

*Part 2 - IU13 Modern Voice Communication Webinar Series*

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# Using Microsoft Teams to Replace your PBX

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# Topics Covered

- Licensing Requirements
- Transition and Migration Strategies
- Teams Online Settings
- Direct routing
- Direct Peering with Telesystem
- Hardware and Software Considerations
  - Routing and Client Phones
- Q&A





# Licensing Requirements

- Microsoft Teams + Skype for Business Plan 2 (if included in licensing, product is retired)
- Microsoft Phone System (was Cloud PBX) - Available as an add-on to Package A/B (A3) and included in Package C (A5)
  - <https://docs.microsoft.com/en-us/microsoftteams/here-s-what-you-get-with-phone-system>
- Microsoft Audio Conferencing - Available as an add-on to Package A/B (A3) and included in Package C (A5)
- Common Area Phone License - reception area, lobby, conference phone, any area where the phone is not associated with a user
  - Does not have voicemail
- Free Phone System - Virtual User License - Auto Attendants and Call Queues

Licensing options available through IU13's Microsoft EES Consortium. Contact [softwaresales@iu13.org](mailto:softwaresales@iu13.org) for more information.





# Microsoft Calling Plans

Three calling plans are available-

- Domestic Calling Plan EDU - 120 minutes per User/ \*\$6.00 per month / \*\$72.00 per year
- Domestic Calling Plan EDU - 240 minutes per User/ \*\$8.00 per month / \*\$96.00 per year
- Domestic Calling Plan EDU - 3000 minutes per User/ \*\$12.00 per month / \*\$144.00 per year

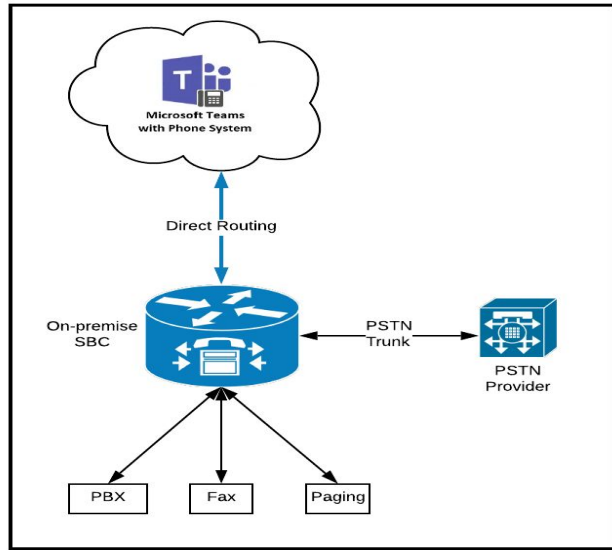
Example: 10 Users with 120 minute plan share 1,200 minutes per month. The cost is \$60 per month or \$720 per year.



# Transition and Migration Strategies

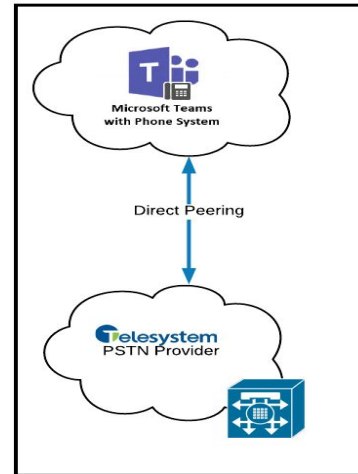
- Setting up new Teams online settings
- **Scenario 1:** Setting up direct routing with on-premise SBC
- **Scenario 2:** Setting up direct peering with Telesystem
- **Scenario 3:** Purchasing a Microsoft Calling Plan
- **Scenario 4:** Moving from on-prem Skype for Business to Teams online

# Transition and Migration Strategies: PSTN



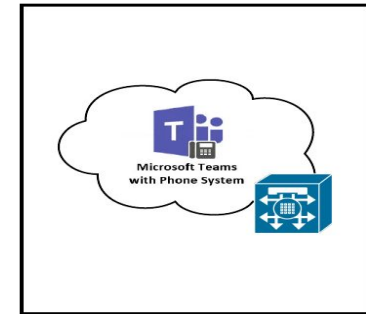
Direct Routing with On-premise SBC

Scenario 1



Direct Peering with Telesystem

Scenario 2



Microsoft Calling Plan

Scenario 3



# Teams online settings

- Users must be enabled for Enterprise Voice
- CsOnlineVoiceRoutingPolicy is assigned to the user
- Allow Private Calling is enabled at the tenant level for Microsoft Teams
- `set-csuser -identity "test\_user@iu13.org" -EnterpriseVoiceEnabled $true`
- `set-csuser -identity "test\_user@iu13.org" -HostedVoiceMail $true`
- Teams Upgrade policy set to Teams Only (Can be set as an Org Wide Teams setting)
- `set-csuser -identity "test\_user@iu13.org" -TeamsUpgradePolicy UpgradeToTeams`

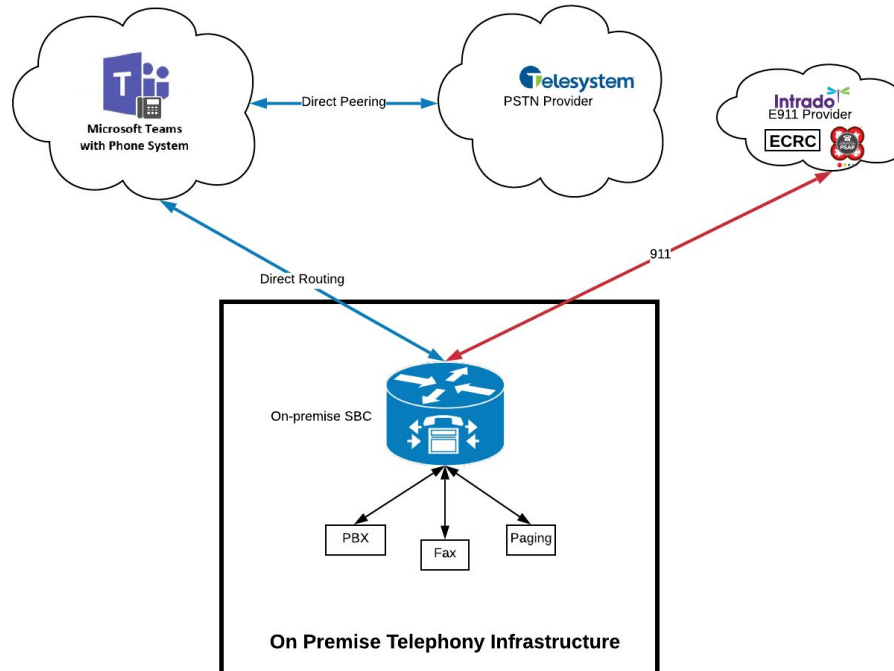


# Direct Routing

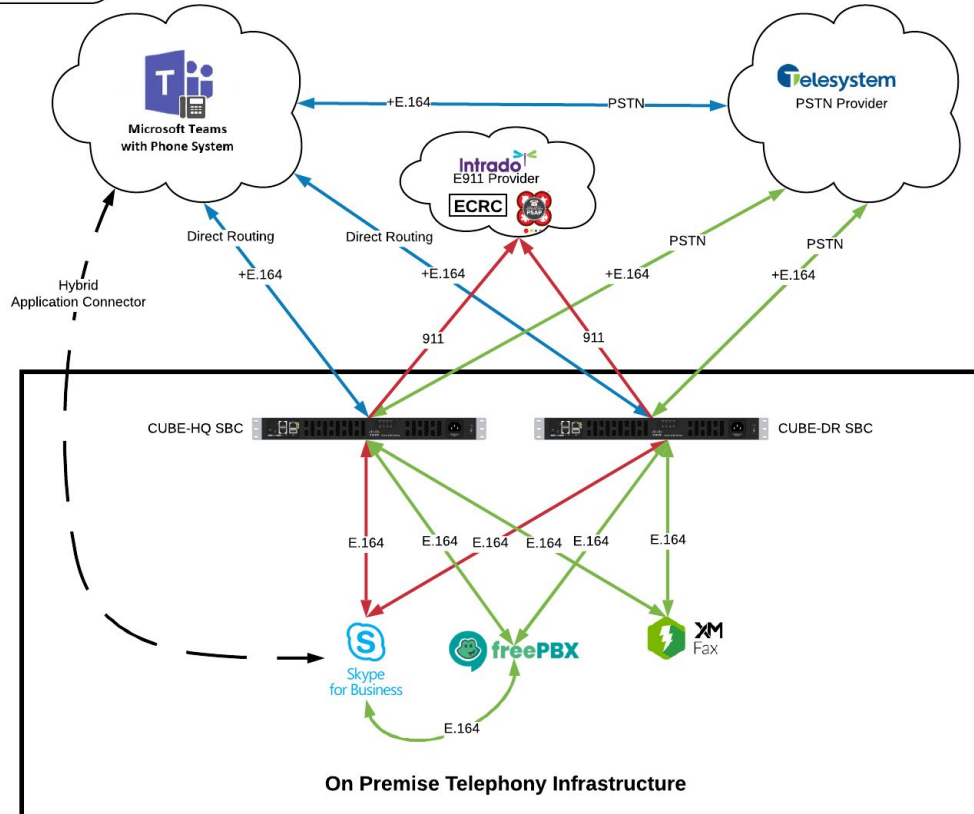
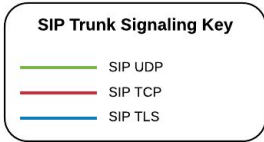
- Direct Routing **is required**
  - ... to keep your on-premise PSTN
  - ... for coexistence with current on-premise telephony platform
- Direct Routing **MIGHT be required**
  - ... for E911
- Media Bypass is supported (*though you may not need it*)
- Microsoft's SBC requirement to integrate legacy hardware/software telephony with Teams
- Azure SBC (AudioCodes Mediant VE SBC) and virtual options available
- List of Session Border Controllers certified for Direct Routing:  
<https://docs.microsoft.com/en-us/microsoftteams/direct-routing-border-controllers>



# Direct Routing Example



# IU13 Voice Services Topology





# Direct Peering with Telesystem

- VoIP peering with Telesystem to your Microsoft Tenant
- Numbers 'ported' to the new setup with Telesystem
- Requires some additional setup within your Microsoft tenant
- All other licensing, enterprise voice, voice mail, and number assignment settings apply



# Microsoft Calling Plans

- Calling plans are purchased from Microsoft
- Numbers are requested and assigned in the Teams portal
- All other licensing, enterprise voice, voice mail, and number assignment settings apply



# Assigning Telephone Numbers

- Set or Sync OnPremLineURI setting
- If user account is located in Azure AD only
  - `set-csuser -identity "test\_user@iu13.org" -OnPremLineURI tel:+15555555555`
- If user is synced from onprem AD
  - Set the AD Attribute `msRTCSIP-Line` with `tel:+15555555555`



# Hardware and Software Considerations

- Microsoft Teams Telephones
- Common Area Telephones
- Microsoft Teams Certified Headsets
- <https://www.microsoft.com/en-us/microsoft-teams/across-devices>
- <https://docs.microsoft.com/en-us/microsoftteams/devices/usb-devices>
- Direct Routing - Requires Microsoft certified SBC's - Can be virtual
- Direct Peering - No additional hardware required
  - May need on-prem SBC for local services



# Teams Call Queues & Auto Attendants

- Requires Free Phone System - Virtual User License
  - Assigned to a resource account within the Teams Admin Center
- Typical call queue/response group features as other systems
- Greeting Message
- Music on hold (can upload your own audio file)
- Call routing selections (Attendant, Serial, Round robin, Longest idle)
- Presence based routing



# Need Information? Let Us Help You Plan for UC!



## Lancaster Lebanon IU13 IP Telephony Services

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## **Q&A and *Open Forum!***

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# PowerShell Commands

- Connecting to Skype Online and Teams Online
  - `$sfboSession = New-CsOnlineSession`
  - `Import-PSSession $sfboSession`
  - `Install-Module MicrosoftTeams`
  - `Import-Module MicrosoftTeams`
  - `Connect-MicrosoftTeams`
- `set-csuser -identity "test\_user@iu13.org" -EnterpriseVoiceEnabled $true`
- `set-csuser -identity "test\_user@iu13.org" -HostedVoiceMail $true`
- `set-csuser -identity "test\_user@iu13.org" -OnPremLineURI tel:+15555555555`
- `set-csuser -identity "test\_user@iu13.org" -TeamsUpgradePolicy UpgradeToTeams`