

Flashcards

- **Microsoft 365 tenant** The boundary that holds Entra ID, licenses, Teams policies, and verified domains for one organization. Why it matters: An SBC paired in the wrong tenant is a different phone system.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Microsoft 365 tenant?** Confirm the tenant before you run Connect-MicrosoftTeams. If it fails: Two engineers edit two tenants and each thinks the other broke the trunk.

Sources and go deeper

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- **Verified domain** A domain added and proven in the tenant. Direct Routing SBC FQDNs must live on one of these domains. Why it matters: onmicrosoft.com cannot carry the SBC name.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Verified domain?** Add the domain, including a sip subdomain, before you pair the gateway. If it fails: Pairing fails because sbc.contoso.com was never verified.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **onmicrosoft.com domain** The default tenant domain. It is not a supported domain for a Direct Routing SBC FQDN. Why it matters: People try it because it already resolves inside Microsoft 365.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach onmicrosoft.com domain?** Use a domain you verified, such as contoso.com. If it fails: The gateway object is rejected or never becomes healthy.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Homed online** Direct Routing users must be homed in Microsoft 365, not left on a Skype for Business on-premises registrar. Why it matters: A user who looks licensed and still is not online will not use the online voice route.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Homed online?** Check the user's registrar before you assign a voice routing policy. If it fails: The policy is assigned and the call never leaves the legacy

system.

Sources and go deeper

-  **No checked URL for this page** — confirm — last checked 2026-10.

- **Islands mode** A coexistence mode. Direct Routing is not supported for users in Islands mode. Why it matters: It is a hard stop, not a tuning problem.

Sources and go deeper

-  **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Islands mode?** Move the user to a supported mode before you test PSTN. If it fails: PSTN fails only for the Islands users and nowhere else.

Sources and go deeper

-  **No checked URL for this page** — confirm — last checked 2026-10.

- **Entra ID** The identity directory for the tenant. Teams users, resource accounts, and admin roles are Entra objects. Why it matters: Voice licenses attach to these objects.

Sources and go deeper

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- **How do you approach Entra ID?** Create the user or resource account here, then license it, then grant policies. If it fails: A resource account exists in Teams and has no license

because nobody looked in Entra.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Resource account** A disabled-for-sign-in Entra account that represents an auto attendant or a call queue. It is not a human login. Why it matters: The published number is often this account, not a person.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Resource account?** Create it with a Teams admin role and the User Administrator role. If it fails: Agents try to sign in as the queue and the sign-in is correctly blocked.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Cloud Voicemail** The Teams voicemail service. It deposits messages in the user's Exchange mailbox. Why it matters: No mailbox means no voicemail, even when the call routed.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Cloud Voicemail?** Confirm the mailbox and the voicemail policy before you debug the SBC. If it fails: Callers hear a greeting failure and the SBC trace is clean.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Teams Phone** The license capability that lets a user use Teams as a phone system. It is not, by itself, a PSTN carrier. Why it matters: People say Phone System, Calling Plan, and Teams Premium as if they were one SKU.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Teams Phone?** Assign Teams Phone, then add a connectivity option. If it fails: Outbound PSTN fails because only Teams, not Teams Phone, is assigned.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Calling Plan** A Microsoft-operated PSTN option. Domestic, international, and pay-as-you-go are the usual flavors. It is an extra license on top of Teams Phone. Why it matters: E5 may include the phone-system capability and still not include a Calling Plan.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Calling Plan?** Buy the plan only where Microsoft sells it, and assign it to the user. If it fails: A user in an unsupported country is given a Calling Plan SKU that cannot be used.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Audio Conferencing** The license that provides dial-in numbers for meetings. It is not Teams Phone. Why it matters: Without it, outbound conference calls can route through Direct Routing.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Audio Conferencing?** Assign it to people who must publish a dial-in number. If it fails: Conference dial-out hits the SBC and the carrier bill surprises finance.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Teams Premium** An add-on for advanced meetings and related features. It does not replace Teams Phone or a Calling Plan. Why it matters: Interview traps treat it as the PSTN license.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Teams Premium?** Buy it only for the meeting features you actually need. If it fails: A design removes Calling Plans because Premium was purchased.

Sources and go deeper

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- **Teams Phone Resource Account license** The license each auto attendant or call queue resource account needs, even when the account has no phone number. Subscriptions with Teams Phone include a zero-cost allotment you still have to acquire. Why it matters: Do not put Teams Phone Standard on a resource account.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Teams Phone Resource Account license?** Assign this license. If you swap off Teams Phone Standard, remove and add in the same license change. If it fails: Queues die after a two-step license swap.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Pay-as-you-go Calling Plan** A Calling Plan billed on use. Also the funding pattern, with communications credits, for some voice-app outbound calls. Why it matters: External transfers from a queue are not free just because users have Direct Routing.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Pay-as-you-go Calling Plan?** Fund the resource account when the attendant or queue sends calls to an external number, uses callback, or places on-behalf calls. If it fails: Overflow to a mobile number fails and the user Calling Plan is blamed.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Communications credits** A balance used when a call is not covered by a Calling Plan minute. Voice apps use it for some outbound cases. Why it matters: An empty balance looks like a routing failure.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Communications credits?** Fund the balance and assign it where the prerequisite article requires it. If it fails: The queue worked in the pilot week and stopped when the credit ran out.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Shared Calling** A pattern where users place outbound PSTN calls through a resource account's number instead of each having a number. Why it matters: It is not a free substitute for every Calling Plan scenario. The shared number has its own license rules.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Shared Calling?** Read the current shared-calling prerequisites before you promise it to a site. If it fails: Every user was left numberless and the resource account was never funded.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Common area phone** A shared handset. On Direct Routing it does not need a Calling Plan license. Why it matters: People copy a user bundle onto a hallway phone.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Common area phone?** License the device for Teams and the phone scenario you chose, then assign the number. If it fails: A Calling Plan was purchased for every corridor phone on a Direct Routing design.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Teams Rooms license** Rooms use their own SKU family, not a borrowed user Calling Plan. Names such as Basic and Pro change. Check the current name. Why it matters: A room that cannot join is often a license or a resource account, not a codec.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Teams Rooms license?** Assign the current room license to the room account and keep Conditional Access from blocking the device. If it fails: The room account has a user E5 stack and still fails sign-in policy.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Conditional Access** Entra policy that can block a phone or a room that is not in the trusted device set. Why it matters: Voice engineers see a SIP 200 and a device that never registers.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Conditional Access?** Exclude or scope device sign-in on purpose. Do not turn Conditional Access off as a test you leave in place. If it fails: Rooms fail on Monday after a security change nobody told voice about.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Shortest media path** Microsoft's network guidance prefers a short path to the Microsoft network, without a proxy in the media path. Why it matters: A proxy that was fine for web traffic adds jitter to RTP.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Shortest media path?** Egress Teams media locally. Do not hairpin a branch through a distant data center unless you mean to. If it fails: One city's CQD is poor and the firewall team finds a proxy.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **VPN and real-time media** Microsoft recommends that you avoid sending real-time Teams media through a VPN. QoS on the VPN does not fix the extra delay. Why it matters: Split-tunnel designs exist so media can go direct while other traffic stays on the VPN.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach VPN and real-time media?** Test a call on the VPN and off it before you blame the carrier. If it fails: Every remote user shows high RTT and the office does not.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **ExpressRoute is optional** Teams does not require ExpressRoute. Local internet egress is the usual design. If you do use ExpressRoute, follow the current network article rather than assuming media is happier there. Why it matters: A contract for ExpressRoute is not a QoS design.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach ExpressRoute is optional?** Decide the path, then mark DSCP on the path you actually use. If it fails: Media was forced onto a long private path and RTT jumped.

Sources and go deeper

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- **QoS markers enabled** The Teams admin center setting that allows clients to insert DSCP. Without it, a correct ACL still sees unmarked client traffic from managed endpoints that honor the policy. Why it matters: Mac and mobile hard-code some marks. Windows follows policy.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach QoS markers enabled?** Turn the insert-markers setting on, then verify at the WAN edge. If it fails: The network is marked and the clients were never told to mark.

Sources and go deeper

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- **Three to five hops** Microsoft's planning note: keep the client-to-network-edge path short, on the order of three to five hops, and the ISP-to-Microsoft edge short as well. Why it matters: Each extra hop is a place a mark can be stripped.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Three to five hops?** Draw the path before you buy bandwidth. If it fails: A branch hairpins through HQ and then out, adding hops and delay.

Sources and go deeper

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- **Layer-3 G.711** G.711 at 20 ms is 160 bytes of payload plus 40 bytes of IP, UDP, and RTP. That is 80 kbit/s per direction. Why it matters: People quote 64 kbit/s and under-size the

link.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Layer-3 G.711?** Multiply by concurrent calls and by two directions when both ways are busy. If it fails: Thirty calls were planned at 64 kbit/s and the link saturated.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Ethernet G.711** Add an 18-byte Ethernet header to the G.711 20 ms packet and the figure is 87.2 kbit/s per direction. Why it matters: WAN sizing that stops at layer 3 is already short on a LAN you police.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Ethernet G.711?** Use 87.2 kbit/s when the policer sees Ethernet. If it fails: The policer drops the header you forgot.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Operator Connect** A certified carrier manages PSTN for you inside the tenant. You need Teams Phone. You do not need a Microsoft Calling Plan or your own SBC. Why it matters: It is the low-operations option when your carrier is in the program.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Operator Connect?** Enable the operator in the admin center and assign the numbers they provide. If it fails: Someone also builds a Direct Routing SBC for the same numbers and the routes fight.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Operator Connect for India** The India-specific operator model. It exists because India PSTN rules are not the same as a generic Operator Connect deployment. Why it matters: A global design that ignores it will fail a regulatory review.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Operator Connect for India?** Use the current India plan article and the licensed operator there. If it fails: A UK SBC was proposed as the egress for an India office.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Teams Phone Mobile** The user's mobile SIM number is also their Teams number, through a certified mobile operator. Teams Phone is required. Why it matters: It fits frontline and mobile workers, not a reception queue.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Teams Phone Mobile?** Assign the operator number to the user. Do not also treat it as a spare Calling Plan. If it fails: One human has two different caller IDs and the CRM matches neither.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Direct Routing** You connect a certified SBC to Teams and bring your own carrier. Users need Teams and Teams Phone. They must be homed online. Islands mode is not supported. Why it matters: This is the option when you still own trunks, a PBX, analog, or a contact-center SBC.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Direct Routing?** Pair the FQDN, open 5061, allow media ranges, assign a voice route. If it fails: The SBC is up and the user has no voice routing policy.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Mixing PSTN options** One tenant may use Calling Plans, Operator Connect, Teams Phone Mobile, and Direct Routing at the same time for different users. Why it matters: A global voice policy that assumes one carrier will misroute someone.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Mixing PSTN options?** Give each population a policy that matches its carrier. If it fails: A mobile user matches a Direct Routing route and hairpins.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **SIP proxies** For commercial Microsoft 365, signal to sip.pstnhub.microsoft.com, then sip2, then sip3, on TCP 5061. GCC High and DoD use different names. Why it matters: DNS can return one address. The firewall must allow the published ranges, not that one answer.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach SIP proxies?** Checked 15 October 2026. Direct Routing SBC signaling and media on the plan page: 52.112.0.0/14 and 52.120.0.0/14. Teams client optimize on the Office 365 URLs page and the worldwide endpoints feed: 52.112.0.0/14 and 52.122.0.0/15. Those lists are not interchangeable. If it fails: A lockdown allows only today's DNS answer and the trunk fails next week.

Sources and go deeper

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- **Media ports for Direct Routing** UDP 3478–3481 and 49152–53247 between the SBC and the media processors, unless media bypass keeps the media off that path. Why it matters: People open 5061 and forget media, so signaling works and audio does not.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Media ports for Direct Routing?** Budget at least two media ports per concurrent call on the SBC. If it fails: Calls connect and both sides hear silence.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Media re-targeting** Microsoft does not support changing the media target in the middle of an active Direct Routing call. Why it matters: A clever SBC feature that moves media mid-call will not be a supported troubleshooting step.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Media re-targeting?** Negotiate media at setup and leave it. If it fails: Audio dies when a transfer tries to move the RTP peer.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Two media ports per call** Microsoft's planning tip: allocate at least two media ports on the SBC for each concurrent call. Why it matters: Port exhaustion looks like random one-way audio.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Two media ports per call?** Size the SBC media range from the busy-hour call count. If it fails: The 51st call connects with no audio.

Sources and go deeper

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- **Normalization** The dial plan rewrites what a person dialed into a number the routes can match, usually E.164. The first matching rule wins. Why it matters: A route for +44 will never see 020.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Normalization?** Put the specific rules above the general ones. If it fails: A catch-all rule is first, so the emergency rule never runs.

Sources and go deeper

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- **Tenant dial plan** A set of normalization rules you assign to users. A user can have a more specific plan than the tenant default. Why it matters: Two sites that dial local numbers differently need two plans, not one heroic route.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Tenant dial plan?** Grant the plan to the user and test from that user. If it fails: You edit the global plan and a branch with its own plan does not change.

Sources and go deeper

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- **PSTN usage** A name that links a voice routing policy to one or more voice routes. The policy's ordered list of usages is the permission to place those calls. Why it matters: Usages are how you let one site call internationally and another not.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach PSTN usage?** Create the usage, attach routes, then put the usage on the policy in the right order. If it fails: International works because the international usage was left on a branch policy.

Sources and go deeper

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- **Voice route** A number pattern plus an ordered list of SBC gateways. It does nothing until a PSTN usage on the user's policy points at it. Why it matters: The pattern is a regular expression, not a CUCM route-pattern wildcard.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Voice route?** Anchor the pattern. Test with the normalized number, not the raw digits. If it fails: The route expects 10 digits and the dial plan already added +1.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Voice routing policy** The per-user list of PSTN usages, in order. Teams walks that order when it looks for a route. Why it matters: Granting the wrong policy is the most common 'the SBC is broken' ticket.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Voice routing policy?** Grant it to a test user and read it back with Get-CsOnlineUser. If it fails: The pilot user is still on the global policy, which has no usages.

Sources and go deeper

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- **Gateway priority** Each voice route lists SBCs with a priority. Lower priority number is tried first in this campus's teaching model. Confirm the current article before you depend on a tie. Why it matters: Failover is a list, not a wish.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Gateway priority?** Put the local SBC first and a remote SBC second, then pull the cable in a maintenance window. If it fails: Both gateways are priority 1 and nobody knows which one took the call.

Sources and go deeper

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- **Emergency short code** 999, 112, and 911 must be normalized on purpose. A general rule that runs first can swallow them. Why it matters: An emergency call that matches an international route is a design defect.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Emergency short code?** Put emergency rules above catch-alls, and give them a route that is always present. If it fails: A user dials 999 and the dial plan turns it into an extension.

Sources and go deeper

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- **Auto attendant** A voice app that answers, plays a greeting, and routes by schedule, menu, directory, or operator. Why it matters: It is the front door. A broken menu is a broken company number.

Sources and go deeper

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- **How do you approach Auto attendant?** Create the attendant, attach a licensed resource account, then assign a number only if the PSTN must reach it. If it fails: The menu option points at a queue that has no agents and no overflow.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Call queue** A voice app that holds callers and offers them to agents by attendant, serial, round robin, or longest idle routing. Why it matters: Presence can skip someone who is already busy, which changes who 'should' have rung.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Call queue?** Set timeout and overflow before you publish the number. If it fails: The timeout is 3 seconds and callers always overflow.

Sources and go deeper

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- **Conference mode** A queue behavior where the caller stays in the conference while agents are tried, so the transfer is faster and the greeting is not replayed the same way. Why it matters: Turning it off changes the caller experience and the failure sound.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Conference mode?** Test both modes with a real agent client before you argue about delay. If it fails: Callers hear silence while the queue hunts, and someone disables the queue.

Sources and go deeper

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- **Overflow** Where the call goes when the queue is full or the timeout expires. It can be a person, another voice app, voicemail, or an external number. Why it matters: An external overflow needs funding on the resource account.

Sources and go deeper

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- **How do you approach Overflow?** Name the overflow in the design, then test it by making every agent busy. If it fails: Overflow to a mobile fails and the queue itself is blamed.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Directory search** An attendant feature that lets a caller reach a person by name or extension. Why it matters: It exposes the directory you did not mean to publish.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Directory search?** Scope who can be found. Do not leave the default if the tenant has privileged accounts. If it fails: A caller reaches an executive

because directory search was on.

Sources and go deeper

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- **Holiday schedule** A calendar the attendant uses to play the closed greeting. It is not the same object as business hours. Why it matters: A holiday that is only in someone's memory is an open company on that day.

Sources and go deeper

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- **How do you approach Holiday schedule?** Load the next year's holidays when you build the attendant. If it fails: The office is closed and the attendant still hunts the queue.

Sources and go deeper

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- **Dynamic emergency calling** Teams picks a civic address from the network location it can see: trusted IP, site, and subnet in the usual design. Why it matters: A VPN address must not inherit the headquarters address.

Sources and go deeper

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- **How do you approach Dynamic emergency calling?** Build the topology, assign addresses, and test from a known subnet. If it fails: A laptop on the VPN reports the HQ floor.

Sources and go deeper

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- **Civic address** The street address you validate for emergency calling. A dispatchable location is specific enough for responders. Why it matters: A campus with one address and five buildings is not specific.

Sources and go deeper

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- **How do you approach Civic address?** Validate the address and tie subnets to places inside it. If it fails: The PSAP gets a city and no building.

Sources and go deeper

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- **Trusted IP** An address that means ‘this client is inside our network.’ It is how Teams decides the client is on a site you mapped. Why it matters: If the trusted IP is the VPN concentrator, every remote user looks internal.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Trusted IP?** List the real internet egress addresses, not the VPN pool, unless you mean to. If it fails: Remote users inherit a building.

Sources and go deeper

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- **Emergency calling policy** Controls notification and how the client looks up location. It is not the PSTN route. Why it matters: You can have a perfect policy and still send the call to the wrong SBC.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Emergency calling policy?** Pair the policy with a routing policy and a tested number from the carrier. If it fails: Security is notified for a test call and the route still left the country.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Direct Routing emergency** You, the SBC, and the carrier deliver the emergency call. Microsoft does not become the emergency carrier because Teams is the client. Why it matters: PIDF-LO may be present. The carrier still has to accept the call.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Direct Routing emergency?** Build an emergency voice route that prefers the local SBC. If it fails: 999 matches an international route via another country.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Calling Plan emergency** With Microsoft Calling Plans in supported countries, Microsoft's emergency calling service is part of the plan. You still configure locations. Why it matters: Direct Routing habits do not apply unchanged.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Calling Plan emergency?** Assign the Calling Plan and the emergency addresses for those users. If it fails: A Calling Plan user is sent to your SBC for 911 by a copied route.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Location-based routing** Stops a user in a regulated site from placing a PSTN call through a gateway in another site. It is a toll-bypass control. Why it matters: Media bypass can fight it if media would egress in the wrong place.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Location-based routing?** Enable it per site with the network topology and the gateways that belong there. If it fails: A traveler's laptop in one country egresses through another country's SBC.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Survivable Branch Appliance** A Direct Routing appliance that can keep local PSTN calling when the branch cannot reach Microsoft 365. Why it matters: It is not a full Teams cloud. Meetings and presence are not the survivable feature set.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Survivable Branch Appliance?** Deploy a supported appliance, point the local clients at it, and test a WAN cut. If it fails: The office loses the WAN and nobody can call emergency services.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Media bypass** Media can flow between the Teams client and the SBC, skipping Microsoft's media processors. Signaling still goes through Teams. Why it matters: People hear 'bypass' and think the SBC talks to Teams with no SIP proxy.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Media bypass?** Enable it on the gateway only when the client can reach the SBC and LBR does not forbid the path. If it fails: Bypass is on for a VPN user and audio is worse than the processor path.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Local media optimization** A Direct Routing pattern with internal and external SBC interfaces so a branch user stays on the local media path. Why it matters: It is more specific than a single bypass flag.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Local media optimization?** Use the current media optimization article and the SBC vendor's build. If it fails: Internal users hairpin out to the internet and back to the SBC on the same LAN.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **SIP Gateway** Microsoft's front end for certain compatible analog and SIP devices that are not Teams phones. Why it matters: It is not a substitute for a certified Direct Routing SBC.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach SIP Gateway?** Check the current supported device list before you buy handsets. If it fails: A generic analog adapter is plugged in and never registers.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Teams-certified phone** A handset in Microsoft's certified device program, signing in as a Teams user. Why it matters: An uncertified SIP phone will not behave like a Teams client.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Teams-certified phone?** Buy from the current certified list and assign Teams Phone plus a number. If it fails: A bargain SIP phone is forced through SIP

Gateway and the feature list is wrong.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **SRTP** The media encryption Direct Routing uses. Signaling is TLS. A successful INVITE with plaintext RTP is not the design. Why it matters: One-way audio is often a port problem, not a missing SRTP checkbox you invent.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach SRTP?** Allow the UDP media range. Do not strip SRTP on the SBC. If it fails: The SBC offers RTP/AVP only and the call fails or is unsupported.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **TLS 1.2** Direct Routing signaling expects modern TLS. TLS 1.0 is not a compatible offer. Why it matters: Old SBC firmware is a certificate problem and a protocol problem at once.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach TLS 1.2?** Upgrade firmware and offer TLS 1.2 or newer toward the proxies. If it fails: The handshake dies before OPTIONS.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Certificate SAN** The name on the SBC certificate must match the FQDN you paired. Wildcards are allowed when they follow RFC 2818. Why it matters: A certificate that is valid for the website and not for sbc1.contoso.com still fails.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Certificate SAN?** Issue the certificate for the paired name. Include the chain. If it fails: TLS fails with a name mismatch and someone restarts the SBC.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Microsoft trusted root** The SBC certificate must come from a CA in Microsoft's trusted root program. A private lab CA is not enough for production pairing. Why it matters: Lab trunks that use a private CA teach the wrong lesson.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Microsoft trusted root?** Use a public CA for the production FQDN. If it fails: The trunk works in the lab and fails the morning you point it at sip.pstnhub.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Server Authentication EKU** The certificate should include the server authentication extended key usage. Why it matters: A client-auth-only certificate is the wrong object.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Server Authentication EKU?** Request the certificate from the SBC's CSR so the name and the EKU are right. If it fails: The chain is trusted and the EKU is still wrong.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Call Analytics** The per-user, per-call quality view in the Teams admin center. Use it when one person had one bad call. Why it matters: It will not explain a building. That is CQD.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Call Analytics?** Open the user's call and read jitter, loss, and RTT on each stream. If it fails: A site problem is hunted one user at a time.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Call Quality Dashboard** The aggregate quality report. Use it for subnets, buildings, and trends. Why it matters: A single angry caller is the wrong entry point.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Call Quality Dashboard?** Confirm the subnet-to-building map before you trust a building chart. If it fails: HQ looks terrible because the VPN pool was labeled HQ.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Poor stream clues** Teach yourself to look at jitter, packet loss, and round-trip time separately. A mark of DSCP 0 plus high jitter is a different fault from 12% loss with EF still set. Why it matters: One 'poor' label hides the cause.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Poor stream clues?** Capture at the egress and compare with CQD. If it fails: The ticket says 'Teams is down' and loss is 0.2% with a 600 ms RTT.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **SIP ladder** A time-ordered picture of requests and responses between client, proxy, SBC, and carrier, joined by Call-ID. Why it matters: Without the Call-ID you are looking at two different calls.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach SIP ladder?** Capture on the SBC, filter the Call-ID, and read the first non-success code. If it fails: Two captures are compared and they are different calls.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **One hypothesis** Change one thing, then collect the same evidence again. A reboot plus a dial-plan edit plus a firewall change teaches nothing. Why it matters: Voice bridges punish bundled changes.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach One hypothesis?** Write the hypothesis, the change, and the capture you expect. If it fails: Three vendors change three boxes and the call starts working for an unknown reason.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Dynamics 365 Contact Center** Microsoft's contact-center product. It can stand alone or sit with Customer Service. Voice uses Azure Communication Services under the covers. Why it matters: It is not an auto attendant with extra steps.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Dynamics 365 Contact Center?** Deploy the environment, the channels, and unified routing before you demo Copilot. If it fails: A pilot turns on Copilot and never defines a queue.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Customer Service workspace** The representative experience in Dynamics. Contact Center can embed there or run as its own product surface. Why it matters: Buying Customer Service does not automatically give you the contact-center voice channel.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Customer Service workspace?** Confirm embedded versus standalone in the current implementation guide. If it fails: Agents look for the queue in the wrong app.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Workstream** The intake pipe in unified routing. It classifies work and sends it to a queue. Why it matters: A channel with no workstream is a number that rings nowhere useful.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Workstream?** Create the workstream, then the rules, then the queues. If it fails: Chat and voice land in the same queue with no skill rules.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Work classification** Rules that set skills, intent, or priority on a work item before assignment. Why it matters: Without classification, capacity and skills have nothing to

read.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Work classification?** Test with two items that should land in different queues. If it fails: French callers reach the English queue.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Capacity profile** How many items of each type a representative can hold. A voice call usually consumes more than a chat message. Why it matters: Agents look idle in one channel and overloaded in another.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Capacity profile?** Set capacity, then watch a test item get stuck when the number is zero. If it fails: The queue has agents and every item overflows.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Representative** The human on the contact-center side. AB-250 calls the console the representative experience. Why it matters: Do not confuse this person with a Teams resource account.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Representative?** Give them a security role, a capacity profile, and a queue membership. If it fails: The user can open the app and is not a member of any queue.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Copilot in the contact center** Assistive summaries, suggested replies, and knowledge inside the representative experience. It is not the PSTN route. Why it matters: A summary of the wrong case is worse than no summary.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Copilot in the contact center?** Connect knowledge sources and test on a known case. If it fails: Copilot answers from a stale article and the agent sends it.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **AB-250 channels weight** The published AB-250 study guide weights channel implementation at about 30–35 percent, the largest slice. Why it matters: People over-study Copilot and under-study voice, chat, and the other channels.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach AB-250 channels weight?** Spend the study time on channel setup and routing. If it fails: An exam candidate can describe Copilot and cannot trace a voice channel.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Connect model** A certified contact center attaches to Teams through certified SBCs and Direct Routing. Why it matters: Microsoft's note: the contact-center agent does not need a phone-system license for that solution; a Teams user who receives a transfer does.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Connect model?** Confirm the vendor's current certification, then design the SBC and the transfer target's license. If it fails: Transfers to experts fail because the expert has no Teams Phone number.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Extend model** The contact center uses the Teams client, Graph, and Cloud Communications APIs. Teams Phone is the calling system and the agent works in Teams. Why it matters: This is not 'we also installed their desktop.'

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Extend model?** Read the Extend section of the contact-center article before you license agents. If it fails: The design buys a Connect SBC for an Extend product.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Unify model** The model Microsoft Learn names, as of 14 October 2026, for a native experience. Partner material describes it as ACS-based applications on Teams calling infrastructure. Older decks say Power. Ask which current model a vendor holds. Why it matters: Licensing and media follow the model, not the sales adjective.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Unify model?** Get the vendor's certification letter and match it to Connect, Extend, or Unify. If it fails: A proposal says Power and nobody can find the media path.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Teams Phone extensibility** A way for a contact center, including Dynamics 365 Contact Center, to use a customer's existing Teams Phone for the agent's telephony. Why it matters: It is not a second carrier hidden in the app.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Teams Phone extensibility?** Use a solution that has finished the certification if you want the supported experience. The API existing is not the same as a finished certification. If it fails: Two phone systems ring the same person.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **CUBE as a bridge** Cisco Unified Border Element can be the certified SBC between Teams and CUCM or a carrier. The IOS-XE release you run has its own guide. Why it matters: This campus does not paste a production dial-peer.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach CUBE as a bridge?** TLS to the three proxies, a certificate whose name matches the paired FQDN, and dial-peers toward CUCM. If it fails: Early offer and codec preferences are left at a lab default and calls 488.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **One normalization owner** During coexistence, either Teams or CUCM should transform numbers, not both. Why it matters: Double +44 is a classic dual-running fault.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach One normalization owner?** Write the owner on the design and test a call in each direction. If it fails: CUCM adds a prefix and the Teams dial plan adds it again.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Tromboning** A call from a user who stayed on CUCM to a user who moved to Teams hairpins through the SBC. It is normal during dual-running and expensive as a steady state. Why it matters: Media and licenses both feel it.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Tromboning?** Move groups that call each other in the same wave. If it fails: The carrier bill rises and nobody left the building.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Webex calling bridge** A SIP trunk through a local gateway or CUBE can carry calls between Webex Calling users and Teams users during a split estate. Why it matters: Chat interoperability is a different project from voice.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Webex calling bridge?** Treat it as coexistence with one numbering plan, not as a merger. If it fails: Two dial plans both own the same range.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **UCCE coexistence** Contact-center agents can stay on CVP and Finesse while knowledge workers move to Teams. The SBC sends contact-center numbers one way and user

numbers another. Why it matters: Putting an agent on a Teams client does not keep the CVP script in control.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach UCCE coexistence?** Split the dial plan by number range and test a transfer to an expert on Teams. If it fails: Agents move first and the IVR script can no longer see them.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Genesys and Teams** Genesys sells contact-center integrations with Teams. The certification model, Connect, Extend, or Unify, decides the media path and the licenses. Why it matters: Do not assume last year's diagram.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Genesys and Teams?** Ask for the current Microsoft certification and design to that model. If it fails: The statement of work says certified and does not name the model.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Amazon Connect and Teams** A customer pattern uses an SBC between Teams Direct Routing and Amazon Connect or a SIP voice connector. It is a bridge you design, not a Microsoft Calling Plan feature. Why it matters: Confirm the current vendor docs before you promise agent whisper or recording.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Amazon Connect and Teams?** Draw the SIP path and the identifier you will store. If it fails: Both platforms record and neither capture has the Call-ID.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Call Automation** The ACS server-side calling API. Your app answers, plays, recognizes DTMF or speech, and transfers. You receive events. You do not drive a desktop click. Why it matters: It is the IVR runtime, not the Teams client.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Call Automation?** Subscribe to the events and time out the recognize step. If it fails: The app never answers, so the caller hears ringing until the platform gives up.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Calling SDK** The ACS client SDK for a human in a browser or a mobile app. Different from Call Automation, which is the server. Why it matters: Teams interop has its own requirements on top of either one.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Calling SDK?** Pick the SDK if a person is on the page. Pick automation if a bot answers. If it fails: A web page uses the calling SDK and nobody handles the server events.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Recognize step** The Call Automation action that collects DTMF or speech. It needs a timeout and a path for 'none of the above.' Why it matters: A recognize step without an escape traps the caller.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Recognize step?** Map 0 to a human queue and test it. If it fails: The bot repeats the prompt until the caller hangs up.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Azure AI Speech** Microsoft's speech-to-text and text-to-speech service. Copilot Studio and custom IVRs can use it. It is not emergency calling. Why it matters: A custom neural voice has its own approval rules. Do not assume you can clone a person.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Azure AI Speech?** Choose a voice you are allowed to use and log the recognition result. If it fails: The prompt language does not match the caller and every intent is unknown.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Copilot Studio voice agent** A bot built in Copilot Studio that can front a voice channel, including Dynamics contact-center voice, using topics or generative orchestration. Why it matters: Generative answers still need an escape to a human and a knowledge source you trust.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Copilot Studio voice agent?** Publish the agent, attach it to the channel, and test the escape digit. If it fails: The agent is the only target of the public number, including emergencies.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Azure AI Foundry** The Azure portal family for models, agents, and evaluations. The earlier name was Azure AI Studio. It does not route PSTN. Why it matters: A model demo is not a contact-center design.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Azure AI Foundry?** Evaluate a prompt against a test set before you put it on a phone number. If it fails: A model change ships to the IVR with no eval.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Teams interop with ACS** ACS can be set up to call Teams users and to join Teams meetings when the interop prerequisites are met. Why it matters: A raw ACS number does not automatically become a Teams user.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Teams interop with ACS?** Follow the current interop article for the resource you created. If it fails: The bot can call the PSTN and cannot transfer to a Teams expert.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **MS-700** MS-700 is still live, with a skills update on Oct 27 2026; it is NOT retired and has no replacement. It is the exam for Microsoft 365 Certified: Teams Administrator Associate. Why it matters: Rumors that it was replaced by an MS-220 collaboration exam are not what Learn says.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach MS-700?** Study the current guide, including network and call-quality objectives. There is no replacement exam. If it fails: A candidate skips networking because they think the exam is only meetings.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **MB-280 retired** MB-280 retired Jul 31 2026, with AB-210 as its successor; AB-210 is in beta. It covered Sales and Customer Insights, not the contact-center product. Why it matters: People still put it on a contact-center study plan.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach MB-280 retired?** Do not book MB-280. AB-210 is its successor and is in beta. AB-250 is the contact-center exam. If it fails: A job post requires MB-280 after the retirement date.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **AB-210** Dynamics 365 Sales AI Consultant Associate. AB-210 is the successor to MB-280 and is in beta. It is not a replacement for MS-700. Why it matters: It is the wrong exam for a contact-center engineer.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach AB-210?** Use AB-250 when the job is Dynamics 365 Contact Center. Use AB-210 only for a sales role, and remember it is in beta. If it fails: Study time goes to sales Copilot for a queue-routing role.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **AB-250** Transforming Contact Center Experiences with AI in Dynamics 365. It earns Dynamics 365 Contact Center AI Engineer Associate. Pass mark is 700. The public page allows 120 minutes. Why it matters: The beta discount ran through 18 June 2026. Confirm the seat you can book now.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach AB-250?** Study deploy, channels, agents, work distribution, the representative experience, and analytics. If it fails: A candidate revises MB-280 practice tests for this exam.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **AZ-900** Azure Fundamentals. It was not on the retirement list reviewed on 14 October 2026. Why it matters: Useful context for ACS and Speech. It will not teach you a dial plan.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach AZ-900?** Take it if you need Azure vocabulary, not instead of MS-700. If it fails: A voice design is approved because someone passed AZ-900.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **SC-900** Security, Compliance, and Identity Fundamentals. The English certification is scheduled to update on 21 October 2026. Why it matters: It frames Entra ID and compliance. It does not configure an SBC.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach SC-900?** Read the current study guide after the 21 October update if you sit it later. If it fails: Conditional Access is treated as out of scope for a voice project.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **MS-900 retired** Microsoft 365 Fundamentals retired on 31 March 2026. Why it matters: Do not recommend it as the starting exam.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach MS-900 retired?** Use role exams and the product docs. If it fails: A learning path still tells a new hire to book MS-900.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **AI-900 retired** Azure AI Fundamentals retired on 30 June 2026. Why it matters: Speech and Copilot Studio are learned from their own docs now.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach AI-900 retired?** Do not use a retired fundamentals exam as the AI plan. If it fails: The study plan lists AI-900 beside AB-250.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Passing score 700** Microsoft role-based exams, including MS-700 and AB-250, require 700 out of 1000. Why it matters: A practice percentage is not the same scale unless the practice says so.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Passing score 700?** Use the official practice assessment when one exists. If it fails: Someone stops studying at a 70 percent practice score on a different scale.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Convenience recording** A user starts a recording of a call, meeting, or event. Policy can allow it. The user can stop it. Storage follows meeting rules. Why it matters: It is not a compliance program. Guests cannot start it.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Convenience recording?** Set the meeting, calling, and events policies on purpose. If it fails: A regulated desk is told to 'just hit record.'

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Compliance recording** A third-party recorder is invited by policy into new calls, meetings, and events. The user does not start it and participant consent is not the control. Notification is enforced. Why it matters: The comparison table says audio-only is not the compliance mode. Media listed is voice, video, and screen share.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Compliance recording?** Create the application instance, enable the policy, grant it, and test a new call. If it fails: The policy is granted and nothing records because the bot instance was never created.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Compliance recording application** The bot instance of a certified recorder. The policy references it. Without it, granting the policy does not record. Why it matters: Work with the recorder vendor for the application ID. Do not invent one.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Compliance recording application?** New-CsTeamsComplianceRecordingApplication attaches it to the policy. If it fails: Recording works in the vendor's cloud and never joins the Teams call.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Existing calls are unaffected** When you grant a compliance recording policy, calls and meetings already up are not swept in. Test with a new call. Why it matters: A pilot that reuses an open meeting proves nothing.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Existing calls are unaffected?** Place a fresh call after the grant and confirm the bot joined. If it fails: The pilot says recording failed because they watched an old meeting.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Quality management** Listening to and scoring recorded interactions. Often the same vendor as compliance recording, sometimes a separate one. Why it matters: QM needs the recording first. A score without audio is a rumor.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Quality management?** Define the form, the sample, and who may listen. If it fails: Supervisors export recordings to a laptop share.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Workforce management** Scheduling and adherence for a queue. It eats interval stats, handle time, and shrinkage. It is not a feature of a Teams user policy. Why it matters: Teams Call Analytics will not staff next Tuesday.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Workforce management?** Feed offered, answered, abandoned, and handle time from the queue or the CCaaS. If it fails: WFM says you were overstaffed while the queue overflowed, because overflow removed the calls from the count.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Shrinkage** The fraction of paid time that is not available for contacts: leave, training, meetings, breaks. Why it matters: Erlang C tells you how many people must be on the phone. Shrinkage tells you how many to roster.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Shrinkage?** Publish the assumption. A 30 percent guess should be labeled as a guess. If it fails: The schedule staffs the Erlang number and half the team is in training.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Occupancy** Handle time divided by handle time plus available time. High occupancy feels efficient and burns people out. Why it matters: WFM and quality fight here.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Occupancy?** Watch it beside service level, not instead of service level. If it fails: A site celebrates 95 percent occupancy and abandonment climbs.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Service level** The fraction of contacts answered inside a target, for example 80 percent in 20 seconds. Erlang C is one teaching model of it. Why it matters: Averages hide the tail.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Service level?** Write the target, the interval, and the abandonment rule. If it fails: Two vendors compute abandoned calls differently and both claim the target.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Power BI and CQD** Power BI can sit on top of Call Quality Dashboard data. It does not replace Call Analytics for one call, and it inherits a bad subnet map. Why it matters: A pretty report of the wrong building is still wrong.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Power BI and CQD?** Fix the building and subnet dimensions before you publish a dashboard. If it fails: Leadership sees a red HQ that is actually the VPN pool.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Screen pop** The CRM opens the contact that matches the caller. Teams does not do this by itself for an ordinary PSTN call. Why it matters: The contact center or a middleware has to pass an E.164 number or a case id.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Screen pop?** Normalize before the lookup. Store the Call-ID on the timeline. If it fails: The pop shows the wrong person because the trunk prefix was still on the number.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **E.164** The international form of a number, starting with + and a country code. Routes and CRM lookups should use it after normalization. Why it matters: Raw digits mean different things in different countries.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach E.164?** Normalize first, then route, then look up. If it fails: The CRM stores 0207... and the SBC stores +44207... and they never join.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Call-ID** The SIP header that identifies one dialog. It is the join key between an SBC capture, a carrier ticket, and a CRM note. Why it matters: A timestamp is not an identifier. Two calls start in the same second.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Call-ID?** Write the Call-ID into the system you will have open during an incident. If it fails: Support has a CRM case and an SBC log and cannot prove they are the same call.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Integration seam** A named place where another system is allowed to attach: a policy, a queue overflow, a subnet list, an event, an identifier. Why it matters: A seam you do not name becomes a rewrite.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Integration seam?** Document the seam in the same change as the feature. If it fails: Recording is added a year later and the number plan has to change.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Human escape** A digit or intent that always reaches a person. Voice agents need one. Emergency numbers need a real route, not a bot. Why it matters: A bot that cannot fail open will trap callers.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Human escape?** Test the escape on every prompt change. If it fails: The prompt says 'say agent' and the recognize step has no such intent.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Certificate expiry seam** The date the SBC certificate stops being valid. It is an integration hook because every carrier and every proxy will notice it on the same morning. Why it matters: Calendar it like a license, not like a surprise.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Certificate expiry seam?** Monitor the date and renew before the TLS handshake fails. If it fails: OPTIONS fail on a Saturday and the dial plan is blamed.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Subnet as a shared list** The same subnet definitions should feed emergency location, location-based routing, and the CQD building report. Why it matters: Three spreadsheets drift.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Subnet as a shared list?** Give one team the edit right and publish the list. If it fails: E911 says London, CQD says VPN, LBR says Manchester.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Queue interval** A 15-minute or 30-minute bucket of offered, answered, and abandoned contacts. WFM and Erlang C both assume you know the bucket. Why it matters: Mixing daily totals into a 30-minute formula is a unit error.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Queue interval?** Export the same interval the schedule uses. If it fails: The forecast is ten times too high because the interval was a day.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Abandon** A caller who hangs up before an agent answers. Whether short abandons count is a business rule. Why it matters: Two reports with different abandon rules cannot be compared.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Abandon?** Write the rule down and use it in WFM and in the service-level report. If it fails: Service level is met only because abandons under five seconds were deleted.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Average handle time** Talk time plus after-call work, unless your definition says otherwise. Erlang traffic is calls times handle time divided by the interval. Why it matters: A handle time that forgets after-call work understaffs the queue.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Average handle time?** Measure it from the contact center, not from a stopwatch on one call. If it fails: The Erlang sheet uses talk time only and the agents never finish wrap-up.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **PIDF-LO** A location object that can be carried in a SIP INVITE for an emergency call so the far end sees where the caller is. Why it matters: It does not replace a carrier who knows how to route emergency calls in that country.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach PIDF-LO?** Confirm the SBC passes it and the carrier reads it. If it fails: The location is stripped at the SBC and the PSAP gets the trunk's address only.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **On-site notification** An emergency calling policy can notify people on site when an emergency call is placed. Why it matters: Security who are not notified will meet the responders in the wrong lobby.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach On-site notification?** Test the notification with the carrier's test process, not with a real emergency call. If it fails: The test notifies nobody because the policy was never assigned.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **GCC High SIP** Office 365 GCC High uses sip.pstnhub.gov.teams.microsoft.us. Do not copy the commercial three-proxy list into a government tenant. Why it matters: The

commercial names will not be the signaling peers.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach GCC High SIP?** Read the plan page for the cloud you are actually in. If it fails: A commercial runbook is pasted into GCC High.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **DoD SIP** Office 365 DoD uses sip.pstnhub.dod.teams.microsoft.us. Why it matters: Same failure as using commercial names in the wrong cloud.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach DoD SIP?** Use the DoD name from the current plan page. If it fails: The SBC peers with sip.pstnhub.microsoft.com from a DoD tenant.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **IPv6 SIP proxies** The plan page also lists sip.ipv6.pstnhub.microsoft.com and the sip2 and sip3 IPv6 names, resolving into 2603:1063:400::/40. Why it matters: An IPv6-only

SBC that was given the IPv4 names never peers.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach IPv6 SIP proxies?** Match the address family you actually route. If it fails: Firewall objects exist only for IPv4.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Early offer** Teams Direct Routing presents media in the INVITE. An SBC or CUBE that waits for a delayed offer will negotiate badly. Why it matters: 488 and one-way audio show up when the offer model is wrong.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Early offer?** Set the vendor profile for early offer toward Teams. If it fails: CUCM sends delayed offer all the way to Teams.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **AudioCodes** A certified SBC family. Mediant devices and their management tools are common in Direct Routing designs. The Microsoft certified list is the support boundary, the vendor guide is the config. Why it matters: Naming the brand is not a design.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach AudioCodes?** Follow AudioCodes' current Teams document for the firmware you run. If it fails: A forum config from 2019 is pasted onto new firmware.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Ribbon SBC** Ribbon's certified session border controllers are a Direct Routing option. Core and software editions differ. Why it matters: The support path is Ribbon first, then Microsoft if the vendor escalates.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Ribbon SBC?** Use Ribbon's current Teams guide and a public certificate. If it fails: OPTIONS are answered on the wrong interface.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Oracle SBC** Oracle Communications Session Border Controller can be certified for Direct Routing on specific releases. Check the Microsoft list for the release, not the logo. Why it matters: An unlisted release is an unsupported trunk.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Oracle SBC?** Match the certified software version and the certificate name. If it fails: The beautiful config is one release below the certified list.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Cisco CUBE** Cisco Unified Border Element on IOS-XE, when the release is certified, is a normal Direct Routing SBC and the usual bridge to CUCM. Why it matters: CUBE is still an SBC. It does not make Teams 'speak SCCP.'

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Cisco CUBE?** Use Cisco's current CUBE for Teams guide. Trust the signaling ranges. Present the paired name. If it fails: A voice engineer applies a SIP trunk to CUCM and never peers with the pstnhub names.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Vendor-first support** Microsoft's Direct Routing support boundary: you call the SBC vendor, they escalate to Microsoft if they must. Non-certified SBCs can be refused. Why it matters: Opening a Microsoft case with a homemade SBC wastes the outage.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Vendor-first support?** Keep the certified-list screenshot with the firmware version. If it fails: A ticket is opened with no SBC logs and no firmware.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Analog via Direct Routing** Fax, door phones, and elevators usually stay on an SBC or SIP Gateway, not on a Teams client. Why it matters: A Calling Plan user license does not give you an elevator phone.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Analog via Direct Routing?** Put analog on the SBC design and test the emergency path from that device. If it fails: The elevator is moved to Teams as a user and cannot dial during a WAN cut.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Presence-based routing** A queue can skip agents whose Teams presence says they are busy or in a meeting. Why it matters: An agent who never sets presence will take every serial call or none, depending on the rest of the design.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Presence-based routing?** Decide the presence rule and test with one agent in a meeting. If it fails: Agents set themselves to Do Not Disturb to leave the queue, and nobody notices for a week.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Opt out of a queue** Agents can be allowed to leave a queue. If you forbid it, staffing math must include breaks or they will dodge in other ways. Why it matters: WFM adherence and the queue opt-out flag are the same argument.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Opt out of a queue?** Pick one policy and tell the supervisors. If it fails: The schedule says five agents and three have opted out.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Callback** A queue feature that calls the customer back. The prerequisite article treats callback as a case that needs funding on the resource account. Why it matters: Callback is an outbound PSTN call, not a setting with no carrier.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Callback?** Fund pay-as-you-go or credits, then test one callback. If it fails: The option is on and every callback fails.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Graph communications** Microsoft Graph APIs used by Extend and by recording and presence integrations. They are not a SIP trunk. Why it matters: A design that says 'we will use Graph instead of an SBC' still needs a PSTN path.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Graph communications?** Use Graph for the app, and Calling Plans, Operator Connect, or Direct Routing for the telephone network. If it fails: Presence is synced and audio is not connected.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Policy recording bot join** The recorder joins as an application because the user's policy names it. If the bot fails to join, you have a policy, an ID, or a media problem, in that order. Why it matters: Do not start with the carrier.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Policy recording bot join?** Check Enabled, the application instance, and the grant, then the vendor's join log. If it fails: The carrier is asked for a recording they never made.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Retention of recordings** Compliance recordings are retained by the partner's system, not by Teams meeting storage. Convenience recordings follow meeting storage. Why it matters: Legal hold on a mailbox does not automatically hold the partner's audio.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Retention of recordings?** Write the retention in the partner contract and test a restore. If it fails: A regulator asks for a call and the partner's bucket expired.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Evaluation form** The QM scorecard. It should cite behaviors you can hear, not vibes. Why it matters: A form that scores 'professionalism' without a definition will not survive an argument.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Evaluation form?** Publish the form before you score people. If it fails: Agents are coached on a form they have never seen.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Screen recording** Often a QM vendor feature on the agent desktop. Teams compliance recording's documented media list is voice, video, and screen share inside the Teams session, which is not the same as a silent desktop recorder. Why it matters: Do not claim Teams records the CRM screen unless the product you bought does.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Screen recording?** If you need the desktop, buy and disclose that recorder. If it fails: A privacy review finds a desktop recorder nobody mentioned.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Building map** The table that says which subnet is which building in CQD. It is only as good as the subnets you typed. Why it matters: A wrong building makes a dashboard accuse the wrong LAN.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Building map?** Reconcile it with the emergency subnet list. If it fails: Facilities rebuilds a floor and both maps stay old.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Admin roles for CQD** CQD is an admin report, not a personal call history. The people who can open it are the roles you grant, not every user. Why it matters: A manager with no role will ask for a screenshot instead of access.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Admin roles for CQD?** Grant the smallest role that can see the report. If it fails: CQD credentials are shared.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **After-call work** Time the agent spends in the CRM after the caller hangs up. Include it in handle time if your WFM definition says so. Why it matters: Leaving it out makes Erlang C look generous.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach After-call work?** Define it and measure it from the contact-center state, not from memory. If it fails: Agents are 'available' in Teams while still writing the case.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Skill-based routing** Assignment that prefers a representative who has the skill the classification step wrote on the work item. Why it matters: Skills that exist on a slide and

not on the user do nothing.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Skill-based routing?** Attach skills to people and to the classification rules, then test a miss. If it fails: Every item requires a skill nobody has, so the queue never assigns.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Intent-based routing** Classification that uses an intent, often from a bot or a model, to pick a queue. Why it matters: An intent of 'unknown' needs a default queue.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Intent-based routing?** Map unknown to a human, not to a retry loop. If it fails: The model returns unknown and the caller is played the same prompt.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Proactive outbound** Contact-center campaigns that place calls outward. They need a number, a consent story, and a capacity plan. Why it matters: They are not a Teams user's personal redial.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Proactive outbound?** Follow the current channel article for outbound, and fund the numbers. If it fails: A campaign uses a user's caller ID and the CRM trust collapses.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Real-time translation** A channel feature that can translate a conversation. It is not a substitute for a language queue when the policy says a human must speak the language. Why it matters: Translation errors in a regulated script are your errors.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Real-time translation?** Decide where translation is allowed and where a skilled human is required. If it fails: A billing dispute is translated badly and the case notes disagree.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Knowledge source** The documents a Copilot or a generative agent is allowed to quote. If the source is wrong, the answer is wrong with confidence. Why it matters: Ground the agent or do not put it on the phone.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Knowledge source?** Limit the sources and test questions whose answers you already know. If it fails: The agent quotes a retired price list.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Generative orchestration** The Copilot Studio mode that chooses topics and tools from the conversation, as opposed to a rigid topic tree. Why it matters: It needs tighter safety because the path is not a single menu.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Generative orchestration?** Keep the human escape outside the model's mood. If it fails: The agent talks a caller out of the escape phrase.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Classic topics** The menu-like Copilot Studio design. Predictable and easier to test. Weaker on paraphrase. Why it matters: Use it when the call must follow a script.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Classic topics?** Write the topics, the entities, and the fallback. If it fails: Fallback is empty and the caller hears silence.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Event Grid** One way ACS delivers call events to your app. If the subscription is wrong, your IVR never sees RecognizeCompleted. Why it matters: The call can be up and your code asleep.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Event Grid?** Log the event type and the call id. If it fails: The app polls a database and the events expired.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **DTMF relay** Digits in the audio path or as telephone-events. IVRs fail when the SBC strips them. Why it matters: A human can talk and the bot never hears 1.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach DTMF relay?** Test digits through every SBC, not only Teams-to-Teams. If it fails: The queue escape works in the lab and fails through the carrier.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Comfort noise and SID** Silence suppression changes the average bitrate. Do not size a link only from a G.711 average that assumed comfort noise you did not enable. Why it matters: The peak is still the number that fills the queue.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Comfort noise and SID?** Size for the codec you offer, per direction, at the packetization you set. If it fails: The link was sized for silence and the all-hands call filled it.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Packetization 20 ms** The usual voice packet interval in these bandwidth figures. A 10 ms interval doubles the header tax. Why it matters: Changing ptime on the SBC changes the bandwidth you planned.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Packetization 20 ms?** Lock ptime in the design. If it fails: One SBC uses 10 ms and the policer drops packets.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Jitter buffer** The client waits a little so late packets can still be played. Too small and you hear gaps. Too large and you talk over each other. Why it matters: CQD jitter and the buffer are related and not the same number.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Jitter buffer?** Fix the network before you hunt a hidden buffer setting. If it fails: A WAN with 40 ms jitter is 'fixed' by a slide that says buffer.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Round-trip time** How long a packet takes to go and come back. Long RTT with low loss means distance or hairpin, not a dirty cable. Why it matters: People add bandwidth and the delay stays.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Round-trip time?** Look at the path. Bypass or local egress may beat a fatter pipe. If it fails: A branch backhauls media across a continent.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **DSCP rewrite** A router or VPN that sets the mark back to 0. The client did its job and the path undid it. Why it matters: Verify at the egress, not only on the PC.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach DSCP rewrite?** Capture outside the VPN. If it fails: The laptop shows EF and the WAN sees 0.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Browser join ports** People who join meetings in a browser do not use the fixed 50000-range client ports. An ACL that only matches those ports misses them. Why it matters: QoS designs that ignore browsers miss a real population.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Browser join ports?** Say so in the design if many people join from browsers. If it fails: Guests sound worse and the ACL is declared complete.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Mac and mobile DSCP** Mac, iOS, and Android use hard-coded audio EF and a hard-coded video and sharing mark. They are not the Windows policy object. Why it matters: A Windows-only QoS rollout looks done and is not.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Mac and mobile DSCP?** Still enable QoS in the admin center, and mark at the network for devices that will not cooperate. If it fails: Mobile executives are the poor-quality population.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **ms-teams.exe** The current Teams client process name used when you bind a Windows QoS policy. An old policy aimed at the classic client marks nothing. Why it matters: Policy that matches the wrong executable is a silent miss.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach ms-teams.exe?** Update the policy object and verify with a capture. If it fails: QoS policy still names the previous client.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Busy hour** The hour you actually size. Average day divided by eight is not a busy hour. Why it matters: Erlang inputs are busy-interval numbers.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Busy hour?** Take the busy interval from the contact center, not from a yearly average. If it fails: The link is fine at 11:00 and dead at 09:15.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Dual running** Both PBX and Teams carry live numbers during a move. Rollback needs the old route left intact. Why it matters: A cut with no rollback is a career event.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Dual running?** Move a range, keep the old path, and write the backout. If it fails: The old trunk is deleted on Friday.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Number porting** Moving a public number from one carrier to another. It has a date and a letter of authority. It is not a PowerShell metaphor. Why it matters: Direct Routing can use numbers the carrier already holds, so a port might be unnecessary.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Number porting?** Confirm who owns the number before you promise a weekend cut. If it fails: Two carriers route the same number on Monday.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Caller ID policy** What outbound calls present. Resource-account outbound and user outbound are different policies. Why it matters: A queue that presents a user's mobile number breaks trust.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Caller ID policy?** Set the calling identity on the voice app on purpose. If it fails: Customers return a call and reach an employee's personal desk.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Music on hold** The audio a queue plays while a caller waits. Licensing and the file both matter, and silence is a choice you should make on purpose. Why it matters: Callers who hear nothing hang up, and abandon looks like a staffing crisis.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Music on hold?** Upload a file you have rights to, and test the timeout. If it fails: A licensed song is uploaded.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Voicemail overflow** A respectable overflow target when nobody is left to answer. It depends on Cloud Voicemail and a mailbox for the account that owns it. Why it matters: Overflow to voicemail without a mailbox is a dead end.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Voicemail overflow?** Test the overflow, then check that the message arrived. If it fails: Callers are offered voicemail and the message is never deposited.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Pilot number** The public number on the first voice app. Everything else can be an internal target. Why it matters: People buy a number per menu option and then cannot afford to change the menu.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Pilot number?** One number, many targets, overflow included. If it fails: Each menu option is a ported number and the carrier lead time runs the project.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Security group policy assign** Compliance recording and many Teams policies can be assigned to a group. A user in the wrong group is recorded, or not, as a consequence. Why it matters: Group sprawl is a voice defect.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Security group policy assign?** Use a group you can explain, and read the effective policy. If it fails: A contractor group inherits recording and a privacy review fails.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Effective policy** The policy the user actually has after direct assignment and group assignment are resolved. The one you edited may not be it. Why it matters: Get-CsOnlineUser beats the portal memory.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Effective policy?** Read the effective value before and after the change. If it fails: You update a policy that is not assigned.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Lab tenant** A tenant that is not production. Pair a lab SBC there. Do not discover certificate behavior on the company trunk. Why it matters: Production is where rollback costs money.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Lab tenant?** Keep lab domains and lab certificates obvious. If it fails: A lab FQDN is the production FQDN.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Get-Help before Set** Cmdlet parameters move between MicrosoftTeams module versions. Read help in the version you are about to run. Why it matters: A blog's parameter list is not a contract.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Get-Help before Set?** Get-Help cmdlet -Parameter * in the lab. If it fails: A script from last year removes a number.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Least privilege** Use the telephony or communications role that can do the task. Global Administrator is not a voice habit. Why it matters: A shared global account makes every later audit useless.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Least privilege?** Named admin accounts, voice roles, and Conditional Access for admins. If it fails: The SBC password and the global admin password are the same sticky note.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Service number** A number assigned to a resource account or conferencing, as opposed to a user's personal number. The inventory and the license follow the connectivity option. Why it matters: A user number on a queue is how you lose the queue when the human leaves.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Service number?** Take service numbers from the carrier or Calling Plan inventory you actually have. If it fails: The receptionist leaves and the main number leaves with them.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Unassigned number treatment** What Teams does with a number you own that is not assigned. Routing it to an attendant is a product choice you should make. Why it matters: Silence on a published-but-unassigned number looks like an outage.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Unassigned number treatment?** Point unknown numbers at an attendant or a message. If it fails: A ported block has fifty silent numbers.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **SIP options timer teaching model** This campus treats repeated missed OPTIONS as a reason to pull a trunk. It does not publish Microsoft's internal counter as if it were a

documented integer. Why it matters: A lab timer is not a contractual timer.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach SIP options timer teaching model?** Watch the admin-center SBC status and the SBC's own OPTIONS log together. If it fails: Someone sets a script to fail over after one missed packet and flaps the trunk.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Failover rehearsal** Pull the primary proxy or the primary SBC in a window and prove the next one takes calls. Why it matters: A second gateway that has never received a call is a drawing.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Failover rehearsal?** Rehearse, then put the result in the runbook. If it fails: The outage is the first test.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Codec intersection empty** If the SBC and Teams offer no codec in common, the call fails, often with 488. Why it matters: Adding AMR-WB on a bypass trunk does not fix a G.711 refusal.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Codec intersection empty?** Offer G.711 at minimum unless you have a measured reason not to. If it fails: The SBC allows only G.729 and the far end does not.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **G.711 law** A-law and μ -law are both G.711. A trunk that offers the wrong one still often interoperates, and sometimes does not. Offer both if the carrier is vague. Why it matters: This is a one-line SBC change, after you have a capture.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach G.711 law?** Capture SDP and compare. If it fails: A new country is added and audio sounds like noise.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Comfort message** The words the queue plays about position or wait. A lie ('your call is important') is still a design choice you can decline. Why it matters: Bad messages increase abandon.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Comfort message?** Say something true: whether you record, and whether you call back. If it fails: The message promises a callback the queue cannot place.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Recording disclosure** Both convenience and compliance recording require participant notification. Compliance does not ask the participant for consent in the comparison Microsoft publishes. Why it matters: A silent compliance recorder is a legal problem, not a clever config.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Recording disclosure?** Confirm the partner's announcement and test it. If it fails: Notification is off because it 'hurt the experience.'

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Do not record emergency** Know whether your recorder and your policy include emergency calls, and follow the rule you were given. Do not route emergency calls into a bot so they can be 'handled.' Why it matters: Emergency is a route, a location, and a carrier.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Do not record emergency?** Keep the emergency voice route boring and local. If it fails: 999 matches the IVR workstream.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **CRM timeline** The case note should carry the Call-ID, the number in E.164, the queue, and the agent. Then a later complaint can be found. Why it matters: A note that says 'called customer' cannot be audited.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach CRM timeline?** Make the screen pop write those fields. If it fails: The case exists and the recording cannot be found.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Future hook** A seam left on purpose for a system you might add later, using a product that already exists. It is not a promise that Microsoft will ship a feature. Why it matters: Invented roadmap items fail audits.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Future hook?** Name the hook, the identifier, and the failure if you skip it. If it fails: A design depends on an unannounced SBC feature.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Power model wording** Older conversation says Power for the third contact-center model. The Learn article maintained on 14 October 2026 says Unify, Extend, and Connect. Why it matters: Using the old word without a mapping hides the media path.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Power model wording?** Ask the vendor which of the three current models they hold. If it fails: The contract says Power and the network team opens no ports.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Certified list changes** The list of SBCs and contact-center solutions changes. A campus page is not the list. Why it matters: Quote the list the week you buy.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Certified list changes?** Link the design to the current Microsoft page and the firmware. If it fails: A purchase order cites a 2022 PDF.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **User transfer license** In the Connect model, Microsoft's documentation says the contact-center side does not need a phone-system license, and the Teams user who receives a transferred call does need Teams Phone and a number. Why it matters: Experts who 'just answer in Teams' still need a telephone.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach User transfer license?** License the humans who receive transfers. If it fails: The agent transfers and the expert's client will not take the PSTN call.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Trial is not a design** A Dynamics or Teams trial proves a click path. It does not prove emergency calling, recording retention, or a busy hour. Why it matters: Pilots skip the boring gates.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Trial is not a design?** Write the gates: 911, recording, overflow, certificate, rollback. If it fails: The pilot is declared production on Friday.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Rollback** The numbers go back to the old route if the new path fails. If you deleted the old route, you do not have a rollback. Why it matters: Dual-running exists so rollback is a script, not a rebuild.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Rollback?** Keep the old trunk until the new path has a quiet week. If it fails: The maintenance window ends with no public numbers.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Evidence pack** Call-ID, the policy you read, the ladder, and the CQD or Call Analytics row. One pack per hypothesis. Why it matters: Verbal 'it failed' is not a pack.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Evidence pack?** Store the pack with the change ticket. If it fails: The same outage is debugged from scratch next month.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Contoso sample** A fictional tenant name used in Microsoft samples and in this campus. It is not a customer. Why it matters: Examples use 555 numbers and example domains so nothing here is someone's directory.

Sources and go deeper

-  **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Contoso sample?** Keep lab names obviously fake. If it fails: A lab script is aimed at a real tenant by find-and-replace.

Sources and go deeper

-  **No checked URL for this page** — confirm — last checked 2026-10.

- **Exam sandbox** Microsoft's practice UI for what an exam looks like. It is not the product lab. Why it matters: Use it so the tool is not a surprise. Still study the skills.

Sources and go deeper

-  **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Exam sandbox?** Open the sandbox once before the appointment. If it fails: The first time someone sees a lab item is during the exam.

Sources and go deeper

-  **No checked URL for this page** — confirm — last checked 2026-10.

- **Renewal assessment** Role-based certifications expire unless you pass the free renewal on Learn. Retirement is a different event from expiry. Why it matters: A certification you earned and did not renew is not a retirement of the exam.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Renewal assessment?** Calendar the renewal. Re-read what changed. If it fails: MS-700 lapses and the holder thinks the exam was retired.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Study guide wins** When this campus and a study guide disagree, the study guide accessed the week you sit the exam wins. Why it matters: Skills move. The 27 October 2026 MS-700 update is an example.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Study guide wins?** Re-open the guide before you book. If it fails: A candidate memorizes a third-party brain dump.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Session border controller** The device that speaks SIP to Teams and SIP or another protocol to the carrier or PBX, and enforces the edge. Why it matters: Without a certified one, Direct Routing is unsupported.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Session border controller?** Pair the FQDN, not a nickname. If it fails: A router with SIP ALG is described as the SBC.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **SIP ALG** A firewall feature that rewrites SIP. It breaks Direct Routing more often than it helps. Why it matters: Microsoft's network guidance does not want helpers in the media path.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach SIP ALG?** Turn SIP ALG off on the path to the proxies. If it fails: INVITEs are rewritten and the contact header points at a private address.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Public IP on the SBC** Teams must be able to reach the SBC. A purely private address with no public path will not pair. Why it matters: NAT without a stable signaling address is a classic failure.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Public IP on the SBC?** Publish the signaling address you documented. If it fails: The SBC is only reachable on a VPN Microsoft is not on.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **DNS TTL and proxies** Proxy addresses change inside the published ranges. A firewall object built from one lookup goes stale. Why it matters: Allow the range, not the A record you saw today.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach DNS TTL and proxies?** Re-read the plan page when you edit the firewall. If it fails: The trunk fails after a resolver change and the certificate is blamed.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Mutual TLS option** The plan page says that if you enable mutual TLS, install the Microsoft trusted roots on the SBC. Why it matters: MTLS is optional in many designs and mandatory in the way you configured.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Mutual TLS option?** Match the SBC setting to what you intended. If it fails: The SBC demands a client certificate Teams is not presenting in the mode you chose.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Media bypass flag** The gateway setting that allows media to skip Microsoft's processors. It is not implied by a short ping. Why it matters: Leave it off until the path is drawn.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Media bypass flag?** Set it on the paired gateway, then test from the real subnet. If it fails: It is enabled tenant-wide in someone's notes and only one site can route to the SBC.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Processor path** The default media path through Microsoft media processors in the region closest to the call. Why it matters: Use it when bypass is unsafe.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Processor path?** Allow the documented UDP ranges. If it fails: Bypass is off and those ranges are still closed, so audio never starts.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Region of media** Media processors exist in multiple regions. Calls prefer a close one. You do not pick a street address for the processor. Why it matters: A hairpin to a distant egress undoes that preference.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Region of media?** Keep egress local. If it fails: European users egress in another continent and RTT follows.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Voice user disable** A user can be licensed and still not be enabled for Enterprise Voice in the way the tenant expects. Read the user before you test. Why it matters: The symptom is a client that never offers a dial pad.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Voice user disable?** Read the voice attributes and the license together. If it fails: The dial pad is missing and the SBC is rebooted.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Calling policy** A Teams calling policy controls client calling features. It is not the voice routing policy that selects an SBC. Why it matters: Two policies with similar names get granted backwards.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Calling policy?** Grant the routing policy and the calling policy on purpose. If it fails: Outbound PSTN is blocked by a calling policy and the route is blamed.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Caller ID substitution** Presenting a service number instead of a personal mobile. It is a policy, not a hope. Why it matters: Wrong caller ID breaks return calls and CRM trust.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Caller ID substitution?** Set it on the user or the resource account you mean. If it fails: Customers call back a personal mobile that was never the company number.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Normalization translation tokens** Teams translations use tokens such as \$1 for a capture group. The first matching rule applies the translation and stops. Why it matters: A \$1 with no group copies nothing useful.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Normalization translation tokens?** Test the rule with the raw digit string. If it fails: The translation says +1\$1 and the pattern never captured a group.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Extension dialing** A short rule can turn a 4-digit extension into E.164. It must not run before emergency codes. Why it matters: Extensions and short codes share a length problem.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Extension dialing?** Order the rules and test 112, 999, 911, and an extension. If it fails: 112 becomes an extension and leaves via the wrong trunk.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Holiday call flow** The attendant's holiday set replaces business hours for those dates. Why it matters: Next year's holidays are a December project.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Holiday call flow?** Load them when you build the attendant. If it fails: The office is closed and the queue still rings.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Operator zero** The attendant's operator is where zero, and many failures, should land. Why it matters: An attendant with no operator drops people who do not match a menu.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Operator zero?** Name a person or a queue. If it fails: Callers who press nothing are disconnected.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Dial by name scope** Directory search should list only the people you intend callers to reach. Why it matters: A wide directory publishes privileged accounts.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Dial by name scope?** Scope it. If it fails: A caller reaches an executive because search was unrestricted.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Agent list order** Serial routing uses the order of the agent list. Round robin does not. Why it matters: The person on top of a serial list takes the punishment.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Agent list order?** Pick the method that matches the promise to the team. If it fails: One agent receives every call and the others look idle.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Queue timeout seconds** How long the caller waits before overflow. Too short and overflow is the product. Too long and they abandon. Why it matters: Test with agents busy.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Queue timeout seconds?** Set it in the queue and call it. If it fails: Timeout is a few seconds and nobody is ever answered.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Greeting rights** The audio file must be one you have the right to play. A popular song is not a free hold track. Why it matters: Licensing the song is a legal problem, not a Teams setting.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Greeting rights?** Use a file you own or have licensed. If it fails: A commercial track is uploaded as hold music.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **After hours target** Where calls go when the attendant is closed. Voicemail, another number, or a message. Why it matters: Closed with no target is a hang-up.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach After hours target?** Set it and call after hours, or fake the schedule in a lab. If it fails: Night calls ring the daytime queue.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Network site object** A named place in the Teams network topology. Subnets attach to it. Emergency addresses and LBR attach to that story. Why it matters: A site with no subnets does nothing.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Network site object?** Create the site, then the subnets, then the address. If it fails: The address exists and no subnet points at it.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Emergency address validation** Civic addresses are validated. An unvalidated string is not a location you can trust. Why it matters: A typo in the street number sends responders next door.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Emergency address validation?** Validate, then test from a known subnet. If it fails: The address was typed and never validated.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Wireless location caution** Wi-Fi clients can roam across subnets that do not match the building you think. The subnet you mapped is the location you will send. Why it matters: A café SSID bridged to HQ is a false floor.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Wireless location caution?** Map only networks you control. If it fails: Guest Wi-Fi is inside the HQ subnet.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **SBA registration** Clients must be able to use the appliance when the cloud path is gone. An appliance with no client configuration is a spare server. Why it matters: Read the current SBA article for how clients select it.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach SBA registration?** Test with the WAN blocked, from a phone on that site. If it fails: The appliance is powered on and no client knows it.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Local SBC during survival** The SBA still needs a PSTN path. That is the local SBC and carrier, not a cloud media processor you cannot reach. Why it matters: Survival without a local trunk is a slogan.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Local SBC during survival?** Prove a PSTN call with the WAN down. If it fails: The WAN test blocks Microsoft 365 and the only carrier path was through that same WAN.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Teams Rooms QoS** Rooms need the same DSCP plan as PCs, using the rooms guidance for Windows and Android. Why it matters: A room that sounds worse than a laptop is often unmarked.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Teams Rooms QoS?** Include the room subnet in the ACL. If it fails: Only user PCs were marked.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Common area identity** The phone signs in as its own account. Voicemail and caller ID follow that account. Why it matters: A shared PIN on a former employee's account is a privacy incident.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Common area identity?** Create the device account and the number. If it fails: The hallway phone opens a person's mailbox.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Device conditional access** A policy that requires a compliant interactive PC will block a phone or a room. Why it matters: The failure looks like a bad password.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Device conditional access?** Scope a device path you can explain. If it fails: Rooms fail on Monday after a security baseline.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Firmware on the list** Certification is specific about software. 'We own AudioCodes' is not a version. Why it matters: Upgrade without checking the list can move you off support.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Firmware on the list?** Record the version next to the list date. If it fails: The SBC was upgraded on Friday off the certified train.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **SRTP profile mismatch** Both sides must agree the media is SRTP. A gateway forced to RTP/AVP will not complete a normal Direct Routing call. Why it matters: Silence or a failed offer follows.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach SRTP profile mismatch?** Capture SDP and read the profile. If it fails: The carrier leg is SRTP and the Teams leg was stripped.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Telephone-event** The SDP way digits are carried so an IVR can see them even when the audio codec would hide tones. Why it matters: In-band tones through a lossy codec disappear.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Telephone-event?** Offer telephone-event and test a digit. If it fails: The bot never hears 1 and the talk path is fine.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Call-ID header** The header that stays with a SIP dialog so two logs can be proved to be one call. Why it matters: Timestamps collide.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Call-ID header?** Copy it into the ticket and the CRM. If it fails: Two engineers compare two different INVITEs.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **From and To headers** Who the request claims to be, and who it is for. A normalization bug shows up here as a duplicated country code. Why it matters: Read them before you read codecs.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach From and To headers?** Compare them to the dialed E.164. If it fails: The To header contains +4444... and the carrier rejects it.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **SDP offer** The media description inside the INVITE when early offer is used. Codecs, ports, and SRTP live here. Why it matters: A 488 is an SDP argument.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach SDP offer?** Read the offer and the answer. If it fails: The offer lists a codec the other side rejected.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Jitter over 30 ms teaching clue** A commonly taught CQD clue is to treat sustained jitter around 30 ms as painful. Confirm the current data dictionary before you quote a threshold as policy. Why it matters: The clue is a starting point, not a statute.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Jitter over 30 ms teaching clue?** Pair the number with DSCP and the path. If it fails: A ticket cites a threshold and nobody captured the packets.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Loss around 10 percent** Packet loss near 10 percent is a widely used teaching line for a poor stream. Verify the current CQD definition before you automate an alert on it. Why it matters: Loss and jitter are different faults.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Loss around 10 percent?** Look at loss separately from RTT. If it fails: Bandwidth is added for a path whose loss is near zero and whose RTT is 600 ms.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Subnet dimension** CQD's subnet field is only useful if you built the building map from real subnets. Why it matters: A typo relocates a building.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Subnet dimension?** Reconcile with the emergency list. If it fails: 10.8.0.0/16 is named Headquarters.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Work item** The unit unified routing assigns: a call, a chat, a case. It is not a Teams message. Why it matters: Capacity is counted in work items.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Work item?** Watch one test item cross classification. If it fails: Items vanish because no queue will accept them.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Queue membership** Representatives receive work only from queues they belong to. Why it matters: A license without membership is a spectator.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Queue membership?** Add the person to the queue and set capacity above zero. If it fails: The queue has users and still overflows.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Security role in Dynamics** The Dataverse role that lets a representative open the app and touch the rows they should. Why it matters: Teams admin is not this role.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Security role in Dynamics?** Assign the contact-center role the current guide names. If it fails: The user sees a blank console.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Embedded versus standalone** Contact Center can sit inside Customer Service or stand as its own app. Agents must be told which one they open. Why it matters: The pilot URL is not tribal knowledge.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Embedded versus standalone?** Write the URL and the mode in the design. If it fails: Agents look in the wrong app and report an outage.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Intent unknown bucket** The classification result you get when the model or the rules do not know. It needs a queue. Why it matters: A loop is not a bucket.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Intent unknown bucket?** Route unknown to humans. If it fails: Unknown replays the same prompt.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Copilot summary** A draft of the conversation for the representative. It can be wrong. The representative still owns what is sent. Why it matters: A wrong summary in the case file becomes the record.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Copilot summary?** Test on a known case. If it fails: The summary names the wrong product and is saved.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Knowledge article freshness** The date on the source the bot is allowed to quote. Retired prices stay retired only if you remove them. Why it matters: Grounding in a stale library is confident nonsense.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Knowledge article freshness?** Review sources on a schedule. If it fails: The bot quotes last year's fee.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Fallback topic** The classic-topic path when nothing else matches. Empty fallback is silence. Why it matters: Write a sentence and an escape.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Fallback topic?** Test an utterance you did not train. If it fails: The caller hears nothing after a novel sentence.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **DTMF zero** The usual human escape. It has to be implemented, not merely printed on a slide. Why it matters: Test it after every prompt edit.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach DTMF zero?** Press 0 in the lab and in production pilot. If it fails: The prompt mentions zero and the recognize step ignores it.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Transfer target license** The Teams user who receives a PSTN transfer needs Teams Phone and a number in the Connect model's description. Why it matters: Chat-only experts cannot take the call.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Transfer target license?** License the humans on the transfer list. If it fails: Finance is chat-only and every transfer fails.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Multitenant SBC caution** Some Connect providers share SBC infrastructure across customers. Your routing must still isolate your numbers. Why it matters: A shared SBC is not a shared dial plan.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Multitenant SBC caution?** Confirm the provider's isolation story. If it fails: A test number lands in another customer's tenant.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Letter of authority** The carrier document that allows a number to move. Porting without it does not happen. Why it matters: A weekend cut that assumes the port is done will strand the number.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Letter of authority?** Confirm the port date in writing. If it fails: Both carriers route the number on Monday.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Rollback route** The old path left in place so numbers can return. Deleting it is not a cleanup. It is the removal of the safety. Why it matters: Keep it until the new path has a quiet week.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Rollback route?** Write the backout steps. If it fails: The maintenance window ends with no public route.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Group policy assignment** Many Teams policies, including compliance recording, can target a group. Membership changes the effective policy without a click on the user. Why it matters: A contractor group can inherit recording.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Group policy assignment?** Read the effective policy after group changes. If it fails: Recording starts for people who were only added to a mail group.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Zero-cost allotment** Teams Phone subscriptions include a number of free resource-account licenses you still have to acquire in the admin center. Why it matters: Free does not mean already present.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Zero-cost allotment?** Buy the zero-price SKU and assign it. If it fails: Queues are built before any resource-account license exists in the tenant.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **At least one Teams Phone** The prerequisite article says the tenant needs Teams Phone licensing for the voice-app services to exist. Why it matters: A tenant with only resource accounts and no phone-system license will not behave.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach At least one Teams Phone?** Confirm a real Teams Phone license exists. If it fails: The first queue is created in an empty tenant and never answers.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Do not share global admin** A shared Global Administrator account erases the audit of who changed a route. Why it matters: Named accounts, voice roles.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Do not share global admin?** Remove shared admin use from the voice runbook. If it fails: The SBC password and the global admin password are the same note.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Sample 555 numbers** Use 555 numbers and example domains in labs. They are not a customer directory. Why it matters: Find-and-replace onto a real tenant is how labs become incidents.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Sample 555 numbers?** Keep lab names obvious. If it fails: A practice script targets production.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Renewal versus retirement** A certification you forget to renew expires for you. A retirement means Microsoft withdrew the exam. They are different calendars. Why it matters: MS-700 can lapse in your transcript and still be a live exam for others.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Renewal versus retirement?** Renew on Learn. Check the retirement list separately. If it fails: Someone says MS-700 is retired because theirs expired.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Official practice assessment** Microsoft's practice questions, when published, match the exam more honestly than a random PDF. Why it matters: AB-250's page has warned that the practice assessment may lag the live exam.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Official practice assessment?** Use it if it exists, and still read the study guide. If it fails: A third-party dump is the only study tool.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Busy-hour interval** The half hour you staff, not the daily average divided into imaginary hours. Why it matters: Erlang inputs are interval math.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Busy-hour interval?** Export that interval. If it fails: The link is fine at noon and dead at 09:15.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Adherence** Whether the agent was in the state the schedule promised. It needs a real state feed from the contact center. Why it matters: Teams presence is a weak substitute for contact-center state.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Adherence?** Feed the contact-center state to WFM. If it fails: Agents look available in Teams during after-call work.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Service level target** A pair: a percent and a number of seconds, plus the abandon rule. 'Eighty twenty' means nothing until both are defined. Why it matters: Write it down.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Service level target?** Use the same definition in the report and in Erlang. If it fails: Two dashboards disagree and both claim victory.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Hold music licensing** The hold file is a copyrighted work unless you made it or licensed it. Why it matters: Uploading a song is not a technical setting.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Hold music licensing?** Use a track you can defend. If it fails: A famous song plays to every caller.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Notification group** The people the emergency policy emails or messages when an emergency call starts. Why it matters: An empty group is a silent policy.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **How do you approach Notification group?** Put facilities or security in it and test. If it fails: Responders arrive and nobody inside knows which floor.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Dispatchable location** A location specific enough for a responder to find the caller. A city name is not enough for a campus. Why it matters: Floors and suites matter.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Carrier test number** The number or process the carrier gave you for emergency tests. It is not the public emergency number. Why it matters: Curiosity calls to the real service are how you meet the police and a fine.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Split tunnel** VPN configuration that sends only corporate apps through the tunnel and lets Teams media go direct. Why it matters: Full tunnel is the opposite.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Port mirroring** A switch copy of packets so you can see DSCP at the egress without standing on the user's keyboard. Why it matters: The proof of QoS lives there.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **ACL mark** A router rule that sets DSCP based on the port range, useful for devices that will not mark for themselves. Why it matters: Combine it with client marks where you can.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Two directions** A call has media each way. Sizing one direction and forgetting the other undersizes a symmetric policer. Why it matters: State which number you quoted.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **G.722 header tax** G.722 at 160 bytes every 20 ms pays the same header tax as G.711. Wideband does not remove IP headers. Why it matters: Do not quote 64 kbit/s as the link budget.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Comfort noise sizing** Silence suppression lowers the average and not the peak. Size the peak. Why it matters: A quiet average hides an all-hands call.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Pilot rollback week** A quiet week on the new path before you delete the old trunk. Why it matters: Friday-night deletion is not a cleanup task.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Expert wave** Move people who call each other in the same migration wave so they do not trombone for a year. Why it matters: Tromboning is a cost.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **IVR range split** Contact-center numbers stay on UCCE. User numbers go to Teams. The SBC enforces the split. Why it matters: One route pattern that sends everything to Teams strands the IVR.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Whisper and barge caution** Supervisor features such as whisper and barge belong to the contact-center product, not to a Teams peer call. Why it matters: Do not promise them from a Teams calling policy.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Recording both sides** If the contact center and Teams both record, you still need one Call-ID to know it is the same conversation. Why it matters: Two audio files without a key are two rumors.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Privacy review** Recording, desktop capture, and directory search all need a privacy decision before go-live. Why it matters: A surprise recorder fails the review in public.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Restore test** A retention setting you have never restored is a hope. Ask the recording partner for one file back. Why it matters: Legal hold on a mailbox does not do this.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Form the agent saw** Quality scores should use a form published to the people being scored. Why it matters: Secret criteria are not coaching.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Export for WFM** Queue totals have to be able to leave the contact center on a schedule the WFM tool can read. Why it matters: A screenshot is not a feed.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Shrinkage labeled** If shrinkage is a guess, say it is a guess. Thirty percent is not a law of nature. Why it matters: Hidden assumptions become fights.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Occupancy watch** High occupancy next to rising abandons means the service level is being spent to look efficient. Why it matters: Watch both.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Case timeline fields** E.164, Call-ID, queue, agent. Four fields make a case auditable. Why it matters: A free-text note does not.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Bot eval set** A list of utterances whose correct intent you already know. Run it before you publish a prompt change. Why it matters: Foundry is a place to do this. A phone number is not.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Unannounced feature risk** A design that needs a product Microsoft has not shipped is not a hook. It is a bet. Why it matters: Hooks in this campus use today's policies, events, and identifiers.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Admin center SBC status** The Direct Routing page that shows whether Teams considers the SBC healthy. Why it matters: It reflects OPTIONS and pairing, not your feelings about the carrier.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Test call both ways** Inbound and outbound are different routes. A successful outbound call does not prove the carrier can deliver inbound. Why it matters: Always do both.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Emergency both ways** You care that the emergency call leaves, and that the location and notification are correct. Inbound to the queue is a different test. Why it matters: Do not mix the evidence.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Holiday and certificate calendar** Two dates that take companies down: the holiday the attendant does not know, and the certificate that expires. Why it matters: Put both on one calendar.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Contoso is fictional** Contoso, Fabrikam, and 555 numbers in this campus are samples. They are not your tenant. Why it matters: Do not whois them and open a ticket.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Checked date** 14 October 2026 is when this campus was compared with Learn. It is not a promise the page stays still. Why it matters: Say the date when you quote a retirement.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Computer telephony integration** Wikipedia's opened page says computer-telephony integration, also computer–telephone integration or CTI, is a general term for technologies that coordinate interactions between telephones and computers. Why it matters: The next sentence on that page is marked citation needed. This lab does not use it.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Dynamics 365 voice channel** The voice-channel page says it applies to Dynamics 365 Contact Center embedded, Contact Center standalone, and Customer Service. It provides native PSTN calling in Dynamics and says the channel is built on Azure Communication Services. Why it matters: Voice is routed with unified routing in the same way the page describes for an incoming chat.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Teams Phone in the voice channel** The configure-Teams-Phone page says PSTN connectivity can be a Teams Calling Plan (service numbers only), Operator Connect, or Direct Routing, and that a Teams resource account is required for every number used with Dynamics 365 Contact Center. Why it matters: Representatives receive the call notification in the Copilot Service workspace app, on that page.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Salesforce Voice** The implementation guide says Service Cloud Voice is now Salesforce Voice. It says the guide applies mostly to Salesforce Voice with Amazon Connect and Salesforce Voice for Partner Telephony with Amazon Connect. Why it matters: The guide names Amazon Connect flows, Lambda, the Telephony Integration REST API, the Connect API, and the Voice Toolkit API.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Partner Contact Center** The Salesforce help page titled Connect Voice from a Partner Contact Center says Salesforce Voice with Telephony Providers, formerly Service Cloud Voice, is now part of Partner Contact Center. Why it matters: The same note still names Salesforce Voice with Amazon Connect, Partner Telephony, and Partner Telephony from Amazon Connect, and points to Agentforce Contact Center Voice for built-in telephony.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Amazon Connect Customer** Amazon's opened guide says Amazon Connect Customer is the current name for the product previously called Amazon Connect, and that this guide covers Amazon Connect Customer. Why it matters: The same page says Amazon Connect is now a set of agentic AI solutions for different business functions.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **CCAI Platform** The opened Google Cloud page is titled Contact Center AI Platform. It says CCAI Platform is a contact-center service built natively on Google Cloud, uses other Gemini Enterprise for Customer Experience products, and is purpose-built to work alongside CRMs. Why it matters: The page names queuing and routing across voice and digital channels, and names Virtual Agent, Agent Assist, and Insights.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Gemini Enterprise for Customer Experience** Google's legal change log records this line: Updated name of Customer Engagement Suite and Contact Center AI to Gemini Enterprise for Customer Experience (GECX). Why it matters: A different change-log line says the CCAI Platform service-terms summary was renamed toward Google Cloud Contact Center as a Service. That is not the same sentence as the GECX line.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Least active assignment** The assignment-methods page says least active is available for voice and messaging only, and is the default selection when you create a voice or messaging queue. Why it matters: It uses the time since last capacity is released for a voice or messaging conversation, and the Block capacity for wrap-up setting on the workstream.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Quality evaluation plan** The quality and coaching page, which applies to Dynamics 365 Contact Center only, says an evaluation plan sets the criteria, the conversations, the timing, and the actions. Why it matters: Frequency on that page is In real time or On conversation close. Sampling is a percentage of matching conversations.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Quality guardrail** On the quality and coaching page, a guardrail defines a required or prohibited behavior. Guardrails are evaluated for violations rather than assigned numeric scores, and each has a priority. Why it matters: Indicators are the scored questions. A guardrail is not an indicator.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Short-term forecast** The forecasting overview says a short-term scenario predicts volume and average handle time in 15-minute intervals for a horizon of up to six weeks (42 days), using a linear trend on internal or external data. Why it matters: Volume on that page excludes conversations that AI agents handle with no representative joining. Forecasting then feeds capacity planning, which drives scheduling.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Audio DSCP 46** Microsoft's QoS article recommends DSCP 46 (EF, Expedited Forwarding) for Teams audio, with initial client source ports 50000–50019. Why it matters: A mark only helps if every hop agrees. Audio waiting in the default queue is how words drop out.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Audio port range 50000–50019** The recommended initial client source ports for audio are 50000–50019. Browser joins do not use these fixed ranges. Why it matters: Port-based ACLs are how routers mark traffic from devices that cannot set DSCP themselves.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Video DSCP 34** Microsoft's QoS article recommends DSCP 34 (AF41, Assured Forwarding 41) for Teams video, with initial client source ports 50020–50039. Why it matters: A mark only helps if every hop agrees. Audio waiting in the default queue is how words drop out.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Video port range 50020–50039** The recommended initial client source ports for video are 50020–50039. Browser joins do not use these fixed ranges. Why it matters: Port-based ACLs are how routers mark traffic from devices that cannot set DSCP themselves.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Application sharing DSCP 18** Microsoft's QoS article recommends DSCP 18 (AF21, Assured Forwarding 21) for Teams application sharing, with initial client source ports 50040–50059. Why it matters: A mark only helps if every hop agrees. Audio waiting in the default queue is how words drop out.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Application sharing port range 50040–50059** The recommended initial client source ports for application sharing are 50040–50059. Browser joins do not use these fixed ranges. Why it matters: Port-based ACLs are how routers mark traffic from devices that cannot set DSCP themselves.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Calling and meetings signaling DSCP 40** Microsoft's QoS article recommends DSCP 40 (CS5, Class Selector 5) for Teams calling and meetings signaling, with initial client source ports 50070–50089. Why it matters: A mark only helps if every hop agrees. Audio waiting in the default queue is how words drop out.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Calling and meetings signaling port range 50070–50089** The recommended initial client source ports for calling and meetings signaling are 50070–50089. Browser joins do not use these fixed ranges. Why it matters: Port-based ACLs are how routers mark traffic from devices that cannot set DSCP themselves.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Connect-MicrosoftTeams** Opens a PowerShell session against the tenant that holds the voice configuration. Confirm the parameter set with Get-Help in the module version you have. Why it matters: Interviewers ask for the object model more than for a memorized script. A wrong parameter against production is not a lab.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Get-CsOnlineUser** Reads the online user, including voice policy and number fields you should inspect before a change. Confirm the parameter set with Get-Help in the module version you have. Why it matters: Interviewers ask for the object model more than for a memorized script. A wrong parameter against production is not a lab.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **New-CsOnlinePSTNGateway** Pairs a Direct Routing SBC by the FQDN you will present on the certificate. Confirm the parameter set with Get-Help in the module version you have. Why it matters: Interviewers ask for the object model more than for a memorized script. A wrong parameter against production is not a lab.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Set-CsOnlinePSTNGateway** Changes settings on a paired SBC, including media bypass and SIP signaling options documented for that cmdlet. Confirm the parameter set with Get-Help in the module version you have. Why it matters: Interviewers ask for the object model more than for a memorized script. A wrong parameter against production is not a lab.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Get-CsOnlinePSTNGateway** Shows the paired gateways and the status fields the module returns. Confirm the parameter set with Get-Help in the module version you have. Why it matters: Interviewers ask for the object model more than for a memorized script. A wrong parameter against production is not a lab.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Set-CsOnlinePstnUsage** Maintains the tenant's list of PSTN usage names. Confirm the parameter set with Get-Help in the module version you have. Why it matters: Interviewers ask for the object model more than for a memorized script. A wrong parameter against production is not a lab.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **New-CsOnlineVoiceRoute** Creates a voice route with a number pattern and one or more gateways. Confirm the parameter set with Get-Help in the module version you have. Why it matters: Interviewers ask for the object model more than for a memorized script. A wrong parameter against production is not a lab.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **New-CsOnlineVoiceRoutingPolicy** Creates a policy whose ordered PSTN usages a user is allowed to match. Confirm the parameter set with Get-Help in the module version you have. Why it matters: Interviewers ask for the object model more than for a memorized script. A wrong parameter against production is not a lab.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Grant-CsOnlineVoiceRoutingPolicy** Assigns a voice routing policy to a user. Confirm the parameter set with Get-Help in the module version you have. Why it matters: Interviewers ask for the object model more than for a memorized script. A wrong parameter against production is not a lab.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **New-CsTenantDialPlan** Creates a tenant dial plan that holds normalization rules. Confirm the parameter set with Get-Help in the module version you have. Why it matters: Interviewers ask for the object model more than for a memorized script. A wrong parameter against production is not a lab.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Grant-CsTenantDialPlan** Assigns a tenant dial plan to a user. Confirm the parameter set with Get-Help in the module version you have. Why it matters: Interviewers ask for the object model more than for a memorized script. A wrong parameter against production is not a lab.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Set-CsPhoneNumberAssignment** Assigns or removes a phone number from a user or resource account. Confirm the parameter set with Get-Help in the module version you have. Why it matters: Interviewers ask for the object model more than for a memorized script. A wrong parameter against production is not a lab.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **New-CsAutoAttendant** Creates an auto attendant voice app. Confirm the parameter set with Get-Help in the module version you have. Why it matters: Interviewers ask for the object model more than for a memorized script. A wrong parameter against production is not a lab.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **New-CsCallQueue** Creates a call queue voice app. Confirm the parameter set with Get-Help in the module version you have. Why it matters: Interviewers ask for the object model more than for a memorized script. A wrong parameter against production is not a lab.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **New-CsOnlineApplicationInstance** Creates an application instance. Resource accounts and compliance-recording bots both use this family. Confirm the parameters for the object you mean. Confirm the parameter set with Get-Help in the module version you have. Why it matters: Interviewers ask for the object model more than for a memorized script. A wrong parameter against production is not a lab.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **New-CsTeamsComplianceRecordingPolicy** Creates the policy that invites a recording application into new calls and meetings. Confirm the parameter set with Get-Help in the module version you have. Why it matters: Interviewers ask for the object model more than for a memorized script. A wrong parameter against production is not a lab.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **New-CsTeamsComplianceRecordingApplication** Attaches a recording application instance to a compliance recording policy. Confirm the parameter set with Get-Help in the module version you have. Why it matters: Interviewers ask for the object model more than for a memorized script. A wrong parameter against production is not a lab.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Grant-CsTeamsComplianceRecordingPolicy** Assigns the compliance recording policy to a user. Assignment alone is not enough without the application instance. Confirm the parameter set with Get-Help in the module version you have. Why it matters: Interviewers ask for the object model more than for a memorized script. A wrong parameter against production is not a lab.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Get-CsTeamsComplianceRecordingPolicy** Reads the compliance recording policies in the tenant. Confirm the parameter set with Get-Help in the module version you have. Why it matters: Interviewers ask for the object model more than for a memorized script. A wrong parameter against production is not a lab.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **New-CsOnlineLisCivicAddress** Starts an emergency civic address. Confirm the current CsOnlineLis noun before you run it. Confirm the parameter set with Get-Help in the module version you have. Why it matters: Interviewers ask for the object model more than for a memorized script. A wrong parameter against production is not a lab.

Sources and go deeper

-  **No checked URL for this page** — confirm — last checked 2026-10.

- **100 Trying** The next hop received the INVITE and is working on it. Dialog is not up. Why it matters: A ladder without response codes is a story. The code is the branch.

Sources and go deeper

-  **No checked URL for this page** — confirm — last checked 2026-10.

- **180 Ringing** The far end is alerting. You may not have media yet. Why it matters: A ladder without response codes is a story. The code is the branch.

Sources and go deeper

-  **No checked URL for this page** — confirm — last checked 2026-10.

- **183 Session Progress** Early media may be present. Do not treat it as an answer. Why it matters: A ladder without response codes is a story. The code is the branch.

Sources and go deeper

-  **No checked URL for this page** — confirm — last checked 2026-10.

- **200 OK** The INVITE succeeded. ACK completes the dialog. BYE ends it later. Why it matters: A ladder without response codes is a story. The code is the branch.

Sources and go deeper

-  **No checked URL for this page** — confirm — last checked 2026-10.

- **ACK** Completes the INVITE transaction after 200 OK. Why it matters: A ladder without response codes is a story. The code is the branch.

Sources and go deeper

-  **No checked URL for this page** — confirm — last checked 2026-10.

- **BYE** Ends an established dialog. The other side answers 200 OK. Why it matters: A ladder without response codes is a story. The code is the branch.

Sources and go deeper

-  **No checked URL for this page** — confirm — last checked 2026-10.

- **CANCEL** Gives up an INVITE that has not been answered yet. Why it matters: A ladder without response codes is a story. The code is the branch.

Sources and go deeper

-  **No checked URL for this page** — confirm — last checked 2026-10.

- **OPTIONS** A health check. Teams uses it to see whether the SBC is answering. Why it matters: A ladder without response codes is a story. The code is the branch.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **403 Forbidden** The request was understood and refused. Often policy, identity, or a route the trunk will not accept. Why it matters: A ladder without response codes is a story. The code is the branch.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **404 Not Found** The user or number is not known at that hop. Why it matters: A ladder without response codes is a story. The code is the branch.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **408 Request Timeout** No final response in time. Look at firewalls and the next hop, not at the greeting. Why it matters: A ladder without response codes is a story. The code is the branch.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **480 Temporarily Unavailable** The target exists and cannot take the call right now. Why it matters: A ladder without response codes is a story. The code is the branch.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **486 Busy Here** The target is busy. Why it matters: A ladder without response codes is a story. The code is the branch.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **487 Request Terminated** The INVITE ended because of CANCEL or a similar abort. Why it matters: A ladder without response codes is a story. The code is the branch.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **488 Not Acceptable Here** Codecs or SDP could not be agreed. A classic empty codec intersection. Why it matters: A ladder without response codes is a story. The code is the branch.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **503 Service Unavailable** The hop is overloaded or deliberately out of service. Fail over if you have another gateway. Why it matters: A ladder without response codes is a story. The code is the branch.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **G.711** 64 kbit/s payload. At 20 ms, layer 3 is 80 kbit/s and Ethernet with an 18-byte header is 87.2 kbit/s. Why it matters: An empty codec intersection is a 488, not a mystery outage.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **G.722** Wideband payload at 64 kbit/s. The header math matches G.711 when the packet is 160 bytes every 20 ms. Why it matters: An empty codec intersection is a 488, not a mystery outage.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **G.729** 8 kbit/s payload, 20 bytes at 20 ms. Layer 3 is 24 kbit/s. Direct Routing can offer it. Confirm the SBC allows it. Why it matters: An empty codec intersection is a 488, not a mystery outage.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **SILK** A Teams codec on the Direct Routing list. Bitrate varies, so do not quote a single G.711-style figure for it. Why it matters: An empty codec intersection is a 488, not a mystery outage.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **AMR-WB** On the Direct Routing codec list for non-bypass calls only. Do not expect it on a media-bypass path. Why it matters: An empty codec intersection is a 488, not a mystery outage.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Teams Administrator** Broad Teams administration, including many voice settings. Check the current role article before you grant Global Administrator out of habit. Why it matters: Day-to-day voice work should not sit in a global role.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Teams Telephony Administrator** Voice-focused administration of calling and phone numbers. Check the current role article before you grant Global Administrator out of habit. Why it matters: Day-to-day voice work should not sit in a global role.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Teams Communications Administrator** Meetings and voice communications configuration, without the full Teams admin scope. Check the current role article before you grant Global Administrator out of habit. Why it matters: Day-to-day voice work should not sit in a global role.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Teams Communications Support Engineer** Troubleshooting access, including call analytics for users. Check the current role article before you grant Global Administrator out of habit. Why it matters: Day-to-day voice work should not sit in a global role.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Teams Communications Support Specialist** Narrower troubleshooting access than the engineer role. Check the current role article before you grant Global Administrator out of habit. Why it matters: Day-to-day voice work should not sit in a global role.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **User Administrator** Required together with a Teams admin role when you create and license resource accounts. Check the current role article before you grant Global Administrator out of habit. Why it matters: Day-to-day voice work should not sit in a global role.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Attendant routing** Rings the agents who are available at the same time, within the queue's limits. Presence-based routing can skip an agent who is already in a call or a meeting. Why it matters: The method is a business promise. Serial is cruel to the person on top if you forget.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Serial routing** Rings agents in the order you listed, one after another. Presence-based routing can skip an agent who is already in a call or a meeting. Why it matters: The method is a business promise. Serial is cruel to the person on top if you forget.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Round robin** Remembers who took the last call and starts after them. Presence-based routing can skip an agent who is already in a call or a meeting. Why it matters: The method is a business promise. Serial is cruel to the person on top if you forget.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

- **Longest idle** Offers the call to the agent who has been idle longest. Presence-based routing can skip an agent who is already in a call or a meeting. Why it matters: The method is a business promise. Serial is cruel to the person on top if you forget.

Sources and go deeper

- **No checked URL for this page** — confirm — last checked 2026-10.

A note from the student behind this lab

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