the concept of *automatically* accepting requests based on the available booking policies that can be defined.

For this reason, you may wish to make bookings that are 'In Policy' subject to approval.

**BEWARE** - Even if you've checked the Booking Requests option to 'go to named delegates' (i.e. those people responsible for approving or provisioning a request for a given resource), a booking that is technically 'in policy' (e.g. within the working day), will be auto-accepted.

To ensure both in- and out-of-policy bookings are sent for approval you will need to check that the calendar processing option for 'AllBookInPolicy' is set to FALSE.

Next, although an attempt was made with Exchange 2010 to make resource mailbox policies configurable to authorised delegates via OWA, this route is limited and appears to be unavailble in Exchange 2013.

The IT team may therefore need to offer a welldefined and responsive service to facilities and other services staff when policies need to be updated, or the attributes of a room or resource change.

### 4 Ensure 'Delegates' See Latest Status

This problem can occur when you have multiple staff responsible for one or more resources. Consider a scenario where delegate A accepts a booking, but at a later time delegate B rejects the same booking, unaware that the request had already been granted.

This can happen where the shared mailbox/calendar view is cached and is not being viewed in real time from the server. To avoid this disable or un-check the "Download Shared folder" option in the Outlook profile settings to enable all delegates to see the current online version of the shared mailbox or room calendar.

## **5** Enable Room Selection by Location

To ease the process of selecting rooms you can let staff view meeting room availability according to their location (using the Room Finder option).

In order to set this capability up for your organisation your rooms need to be put into special room distribution groups (Room Lists) first. This can be done using shell commands.

For more information see later in this document and: http://technet.microsoft.com/en-us/library/ee633471.aspx http://technet.microsoft.com/en-us/library/ee332328.aspx http://technet.microsoft.com/enus/library/bb124955(v=exchg.150).aspx

Note that there isn't an equivalent to Room Finder for finding Equipment. A potential workaround here is to use Room Mailboxes instead of Equipment Mailboxes, using a good naming convention so users can tell they are not rooms.

#### 6 Avoid Responding to Invitations from Mobile Devices

It's advisable to encourage users to only accept or decline meetings from within your email application.

Meetings responded to elsewhere (i.e., iPhone, iPad, Android, etc) are notorious for resulting in missed updates and changes that don't get properly synchronised back to the main Outlook Calendar.

### **7** Don't Book Meetings as All Day Events

'All day events' are intended for things like birthdays and anniversaries and as such the default setting for this is 'Show time as Free' (as you wouldn't want your Aunt's birthday to block out your calendar for the day).

This means that if you send an invitation to an event that lasts all day to co-workers - or indeed book a room - and mark it as an 'All day event' the default action will be to show the invitee's calendar time as free.

This is dangerous as it means the people and resources you've booked could still be booked by someone else.

Additionally booking a resource for effectively 24 hours will skew any usage analysis you might want to do.

The best solution is to create an appointment with the desired Start and End times, and check that the resource time shows as 'busy'. You can, of course, set a policy on such resources to say that bookings can only be made within working hours.

#### ${f 8}$ Watch out for Recurring Meetings

Long-standing recurring meetings can often lead to rooms getting booked in advance, but not used on the day (as they just get forgotten about).

Consider setting your resource mailboxes to decline recurring meetings or setting a maximum number of weeks.

See also the Summary at the end of this article.

# Creating Your Resources in Exchange 2007/2010

See later in this section for notes on Exchange 2013, although the PowerShell command examples in this section are still relevant.

To reiterate, the two new types of mailboxes you can now specify to represent resources are room mailboxes and equipment mailboxes. We suggest you use the 'equipment' resource to represent catering.

To create resource mailboxes you can use the Mailbox Wizard:

From the Exchange Management Console (EMC):

Expand the 'Recipient Configuration' optionSelect Mailbox>New Mailbox...

The New Mailbox Wizard will appear as shown in the figure below.



- Select a Room or Equipment mailbox
- On the User Type option, select New user
- Specify the Organisational Unit and give the mailbox a name that represents the resource you are creating, such as 'Conference Suite'
- Specify any relevant Mailbox Settings
- Click New to create your mailbox

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The mailbox you have created will appear as a Room or Equipment mailbox type in the EMC. The AD account created is automatically disabled. You can also achieve the same results using PowerShell as follows:

New-Mailbox -Name 'Conference Suite' -Alias 'conferencesuite' -OrganizationalUnit 'acme.co.uk' -UserPrincipalName 'conferencesuite@acme.co.uk' -SamAccountName 'conferencesuite' -FirstName 'Conference' -Initials '' -LastName 'Suite' -Room

This will create a new \*disabled\* user account with an active mailbox that is set up as a room.

NB - if you use the mailbox wizard to create resources, it shows you the PowerShell command used. Simply copy and edit this as required to create additional resources.

At this point, the resource mailbox is not completely configured. For Exchange 2010 you need to enable the resource booking attendant as described later on in this document.

For Exchange 2007, after creating a resource mailbox, you should configure it to auto-accept meetings to which the resource mailbox has been invited. Otherwise, the resource mailbox does not automatically accept meetings sent to it and they will sit in the calendar of the resource in a "tentative state".

At the PowerShell command prompt type:

Get-Mailbox | where {\$\_.ResourceType -eq "Room"}
| Set-MailboxCalendarSettings AutomateProcessing:AutoAccept

#### **Create Custom Resource Properties**

If you like, you can create **additional properties** that describe your resources.

Examples of custom properties relating to rooms could be 'good-accessibility', 'air-conditioning', 'projector'. Examples of properties relating to equipment include 'PoolCar', but could also be 'TeaAndBiscuits'.

NB - custom property names can only include alphanumeric values (spaces are not allowed).

It's advisable to keep your properties succinct as the 'Description' field that end users see is limited in size.

First, to define your custom properties you use PowerShell for example:

```
$ResourceConfiguration = Get-ResourceConfig
$ResourceConfiguration.ResourcePropertySchema+=
("Equipment/TeaAndBiscuits")
$ResourceConfiguration.ResourcePropertySchema+=
("Room/Airconditioning")
Set-ResourceConfig - ResourcePropertySchema
$ResourceConfiguration.ResourcePropertySchema
```

Then, having defined custom properties, allocate them as appropriate to the relevant resource mailboxes.

In Exchange 2007 this is done via a tab called 'Resource Information'. In Exchange 2010 the same is achieved via the 'Resource General Tab'.

In Exchange 2013 this is done using Shell commands - see this article: http://technet.microsoft.com/enus/library/bb124948(v=exchg.141).aspx

#### Give defined users resource mailbox access

Once you've created the relevant resource mailboxes you will need to give 'resource administrators' the ability to be able to manage these resources and any requests related to them.

Bear in mind that one person may be responsible for multiple resources (such as all the meeting rooms at a given location) and need to be given rights to these mailboxes.

Alternatively, more than one member of staff may be responsible for a single resource.

## First, give the resource administrators 'delegates' access to the applicable resource mailboxes:

Delegated access basically enables a member of staff to receive and review all calendar requests sent to the resource mailbox(es) that he or she is responsible for.

It will also enable them to view the individual calendars belonging to the resources they manage.

If you are using Exchange 2010, this can be done from a new Resource Policy tab (see later in this document).

In Exchange 2007 this is done using PowerShell commands. For example, to give John Smith delegate access to the calendar associated with the Conference Suite resource, enter the following command:

Get-Mailbox -RecipientTypeDetails
EquipmentMailbox, RoomMailbox | SetMailboxCalendarSettings -ResourceDelegates "John
Smith"

# Assign resource administrators privileges to manage resource policies.

If the resource administrators in question are to be responsible for managing policies and options in relation to the resource, you will need to give them full administration permissions on the resource mailboxes. This will enable them to work with the OWA-based resource setting options that were introduced with 2007.

You can assign full access permissions via the Exchange Management Console.

Note that the Exchange 2010 tab also lets you enable the Resource Booking Attendant.

# Configuring Resource Options & Policies

With Exchange 2007 and 2010 It is possible, with the appropriate access permissions set, to enable resource administrators to define resource scheduling policies as well as customised messages to go to users that request bookings.

This is done on a per resource basis, using OWA.

# With the introduction of Exchange 2010, this can also be achieved using the Exchange Management Console (see next page).

Using Exchange 2007, the resource administrator can logon to their regular mailbox through OWA, and will be able to select any additional resource mailboxes they have been given access to using the Open Other Mailbox feature (found in the upper right corner of the OWA page).

An option called Resource Settings appears on the left hand side and there are 4 sections that can be completed:

- Resource Scheduling Options E.g. set maximum duration for meetings in the specified room or only enable meetings to be booked within working hours.
- Resource Scheduling Permissions: E.g. specify if certain types of users (managers or PAs, for example) make a booking without manual approval by the facility manager.
- Resource Privacy Options E.g. hide the name of the meeting requester and meeting subject used in association with the resource (as this may be sensitive information).
- Response Message E.g. contact details for the person that manages room bookings, catering, etc.

In Exchange 2010 OWA the "manage other users" tab allows authorised staff to manage resources in a similar manner. With Exchange 2013 the concept of enabling non-IT staff to manage resource policies would appear to have disappeared.

🔠 Exchange Management Console					
Ele Attion Werr Halp					
Microsoft Exchange	🎥 Mailbox - Entire P	orest			
Augustation of purchase of configuration     Augustation     Augustation	🕈 Qeaks Filter				
	Display Name -	Alias	Organizational Unit	Recipient Type Details	
	Administrator Annie Holder	Administrator ann/eh	2008r2com co.uk/Users 2008r2com co.uk/PAM_U	User Nalbox User Nalbox	
	Conference Suite	conferencesuite	2008/2clone co. Jk	Room Melbox	
	Discovery Search Malbox	DiscoverySearchMalbcx(,	2008-2cone co. Jk/Users	Discovery Malbox	
Move Request	Sames Robinson	james:	2008-2con .co.uk/PAM_U	User Naibox	
and Toolson		pemednin	2008-2com.co.uk/PAM_U	User Naibox	

#### Defining Policy Options in Exchange 2010

With Exchange 2010, the policy options that were introduced with Exchange 2007 and made editable via OWA are also configurable using the Exchange Management Console (EMC).

The EMC has a series of tabs for editing resource properties. Here's a quick overview:

- Resource General As with the 'Resource Information' tab in 2007, this tab lets you configure custom properties such as capacity. You can also configure whether you want to enable the Resource Booking Attendant for this mailbox or not.
- Resource Information This tab lets you define information available in the resource mailbox's calendar, such as attachments (e.g. a map) and comments on things like accessibility, seating layouts and so on). It also allows configuration of additional text sent to the meeting requester.
- Resource Policy This tab lets you configure specific policies that apply to the resource mailbox, such as maximum meeting length. You can also configure resource mailbox delegates.
- Resource In-Policy Requests Here you can configure those users who are allowed to submit in-policy meeting requests, which can be either automatically approved or approved by a resource mailbox delegate.
- Resource Out-of-Policy Requests This tab allows you to configure users allowed to submit out-of-policy meeting requests which need to be approved by a resource mailbox delegate.

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Refer to this Microsoft TechNet note for more information.

http://technet.microsoft.com/enus/library/bb124255.aspx

# Creating Your Resources in Exchange 2013/Office 365

With Exchange 2013 the configuration of resource mailboxes (for Rooms or Equipment) and associated policies is achieved using the new web-based Exchange Administration Center (EMC). You can also use the Exchange Management Shell (PowerShell).

#### ENTERPRISE OFFICE 365

Recipients	Mailboxes Groups Re	sources Contacts Shared	Migration
Permissions			
Compliance	+• / 🖩 🕫 …		
Management	DISPLAY NAM*	MAILBOX TVP?	E-MAL
Organization	Loan Laptor 1	Equipment	loanies
Protection	Meeting Room 1	Room	meetin

One of the improvements introduced with 2013 is that you are able to set booking policies or assign delegates during the creation of the

resource mailbox, rather than as a secondary task after the mailbox is created (as with Exchange 2007/10).

As with configuration in Exchange 2010, there are some general properties you can customise.

new room mailbox

*Room name:		
Meeting Room 1		
*Email address:		
meetingroom1	۵	exchange2013demo.con 🗸
Organizational unit		
		browse
Location:		
Brisbane		
Phone:		
+61730012345		
Capacity:		
12		

Booking requests:

- Accept or decline booking requests automatically
- Select delegates who can accept or decline
  - booking requests

You can specify the delegates you want to associate with the resource along with contact information on who to call in case of queries.

The booking options (policies) can be further tuned with regards to whether recurring meetings are allowed, booking hours and cut off times, and custom replies.

There's also a MailTip section to alert users of potential issues before they send a booking request to the room mailbox.

General				
Delegates	Specify when equipment can be scheduled.			
<b>Booking Options</b>	<ul> <li>Allow repeating meetings</li> <li>Allow repeating non-building working hours</li> <li>Always decline if the red date is boyond this limit.</li> <li>Meeting is performed date date (invel).</li> </ul>			
Contact Information Email Address MailTip				
	ini			
		Maximum duration (hours):		
	21.2			
	If you want the meeting organizer to receive a reply, enter the text below			
	DR. D. S. M. MIN			

As noted earlier - the concept of giving delegates responsibility for tuning these parameters would appear to have disappeared with Exchange 2013, so the IT team should prepare to take on board this responsibility.

## WORKING WITH RESOURCES IN A HYBRID ENVIRONMENT

If you plan to work with room and equipment bookings in a hybrid environment, there's a few things to watch out for, including:

#### **Re-Establish Booking Policies**

When you migrate an existing Exchange resource mailbox to Office 365, any permissions and policies (e.g. automatically accept a room booking within office hours/weekdays) will not automatically move across. To ensure your room booking processes continue to work seamlessly our best advice is to copy these policies and re-apply them post-migration. See also https://support.microsoft.com/engb/kb/3079772

#### Move Resource Mailbox Delegates Together With Mailboxes

Importantly, if you have individuals set up as delegates on a room or resource mailbox (for example, with the purpose of approving or turning down booking requests), you will need to make sure you migrate those individuals to Office 365 at the same time as you move the room resource.

#### Problems with Office 365 Users Not 'Seeing' On-premises Resources

A known issue when working in a hybrid deployment is where cloud-based OWA users can't see on-premises room mailboxes in the resources list.

If this occurs, you can create a room list distribution group (limited to 100 rooms) and synchronise it across. See https://support.microsoft.com/en-us/kb/2904381

#### Lost/Duplicate Appointments

A side-effect of working in a distributed, hybrid environment, is that users are more likely to be working with a mix of BYO client devices.

Mobile devices such as Apple iPhones and iPads, Android and Blackberry Enterprise Server (BES), also Apple Macs running Entourage, are likely to be running buggy, non-Microsoft approved calendaring clients. These are known to create a number of problems that fail to interact properly with ActiveSync, creating a host of broken appointments and other problems.

The best practice to avoid this is to use Microsoft approved clients and 'police' which devices and clients are connecting to your network.



## Summary

There's no doubt that the Outlook calendar application is a logical place from which staff should book the resources needed to support their work.

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Being able to schedule co-workers for meetings, along with the required room, equipment and catering - in one place - makes life a lot easier for end users. It also has the potential for saving a lot of time and 'phone calls back and forth.

Similarly, making advance bookings for hot desks as staff schedule their working week makes enormous sense.

But, even with recent improvements to Exchange and Outlook, where there's a large number of resources to be managed, or where requirements go beyond a simple room or projector booking, some challenges still exist. For example:

#### It's Difficult to Support Complex Bookings

As we saw earlier in this document, the attributes available for defining and booking items such as equipment and catering, are limited.

For example, with catering requests it's only really workable to create a few options such as HotForkBuffet, SandwichSelection, Tea&Biscuits.

Other things you will struggle to cope with are:

- Certain catering options may only be available in certain rooms/locations.
- You may have cut off times beyond which catering requests will not be accepted (e.g. a HotForkBuffet requires 48 hours notice).
- There's no option for specifying catering numbers.

So, in practice, any special requests to the catering function will still require the catering manager to engage with the requester to confirm numbers, timing etc.

Note that users can't actually search by capacity or any other room attributes.

#### It's Difficult to Select the Desired Room/Resource in Large Organisations

If you have lots of rooms with different attributes and facilities and in different locations, it can be difficult to ease the selection process for end users.

Additionally in Exchange Online, there's a default system setting (which, at the time of writing can't be changed) that limits the number of rooms displayed in OWA to 100. In larger enterprises, this can cause some user frustration.

# It's Not Viable to Give Service Providers Control

The OWA-based tool for administrating Resource Mailbox policies is not ideal for facilities staff.

Even though the interface introduced with Exchange 2013 makes resource configuration easier, you will still need to resort to using PowerShell, so it's still very much an IT function.

#### There's No Dedicated Request-Tracking

Although service providers will receive requests for resources via email, and can view the diaries pertaining to the resources they manage, keeping track of any requests, collating any updates and creating a schedule of all requests on a particular day or week, requires diligence on the part of the service provider.

#### There's Potential for Confusion

Any resource requests that require manual approval will result in a email request being sent to ALL delegates assigned to the resource mailbox.

This means that if multiple service providers are responsible for the same resource (e.g. a conference suite), without proper management it is possible that one person could accept the request and another reject it.

#### There's No Easy Reporting

Organisations that wish to improve how their resources are used are also keen to get better visibility of resource usage. Exchange does not make management information readily available.

#### No Real-Time Visibility Leads to Wastage & Contention

Outlook Calendar offers no *convenient way* for staff to see what rooms and desks are free or busy 'on the day' as they walk about the office.

Organisations the world over have the problem of rooms getting booked in advance, but if no-one turns up on the day, there's no easy way to make the room available for immediate re-use.

Another common problem is where staff 'meeting squat' in what appears to be an empty room only to find that the 'rightful bookees' turn up in 10 minutes time.

These and similar scenarios are a massive source of waste, frustration and unprofessionalism.

If you would like to build on your investment in Microsoft technologies, but would like to address any or all of these challenges, speak to Essential.

## **About Essential**

# essential @

Essential is regarded as one of the UK's foremost experts on electronic messaging, email archiving & collaboration technologies. It is also a long-term Microsoft Partner.

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Microsoft Exchange and Outlook have become the default portal through which businesses and individuals schedule their time and activities. Coupled with the use of Active Directory to define people, rooms, equipment etc, and underyling synchronisation services such as ActiveSync to support mobile staff, Exchange makes the perfect platform for optimising resource usage.

We can help you get the most out of your existing investment in Microsoft software and skills with solutions that are designed specifically to extend and enhance native Outlook, Exchange and Office 365 functionality and that offer full integration with Active Directory, IIS and other industry-standard infrastructure.

Applications include:

- room booking software to support complex bookings & service provision
- hot desk booking
- visitor badge creation & visitor logs
- instant room booking using touch-screens
- resource usage reporting
- group calendaring
- calendar overviews to assist in planning events, holiday coverage, projects, etc

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