Study Guide
Exam MS-220: Troubleshooting Microsoft Exchange Online

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Purpose of this document
This study guide should help you understand what to expect on Exam MS-220: Troubleshooting Microsoft Exchange Online, and includes a summary of the topics the exam might cover and links to additional resources. The information and materials in this document should help you focus your studies as you prepare for the exam.

Certification

Certification renewal
Once you earn your certification, don’t let it expire. When you have an active certification that’s expiring within six months, you should renew it—at no cost—by passing a renewal assessment on Microsoft Learn. Remember to renew your certification annually, if you want to retain it.

To identify which certifications are available for you to renew, visit your Certifications in your Microsoft Learn profile:
- Ensure your certification profile is connected to your Microsoft Learn profile.
- Expect an email that directs you to the applicable assessment that you must pass on Microsoft Learn. You’ll receive this email as soon as you have a certification that you’re eligible to renew.
- When you pass an online assessment, your certification will extend by one year from the current expiration date.
- To help prepare for the assessment, explore the collection of free modules on the certification renewal page.

About the exam
Exam MS-220: Troubleshooting Microsoft Exchange Online is required to earn the Microsoft 365 Exchange Online Support Engineer Specialty certification.

This exam measures your ability to troubleshoot the following issues: mail flow; compliance and retention; mail client; Exchange Online configuration; and hybrid and migration.

Candidates for this exam work with customers and other stakeholders to understand the details of any issues. They also interact with administrators and peers that work with other related technologies.

You should have experience with PowerShell and the Exchange PowerShell module. You should also have significant experience deploying, managing, and troubleshooting Microsoft Exchange Online environments.

Passing score
A passing score is 700. Learn more about exam scoring and score reports.
What to expect on the exam
Are you new to Microsoft certification exams? You can explore the exam environment by visiting our exam sandbox. We created the sandbox so that you have an opportunity to experience an exam before you take it. In the sandbox, you can interact with different question types, such as build list, case studies, and others that you might encounter in the user interface when you take an exam. Additionally, it includes the introductory screens, instructions, and help topics related to the different types of questions that your exam might include. It also includes the non-disclosure agreement that you must accept before you can launch the exam.

Prepare to take the exam
There are several points to consider, or pursue, as you prepare for an exam. The following sections detail those points.

Request accommodations
We’re committed to ensuring all learners are set up for success. If you use assistive devices, require extra time, or need modification to any part of the exam experience, you can request an accommodation. We encourage you to learn more about available accommodations and how to obtain them by visiting this page.

Objective domain: skills the exam measures
The English language version of this exam was released on June 23, 2022.

Some exams are localized into other languages, and those are updated approximately eight weeks after the English version is updated. Other available languages are listed in the Schedule Exam section of the Exam Details webpage. If the exam isn’t available in your preferred language, you can request an additional 30 minutes to complete the exam.

Note
The bullets that follow each of the skills measured are intended to illustrate how we are assessing that skill. Related topics may be covered in the exam.

Note
Most questions cover features that are general availability (GA). The exam may contain questions on Preview features if those features are commonly used.

Skills measured
- Troubleshoot mail flow issues (20–25%)
- Troubleshoot compliance and retention issues (25–30%)
- Troubleshoot mail client issues (20–25%)
Troubleshoot Exchange Online configuration issues (15–20%)
Troubleshoot hybrid and migration issues (10–15%)

Functional groups

Troubleshoot mail flow issues (20–25%)

Troubleshoot Exchange Online mail flow issues
- Review and interpret message headers
- Review and interpret message trace results and policies associated with those results
- Determine whether a transport rule or conditional routing rule is affecting mail flow
- Identify rules that are evaluated and policies that are applied when sending or receiving email
- Troubleshoot issues where users cannot send or receive email and no NDR is generated or displayed
- Troubleshoot issues where mail destined for one tenant is incorrectly routed to another tenant
- Troubleshoot delivery delays

Troubleshoot mail flow issues with external systems
- Read and analyze SMTP protocol logs for hybrid deployments and third-party systems
- Troubleshoot issues related to mail flow for hybrid deployments
- Troubleshoot DNS-related mail flow issues
- Troubleshoot SMTP relay issues
- Troubleshoot SMTP certificate issues

Troubleshoot other mail flow issues
- Identify types of NDRs and interpret NDR data
- Determine which active rules impact email attachments
- Determine which rules are triggered when an email arrives at a user’s inbox
- Troubleshoot issues related to blocked attachment types
- Troubleshoot issues with corrupted inbox rules

Troubleshoot issues reported by Microsoft Defender for Office 365
- Determine why an email is marked as spam
- Determine why messages are being quarantined
- Determine whether the sender SPF DMARC and DKIM records are valid
- Troubleshoot spam filter policies
- Troubleshoot messages that are categorized as false positive or false negative

Troubleshoot compliance and retention issues (25–30%)

Troubleshoot compliance issues
- Identify roles required to perform eDiscovery actions
• Describe Compliance center retention policies
• Troubleshoot eDiscovery issues
• Determine what types of holds are associated with an item
• Troubleshoot in-place and eDiscovery holds
• Search for and delete email messages in an organization
• Determine how to clear or purge recoverable item folders

Troubleshoot retention issues
• Describe retention tag types and actions
• Describe the process for calculating item retention age
• Troubleshoot issues creating and applying retention policies
• Review and interpret Messaging Records Management (MRM) mailbox diagnostics logs
• Interpret message properties used by message records management (MRM)

Troubleshoot Office Message Encryption (OME) and S/Mime issues
• Troubleshoot issues with messages that are not encrypted or decrypted as expected
• Troubleshoot issues where external users cannot decrypt messages but internal users can decrypt messages
• Troubleshoot issues reading, replying to, or forwarding protected messages from Microsoft 365 on mobile devices
• Troubleshoot mail flow rules
• Troubleshoot revocation issues for encrypted emails
• Troubleshoot S/Mime issues

Troubleshoot mailbox auditing Issues
• Troubleshoot issues searching audit logs
• Troubleshoot user actions (for example user reports an item is deleted but they say they did not delete)
• Troubleshoot bulk actions including email creation, moves, modifications, and deletion
• Track non-owner actions
• Troubleshoot audit log retention period issues
• Troubleshoot auditing not working

Troubleshoot journaling
• Troubleshoot duplicate journal entries
• Troubleshoot mail not being journaled
• Troubleshoot journal OME decryption issues

Troubleshoot mail client issues (20–25%)

Troubleshoot connectivity and authentication issues
• Describe how to obtain Outlook client configuration information
• Troubleshoot Exchange authentication policies
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- Troubleshoot client access rules
- Troubleshoot issues with modern authentication
- Troubleshoot Outlook on the Web (OWA) sign in issues
- Troubleshoot auto-discover issues
- Outlook client cannot connect to Exchange Online mailbox
- Troubleshoot Outlook continuously asking for Exchange Online password

Troubleshoot calendaring Issues
- Review and analyze mailbox and calendar diagnostic logs
- Troubleshoot broken manager/delegation issues
- Troubleshoot Resource Booking Assistant issues

Troubleshoot calendar sharing issues
- Troubleshoot permissions issues related to calendar sharing
- Troubleshoot issues publishing and accessing calendars shared with external users
- Determine why content for a published calendar is not up to date

Troubleshoot issues with mobile devices
- Identify mobile device access states and what the states indicate
- Review mobile devices statistics to confirm the reason for a block
- Review the Allow Blocked Quarantine (ABQ) list to identify blocked or quarantined devices
- Troubleshoot Exchange device access rules
- Review and interpret ActiveSync logs to troubleshoot Outlook Sync EAS connection issues
- Troubleshoot connectivity issues with native ActiveSync

Troubleshoot Exchange Online configuration issues (15–20%)

Troubleshoot provisioning issues
- Interpret and troubleshoot validation errors encountered during object provisioning
- Determine when to restore or recover an inactive mailbox
- Troubleshoot issues managing resource mailboxes
- Troubleshoot issues purging deleted users

Troubleshoot recipient issues
- Troubleshoot automatic email forwarding
- Troubleshoot matching issues with Azure AD
- Troubleshoot distribution list membership issues (including dynamic distribution groups)
- Troubleshoot issues with archive mailboxes including auto-expanding archive mailboxes

Troubleshoot org-wide settings
- Troubleshoot domain setup and configuration issues
- Troubleshoot address book policies
- Troubleshoot address lists
Troubleshoot allowed file types
- Troubleshoot mailbox plans
- Troubleshoot Client-Access Services (CAS) mailbox plans

Troubleshoot public folder Issues
- Troubleshoot Exchange Online access to public folders
- Troubleshoot mail-enabled public folders
- Troubleshoot issues sending email to public folders
- Troubleshoot hybrid access to public folders
- Troubleshoot load-balancing issues for public folders

Troubleshoot hybrid and migration issues (10–15%)

Troubleshoot hybrid configuration issues
- Troubleshoot Hybrid Configuration Wizard issues
- Troubleshoot hybrid mail flow issues
- Troubleshoot free/busy issues for hybrid deployments
- Troubleshoot issues synchronizing remote recipient attributes with Exchange Online

Troubleshoot migration issues
- Troubleshoot endpoint creation issues
- Review migration users and move requests
- Troubleshoot slow migrations
- Troubleshoot Data Consistency Score (DCS) issues
- Troubleshoot failed migrations
- Troubleshoot public folder migration issues

Corresponding learning paths and modules
The design of learning paths and modules should teach you how to perform a role and will help you study for the applicable exam. However, learning paths aren’t always in the same order as an exam’s “skills measured” list. Therefore, we’ve created a convenient table that links the skills measured to specific paths and modules.

<table>
<thead>
<tr>
<th>Exam skills measured</th>
<th>Links to learning paths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Troubleshoot mail flow issues (20–25%)</td>
<td>Troubleshoot problems with mail flow</td>
</tr>
<tr>
<td></td>
<td>Troubleshoot message filtering in inboxes and Microsoft Defender for Office 365</td>
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</table>
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### Exam skills measured

<table>
<thead>
<tr>
<th>Skill</th>
<th>Links to learning paths</th>
</tr>
</thead>
</table>
| Troubleshoot compliance and retention issues (25–30%) | • Troubleshoot compliance and retention issues  
  • Troubleshoot encryption, auditing, and journaling |
| Troubleshoot mail client issues (20–25%)    | • Troubleshoot desktop Outlook clients  
  • Troubleshoot issues with mobile devices                                      |
| Troubleshoot Exchange Online configuration issues (15–20%) | • Troubleshoot Exchange Online configuration issues |
| Troubleshoot hybrid and migration issues (10–15%) | • Troubleshoot hybrid and migration issues                                     |

### Additional study resources

We offer several resources to help you prepare for the exam and stay current and engaged with the Microsoft 365 community. These resources range from formal training to blogs and even interviews with Microsoft team members.

<table>
<thead>
<tr>
<th>Study resource link</th>
<th>Resource description</th>
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<tbody>
<tr>
<td>**Microsoft 365 documentation</td>
<td>Stay informed on the latest products, tools, and features, and get information on pricing, partners, support, solutions, and more.</td>
</tr>
<tr>
<td>Microsoft Docs</td>
<td>Microsoft 365 Tech Community</td>
</tr>
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<td>Microsoft 365 Blog</td>
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