# Study Guide

Exam MS-740: Troubleshooting Microsoft Teams

## Purpose of this document

This study guide should help you understand what to expect on the exam 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.

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<th>Useful links</th>
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<td><strong>How to earn the certification</strong></td>
<td>Some certifications only require one exam, while others require more. On the details page, you'll find information about what skills are measured and links to registration. Each exam also has its own details page covering exam specifics.</td>
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<td><strong>Certification renewal</strong></td>
<td>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.</td>
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<td><strong>Your Microsoft Learn profile</strong></td>
<td>Connecting your certification profile to Learn brings all your learning activities together. You’ll be able to schedule and renew exams, share and print certificates, badges and transcripts, and review your learning statistics inside your Learn profile.</td>
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<td><strong>Passing score</strong></td>
<td>All technical exam scores are reported on a scale of 1 to 1,000. A passing score is 700 or greater. As this is a scaled score, it may not equal 70% of the points. A passing score is based on the knowledge and skills needed to demonstrate competence as well as the difficulty of the questions.</td>
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<td><strong>Exam sandbox</strong></td>
<td>Are you new to Microsoft certification exams? You can explore the exam environment by visiting our exam sandbox. We created the sandbox as an opportunity for you to experience an exam before you take it. In the sandbox, you can interact with different question types, such as build list, case studies,</td>
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Useful links

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<td>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.</td>
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**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.

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**Objective domain: skills the exam measures**

The English language version of this exam was updated on October 19, 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 Microsoft Teams voice issues (15-20%)
- Troubleshoot issues with Microsoft Teams meetings and live events (20-25%)
- Troubleshoot federation issues (10-15%)
- Troubleshoot issues signing into Microsoft Teams (15-20%)
- Troubleshoot teams and channels (10-15%)
- Troubleshoot issues with files (15-20%)
Functional groups

Troubleshoot Microsoft Teams voice issues (15–20%)

Troubleshoot audio and video flow issues
- Troubleshoot audio and video quality issues
- Troubleshoot call drops
- Investigate issues with call quality and dropped calls by using Call Quality Dashboard, network tracing tools, and logs

Troubleshoot emergency calling issues
- Troubleshoot dynamic emergency calling
- Identify issues with emergency phone number normalization rules
- Troubleshoot location detection failures
- Troubleshoot missing locations in outbound calls and missing addresses
- Troubleshoot dial mask issues

Troubleshoot direct routing issues
- Troubleshoot issues pairing the Session Border Controller (SBC) with the phone number service
- Troubleshoot dial plan issues, including normalization rules
- Identify the root cause of direct-dialing call issues by reviewing the SBC log
- Troubleshoot audio conferencing issues, including provisioning and configuration issues

Troubleshoot issues with Teams meetings and live events (20–25%)

Troubleshoot meetings and live events issues
- Troubleshoot meeting creation and scheduling issues
- Troubleshoot recording issues, including policies related to recording
- Investigate issues sharing content and viewing reports
- Troubleshoot reporting issues, including issues with attendance reports and moderated questions
- Troubleshoot attendee access and playback issues
- Troubleshoot and optimize networks for Teams live events
- Investigate issues connecting to the service and joining meetings

Troubleshoot Teams services
- Validate Microsoft Audio Conferencing licensing
- Troubleshoot dial pad issues
- Troubleshoot phone number provisioning issues
- Troubleshoot issues with the Outlook add-in for Teams
- Troubleshoot issues enabling and configuring audio and video devices for Teams
• Troubleshoot online and hybrid call queues and auto-attendant issues
• Troubleshoot user provisioning issues, including licensing users, phone number assignments, and policies
• Troubleshoot issues with phone system features
• Investigate phone system set up and configuration issues

Troubleshoot Teams client issues
• Troubleshoot Teams client start up issues and crashes on Windows, Mac, and Linux devices
• Troubleshoot Investigate causes for high memory or CPU usage
• Investigate network issues, including network latency
• Analyze web traffic and review HTTP status codes by using Fiddler and other tools
• Troubleshoot issues installing and updating client software
• Troubleshoot performance issues, including long times for uploading files and chats slow to load or send
• Troubleshoot call set up issues
• Troubleshoot issues adding participants to meetings

Troubleshoot messaging issues
• Troubleshoot message delivery issues
• Troubleshoot issues attaching files and content to messages
• Troubleshoot chat notification issues

Troubleshoot federation issues (10–15%)

Troubleshoot issues interoperating with Skype for Business
• Investigate chat issues when interoperating with Skype for Business
• Troubleshoot federation issues between Teams and Skype or Skype for Business
• Troubleshooting Interop chat scenarios

Troubleshoot Teams federation issues
• Troubleshoot federation policies and domain lists
• Verify tenant configuration settings including allowed and blocked domain lists and type of federation

Troubleshoot issues signing into Teams (15–20%)

Troubleshoot account and network issues
• Verify Active Directory Federation Services (AD FS) health including endpoint availability and synchronization status
• Troubleshoot issues with Azure Active Directory Seamless Single Sign-On (Azure AD Seamless SSO)
• Identify reasons for blocked accounts by reviewing web log data
• Verify user virtual private network (VPN) configuration settings including split tunneling and client version
• Validate network configuration settings including firewall ports, IP ranges, and proxy configuration issues

Troubleshoot member sign-in issues
• Investigate authentication issues
• Verify whether an applied conditional access policy prevents sign in
• Determine whether a user account or the device from which a user attempts to sign in is the cause of a sign in issue
• Troubleshoot client sign-in issues by collecting and analyzing Teams debug logs
• Troubleshoot Teams Rooms System (TRS) sign-in issues by analyzing log data from Teams Room devices
• Investigate points of failure in the sign-in process flow

Troubleshoot guest access issues
• Troubleshoot issues adding guest users to teams
• Troubleshoot call, message, and meeting issues for guest users by checking the guest meeting, guest messaging, and guest calling configuration policies
• Audit invitations sent but not used and inactive accounts
• Validate configuration settings for federated message flow
• Review Azure sign-in logs and audit logs for the domain which hosts Teams

Troubleshoot teams and channels (10–15%)

Troubleshoot issues with apps
• Configure Teams to allow or block an app
• Validate app permission policies
• Validate app setup policies

Troubleshoot issues with Teams channels
• Check user permissions, team policies, and tenant policies
• Verify and troubleshoot channel email settings
• Troubleshoot tenant replication issues in teams and channels
• Troubleshoot deletion issues in teams and channels

Troubleshoot issues with files (15–20%)

Troubleshoot person-to-person (P2P) private chat files issues, including access and sharing issues
• Verify access rights for the user
• Troubleshoot Teams client configuration policies
• Troubleshoot issues provisioning users

Troubleshoot file issues for private channels
• Verify that the SharePoint site for the channel is accessible
• Verify SharePoint access permissions
• Confirm that the SharePoint site collection link is intact

Troubleshoot file issues for public channels
• Verify SharePoint access permissions
• Determine whether the name for a channel or team have been changed
• Confirm that the SharePoint site collection link is intact
• Troubleshoot file synchronization issues and missing files

Study Resources
We recommend that you train and get hands-on experience before you take the exam. We offer self-study options and classroom training as well as links to documentation, community sites, and videos.

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