



Managing Office 365 Identities and Requirements



Exam Ref

70-346

Orin Thomas

Exam Ref 70-346 Managing Office 365 Identities and Requirements

Orin Thomas

PUBLISHED BY
Microsoft Press
A Division of Microsoft Corporation
One Microsoft Way
Redmond, Washington 98052-6399

Copyright © 2015 by Orin Thomas

No part of the contents of this book may be reproduced or transmitted in any form or by any means without the written permission of the publisher.

Library of Congress Control Number: 2015936024
ISBN: 978-1-5093-0066-2

Printed and bound in the United States of America.

First Printing

Microsoft Press books are available through booksellers and distributors worldwide. If you need support related to this book, email Microsoft Press Book Support at mspinput@microsoft.com. Please tell us what you think of this book at <http://aka.ms/tellpress>.

This book is provided “as-is” and expresses the author’s views and opinions. The views, opinions and information expressed in this book, including URL and other Internet Web site references, may change without notice.

Some examples depicted herein are provided for illustration only and are fictitious. No real association or connection is intended or should be inferred.

Microsoft and the trademarks listed at <http://www.microsoft.com> on the “Trademarks” Web page are trademarks of the Microsoft group of companies. All other marks are property of their respective owners.

Acquisitions Editor: Karen Szall

Developmental Editor: Karen Szall

Editorial Production: Troy Mott, Ellie Volckhausen

Technical Reviewers: Mike Toot; Technical Review services provided by Content Master, a member of CM Group, Ltd.

Copyeditor: Eryn Leavens and Christopher Friedman

Indexer: Julie Grady

Cover: Twist Creative • Seattle

Contents

Introduction	xi
<i>Microsoft certifications</i>	<i>xi</i>
<i>Free ebooks from Microsoft Press</i>	<i>xii</i>
<i>Errata, updates, & book support</i>	<i>xii</i>
<i>We want to hear from you</i>	<i>xii</i>
<i>Stay in touch</i>	<i>xiii</i>
<i>Preparing for the exam</i>	<i>xv</i>
Chapter 1: Provision Office 365	1
Objective 1.1: Provision tenants	1
Setting up an Office 365 trial	1
Configure the tenant name	6
Tenant region	6
Administrator roles	7
Manage tenant subscriptions and licenses	8
Objective summary	12
Objective review	13
Objective 1.2: Add and configure custom domains	14
Specify domain name	14
Confirm ownership	15
Specify domain purpose	22
Move ownership of DNS to Office 365	25
Objective summary	26
Objective review	26

What do you think of this book? We want to hear from you!

Microsoft is interested in hearing your feedback so we can continually improve our books and learning resources for you. To participate in a brief online survey, please visit:

www.microsoft.com/learning/booksurvey/

Objective 1.3: Plan a pilot	27
Designate pilot users	28
Identify workloads that don't require migration	28
Run the Office 365 on-ramp readiness tool	29
Create a test plan or use case	31
Connect existing email accounts for pilot users	32
Service descriptions	34
Objective summary	36
Objective review	36
Answers.....	38
Objective 1.1: Thought experiment	38
Objective 1.1: Review	38
Objective 1.2: Thought experiment	39
Objective 1.2: Review	39
Objective 1.3: Thought experiment	41
Objective 1.3: Review	41

Chapter 2: Plan and implement networking and security in Office 365 **43**

Objective 2.1: Configure DNS records for services.....	43
Exchange DNS records	44
Skype for Business Online DNS records	49
SharePoint Online DNS records	52
Objective summary	54
Objective review	54
Objective 2.2: Enable client connectivity to Office 365.....	55
Proxy server configuration	56
Outbound firewall ports	56
Recommend bandwidth	57
Internet connectivity for clients	58
Deploy desktop setup for previous versions of Office clients	58
Objective summary	59
Objective review	59

Objective 2.3: Administer rights management	60
Activate Azure Rights Management	60
Office integration with Rights Management	64
Assign roles for Microsoft Azure Active Directory RM	67
Enable recovery of protected document	68
Objective summary	69
Objective review	69
Objective 2.4: Manage administrator roles in Office 365	70
Global administrator	71
Billing administrator	71
User management administrator	72
Service administrator	72
Password administrator	73
Delegated administrator	73
Manage role membership	74
Objective summary	78
Objective review	79
Answers	80
Objective 2.1: Thought experiment	80
Objective 2.1: Review	80
Objective 2.2: Thought experiment	81
Objective 2.2: Review	81
Objective 2.3: Thought experiment	82
Objective 2.3: Review	82
Objective 2.4: Thought experiment	83
Objective 2.4: Review	83

Chapter 3: Manage cloud identities 85

Objective 3.1: Configure password management	85
Working with cloud identities	85
Configuring password policies	86
Following password complexity policies	87
Resetting passwords	88
Objective summary	94
Objective review	94

Objective 3.2: Manage user and security groups	95
Using the bulk import process	95
Using soft delete	98
Enabling multi-factor authentication	100
Using Azure Active Directory Graph API	104
Objective summary	107
Objective review	108
Objective 3.3: Manage cloud identities with Windows PowerShell	109
Managing user passwords with Windows PowerShell	109
Hard deleting users	111
Performing bulk account operations	112
Using Azure Active Directory cmdlets	114
Objective summary	122
Objective review	122
Answers.	124
Objective 3.1: Thought experiment	124
Objective 3.1: Review	124
Objective 3.2: Thought experiment	125
Objective 3.2: Review	125
Objective 3.3: Thought experiment	127
Objective 3.3: Review	127

Chapter 4: Implement and manage identities by using DirSync 129

Objective 4.1: Prepare on-premises Active Directory for DirSync	129
Using Active Directory synchronization tools	130
Cleaning up existing Active Directory objects	135
Using UPN suffixes and non-routable domains	138
Planning for filtering Active Directory	143
Supporting multiple forests	143
Objective summary	144
Objective review	145

Objective 4.2: Set up DirSync	146
Meeting the DirSync installation requirements	146
Installing DirSync	150
Filtering	160
Identifying synchronized attributes	163
Syncing passwords	165
Objective summary	166
Objective review	166
Objective 4.3: Manage Active Directory users and groups with DirSync in place.	167
Creating users and groups	168
Modifying users and groups	169
Deleting users and groups	169
Scheduling synchronization	170
Forcing synchronization	170
Objective summary	173
Objective review	173
Answers.	175
Objective 4.1: Thought experiment	175
Objective 4.1: Review	175
Objective 4.2: Thought experiment	176
Objective 4.2: Review	176
Objective 4.3: Thought experiment	177
Objective 4.3: Review	178

**Chapter 5: Implement and manage federated identities
(single sign-on) 179**

Objective 5.1: Plan requirements for Active Directory Federation Services .	179
Deploying AD FS topologies	180
Using certificates	181
Using namespaces	191
Meeting network requirements	191
Configuring multi-factor authentication	192
Accessing filtering using claims rules	193
Objective summary	194
Objective review	194

Objective 5.2: Install and manage AD FS servers	195
Creating AD FS service accounts	196
Configuring farm or stand-alone settings	198
Installing and configuring AD FS	199
Adding additional servers	207
Converting from standard to federated domain	217
Managing certificate life cycle	218
Objective summary	220
Objective review	220
Objective 5.3: Install and manage AD FS Proxy servers.....	221
Setting up perimeter network name resolution	221
Setting up certificates	222
Installing required Windows roles and features	222
Configuring AD FS Web Application Proxy	225
Setting custom proxy forms login page	229
Objective summary	230
Objective review	231
Answers.....	232
Objective 5.1: Thought experiment	232
Objective 5.1: Review	232
Objective 5.2: Thought experiment	233
Objective 5.2: Review	233
Objective 5.3: Thought experiment	234
Objective 5.3: Review	235

Chapter 6: Monitor and troubleshoot Office 365 availability and usage 237

Objective 6.1: Analyze reports	237
Office 365 reports	238
Mail reports	238
Usage reports	239
Skype for Business	240
SharePoint	241
OneDrive for Business	242
Auditing reports	242

Protection reports	243
Rules reports	244
Data Loss Prevention reports	244
Objective summary	245
Objective review	245
Objective 6.2: Monitor service health	246
Service Health Dashboard	246
Office 365 Management Pack	251
Windows PowerShell cmdlets	264
Objective summary	265
Objective review	265
Objective 6.3: Isolate service interruption	266
Create a service request	267
Microsoft Remote Connectivity Analyzer	272
Microsoft Connectivity Analyzer	277
Transport Reliability IP Probe	279
Hybrid Free/Busy Troubleshooter	280
Objective summary	284
Objective review	285
Answers	286
Objective 6.1: Thought experiment	286
Objective 6.1: Review	286
Objective 6.2: Thought experiment	287
Objective 6.2: Review	287
Objective 6.3: Thought experiment	288
Objective 6.3: Review	288

What do you think of this book? We want to hear from you!

Microsoft is interested in hearing your feedback so we can continually improve our books and learning resources for you. To participate in a brief online survey, please visit:

www.microsoft.com/learning/booksurvey/

Introduction

The 70-346 exam deals with advanced topics that require candidates to have an excellent working knowledge of both Office 365 and Windows Server. Some of the exam comprises topics that even experienced Office 365 and Windows Server administrators may rarely encounter, unless they are consultants who deploy new Office 365 tenancies on a regular basis. To be successful in taking this exam, candidates not only need to understand how to deploy and manage Office 365, they need to understand how to integrate Office 365 with an on-premises Active Directory environment.

Candidates for this exam are Information Technology (IT) Professionals who want to validate their advanced Office 365 and Windows Server management skills, configuration skills, and knowledge. To pass this exam, candidates require a strong understanding of how to provision Office 365, plan and implement networking and security in Office 365, manage cloud identities, configure and manage identity synchronization between on-premises and cloud Active Directory instances, implement and manage federated identities, as well as have the ability to monitor and troubleshoot Office 365 availability and usage. To pass, candidates require a thorough theoretical understanding as well as meaningful practical experience implementing the technologies involved.

This book covers every exam objective, but it does not cover every exam question. Only the Microsoft exam team has access to the exam questions themselves and Microsoft regularly adds new questions to the exam, making it impossible to cover specific questions. You should consider this book a supplement to your relevant real-world experience and other study materials. If you encounter a topic in this book that you do not feel completely comfortable with, use the links you'll find in text to find more information and take the time to research and study the topic. Great information is available on TechNet, through MVA courses, and in blogs and forums.

Microsoft certifications

Microsoft certifications distinguish you by proving your command of a broad set of skills and experience with current Microsoft products and technologies. The exams and corresponding certifications are developed to validate your mastery of critical competencies as you design and develop, or implement and support, solutions with Microsoft products and technologies both on-premises and in the cloud. Certification brings a variety of benefits to the individual and to employers and organizations.

MORE INFO ALL MICROSOFT CERTIFICATIONS

For information about Microsoft certifications, including a full list of available certifications, go to <http://www.microsoft.com/learning/en/us/certification/cert-default.aspx>.

Free ebooks from Microsoft Press

From technical overviews to in-depth information on special topics, the free ebooks from Microsoft Press cover a wide range of topics. These ebooks are available in PDF, EPUB, and Mobi for Kindle formats, ready for you to download at:

<http://aka.ms/mspressfree>

Check back often to see what is new!

Errata, updates, & book support

We've made every effort to ensure the accuracy of this book and its companion content. You can access updates to this book—in the form of a list of submitted errata and their related corrections—at:

<http://aka.ms/ER346/errata>

If you discover an error that is not already listed, please submit it to us at the same page.

If you need additional support, email Microsoft Press Book Support at mspinput@microsoft.com.

Please note that product support for Microsoft software and hardware is not offered through the previous addresses. For help with Microsoft software or hardware, go to <http://support.microsoft.com>.

We want to hear from you

At Microsoft Press, your satisfaction is our top priority, and your feedback our most valuable asset. Please tell us what you think of this book at:

<http://aka.ms/tellpress>

The survey is short, and we read every one of your comments and ideas. Thanks in advance for your input!

Stay in touch

Let's keep the conversation going! We're on Twitter: <http://twitter.com/MicrosoftPress>.

Preparing for the exam

Microsoft certification exams are a great way to build your resume and let the world know about your level of expertise. Certification exams validate your on-the-job experience and product knowledge. Although there is no substitute for on-the-job experience, preparation through study and hands-on practice can help you prepare for the exam. We recommend that you augment your exam preparation plan by using a combination of available study materials and courses. For example, you might use the Exam ref and another study guide for your “at home” preparation, and take a Microsoft Official Curriculum course for the classroom experience. Choose the combination that you think works best for you.

Note that this Exam Ref is based on publicly available information about the exam and the author’s experience. To safeguard the integrity of the exam, authors do not have access to the live exam.

Provision Office 365

Setting up an Office 365 tenancy is straightforward as long as you have a good understanding of what you need to have ready before you provision the tenancy, and what steps you need to take immediately after you provision the tenancy so that you can start seamlessly moving workloads into the cloud.

IMPORTANT
*Have you read
page xv?*

It contains valuable information regarding the skills you need to pass the exam.

Objectives in this chapter:

- Objective 1.1: Provision tenants
- Objective 1.2: Add and configure custom domains
- Objective 1.3: Plan a pilot

Objective 1.1: Provision tenants

This objective deals with the basic process of setting up an Office 365 tenancy. To master this objective you'll need to understand some of the prerequisites, such as what you'll need to think about before signing up for an Office 365 subscription, what an Office 365 tenant name is, what the different administrator roles are, and what to manage regarding tenant subscriptions and licensing.

This objective covers the following topics:

- Set up an Office 365 trial
- Configure the tenant name
- Tenant region
- Administrator roles
- Manage tenant subscriptions and licensing

Setting up an Office 365 trial

To set up an Office 365 trial, you need to have access to the following things:

- **An email account that will be associated with the trial** You should sign up for a brand-new email account that you will use only with the trial. To ensure that the email account remains secure, you should also configure this account to use two-factor authentication. Outlook.com email accounts support two-factor authentication, including text-messages and time-based codes generated by apps that are downloadable from each mobile operating system vendor's app store. You should avoid associating a subscription, even a trial subscription, with a personal email account because trial subscriptions can eventually become ongoing corporate subscriptions.
- **A mobile device that can receive SMS messages** This device will be used to verify your identity.

Once you have the prerequisite elements to set up an Office 365 enterprise trial, perform the following steps:

1. Navigate to <https://products.office.com/en-us/business/office-365-enterprise-e3-business-software> and click Free Trial.
2. On the Welcome page, shown in Figure 1-1 (be aware that Office 365 screens are liable to change as the product evolves), provide the following information and click Next:
 - **Region** Note that you will be unable to change the region associated with the subscription after signup. This should be the geographical region in which the organization for which you are creating the subscription is based. For example, if you were in Hobart, in the state of Tasmania, Australia, you would choose Australia.
 - **First name** Input your first name.
 - **Last name** Input your last name.
 - **Business email address** Input the email address to be associated with the subscription. This should not be a personal account, but should be a secure account created expressly for the purpose of being associated with the subscription. This account will be used if you need to recover the tenancy's global administrator account password. Because the global administrator is able to take any action, you want to ensure that the account that the recovery password can be sent to is secure and is only accessible to authorized people.
 - **Business phone number** Input the phone number to be associated with the subscription.

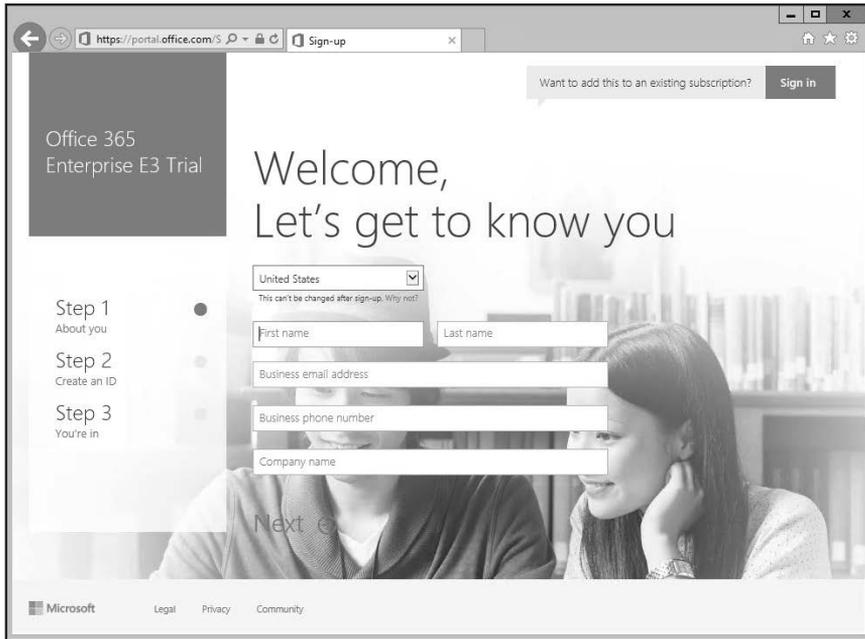


FIGURE 1-1 Welcome page

3. On the Create Your User ID page, shown in Figure 1-2, specify the following and click Next:
 - **User name** This will be the username of the global administrator account. For an organization, the name for this account should not be a standard user name, but should be appropriate for an account that will have the highest level of permissions.
 - **Company name** This will be your organization's onmicrosoft.com name. You'll be able to configure Office 365 to use a more traditional domain name at a later point in time.
 - **Password** The password must be 8-16 characters, combine upper case and lower case letters, numbers, and the following symbols: ! @ # \$ % ^ & * - _ = [] | \ : ' , . ? / ` ~ " () ; .

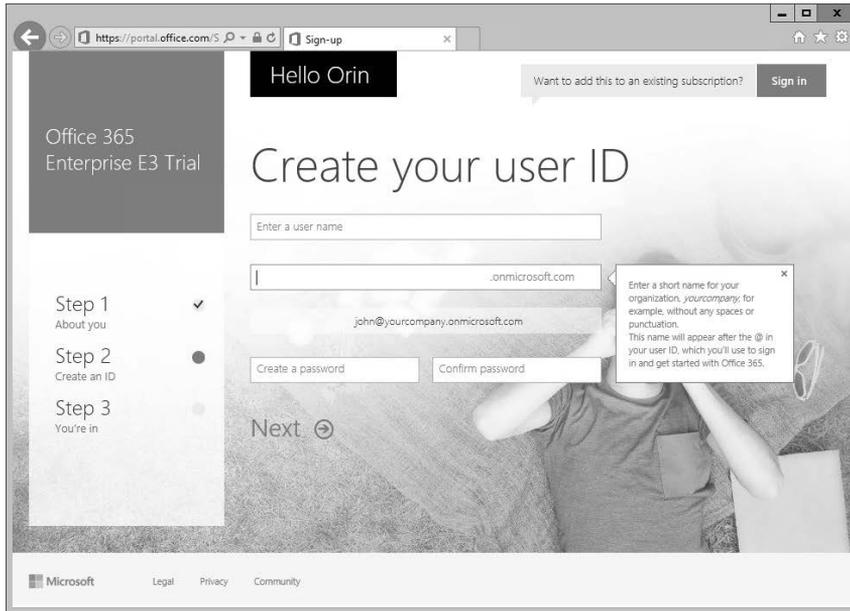


FIGURE 1-2 Create your user ID

4. On the Prove You're Not A Robot page, shown in Figure 1-3, provide a mobile phone number where you can receive a text message and click Text Me. The important takeaway from this page is that the secret to humanity defeating the eventual robot uprising is that robots are unable to read text messages.

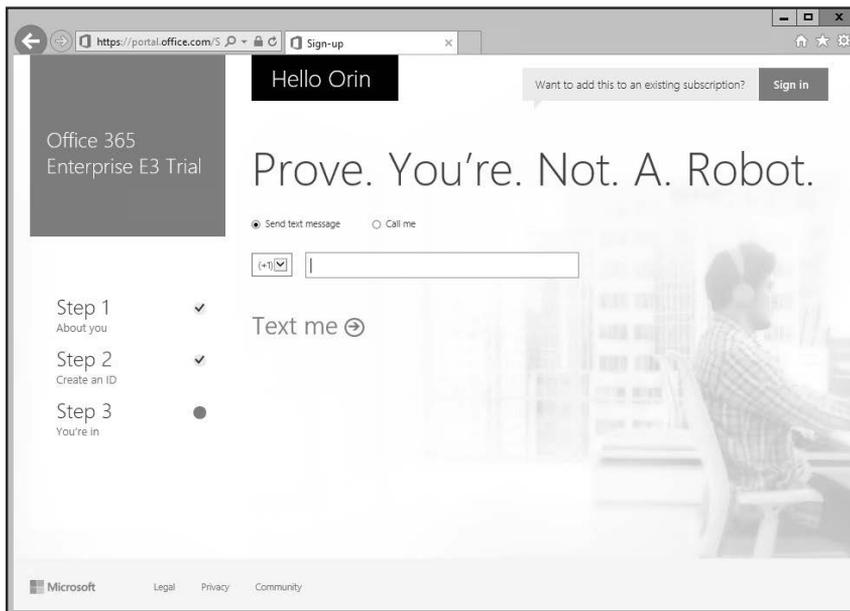


FIGURE 1-3 Prove you are not a robot

- When you receive the text message, enter the verification code and then click Create My Account on the page shown in Figure 1-4.

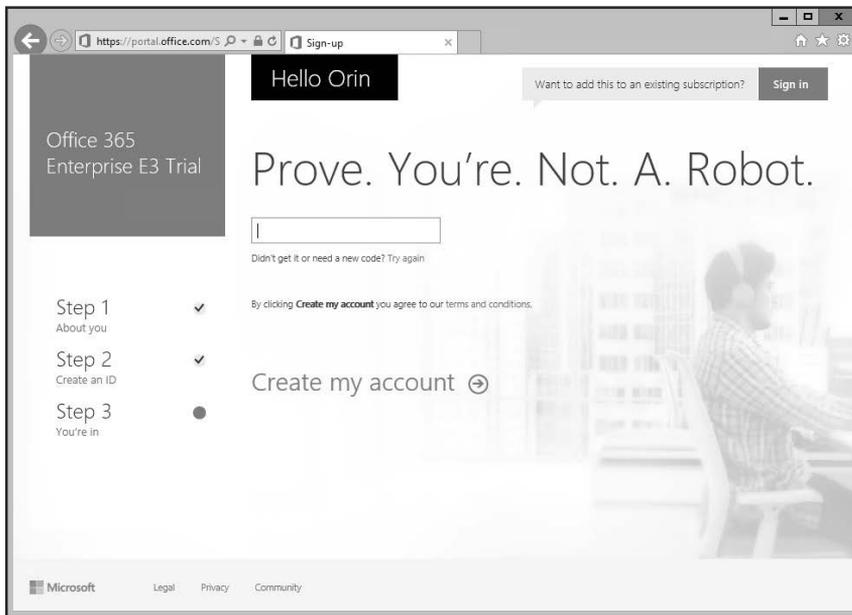


FIGURE 1-4 Enter the verification code

- On the Save This Info page, shown in Figure 1-5, review the information, which will include your Office 365 ID and the Office 365 sign-in page.

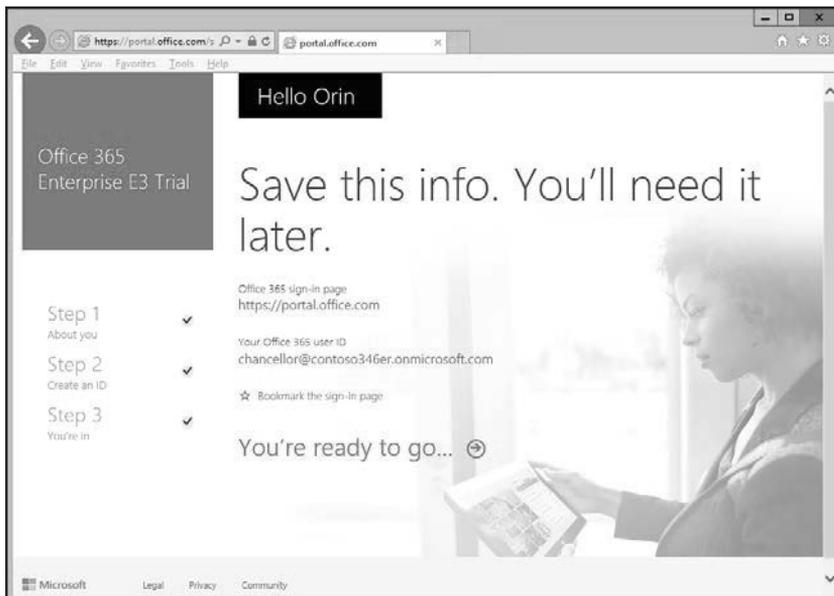


FIGURE 1-5 Trial ready

Configure the tenant name

When you set up your Office 365 subscription, you specify a tenant name in the form of *name.onmicrosoft.com* where *name* is the name you want to assign to your organization's tenancy. This name has to be unique and no two organizations can share the same tenant name. The tenant name cannot be changed after you configure your Office 365 subscription.

You can assign a domain name that you own to the tenant so that you don't have to use the tenant name on a regular basis. For example, you might sign up to an Office 365 subscription with the tenant name *contoso.onmicrosoft.com*. Any accounts you create will use the *contoso.onmicrosoft.com* email suffix for their Office 365 mailboxes. However, once you've set up Office 365, you can assign a custom domain name and have the custom domain name used as the primary email suffix. For example, assuming that you owned the domain name *contoso.com*, you could configure your tenancy to use the custom domain name *contoso.com* with the *contoso.onmicrosoft.com* tenancy. You'll learn more about using custom domains later in this chapter.

While you can configure a custom domain name to be the default domain name and use the custom domain name exclusively when performing Office 365 related tasks, you won't be able to remove the tenant name. The tenant name chosen at setup remains with the subscription over the course of the subscription's existence.

MORE INFO ONMICROSOFT.COM DOMAIN

You can learn more about initial *onmicrosoft.com* domains at <https://support.office.com/en-za/article/About-your-initial-onmicrosoftcom-domain-in-Office-365-b9fc3018-8844-43f3-8db1-1b3a8e9cfd5a>.

Tenant region

Tenant region determines which Office 365 services will be available to the subscription, the taxes that will be applied as a part of the subscription charges, the billing currency for the subscription, and the Microsoft datacenter that will host the resources allocated to the subscription. For example, selecting United States for a region will mean that your organization's Office 365 tenancy is allocated resources in a United States datacenter. Selecting New Zealand currently means that your organization's Office 365 will be allocated resources in a datacenter in Australia as this is currently the closest Microsoft datacenter to New Zealand.

Unlike other Office 365 settings, you cannot change the tenant region once you have selected it. The only way to alter a tenant region is to cancel your existing subscription and to create a new subscription.

MORE INFO ABOUT OFFICE 365 REGIONS

You can learn more about Office 365 regions at <https://support.office.microsoft.com/en-US/article/Change-your-organizations-address-technical-contact-email-and-other-information-a36e5a52-4df2-479e-bb97-9e67b8483e10>.

Administrator roles

There are five Office 365 management roles. The Office 365 roles are as follows:

- **Global administrator** Office 365 users assigned this role have access to all administrative features. Users assigned this role are the only users able to assign other admin roles. More than one Office 365 user account can be assigned the global admin role. The first tenancy account created when you sign up for Office 365 is automatically assigned the global admin role. This role has the most rights of any available role.
- **Billing administrator** Office 365 users assigned this role are able to make purchases, manage subscriptions, manage support tickets, and monitor service health.
- **Password administrator** Office 365 users assigned the password admin role are able to reset the passwords of most Office 365 user accounts, except those assigned the global admin, service admin, or billing roles. Users assigned the password admin role can reset the passwords of other users assigned the password admin role.
- **Service administrator** Office 365 users assigned the service admin role are able to manage service requests and monitor service health.
- **User management administrator** When assigned this role, users can reset passwords and monitor service health. They can also manage user accounts, user groups, and service requests. Users assigned this role are unable to delete accounts assigned the global admin role; create other admin roles; or reset passwords for users assigned the billing, global, or service admin roles.

To assign a user the global admin role, perform the following steps:

1. In the Office 365 Admin Center, select the Active Users node under the Users node as shown in Figure 1-6.

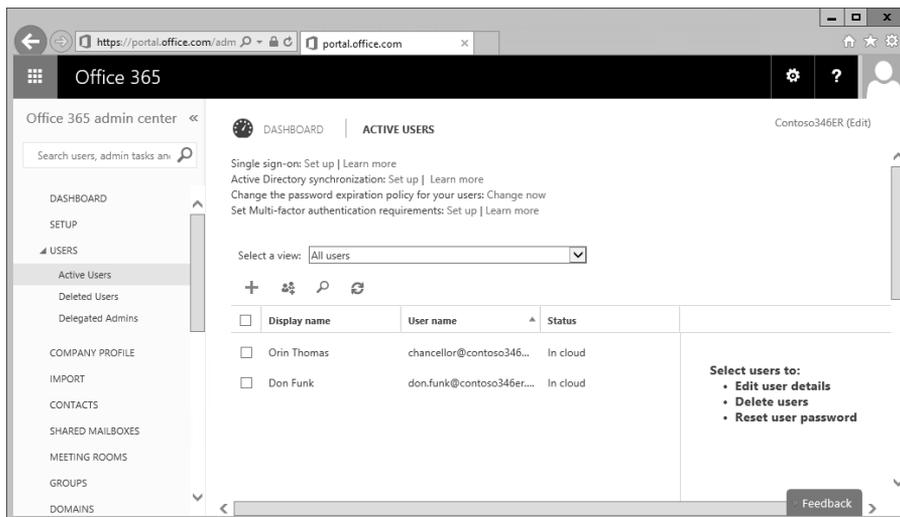


FIGURE 1-6 Active Users

2. In the Active Users node, select the user that you want to assign global admin privileges to and then click Edit.
3. On the user properties page, click Settings.
4. On the Settings page, select Yes under Assign Role and then select the Global Administrator role as shown in Figure 1-7 and provide an email address where password reset information can be sent. Ensure that this account is secure and protected by two-factor authentication. Click Save to apply the changes.

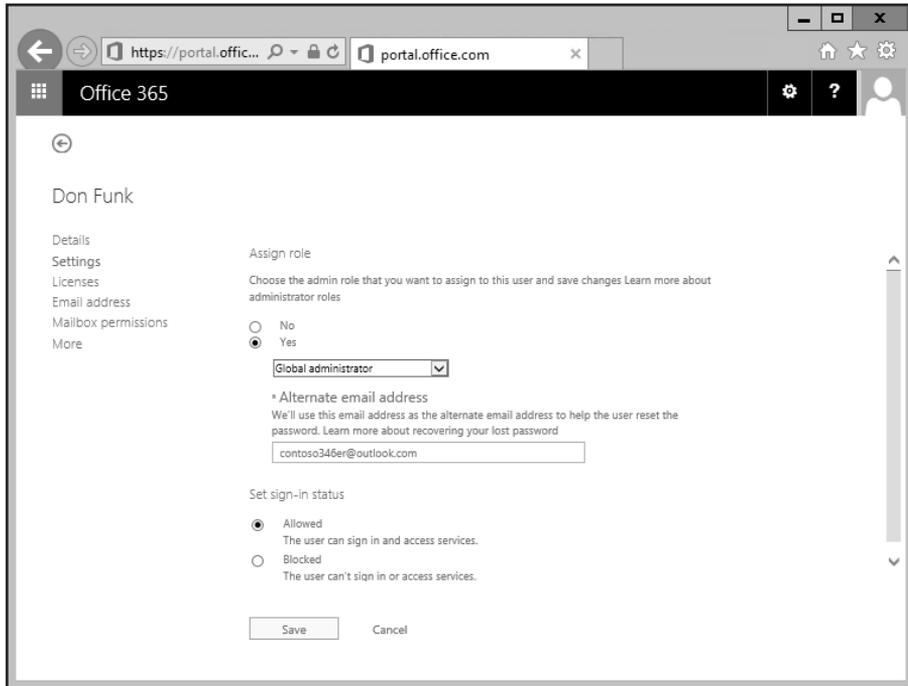


FIGURE 1-7 Global Administrator

MORE INFO ADMINISTRATOR ROLES

You can learn more about Office 365 Permissions at <https://support.office.com/en-us/article/Assigning-admin-roles-eac4d046-1afd-4f1a-85fc-8219c79e1504>.

Manage tenant subscriptions and licenses

You can manage Office 365 tenant subscriptions from the Subscriptions node, which is under the Billing node and is shown in Figure 1-8.

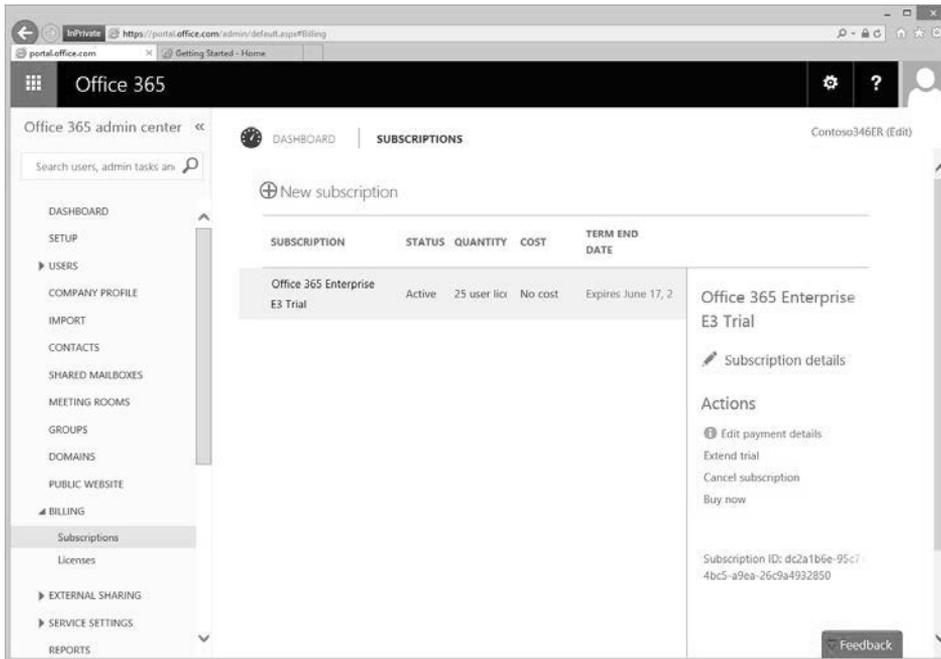


FIGURE 1-8 Subscriptions

When you are signed up to an Office 365 subscription that is not a trial subscription, you'll also be able to view a node named Bills. You can use this node to review invoices by date. Organizations can pay for Office 365 by credit card or invoice. If you want to change the payment method at a later point in time, you will need to call Office 365 support as altering the payment method cannot be performed through the Office 365 Admin Center.

MORE INFO TENANT SUBSCRIPTIONS AND LICENSES

You can learn more about tenant subscriptions and licenses at <https://support.office.com/en-us/article/Billing-in-Office-365-for-business-e28093-Admin-Help-ea7bf1b2-1c2f-477f-a813-313e3ce0d896>.

Assigning licenses

Office 365 users require licenses to use Outlook, SharePoint Online, Skype for Business (formerly Lync Online), and other services. Users who have been assigned the global administrator or user management administrator roles can assign licenses to users when creating new Office 365 user accounts or can assign licenses to accounts that are created through directory synchronization or federation.

When a license is assigned to a user, the following occurs:

- An Exchange Online mailbox is created for the user.
- Edit permissions for the default SharePoint Online team site are assigned to the user.
- The user will have access to Skype for Business features associated with the license.
- For Office 365 ProPlus, the user will be able to download and install Microsoft Office on up to five computers running Windows or Mac OS X.

You can view the number of valid licenses and the number of those licenses that have been assigned on the Licenses node, which is underneath the Billing node in the Office 365 Admin Center. This node is shown in Figure 1-9.

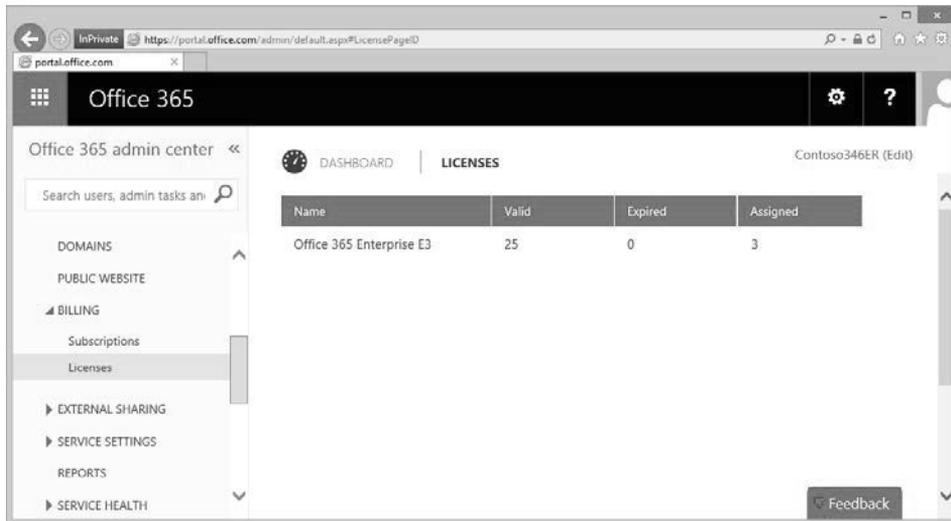


FIGURE 1-9 Licenses

You can assign a license to a user by editing the properties of the user. To do this, select the user's account in the Office 365 Admin Center and then click Edit. On the Licenses tab of the user's properties, you can assign a license by selecting the check box next to each license type. You can also remove a license by clearing the check box. Figure 1-10 shows the Licenses tab of the properties of an Office 365 user.

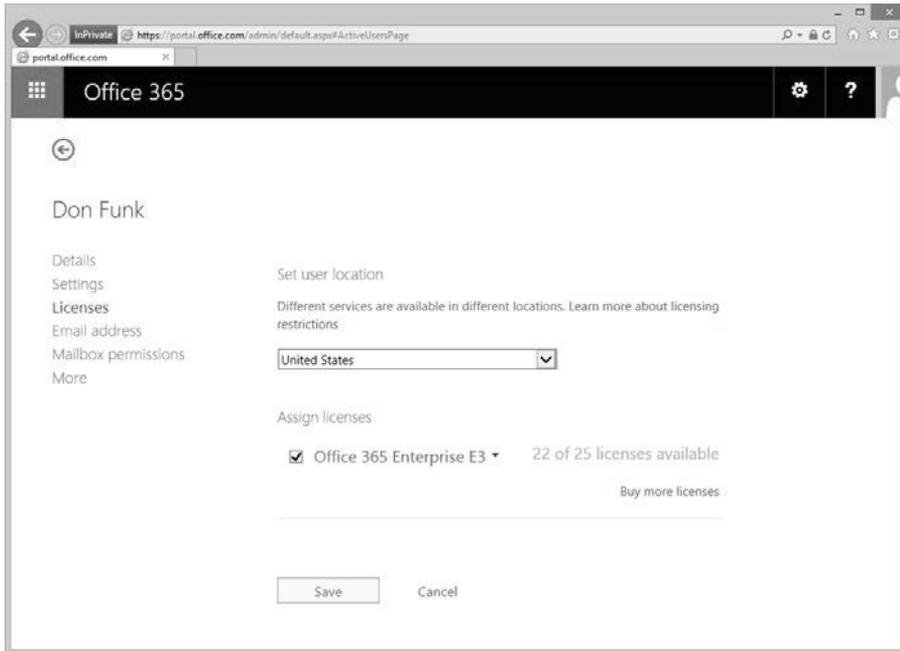


FIGURE 1-10 User license

MORE INFO ASSIGNING LICENSES

You can learn more about assigning licenses at <https://support.office.com/en-us/article/Assign-or-unassign-licenses-for-Office-365-for-business-997596b5-4173-4627-b915-36abac6786dc>.

Resolving license conflicts

License conflicts occur when you have assigned more licenses than you have purchased. Methods that you can use to resolve this problem include:

- **Purchasing more licenses** This resolves the issue by ensuring that the number of licenses being consumed matches the number of licenses that have been purchased.
- **Removing licenses from existing users** You can resolve license conflicts by removing licenses from existing users so that the number of licenses being consumed matches the number of licenses that has been purchased.
- **Deleting users** In many cases, license conflicts occur because users who are no longer associated with the organization are still consuming licenses. Deleting these users from Office 365 will release the licenses assigned to these users.

MORE INFO RESOLVING LICENSE CONFLICTS

You can learn more about resolving license conflicts at <https://support.office.com/en-us/article/Resolve-license-conflicts-796f7eda-b1f8-479a-adee-bd9226ca47ec>.



EXAM TIP

Remember that the account used to configure the Office 365 subscription will automatically be assigned the global administrator role.



Thought experiment

Office 365 setup at Fabrikam

In this thought experiment, apply what you've learned about this objective. You can find the answers to these questions in the "Answers" section at the end of the chapter.

You have been asked to provide some advice to Fabrikam, a small manufacturing business that migrated to Office 365. Fabrikam needs your advice because the person responsible for Fabrikam's IT recently left the company. During the process, they handed over the credentials of all their Office 365 accounts to the CEO.

The CEO also reports to you that there have been license problems. The company initially purchased a 50-license subscription. Since then, 10 new users have been employed to replace 10 people who left the company over the last few months. The employees who departed still have Office 365 accounts.

With this information in mind, answer the following questions:

1. Describe the nature of at least one user account that will have global administrator rights for Fabrikam's Office 365 subscription.
2. What methods can be used to resolve the license conflicts?

Objective summary

- The tenant name is the name that precedes the onmicrosoft.com name for the Office 365 tenancy. This name must be unique.
- While the tenant name can be used as the organization's email domain, you can also configure the tenancy to use a custom email domain for this purpose.
- You will need to have a device that can receive SMS messages to prove that you are not a robot during the Office 365 setup process.
- The first account setup for the tenancy will be assigned the global administrator role.
- Users assigned the global administrator role have access to all administrative features.

- Users assigned the billing administrator role are able to make purchases, manage subscriptions, manage support tickets, and monitor service health.
- Users assigned the password administrator role are able to reset the passwords of most Office 365 user accounts (except those assigned the global admin, service admin, or billing roles).
- Users assigned the service administrator role are able to manage service requests and monitor service health.
- Users assigned the user management admin are able to reset passwords; monitor service health; and manage user accounts, user groups, and service requests.
- You can assign and remove licenses by editing an Office 365 user's properties.
- Deleting a user removes all licenses assigned to that user.

Objective review

Answer the following questions to test your knowledge of the information in this objective. You can find the answers to these questions and explanations of why each answer choice is correct or incorrect in the "Answers" section at the end of the chapter.

1. Which of the following cannot be changed after you deploy an Office 365 tenancy? (Choose two.)
 - A. Tenant name
 - B. Tenant region
 - C. Global administrator
 - D. Billing administrator
2. Which of the following Office 365 user roles has the ability to change the password of users who are members of the global administrator role?
 - A. Global administrator
 - B. Password administrator
 - C. User management administrator
 - D. Service administrator
3. Which role should you assign to help desk staff who should be able to reset the passwords of non-privileged Office 365 users without assigning any unnecessary privileges?
 - A. Global administrator
 - B. Service administrator
 - C. Password administrator
 - D. User management administrator

4. Which role should you assign to staff who you want to be able to create non-privileged Office 365 users without assigning any unnecessary privileges?
 - A. Global administrator
 - B. Service administrator
 - C. Password administrator
 - D. User management administrator

Objective 1.2: Add and configure custom domains

This objective deals with configuring Office 365 to use a custom domain name, such as contoso.com, that your organization owns rather than an Office 365 tenant name, like contoso.onmicrosoft.com. To master this objective you'll need to understand the steps that you need to take to configure Office 365 to use a domain name that your organization has registered.

This objective covers the following topics:

- Specify domain name
- Confirm ownership
- Specify domain purpose
- Move ownership of DNS to Office 365

Specify domain name

The first step in configuring Office 365 to use a custom domain name is to add the name of the custom domain name to Office 365. To add a custom domain to Office 365, perform the following steps:

1. In the Office 365 Admin Center, click Domains as shown in Figure 1-11.

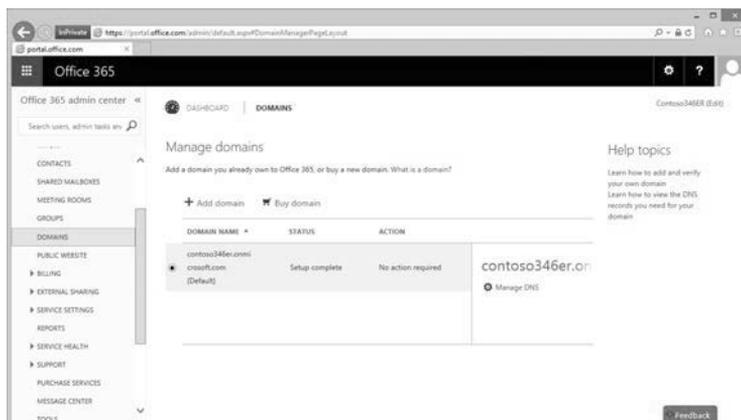


FIGURE 1-11 Domains

2. If your organization already has a domain, click Add A Domain. The alternative is to buy a domain through Office 365 and GoDaddy. The advantage of buying through GoDaddy is that you can have the entire process of assigning a custom domain to Office 365 occur automatically. If your organization's domain is already hosted elsewhere, you'll instead have to confirm ownership by configuring special TXT records.
3. On the What You Need To Know About Domains And DNS page, shown in Figure 1-12, click Let's Get Started.

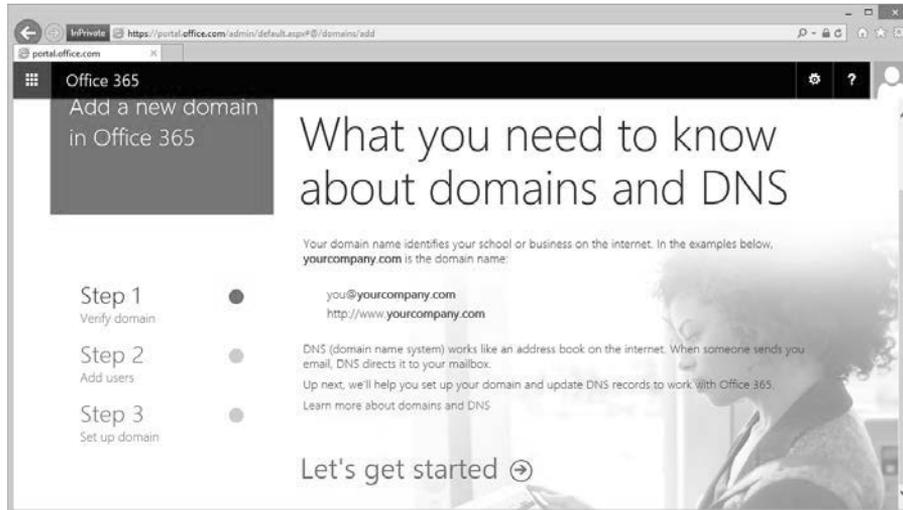


FIGURE 1-12 Add a new domain in Office 365

Confirm ownership

You can only use a custom domain name with Office 365 if your organization owns the domain name. Microsoft requires that you perform a series of DNS configuration changes to the domain name that will prove that your organization controls and has ownership of the domain.

To confirm ownership of your organization's domain, perform the following steps:

1. After clicking Let's Get Started as detailed in the previous section, on the Which Domain Do You Want To Use page, type the name of the domain as shown in Figure 1-13 and click Next.

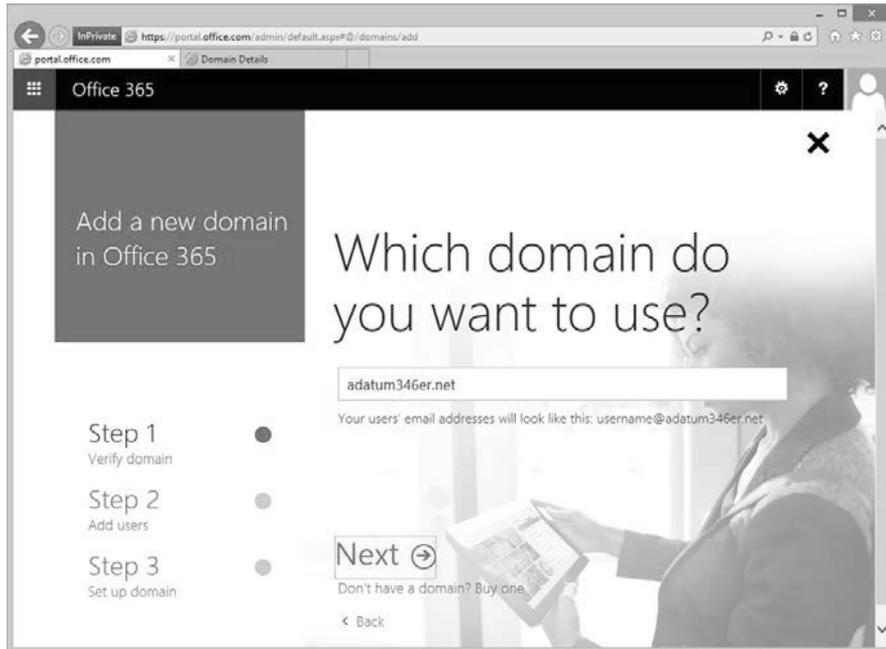


FIGURE 1-13 Choose a domain

2. If your account is registered through GoDaddy, you can sign in to GoDaddy to have Office 365 automatically configure the domain for you. Otherwise, click Use A TXT Record to verify that you own this domain.
3. Add the listed TXT record to your domain using the appropriate set of DNS tools. Figure 1-14 shows that the TXT record @ with a value of MS=ms94665460 with a time to live (TTL) of 3600 should be added to the domain. The value of this TXT record will be different each time you run the wizard.

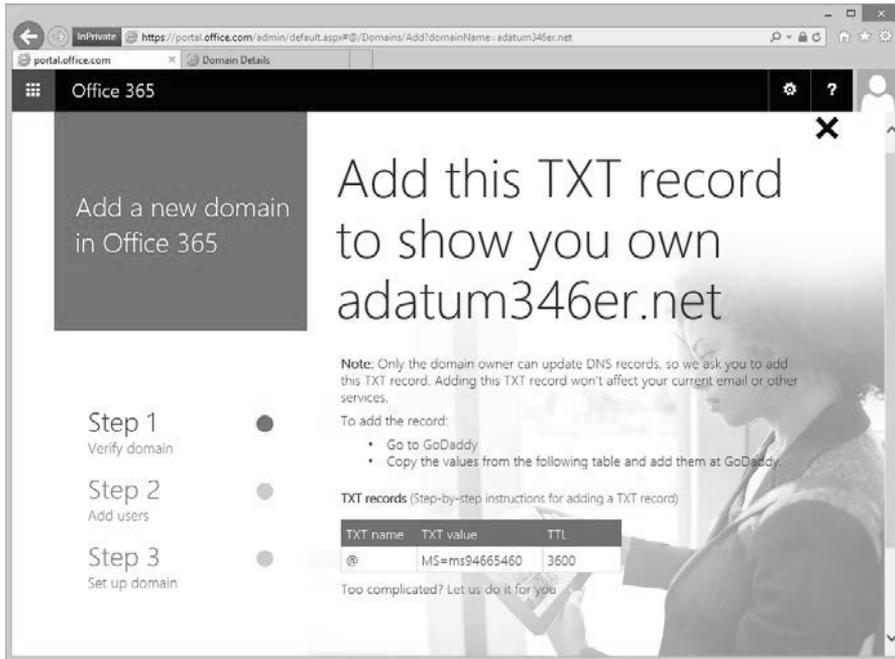


FIGURE 1-14 TXT records

- Figure 1-15 shows the Add Zone Record dialog box in the GoDaddy DNS manager.

ADD ZONE RECORD

ADATUM346ER.NET

RECORD TYPE: *

TXT (Text)

HOST: * @

@

TXT VALUE: * MS=ms94665460

TTL: * 1 Hour

ADD ANOTHER FINISH Cancel

FIGURE 1-15 Add Zone record

5. Once you have added the record in your DNS manager, you'll need to click Okay, I've Added The Record. Office 365 will then attempt to verify that the record has been correctly added by performing a DNS query. Depending on DNS propagation delays, this might not occur immediately. Some DNS providers warn that it can take up to 48 hours for a DNS record to successfully propagate. When propagation is successful, you'll see the successful verification message shown in Figure 1-16.

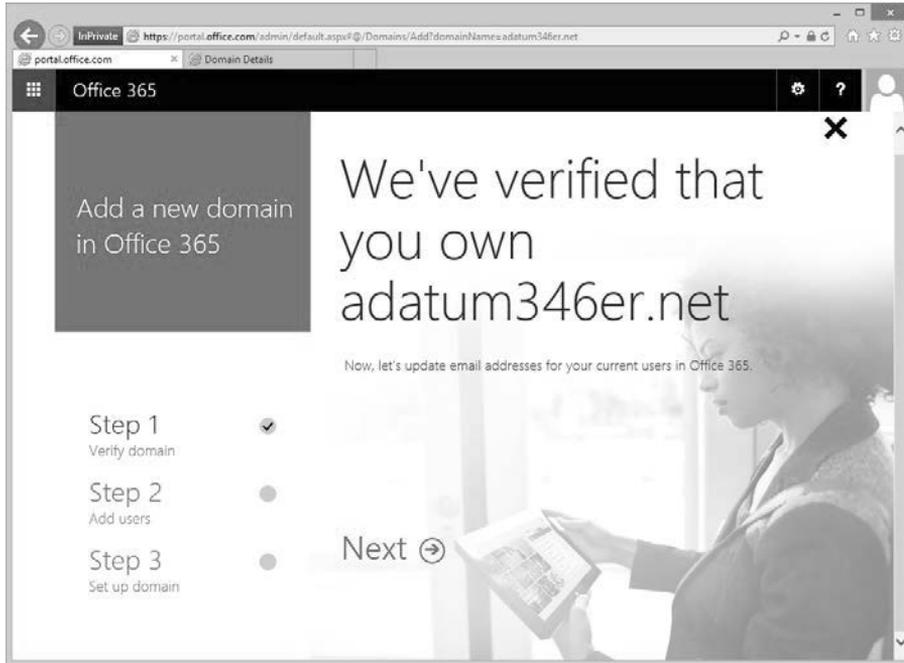


FIGURE 1-16 Custom domain verification

6. If you click Next, you'll have the option of updating user accounts to use the new name rather than the existing name as shown in Figure 1-17. Click Skip This Step to avoid updating these users.

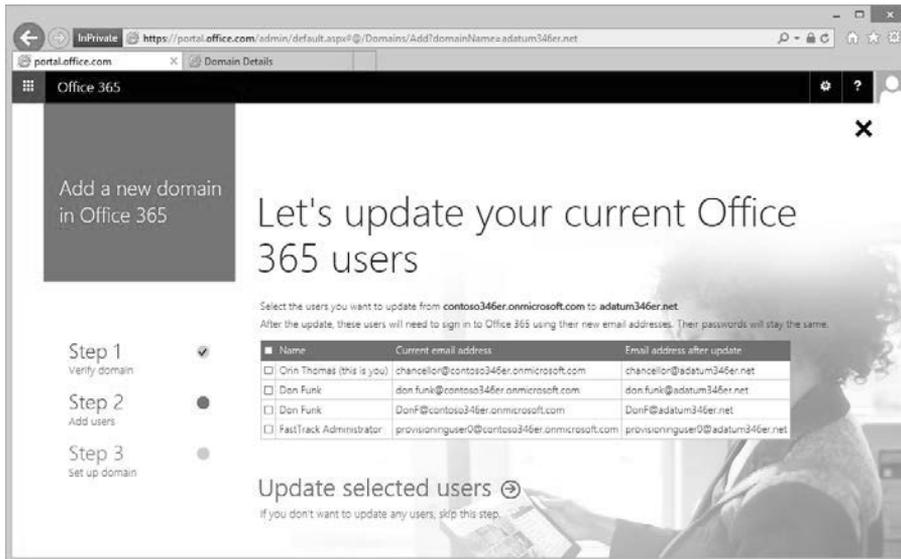


FIGURE 1-17 Update current Office 365 users

- The next page is the Add New Users dialog box shown in Figure 1-18. You can click Skip This Step to bypass this page.

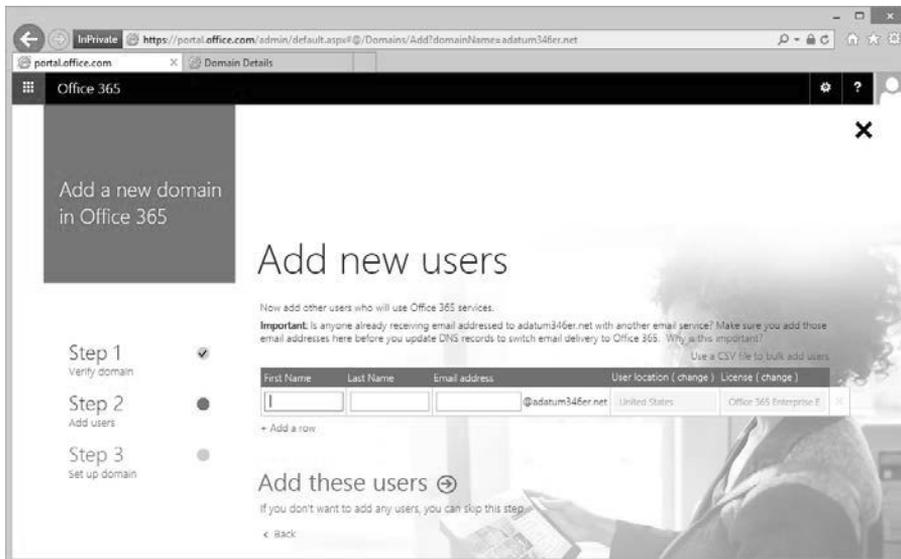


FIGURE 1-18 Add new users

8. On the Get Ready To Update DNS Records To Work With Office 365 page, click Next.
9. On the Which Services Do You Want To Use With adatum346er.net page, shown in Figure 1-19, specify whether you want to use the following services with the newly configured custom domain:
 - Outlook on the web for email, calendar, and contacts.
 - Skype for Business for instant messaging and online meetings.

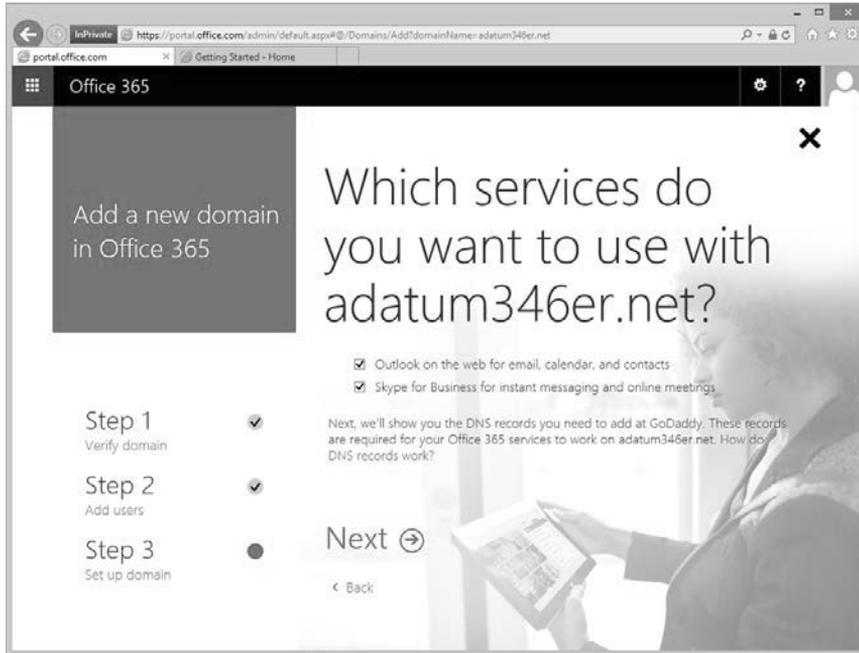


FIGURE 1-19 Domain services

10. You can choose not to set up these records by clearing the check boxes them at this step and performing this task later. When you click Next you'll be presented with the You're All Set Up page, shown in Figure 1-20.

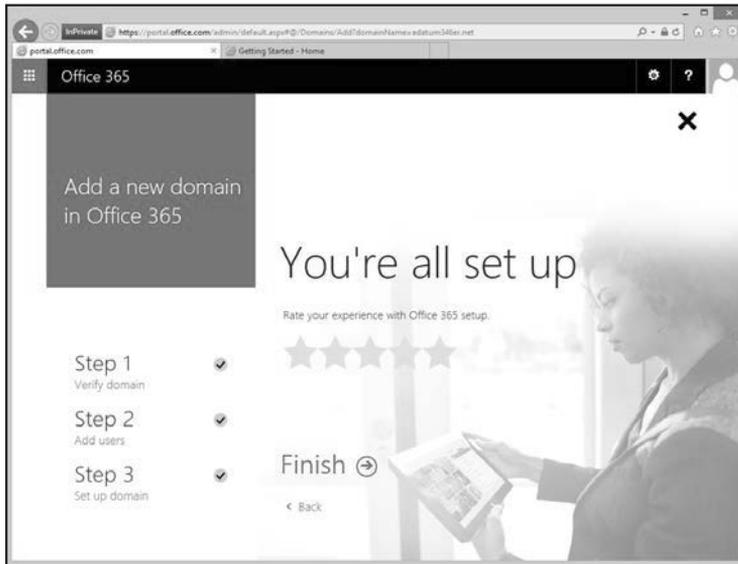


FIGURE 1-20 All set up

- 11.** Once you click Finish, the custom domain will be listed in the list of domains as shown in Figure 1-21.

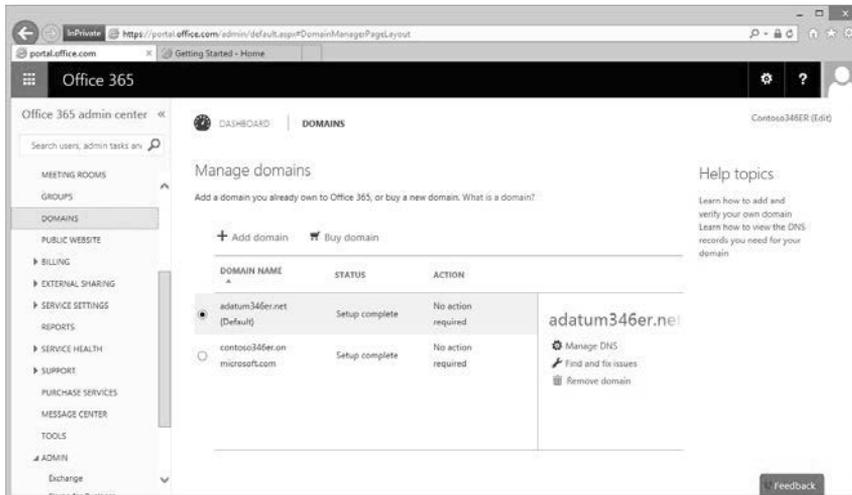


FIGURE 1-21 Domains

MORE INFO VERIFYING THE DOMAIN NAME

You can learn more about verifying the domain name at <https://support.office.com/en-in/article/Verify-your-domain-in-Office-365-6383f56d-3d09-4dcb-9b41-b5f5a5efd611>.

Specify domain purpose

By configuring a custom domain's purpose, you can choose how it will be used with Office 365. For example, you might want to use one custom domain as an email suffix, and another custom domain for use with Skype for Business.

To configure domain purpose, perform the following steps:

1. In the Office 365 Admin Center, click Domains. Select the domain for which you want to configure and then click Manage DNS.
2. On the Manage DNS page, shown in Figure 1-22, click Change Domain Purpose.

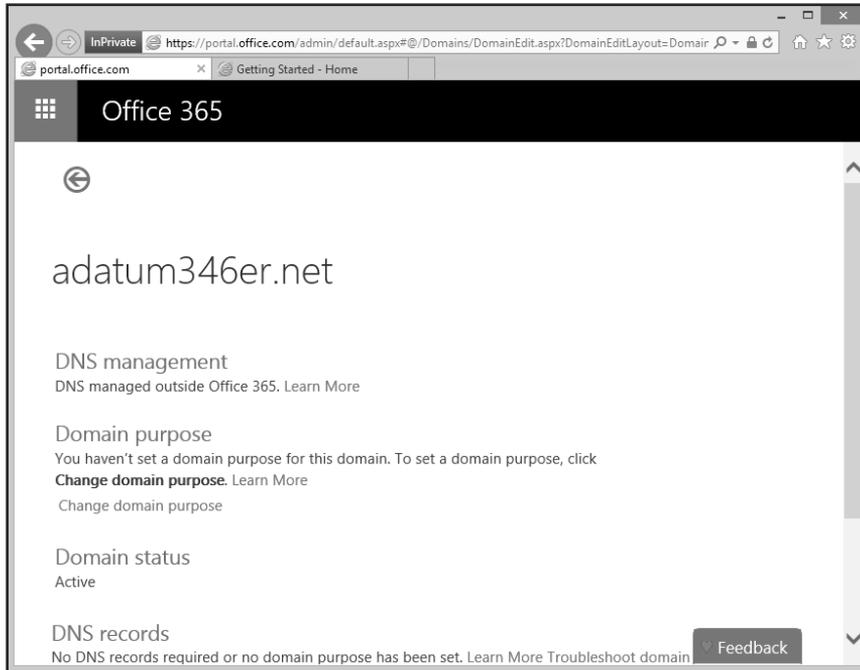


FIGURE 1-22 Domain purpose

3. On the Which Services Do You Want To Use With The Domain page, shown in Figure 1-23, select the services that you want to use with the custom domain name. These are the same options that are available when configuring the custom domain and include:
 - Outlook on the web for email, calendar, and contacts.
 - Skype for Business for instant messaging and online meetings.

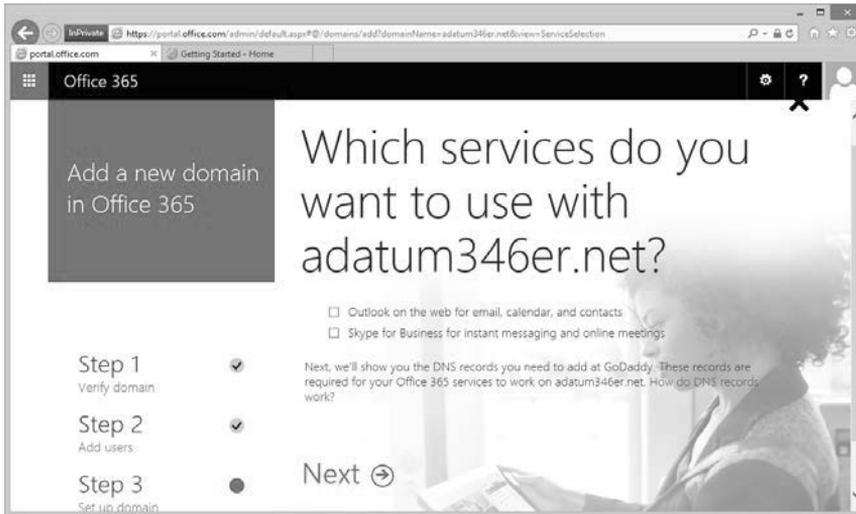


FIGURE 1-23 Which services do you want to use

4. Select the services that you want to configure for Office 365. When you click Next, you can either choose to have the DNS records added by Office 365 or you can click Add These Records Yourself.
5. If you click Add These Records Yourself, the wizard will provide you with the list of records that you need to add to support the selected services as shown in Figure 1-24.

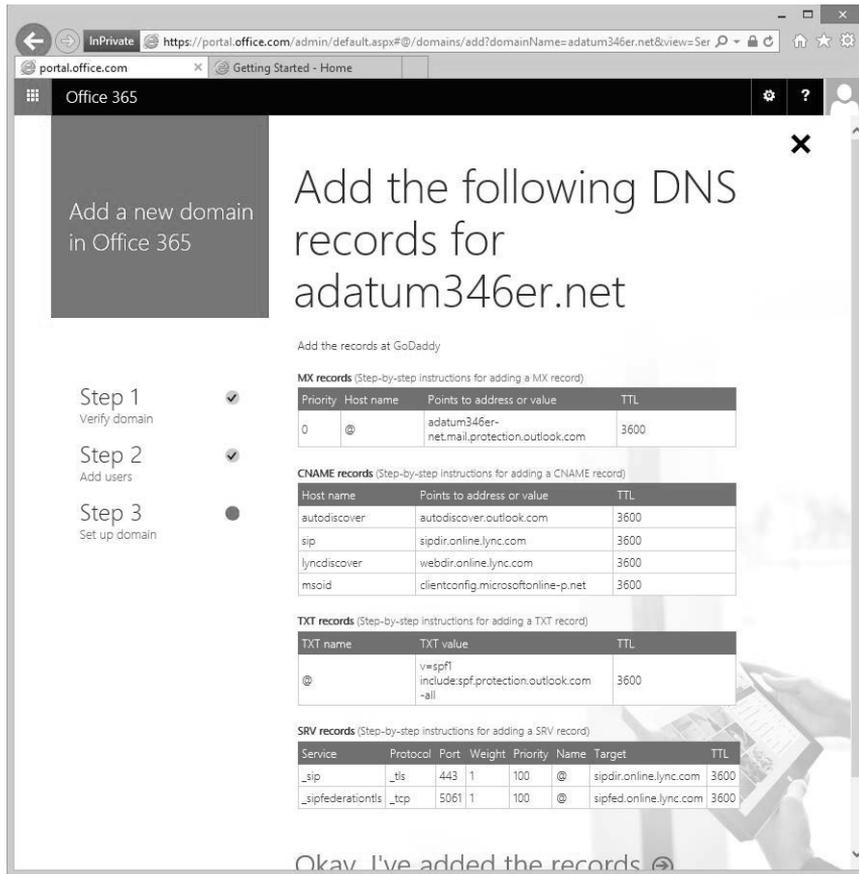


FIGURE 1-24 Add the following records

These records are listed in tables 1-1, 1-2, 1-3, and 1-4.

TABLE 1-1: MX records

Priority	Host name	Points to address or value	TTL
0	@	adatum346er-net.mail.protection.outlook.com	3600

TABLE 1-2: CNAME records

Host name	Points to address or value	TTL
Autodiscover	autodiscover.outlook.com	3600
Sip	sipdir.online.lync.com	3600
Lyncdiscover	webdir.online.lync.com	3600
msoid	clientconfig.microsoftonline-p.net	3600

TABLE 1-3: TXT records

TXT name	TXT value	TTL
@	v=spf1 include:spf.protection.outlook.com -all	3600

TABLE 1-4: SRV records

Service	Protocol	Port	Weight	Priority	Name	Target	TTL
_sip	_tls	443	1	100	@	sipdir.online.lync.com	3600
_sipfederationtls	_tcp	5061	1	100	@	sipfed.online.lync.com	3600

MORE INFO DOMAIN PURPOSE

You can learn more about configuring domain purpose at <https://support.office.com/en-ie/article/What-is-the-selecting-services-page-in-the-Office-365-domains-setup-wizard-17f4aa9b-5ece-4af8-8be4-a5e8ff8367f2>.

Move ownership of DNS to Office 365

You can change the name servers that host your custom domain from the original registrar to Office 365. The method that you use to do this depends on the domain registrar that currently hosts the records that point to the name servers associated with the custom domain.

You can only move ownership of DNS to Office 365 if you have gone through the process of confirming that your organization owns the domain through the configuration of the appropriate TXT records.

To move the domain ownership to Office 365, you need to configure the following settings:

- Primary name server: ns1.bdm.microsoftonline.com
- Secondary name server: ns2.bdm.microsoftonline.com

MORE INFO CHANGE NAMESERVER TO OFFICE 365

You can learn more about changing nameservers at <https://support.office.com/en-gb/article/Change-nameservers-to-Office-365-a46bec33-2c78-4f45-a96c-b64b2a5bae22>.

**EXAM TIP**

Remember what type of DNS record you have to manually configure to confirm ownership of a custom domain.



Thought experiment

Custom domain at Fabrikam

In this thought experiment, apply what you've learned about this objective. You can find the answers to these questions in the "Answers" section at the end of the chapter.

Fabrikam has signed up for an Office 365 subscription and is currently using the tenant name `Fabrikam.onmicrosoft.com`. Fabrikam wants to assign their custom domain, `Fabrikam.com`, to Office 365 and to have Microsoft DNS servers host this zone. With this information in mind, answer the following questions:

1. What kind of DNS record must be added to confirm ownership of the `Fabrikam.com` DNS zone?
2. Which DNS records must be modified to have Microsoft DNS servers host the `Fabrikam.com` DNS zone?

Objective summary

- Before you can use a custom domain with Office 365, you need to prove that your organization has ownership of the domain.
- You prove to Microsoft that your organization has ownership of a domain by configuring a custom TXT record.
- You can configure MX records for your custom domain to allow mail to be routed to Office 365.
- You can configure CNAME and SRV records to configure the custom domain name to work with Skype for Business (formerly known as Lync).

Objective review

Answer the following questions to test your knowledge of the information in this objective. You can find the answers to these questions and explanations of why each answer choice is correct or incorrect in the "Answers" section at the end of the chapter.

1. You are in the process of moving ownership of the `Adatum.com` DNS zone from your current ISP to Office 365. Which of the following names should be configured as nameservers as a part of this process?
 - A. `Ns1.contoso.com`, `ns2.contoso.com`
 - B. `Ns1.bdm.microsoftonline.com`, `ns2.bdm.microsoftonline.com`
 - C. `Ns1.office365.com`, `ns2.office365.com`
 - D. `Mx1.contoso.com`, `mx2.contoso.com`

2. Which record type must you configure to route email from a custom domain to Office 365 once domain ownership has been confirmed?
 - A. MX
 - B. TXT
 - C. NS
 - D. SRV
3. Which DNS record types do you need to configure to use Skype for Business with your confirmed custom DNS zone? (Choose two.)
 - A. SRV
 - B. CNAME
 - C. MX
 - D. TXT
4. What type of record do you need to configure in your custom DNS zone to allow Office 365 to confirm that your organization owns this zone?
 - A. TXT
 - B. SRV
 - C. CNAME
 - D. AAAA

Objective 1.3: Plan a pilot

This objective deals with planning an Office 365 pilot project. To master this objective you'll need to understand the steps involved in planning a successful Office 365 pilot project, including determining a cohort of pilot users, determining which workloads should not be migrated to Office 365, leveraging the Office 365 on-ramp tool, having a test plan, and configuring email accounts for pilot users.

This objective covers the following topics:

- Designate pilot users
- Identify workloads that don't require migration
- Run the Office 365 on-ramp readiness tool
- Create a test plan or use case
- Connect existing email accounts for pilot users
- Service descriptions

Designate pilot users

When selecting users for the Office 365 pilot, you need to ensure that you select a variety of users that represents the organization in its entirety. Part of the reason for the pilot is to identify potential pitfalls. For example, you want to figure out that there's a particular on-premises requirement for a group of workers in the accounting department before you migrate their workloads to Office 365. Figuring this out beforehand is much better than having to work out how to roll the accounting users back on-premises after the rest of the organization has migrated to Office 365.

The first step in selecting users for a pilot program is to determine how many users you want to include in the pilot program. Successful pilot programs often attempt to use a minimum of 5% of the potential group to be migrated. This 5% of pilot users should meet the following general criteria:

- **Full-time employees of the organization** Full-time employees will be working with the new technology during normal work hours. Part-time employees may be more sporadic in their interaction with the technology and may be less able to provide useful feedback across the pilot period.
- **Representative of the organization** Pilot users need to be from different parts of the organization. They need to have a mix of age, experience, and seniority.
- **Have been with the organization a minimum of six months** This ensures that the pilot users are familiar with normal organizational procedures.
- **Already trained on the software that they will be using** For example, if the pilot program involves moving to online mailboxes, pilot users should already be familiar with Outlook. If the pilot program means moving to an online version of SharePoint that the pilot users are already familiar with the on-premises deployment of SharePoint.
- **Willingness to provide feedback** One of the most important aspects of a pilot program is hearing what works and what does not. Pilot users who don't provide both positive and negative feedback aren't providing you with the information necessary to allow you to determine if a full implementation of Office 365 for your organization will be successful.

Identify workloads that don't require migration

When planning an Office 365 pilot, an important thing to realize is that not all workloads need to be migrated to Office 365. Implementing Office 365 is not an all-or-nothing proposition. While it's possible to have all user accounts, Exchange mailboxes, Skype for Business infrastructure, and SharePoint sites hosted in Office 365, it's also possible to configure a hybrid deployment where these services are both on-premises and in the cloud. For example, you could have a deployment where only a fraction of your organization's user accounts are native to Office 365, some mailboxes are hosted on-premises, and some

are hosted in Office 365 cloud. Your organization's SharePoint deployment could even be spread across servers in your local datacenter and others in Microsoft datacenters.

As part of your pilot, you should identify which workloads you don't need to migrate to Office 365. The factors that influence this decision will vary depending on your organization. Factors also vary depending on your region. Most countries/regions don't have local Microsoft datacenters, which might mean that moving workloads to Office 365 means moving workloads across national/regional borders. For some workload types, this may not present a problem; for other workload types, such as for workloads that deal with confidential medical data, it may not be possible to migrate the workloads across borders without contravening local legislation.

MORE INFO HYBRID DEPLOYMENTS

You can learn more about hybrid deployments at <https://support.office.com/en-us/article/Office-365-integration-with-on-premises-environments-263faf8d-aa21-428b-aed3-2021837a4b65>.

Run the Office 365 on-ramp readiness tool

The Office 365 on-ramp readiness tool allows you to run a set of tests to identify troubleshooting and configuration problems with Office 365. You access the tool either by navigating to <https://onramp.office365.com/> or by clicking Check Your Office 365 Configuration With Office 365 Health, Readiness, And Connectivity Checks from the Tools section of the Office 365 Admin Center as shown in Figure 1-25.

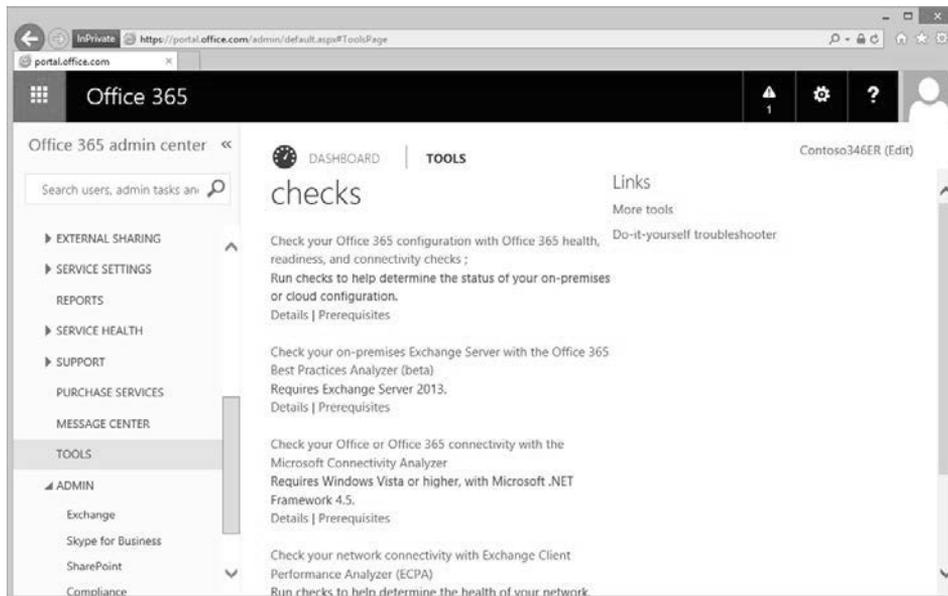


FIGURE 1-25 Checks

Running the tool involves performing the following steps:

1. On the Advanced Setup page, shown in Figure 1-26, you can elect either to make your own selections or to have an app run a check to discover what's installed in your organization's on-premises environment.

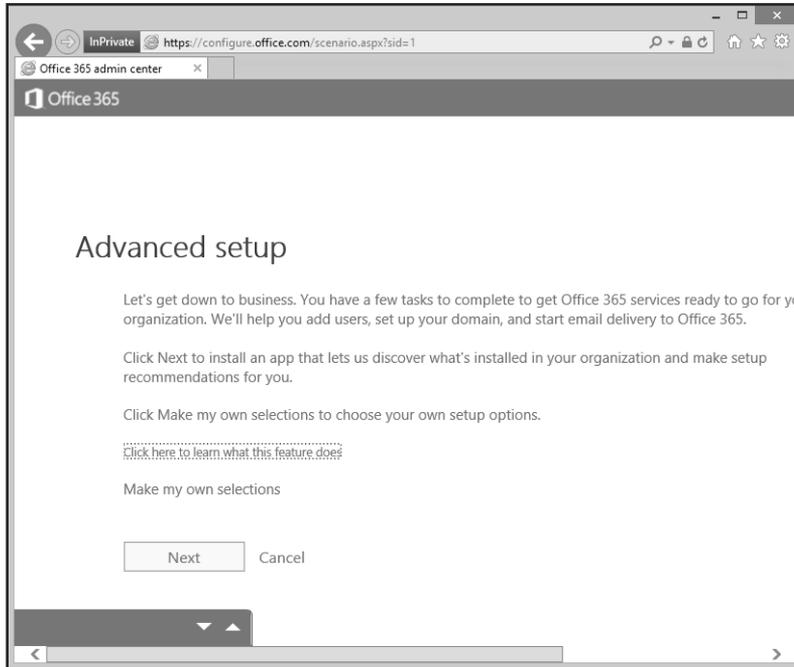


FIGURE 1-26 Advanced Setup

2. If you choose the Make My Own Selections option, you'll be presented with the following options shown in Figure 1-27:
 - Create new user accounts in Office 365
 - Sync users and passwords from an on-premises directory
 - Authenticate users with single sign-on
 - Use the free onmicrosoft.com domain
 - Add or buy your own domain
 - Add a domain you already use on-premises
 - Migrate from a system that supports IMAP
 - No migration or users will move their own email
 - Cutover migration from Exchange 2003, Exchange Server 2007, or Exchange Server 2010
 - Staged migration from Exchange 2003 or Exchange 2007
 - Hybrid environment with Exchange Server 2007 or later

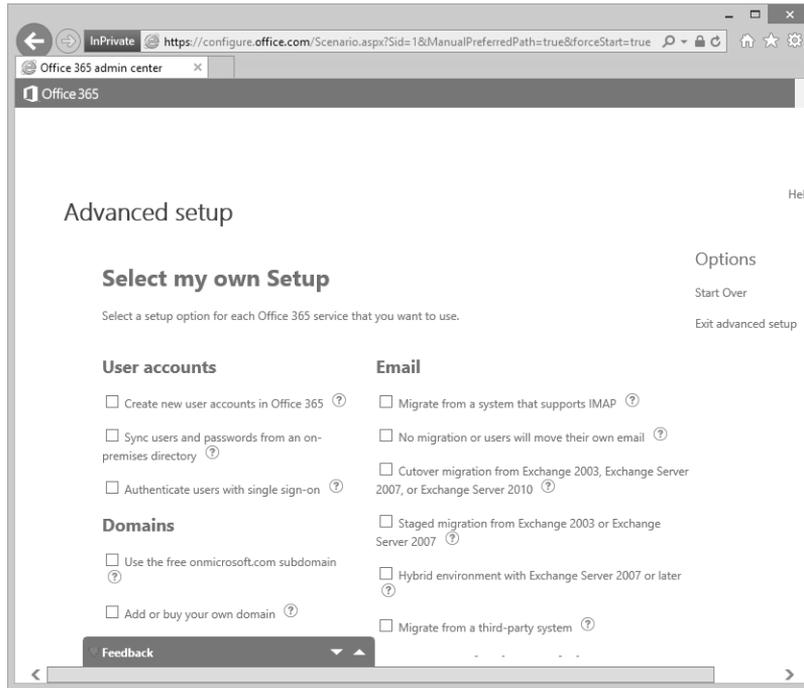


FIGURE 1-27 Select My Own Setup

Depending on your selections, you'll be provided with advice and tools about how to perform each step of the Office 365 deployment process. Much of the advice provided by the on-ramp readiness tool mirrors what is provided in the links to Office 365 documentation in this Exam Ref.

MORE INFO OFFICE 365 ON-RAMP READINESS TOOL

You can learn more about the Office 365 on-ramp readiness tool at <https://configure.office.com/SharedPages/WhatThisApplicationDoes.aspx>.

Create a test plan or use case

Creating a test plan or use case involves developing a formal process to describe how the pilot will proceed and how the results of the pilot will be assessed. The test plan should involve the following general phases:

- Deploying the Office 365 tenancy that will be used for the pilot
- Create user accounts for pilot users
- Configure active use of email for pilot users
- Deploy Office 365 ProPlus software
- Enable pilot user access to Office 365 services
- Solicit pilot user feedback about the experience

Each organization's plans will be slightly different. You need to ensure that pilot user feedback is recorded so that you can use it when evaluating how decisions made in the planning phase stack up against real-world outcomes, allowing you to make adjustments to the deployment phase.

Connect existing email accounts for pilot users

It is possible to migrate the email accounts of a small number of users from your on-premises environment to Office 365 while keeping the majority of your existing mailboxes in the on-premises mail solution. The method for doing this is termed simple domain sharing for SMTP email addresses as shown in Figure 1-28.

For example:

- Your organization has provisioned the contoso.microsoftonline.com Office 365 tenancy.
- Your organization has its own on-premises mail solution. It uses the contoso.com email suffix.

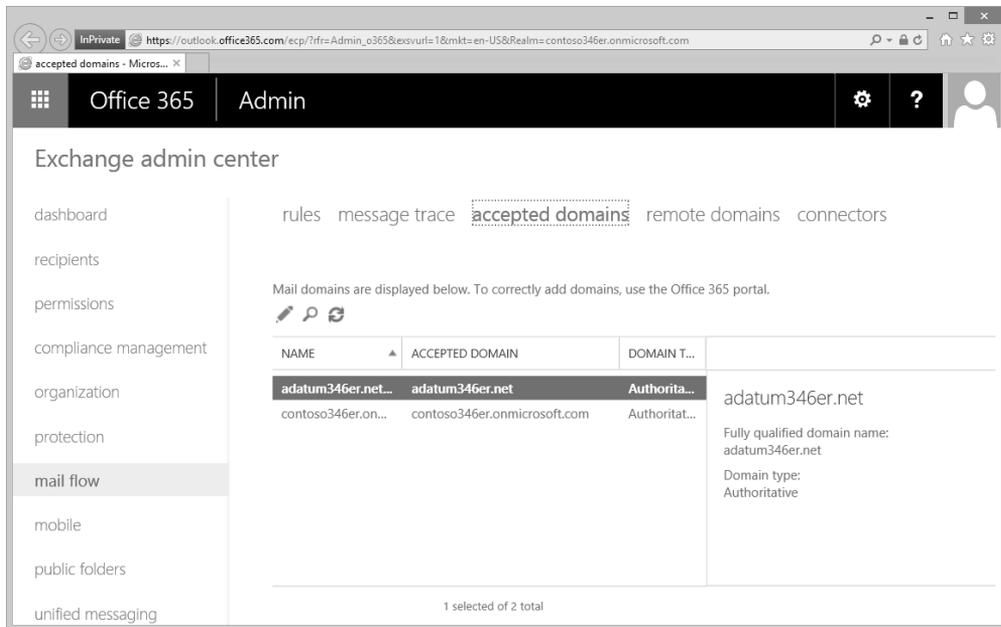


FIGURE 1-28 Mail flow

- You set the domain as an Internal Relay domain as shown in Figure 1-29.

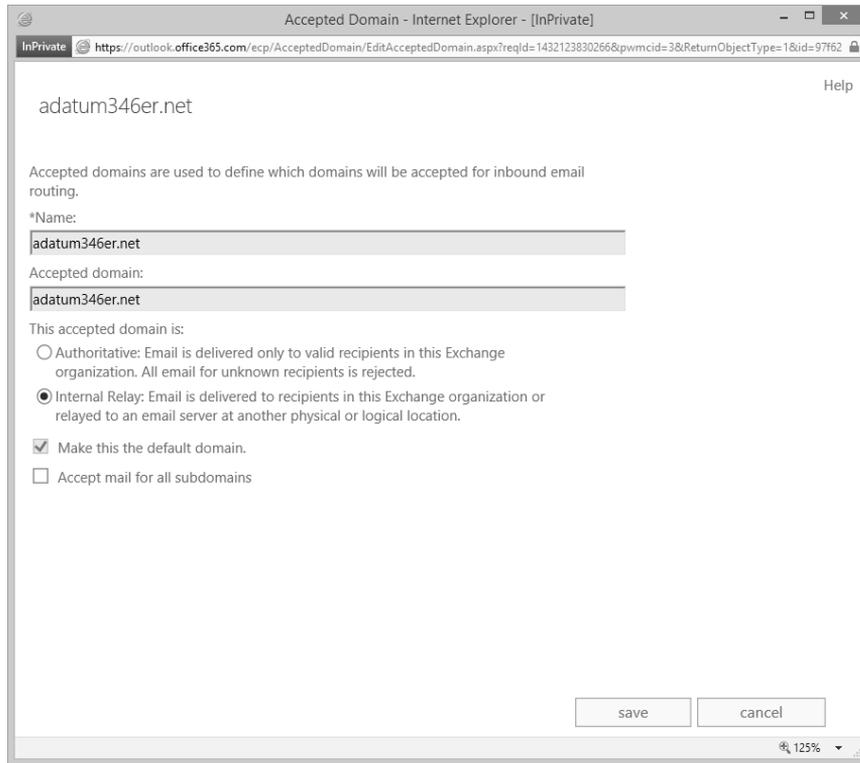


FIGURE 1-29 Internal Relay

- Configure the on-premises mail solution to configure mail forwarding of each pilot user account to the contoso.microsoftonline.com mail domain. For example, the on-premises mailbox for the don.funk@contoso.com email account should forward all incoming email to don.funk@microsoftonline.com.
- Configure each pilot user's account in Office 365 to use the on-premises DNS zone mail domain. For example, Don Funk's Office 365 user account should be configured with a reply-to address of don.funk@contoso.com.
- You can migrate the contents of pilot users' on-premises mailboxes using Exchange Admin Center.

MORE INFO PILOT OFFICE 365 EMAIL

You can learn more about piloting Office 365 email at <https://support.office.com/en-nz/article/Pilot-Office-365-with-a-few-email-addresses-on-your-custom-domain-39cee536-6a03-40cf-b9c1-f301bb6001d7>.

Service descriptions

Office 365 is made up of multiple separate services. Service descriptions provide information about what the service does. The service descriptions for these Office 365 services are as follows:

- **Office 365 Platform Service** The Office 365 platform combines the Microsoft Office suite of desktop applications with cloud-hosted versions of Microsoft communications and collaboration products. You can find the complete service description at <https://technet.microsoft.com/en-us/library/jj819274.aspx>.
- **Exchange Online** Exchange online provides the capabilities of an on-premises Microsoft Exchange Server deployment, including access to email, calendar, contacts, and tasks, as a cloud-based service. You can find the complete service description at <https://technet.microsoft.com/en-us/library/exchange-online-service-description.aspx>.
- **Exchange Online Archiving** A cloud-based archiving solution to assist organizations with meeting their archiving, compliance, regulatory, and e-discovery responsibilities. You can find the complete service description at <https://technet.microsoft.com/en-us/library/exchange-online-archiving-service-description.aspx>.
- **Exchange Online Protection** A cloud-based email-filtering service that protects against spam and malware. This can also be used to enforce data-loss protection policies. You can find the complete service description at <https://technet.microsoft.com/en-us/library/exchange-online-protection-service-description.aspx>.
- **SharePoint Online** Provides a cloud-hosted SharePoint deployment. You can find the complete service description at <https://technet.microsoft.com/en-us/library/sharepoint-online-service-description.aspx>.
- **OneDrive for Business** This is an organization-based personal online storage space hosted in the cloud. You can find the complete service description at <https://technet.microsoft.com/en-us/library/onedrive-for-business-service-description.aspx>.
- **Skype for Business** A hosted communications service that allows instant messaging, file transfer, person-to-person audio/visual communication, and conference hosting. You can find the complete service description at <https://technet.microsoft.com/en-us/library/skype-for-business-online-service-description.aspx>.
- **Office Online** This allows you to open and edit Word, Excel, PowerPoint, and One-Note documents in a web browser. You can find the complete service description at <https://technet.microsoft.com/en-us/library/office-online-service-description.aspx>.
- **Office Applications** A subscription service that provides the most recent version of the Office suite of desktop applications. You can find the complete service description at <https://technet.microsoft.com/en-us/library/office-applications-service-description.aspx>.
- **Project Online** An online solution for project portfolio management. You can find the complete service description at <https://technet.microsoft.com/en-us/library/project-online-service-description.aspx>.

- **Project Pro for Office 365** Provides an up-to-date version of the Project Professional software to desktop computers. You can find the complete service description at <https://technet.microsoft.com/en-us/library/project-pro-for-office-365-service-description.aspx>.
- **Yammer** A cloud-hosted enterprise social network. You can find the complete service description at <https://technet.microsoft.com/en-us/library/yammer-service-description.aspx>.
- **Power BI for Office 365** An online business intelligence service for managing, sharing, and consuming data queries and Excel workbooks that store data models, queries, and reports. You can find the complete service description at <https://technet.microsoft.com/en-us/library/power-bi-for-office-365-service-description.aspx>.
- **Microsoft Dynamics CRM Online** Provides online customer relationship management (CRM) capabilities. You can find the complete service description at <https://technet.microsoft.com/en-us/library/microsoft-dynamics-crm-online-service-description.aspx>.

MORE INFO OFFICE 365 SERVICE DESCRIPTIONS

You can learn more about Office 365 service descriptions at <https://technet.microsoft.com/en-us/library/office-365-service-descriptions.aspx>.



EXAM TIP

Remember which record type needs to be modified to allow some pilot users to have email hosted in Office 365 without configuring a hybrid Exchange deployment.



Thought experiment

Office 365 email pilot at Contoso

In this thought experiment, apply what you've learned about this objective. You can find the answers to these questions in the "Answers" section at the end of the chapter.

You are planning the pilot of Office 365 at Contoso. As part of this pilot, you want the email of five users to be managed through Office 365 rather than your existing on-premises email solution. Currently, the on-premises solution uses the @contoso.com email suffix. The Office 365 tenancy is configured with the name contoso.on-microsoft.com. With this information in mind, answer the following questions:

1. Which DNS record do you have to update to allow pilot users' email addresses to be hosted in Office 365?
2. What steps do you have to take with the on-premises email so that email sent to pilot users' email addresses ends up in Office 365?

Objective summary

- Pilot users should provide a representative sample of your organization.
- Not all workloads can be or should be migrated to Office 365. Use the pilot phase to determine which workloads you will not migrate.
- The Office 365 on-ramp readiness tool provides advice for migrating to Office 365.
- A test plan or use case is a document that provides information on each phase of the migration process.
- You can configure pilot users with Office 365 mailboxes through the configuration of SPF records, accepted domains, and email forwarding.
- Office 365 service descriptions provide precise information about Office 365 service functionality.

Objective review

Answer the following questions to test your knowledge of the information in this objective. You can find the answers to these questions and explanations of why each answer choice is correct or incorrect in the “Answers” section at the end of the chapter.

1. Your organization has 200 users. What’s the minimum number that should be involved in the Office 365 pilot?
 - A. 2
 - B. 5
 - C. 10
 - D. 1
2. Which Office 365 service provides spam filtering?
 - A. Exchange Online Protection
 - B. Exchange Online Archiving
 - C. SharePoint Online
 - D. OneDrive for Business
3. You are configuring a custom domain as part of an Office 365 pilot. You want to host some, but not all, pilot user email accounts in Office 365. Which setting should you configure for the custom domain?
 - A. Authoritative
 - B. Internal Relay
 - C. External Relay
 - D. Remote Domain

4. The current SPF record for your organization's custom DNS zone is configured as "v=spf1 mx include:tailspintoys.com ~all." What should be the value of the SPF record if you want to have some pilot users use Office 365 as the mailbox for email sent to their @tailspintoys.com email address?
- A. "v=spf1 txt include:tailspintoys.com include:spf.protection.outlook.com ~all"
 - B. "v=spf1 txt include:tailspintoys.com include:spf.protection.tailspintoys.com ~all"
 - C. "v=spf1 mx include:tailspintoys.com include:spf.protection.tailspintoys.com ~all"
 - D. "v=spf1 mx include:tailspintoys.com include:spf.protection.outlook.com ~all"

Answers

This section contains the solutions to the thought experiments and answers to the objective review questions in this chapter.

Objective 1.1: Thought experiment

1. The first user account created for a subscription will be assigned global administrator privileges. This will be the user account of the IT staff member who recently left and who set up Office 365.
2. The license conflict can be resolved by either manually removing licenses from the 10 users who have left the organization, or by deleting their user accounts.

Objective 1.1: Review

1. **Correct answers:** A and B
 - A. **Correct:** Tenant name cannot be changed after deployment.
 - B. **Correct:** Tenant region cannot be changed after deployment.
 - C. **Incorrect:** User accounts assigned the global administrator role can be changed after deployment of an Office 365 tenancy.
 - D. **Incorrect:** User accounts assigned the billing administrator role can be altered after deployment of an Office 365 tenancy.
2. **Correct answer:** A
 - A. **Correct:** Only users assigned the global administrator role are able to reset the passwords of users assigned the global administrator role.
 - B. **Incorrect:** Only users assigned the global administrator role are able to reset the passwords of users assigned the global administrator role. Users assigned the password administrator role cannot perform this task.
 - C. **Incorrect:** Only users assigned the global administrator role are able to reset the passwords of users assigned the global administrator role. Users assigned the user management administrator role cannot perform this task.
 - D. **Incorrect:** Only users assigned the global administrator role are able to reset the passwords of users assigned the global administrator role. Users assigned the service administrator role cannot perform this task.
3. **Correct answer:** C
 - A. **Incorrect:** Assigning the global administrator role would involve assigning unnecessary privileges.
 - B. **Incorrect:** Members of the service administrator role are unable to reset passwords.

- C. Correct:** Assigning the password administrator role will ensure that the passwords of non-privileged Office 365 users can be changed without assigning unnecessary privileges.
 - D. Incorrect:** Assigning the user management administrator role would involve assigning unnecessary privileges.
- 4. Correct answer: D**
- A. Incorrect:** Assigning the global administrator role would involve assigning unnecessary privileges.
 - B. Incorrect:** Members of the service administrator role are unable to create user accounts.
 - C. Incorrect:** Users assigned the password administrator role are unable to create user accounts.
 - D. Correct:** Assigning the user management administrator role would allow users to create non-privileged Office 365 accounts without assigning unnecessary privileges.

Objective 1.2: Thought experiment

1. A TXT record must be added to confirm ownership of the Fabrikam.com DNS zone.
2. The NS records for the zone must be modified to allow Microsoft to host the Fabrikam.com DNS zone.

Objective 1.2: Review

- 1. Correct answer: B**
 - A. Incorrect:** To move ownership of DNS to Office 365, you need to configure ns1.bdm.microsoftonline.com and ns2.bdm.microsoftonline.com as authoritative nameservers for the zone.
 - B. Correct:** To move ownership of DNS to Office 365, you need to configure ns1.bdm.microsoftonline.com and ns2.bdm.microsoftonline.com as authoritative nameservers for the zone.
 - C. Incorrect:** To move ownership of DNS to Office 365, you need to configure ns1.bdm.microsoftonline.com and ns2.bdm.microsoftonline.com as authoritative nameservers for the zone rather than MX2.contoso.com.
 - D. Incorrect:** To move ownership of DNS to Office 365, you need to configure ns1.bdm.microsoftonline.com and ns2.bdm.microsoftonline.com as authoritative nameservers for the zone rather than MX1.contoso.com

2. Correct answer: A

- A. Correct:** You need to reconfigure MX records to route email from a custom domain to Office 365 once domain ownership has been confirmed.
- B. Incorrect:** You don't need to reconfigure a TXT record. You need to reconfigure MX records to route email from a custom domain to Office 365 once domain ownership has been confirmed.
- C. Incorrect:** You don't need to reconfigure a NS record. You need to reconfigure MX records to route email from a custom domain to Office 365 once domain ownership has been confirmed.
- D. Incorrect:** You don't need to reconfigure a SRV record. You need to reconfigure MX records to route email from a custom domain to Office 365 once domain ownership has been confirmed.

3. Correct answers: A and B

- A. Correct:** You need to configure SRV and CNAME records to use Skype for Business with your confirmed custom DNS zone.
- B. Correct:** You need to configure SRV and CNAME records to use Skype for Business with your confirmed custom DNS zone.
- C. Incorrect:** You need to configure SRV and CNAME records, rather than MX records, to use Skype for Business with your confirmed custom DNS zone.
- D. Incorrect:** You need to configure SRV and CNAME records, rather than TXT records, to use Skype for Business with your confirmed custom DNS zone.

4. Correct answer: A

- A. Correct:** You need to configure a custom TXT record in your custom DNS zone to allow Office 365 to confirm that your organization owns a specific DNS zone.
- B. Incorrect:** You need to configure a custom TXT record and not an SRV record in your custom DNS zone to allow Office 365 to confirm that your organization owns a specific DNS zone.
- C. Incorrect:** You need to configure a custom TXT record and not a CNAME record in your custom DNS zone to allow Office 365 to confirm that your organization owns a specific DNS zone.
- D. Incorrect:** You need to configure a custom TXT record and not an AAAA record in your custom DNS zone to allow Office 365 to confirm that your organization owns a specific DNS zone.

Objective 1.3: Thought experiment

1. You need to update the SPF record to allow pilot users' email addresses to be hosted in Office 365.
2. You need to configure email forwarding to the users' @contoso.onmicrosoft.com accounts.

Objective 1.3: Review

1. **Correct answer:** C
 - A. **Incorrect:** A minimum of 5% of users should be involved in the Office 365 pilot. In an organization with 200 users, this is 10 people and not 2.
 - B. **Incorrect:** A minimum of 5% of users should be involved in the Office 365 pilot. In an organization with 200 users, this is 10 people and not 5.
 - C. **Correct:** A minimum of 5% of users should be involved in the Office 365 pilot. In an organization with 200 users, this is 10 people.
 - D. **Incorrect:** A minimum of 5% of users should be involved in the Office 365 pilot. In an organization with 200 users, this is 10 people and not 1.
2. **Correct answer:** A
 - A. **Correct:** Exchange Online Protection offers spam filtering and malware protection.
 - B. **Incorrect:** Exchange Online Archiving does not provide spam filtering and malware protection.
 - C. **Incorrect:** SharePoint Online does not provide spam filtering and malware protection.
 - D. **Incorrect:** OneDrive for Business does not provide spam filtering and malware protection.
3. **Correct answer:** B
 - A. **Incorrect:** You must configure the domain as an Internal Relay domain when configuring mail flow for pilot mail users rather than as an Authoritative domain.
 - B. **Correct:** You must configure the domain as an Internal Relay domain when configuring mail flow for pilot mail users.
 - C. **Incorrect:** You must configure the domain as an Internal Relay domain when configuring mail flow for pilot mail users rather than as an External Relay domain.
 - D. **Incorrect:** You must configure the domain as an Internal Relay domain when configuring mail flow for pilot mail users rather than as a Remote domain.

4. Correct answer: D

- A. Incorrect:** The SPF record should be set to "v=spf1 mx include:tailspintoys.com include:spf.protection.outlook.com ~all", it should not include a the TXT record type.
- B. Incorrect:** The SPF record should be set to "v=spf1 mx include:tailspintoys.com include:spf.protection.outlook.com ~all" not include:spf.protection.tailspintoys.com.
- C. Incorrect:** The SPF record should be set to "v=spf1 mx include:tailspintoys.com include:spf.protection.outlook.com ~all" not include:spf.protection.tailspintoys.com.
- D. Correct:** The SPF record should be set to "v=spf1 mx include:tailspintoys.com include:spf.protection.outlook.com ~all."

Index

A

- account lockout policies 90, 91
- ACEs. *See* Access Control Entries (ACEs)
- Active Directory
 - hybrid deployment 161–162
 - identifying synchronized attributes 167–169
 - planning for filtering 147
 - synchronization tools 134–139
 - users and groups
 - creating 172
 - deleting 173
 - managing, with DirSync in place 171–176
 - modifying 173
- Active Directory Administrative Center 135
- Active Directory environment
 - audit of 139–140
 - DirSync installation requirements 150–154
- Active Directory Federation Services (AD FS) 183–240
 - creating service accounts 200–202, 220
 - deployment topologies 184–185
 - farms 184, 202, 211–221
 - filtering using claim rules 197
 - multi-factor authentication 196
 - namespaces 195
 - network requirements for 195
 - planning requirements for 183–198
 - Proxy servers 184
 - installing and managing 225–234
 - servers
 - adding additional 211–221
 - configuration of 202–211
 - converting from standard to federated domain 221–222
 - installing and managing 199–225
 - stand-alone settings 202–203
 - using certificates with 185–195, 212, 222–223
 - versions of 184
- Active Directory objects
 - cleaning up existing 139–142
 - filtering 164–167
 - removing 173
 - synchronization of 135
- Active Directory, on-premises
 - preparing for DirSync 133–149
 - UPN suffixes for 142–146
- Active Directory Recycle Bin 173
- Active Directory Users And Computers 135
- Active Incidents 265–266
- Active Users node 11
- Add-AadrmRoleBasedAdministrator cmdlet 71
- Add-AadrmSuperUser cmdlet 72
- Add-MsolAdministrativeUnitMember cmdlet 124
- Add-MsolForeignGroupToRole cmdlet 123
- Add-MsolGroupMember cmdlet 119
- Add-MsolRoleMember cmdlet 81, 119
- Add-MsolScopedRoleMember cmdlet 124
- Add New Users dialog box 23
- Add Zone Record dialog box 21
- AD FS. *See* Active Directory Federation Services
- administrative unit management cmdlets 124–125
- administrator credentials 161
- administrator roles 11–12
 - Azure Rights Management 71–72
 - management of 74–83
 - Office 365 47, 74–83
 - removing 79–80
 - role membership 78–81
 - viewing users assigned to 80–81
- administrators
 - password reset by 92–94
- ADModify.NET 141–142, 145–146
- Advanced Setup page 34
- APIPA addresses 62
- app passwords

archiving solution

- configuration of 106–108
- archiving solution 38
- attributes
 - synchronized 167–169
- auditing reports 246
- authentication
 - methods, for password resets 96
 - multi-factor 104–108, 196
- Autodiscover CNAME records 48–49, 52
- Autodiscover protocol 62
- Azure Active Directory
 - cloud identities stored in 89–90
 - cmdlets
 - administrative unit management 124–125
 - company information 123–124
 - domain management 121
 - group and role management 119–120
 - license management 123
 - service management 123–124
 - service principal management 120–121
 - single sign-on 122–123
 - subscription management 123
 - user management 118–119
 - using 118–125
 - password policy 115
 - Recycle Bin 115–116
 - registering applications with 108–110
 - user accounts in 89–132
- Azure Active Directory Connect (AAD Connect) 136–137
 - compared with DirSync 138–139
- Azure Active Directory Connector for Forefront Identity Manager 147–148
- Azure Active Directory Graph API 108–111
- Azure Active Directory reports 246
- Azure Active Directory Sync 135
- Azure Active Directory Synchronization Tool. *See* DirSync
- Azure Multi-Factor Authentication Server 196
- Azure Rights Management 64–73
- Azure Rights Management super users 71–72

B

- bandwidth 61
- billing administrator role 11, 75
- bulk import process 99–102
- bulk operations
 - importing users 116–117
 - licensing users 117
 - updating user properties 117
- business intelligence service 39

C

- Certificate Import Wizard 212–214
- certificate request process 186–191
- certificates
 - exporting 191–194
 - life cycle management 222–223
 - token-signing 194
 - Web Application Proxy 194–195, 226
 - with AD FS deployment 185–195, 208, 212–214
- certification authority (CA) 186
- claim rules 197
- client connectivity
 - bandwidth for 61
 - enabling, to Office 365 59–64
 - Internet connectivity 62
 - outbound firewall ports 60–61
 - proxy server configuration 60
- cloud identities
 - management 89–132
 - password management 89–99
 - user and security groups 99–112
 - Windows PowerShell for 113–127
 - working with 89–90
- cmdlets
 - administrative unit management 124–125
 - Azure Active Directory 118–125
 - company information 123
 - domain management 121
 - group and role management 119–120
 - license management 123
 - service management 123
 - service principal management 120–121
 - subscription management 123
 - user management 118–119
- CNAME records 28, 48–49, 195
 - Exchange federation 52
 - Skype for Business Online 55
- Communications Certificates 212–216, 222–223
- company information cmdlets 123–124
- Confirm-MsolDomain cmdlet 121
- connectivity tests
 - using Connectivity Analyzer 281–283
 - using Remote Connectivity Analyzer 276–281
- Connect-MsolService cmdlet 123, 221
- connectors. *See also* receive connectors;
See also send connectors
- Convert-MsolDomainToFederated cmdlet 122
- Convert-MsolDomainToStandard cmdlet 122

- Convert-MsolFederatedUser cmdlet 118
- Create New User Account dialog box 258–259
- Create Your User ID page 7–8
- credentials 160–161
- custom domain names
 - changing name servers for 29
 - configuration of 18–30
 - configuring DNS records for 47–59
 - confirming ownership of 19–25
 - mail flow and 48
 - SharePoint Online and 56–57
 - Skype for Business with 55–56
 - specifying 18–19
 - specifying purpose for 26–29
 - specifying services for 24, 27
- customer relationship management (CRM) 39

D

- Data Loss Prevention (DLP) reports 248
- default gateway address 62
- delegated administrator role 77–78
- deleted users
 - list of 103
 - restoring 104
- directory integration tools 134–139
- DirSync
 - about 134–135
 - account requirements for 153–154
 - attributes synced by 140
 - compared with Azure Active Directory Connect 138–139
 - deploying in Microsoft Azure 163
 - filtering Active Directory 147
 - hardware requirements 152–153
 - identifying synchronized attributes 167–169
 - initial configuration of 160–163
 - installation requirements 150–154
 - installing 154–160
 - managing Active Directory users and groups 171–176
 - Office 365 requirements 154
 - password synchronization 162
 - pre-deployment tasks 139–140
 - preparing on-premises Active Directory for 133–149
 - setting up 150–171
- DirSync.exe 157
- Disable-AadrmSuperUserFeature cmdlet 72
- DNS queries 22

- DNS records
 - configuring for services 47–59
 - Exchange 48–52
 - SharePoint Online 56–57
 - Skype for Business 53–56
- domain-based filtering 147
- domain controllers 152
- domain management cmdlets 121
- domain name server (DNS)
 - configuration of 226
- domain name system (DNS)
 - moving ownership, to Office 365 29
- domains. *See also* custom domain names
 - buying 19
 - changing name servers for 29
 - confirming ownership of 19–25
 - converting from standard to federated 221–222
 - custom
 - configuration of 18–30
 - Internal Relay 37
 - non-routable 142–146, 160
 - onmicrosoft.com 10, 48
 - single sign-on 122–123
 - specifying 18–19
 - specifying purpose for 26–29
 - tenant 48

E

- email
 - connecting existing accounts for pilot users 36–37
 - connectivity tests 277, 279
 - for Office 365 trial 5
 - forwarding 37
 - routing 49–50
 - server validation 50–51
 - tenant domain and 48
- email-address matching 134
- email-filtering service 38
- Enable-AadrmSuperUserFeature cmdlet 72
- ESRA. *See* EdgeSync replication account (ESRA)
- Exchange ActiveSync 277, 279
- Exchange ActiveSync Autodiscover 277, 279
- Exchange Client Network Bandwidth Calculator 61
- Exchange DNS records 48–52
 - Autodiscover CNAME record 48–49
 - federation CNAME record 52
 - federation TXT records 51

Exchange federation CNAME records

- MX record 49–50
- Sender Protection Framework (SPF) record 50–51
- Exchange federation CNAME records 52
- Exchange federation TXT records 51
- Exchange Online 38
- Exchange Online Archiving 38
- Exchange Online mailboxes 14
- Exchange Online Protection 38

F

- federated domains 122–123
- federation. *See* Active Directory Federation Services
 - Exchange federation CNAME record 52
 - Exchange federation TXT records 51
 - SRV record for 54
- feedback
 - from pilot users 32
- filtering 164–167
 - using claim rules 197
- FIM groups 159–160
- FIMSyncAdmins group 153, 160
- firewall ports 60–61, 62
- Forefront Identity Manager (FIM) 138, 147–148, 160
- forest functional levels
 - checking 150–151
- Free/Busy Test 279
- fully qualified domain name 195

G

- Get-AadrmSuperUser cmdlet 72
- Get-AdminAuditLogConfig cmdlet 268
- Get-MailboxAuditBypassAssociation cmdlet 268
- Get-MessageTrackingReport cmdlet 268
- Get-MsolAccountSku cmdlet 123
- Get-MsolAdministrativeUnit cmdlet 124
- Get-MsolAdministrativeUnitMember cmdlet 124
- Get-MsolCompanyInformation cmdlet 123
- Get-MsolContact cmdlet 124
- Get-MsolDomain cmdlet 121, 222
- Get-MsolDomainFederationSettings cmdlet 122
- Get-MsolDomainVerificationDns cmdlet 121
- Get-MsolFederationProperty cmdlet 122
- Get-MsolGroup cmdlet 119
- Get-MsolGroupMember cmdlet 119
- Get-MsolPartnerContract cmdlet 124
- Get-MsolPartnerInformation cmdlet 124

- Get-MsolPasswordPolicy cmdlet 121
- Get-MsolRole cmdlet 81, 119
- Get-MsolRoleMember cmdlet 81, 119
- Get-MsolScopedRoleMember cmdlet 125
- Get-MsolServicePrincipal cmdlet 120
- Get-MsolServicePrincipalCredential cmdlet 120
- Get-MsolSubscription cmdlet 123
- Get-MsolUser cmdlet 117, 118
- Get-MsolUserRole cmdlet 120
- Global Administrator permissions 258–260
 - global administrator role
 - about 11
 - assignment of 11–12
 - permissions 75
- GoDaddy 19, 20, 48
- group Managed Service Account (gMSA) 202, 220
- group management cmdlets 119–120
- groups
 - deleted 242
 - new 242

H

- hard delete 115–116
- HelpDeskLink parameter 234
- HomeLink parameter 234
- hybrid deployments 32, 33
- Hybrid Free/Busy Troubleshooter 284–287
- hygiene. *See* message hygiene

I

- I Am Experiencing Other Problems With Outlook test 282
- I Can't Log On To Lync On My Mobile Device Or The Lync Windows Store App test 282
- I Can't Log On With Office Outlook test 282
- I Can't Send Or Receive Email From Outlook test 282
- I Can't Send Or Receive Email On My Mobile Device test 282
- I Can't Set Up Federation With Office 365, Azure, Or Other Services That Use Azure Active Directory test 282
- I Can't View The Free/Busy Information Of Another User test 282
- Identity Manager 164, 172, 174
- IdFix tool 140–141
- IMAP email 277, 279

Import-Csv cmdlet 117
 In-Place eDiscovery & Hold operations 246
 instant messaging 54
 Internal Relay domains 37
 Internet connectivity 62
 Internet email tests 277, 279
 invoices 13
 IP addresses 62

K

Kerberos 195

L

license management cmdlets 123
 licenses
 assigning 13–15, 102
 conflict resolution 15–16
 purchasing 15
 removing from existing users 15
 Licenses node 14
 license terms 158
 Line Of Business (LOB) application 120
 Local Group Policy Editor 215
 Log On As A Batch Job 201, 215–216
 Log On As A Service 200–201, 216

M

mailboxes
 accessed by non-owners 246
 active 242
 deleted 242
 inactive 242
 litigation holds 246
 new 242
 mail flow configuration 279
 mail forwarding 37
 mail reports 242–243
 mail server
 target 49
 malware 247
 Manage DNS page 26
 message auditing 268
 Message Center 267
 message tracking 268
 message transport. *See* transport

Microsoft Azure
 deploying DirSync in 163
 Microsoft Connectivity Analyzer 281–283
 Microsoft Dynamics CRM Online 39
 Microsoft Exchange ActiveSync
 connectivity tests 277, 279
 Microsoft Exchange Web Services
 connectivity tests 277, 279
 Microsoft .NET Framework 3.5 SP1 151
 Microsoft Office 14
 Microsoft Office Outlook
 connectivity tests 277, 279
 Microsoft Online Services Diagnostics and Logging
 Support Toolkit 288
 Microsoft Remote Connectivity Analyzer 276–281
 Microsoft Software License Terms page 158
 Mobile Device App 104
 Monitoring Dashboard 263–266
 multi-factor authentication 104–108, 196
 multiple forests
 supporting 147–148
 MX records 28, 49–50

N

name resolution
 perimeter network 225–226
 name servers
 changing 29
 namespaces 195
 NAT. *See* network address translation (NAT)
 network connectivity problems 62
 network requirements
 for federation 195
 New-AdminAuditLogSearch cmdlet 268
 New-MailboxAuditLogSearch cmdlet 268
 New-MsolAdministrativeUnit cmdlet 125
 New-MsolDomain cmdlet 121
 New-MsolFederatedDomain cmdlet 122
 New-MsolGroup cmdlet 120
 New-MsolLicenseOptions cmdlet 123
 New-MsolServicePrincipalAddress cmdlet 120
 New-MsolServicePrincipal cmdlet 120
 New-MsolServicePrincipalCredential cmdlet 121
 New-MsolUser cmdlet 118
 NICs. *See* network interface cards (NICs)
 non-routable domains 142–146, 160

O

objects. *See* Active Directory objects

Office 365

- administrator roles 11–12, 47, 74–83
- blocking access to 197
- client connectivity to, enabling 59–64
- configuring, for use with management pack 258–260
- DirSync requirements for 154
- general connectivity tests 278–280
- isolating service interruptions in 270–289
- moving ownership of DNS to 29
- on-ramp readiness tool 33–35
- ports 60–61
- reports 241–250
 - auditing 246
 - Data Loss Protection 248
 - mail 242–243
 - OneDrive for Business 246
 - protection 247
 - rules 248
 - SharePoint 245
 - Skype for Business 244–245
 - usage 243
- rights management in 64–74
- service health monitoring 250–270
- trial, setting up 5–9
- using previous Office versions with 62
- Welcome page 7

Office 365 Administrator Credentials 161

Office 365 Azure Active Directory
synchronization of on-premises Active Directory
with 134–182

Office 365 Exchange Domain Name Server (DNS)
connectivity test 278, 280–281

Office 365 licenses 172

Office 365 Lync Domain Name Server (DNS)
connectivity test 278

Office 365 Management Pack 255–267
configuration of 260–262
configuring Office 365 for use with 258–260
installation of 255–257
Message Center 267
Monitoring Dashboard 263–266

Office 365 pilot project
connecting existing email accounts for 36–37
creating test plan/use case for 35–36
designation of pilot users for 32
identifying workloads that don't require
migration 32–33

on-ramp readiness tool for 33–35
planning 31–41
service descriptions 38–39

Office 365 Platform Service 38

Office 365 ProPlus 14

Office 365 services
configuring DNS records for 47–59

Office 365 tenancy 5–46
configuring tenant name 10
setting up 5–18
subscription and license management 12–16
tenant regions 10

Office 365 user accounts. *See* cloud identities

Office 2003 62

Office 2007 62

Office Applications 38

Office Online 38

OneDrive for Business 38

OneDrive for Business reports 246

OneDrive for Business Synchronization calculator 61

onmicrosoft.com domain 48

onmicrosoft.com domains 10

on-ramp readiness tool 33–35

Operations Manager console 263

organizational-unit (OU)-based filtering 147

outbound firewall ports 60–61

P

password administrator role 11, 77, 79

PasswordNeverExpires parameter 114

passwords

app 106–108

changing users 114

complexity of 115

complexity policies 91

configuration of 89–99, 114–115

configuring to never expire 200

expiration of 91, 114–115, 169

for Office 365 7

managing with Windows PowerShell 113–115

policy configuration 90–91

resetting 92–98

single-use 104

syncing 162, 169–170

temporary 92

Password Sync 169

perimeter network name resolution 225–226

permissions

- billing administrator 75
- delegated administrator 77
- edit 14
- global administrator 75
- Global Administrator 258–260
- password administrator role 77
- service administrator 76
- user management administrator 76
- Personal Certificates 194, 226, 231
- phone call authentication 104
- pilot project
 - connecting existing email accounts for 36–37
 - creating test plan/use case for 35–36
 - designation of pilot users for 32
 - identifying workloads that don't require migration 32–33
 - planning 31–41
 - service descriptions 38–39
- pilot users 32
 - connecting existing email accounts for 36
- platform-as-a-service. *See* PaaS
- POP email 277, 279
- port 80 62
- port 443 62
- ports
 - firewall 60–61, 62
- Post Incident Report 253
- Power BI for Office 365 39
- Primary Federation Server 219
- primary name server 29
- PrivacyLink parameter 234
- private key
 - exporting 191–194
- Project Online 38
- project portfolio management 38
- Project Professional software 39
- Project Pro for Office 365 39
- Protect Document menu 69
- protected documents
 - recovery of 72
- protection reports 247
- Protect-RMSFile cmdlet 72
- Prove You're Not A Robot page 8
- Proxy Certificate 231
- proxy form login customization 233–234
- proxy servers
 - authentication 62
 - configuration 60

- Proxy servers, AD FS
 - configuration of 229–233
 - installing and managing 225–234
 - installing required Windows roles and features 226–229
 - perimeter network name resolution 225–226
 - setting custom proxy forms login page 233–234
 - setting up certificates 226

R

- Recycle Bin 115–116, 173
- Redo-MsolProvisionContact cmdlet 124
- Redo-MsolProvisionGroup cmdlet 120
- Redo-MsolProvisionUser cmdlet 119
- region
 - tenant 10
- Remote Access role 226–229
- remote tests 276–281
- Remove-MsolAdministrativeUnit cmdlet 125
- Remove-MsolAdministrativeUnitMember cmdlet 125
- Remove-MsolContact cmdlet 124
- Remove-MsolDomain cmdlet 121
- Remove-MsolFederatedDomain cmdlet 122
- Remove-MsolGroup cmdlet 120
- Remove-MsolGroupMember cmdlet 120
- Remove-MsolRoleMember cmdlet 81, 120
- Remove-MsolScopedRoleMember cmdlet 125
- Remove-MsolServicePrincipalCredential cmdlet 121
- Remove-MsolUser cmdlet 103, 116, 118
- reports
 - Azure Active Directory 246
 - Office 365 241–250
 - auditing reports 246
 - Data Loss Protection reports 248
 - mail reports 242
 - OneDrive for Business reports 246
 - protection reports 247
 - rules reports 248
 - SharePoint reports 245
 - Skype for Business reports 244–245
 - usage reports 243–244
 - Post Incident Report 253
- Resolved Incidents 266
- Restore-MsolUser cmdlet 119
- Restrict Access menu 70
- rights management 64–74
 - Azure Rights Management 64–73
 - Office integration with 68–71

role groups

- role groups
 - changes to 246, 247
- role management cmdlets 119–120
- RSS feed 254
- rules reports 248

S

- Save This Info page 9
- Search-AdminAuditLog cmdlet 268
- Search-MailboxAuditLog cmdlet 268
- Search-MessageTrackingReport cmdlet 268
- secondary name server 29
- Secure Sockets Layer (SSL) certificate 185
- security groups
 - management of 99–112
- self-service password reset 94–97
- self-signed token-signing certificates 194
- Sender Protection Framework (SPF) records 50–51, 56–57
- server authentication certificate 185–195, 208, 222–223
- servers
 - AD FS 199–225
 - adding additional 211–221
 - configuration of 202–211
 - converting from standard to federated domain 221
 - proxy 225–234
 - service accounts and 200–202
- service accounts
 - AD FS, creating 200–202, 220
 - group managed 202, 220
- service administrator role 11, 76
- Service Communications Certificate 185–195, 222–223, 226
- service descriptions 38–39
- Service Health Dashboard 250–254
 - Details and History 251–253
 - RSS feed 254
- service health monitoring 250–270
 - Monitoring Dashboard 263–266
 - Office 365 Management Pack 255–267
 - RSS feed 254
 - Service Health Dashboard 250–254
 - Windows PowerShell cmdlets for 268
- service interruptions
 - creating service requests for 271–276
 - Hybrid Free/Busy Troubleshooter for 284–287
 - isolating 270–289
 - Microsoft Connectivity Analyzer for 281–283
 - Microsoft Remote Connectivity Analyzer for 276–281
 - Transport Reliability IP Probe for 283
- service management cmdlets 123–124
- service principal management cmdlets 120–121
- Service Principle Name (SPN) 195, 201–202
- service requests
 - creating 271–276
- Service Status 263–265
- Set-AdfsGlobalWebContent cmdlet 233, 234
- Set-AdfsWebTheme cmdlet 233
- Set-MailboxAuditBypassAssociation cmdlet 268
- Set-MsolADFSContext cmdlet 122, 221
- Set-MsolAdministrativeUnit cmdlet 125
- Set-MsolCompanyContactInformation cmdlet 124
- Set-MsolCompanySecurityComplianceContactInformation cmdlet 124
- Set-MsolCompanySettings cmdlet 124
- Set-MsolDirSyncEnabled cmdlet 124
- Set-MsolDomainAuthentication cmdlet 121
- Set-MsolDomain cmdlet 121
- Set-MsolDomainFederationSettings cmdlet 122
- Set-MsolGroup cmdlet 120
- Set-MsolPartnerInformation cmdlet 124
- Set-MsolPasswordPolicy cmdlet 121
- Set-MsolPasswordPolicy Windows PowerShell cmdlet 91
- Set-MsolServicePrincipal cmdlet 120
- Set-MsolUser cmdlet 91, 114–115, 117, 119
- Set-MsolUserLicense cmdlet 123
- Set-MsolUserPassword cmdlet 119
- Set-MsolUserPassword Windows PowerShell cmdlet 114
- Set-MsolUserPrincipalName cmdlet 119
- setspn.exe command line tool 202
- SharePoint deployment 33, 38
- SharePoint Online 38
 - DNS records 56–57
- SharePoint reports 245
- SignInPageDescriptionText parameter 234
- simple domain sharing
 - for SMTP email addresses 36
- single sign-on 183–240
 - planning requirements for 183–198
- single sign-on management cmdlets 122–123
- Single Sign-On Test 278
- single-use passwords 104
- SKU ID 116, 172
- Skype for Business 14, 38
 - CNAME records 55–56

- online DNS records 53–56
- SRV records 53–54
- Skype for Business Online Bandwidth Calculator 61
- Skype for Business reports 244–245
- SMS message authentication 104
- SMTP. *See* Single Mail Transfer Protocol (SMTP)
- SMTP email 277, 279
- soft delete 102–104, 115
- spam detection 247
- SPF. *See* send policy framework (SPF) records
- SPF records 50–51, 56–57
- SQL Server 152, 209, 211
- SQL Server Express 152
- SQL Server Management Studio 209
- SRV records 29, 53–54
- SSL certificates 219–220, 222–223
- storage metrics 245
- StrongPasswordRequired parameter 115
- Subscription Health 263
- subscription management cmdlets 123
- subscriptions
 - tenant 12–13
- synchronization 135
 - filtering 164–167
 - filtering Active Directory and 147
 - forcing 172, 173, 174–176
 - password 162, 169–170
 - preparing on-premises Active Directory for DirSync 133–149
 - scheduling 174
 - supporting multiple forests 147–148
 - tools 134–139
- Synchronization Service Manager 164, 172, 174–176
- synchronized attributes 167–169

T

- target mail server 49
- TCP/IP connectivity 195
- TCP port 443 152
- team sites 245
- temporary passwords 92
- tenant domain 48
- tenant name
 - configuration of 10
- tenant names 18
- tenant region 10
- tenant subscriptions 12–13

- test plan
 - creating 35–36
- token-signing certificates 194
- Transport Reliability IP Probe (TRIPP) 283
- trial subscription
 - setting up Office 365 5–9
- troubleshooting
 - on-ramp readiness tool for 33–35
- TXT records 20, 21, 29
 - Exchange federation 51

U

- Unprotect-RMSFile cmdlet 72
- Update-MsolFederatedDomain cmdlet 123
- UPN suffixes 142–146
- usage reports 243–244
- use case
 - creating 35–36
- user accounts
 - Azure Active Directory Graph API for 108–111
 - bulk operations on 116–118
 - creating 172
 - creation of, by DirSync 134
 - deleting 102–104, 115–116, 173
 - lockout policies 90, 91
 - management
 - with Windows PowerShell 113–127
 - managing, with DirSync in place 171–176
 - modifying 173
 - multi-factor authentication of 104–108
 - Office 365 licenses for 172
- user activities 245
- user-attribute-based filtering 147
- user groups
 - assigning licenses to 102
 - bulk import process 99–102
 - creating 172
 - deleting 173
 - management of 99–112
 - managing, with DirSync in place 171–176
 - modifying 173
 - sign-in status for 101
- user management administrator role 11, 76
- user management cmdlets 118–119
- users
 - deleting 15

Yammer

- importing 116–117
- licensing 117
- pilot, designating 32
- updating properties of 117

V

- Verify MX Record and Outbound Connector Test 279
- Verify Service Delivery Test 279

W

- Web Application Proxy 225–234
 - certificates for 194–195, 226
 - configuration of 229–233
 - installing required roles and features 226–229
 - name resolution 225–226
 - network requirements 195
 - server deployment 221
 - setting custom proxy forms login page 233–234
- Web Application Server 225–234
- web server certificates 185, 222–223
- What You Need To Know About Domains
 - And DNS page 19
- Windows Internal Database 211
- Windows PowerShell
 - bulk operations using 116–118
 - cloud identities management with 113–127
 - importing 176
 - password management with 113–115
 - using Azure Active Directory cmdlets 118–125
- Windows PowerShell cmdlets 268
- Windows roles
 - installing 226–229
- Windows Server 2003 forest functional level 150
- workloads
 - across national boundaries 33
 - migration of, to Office 365 32–33
- Write-AdminAuditLog cmdlet 268

Y

- Yammer 39

About the author



ORIN THOMAS is an MVP, a Microsoft Regional Director, an MCT and has a string of Microsoft MCSE and MCITP certifications. He has written more than 30 books for Microsoft Press on topics including Windows Server, Windows Client, Azure, System Center, Exchange Server, Security, and SQL Server.

He is an author at PluralSight and is a contributing editor at *Windows IT Pro* magazine. He has been working in IT since the early 1990's and regularly speaks at conferences in Australia and around the world. Orin founded and runs the Melbourne System Center, Security, and Infrastructure Group and is completing a Doctorate in Information Technology at Charles Sturt University. You can follow him on twitter at <http://twitter.com/orinthomas>.

