# MS Teams Phone: A Square Peg in a Round Hole



## MS Teams Phone: A Square Peg in a Round Hole

### Agenda

- What is Microsoft Teams for O365 Business
- Competitive Review MS Teams Phone
- MS Teams Phone Integration with Hosted PBX Service



### MS Teams

#### What is Microsoft Teams

### Per Wikipedia

Microsoft Teams is a proprietary business communication platform developed by Microsoft, as part of the Microsoft 365 family of products.

Teams primarily competes with the similar services Slack and Webex, offering workspace chat and videoconferencing, file storage, and application integration.

Teams is replacing other Microsoft-operated business messaging and collaboration platforms, including Skype for Business and Microsoft Classroom...

### MS Teams

### What is Microsoft Teams

### It's a collaboration platform used primarily for

- Teams and channels conversation boards between teammates
- A chat function chat function between teams, groups, and individuals
- Document storage contains a default document library folder
- Video calling provides video calls like Zoom, Slack or Google Meet
- Online meetings One to many meetings with file sharing which can be scheduled
- Audio conferencing anyone can join an online meeting via phone using invites
- Lots of 3<sup>rd</sup> party app integration allow users 3<sup>rd</sup> party app use within Teams

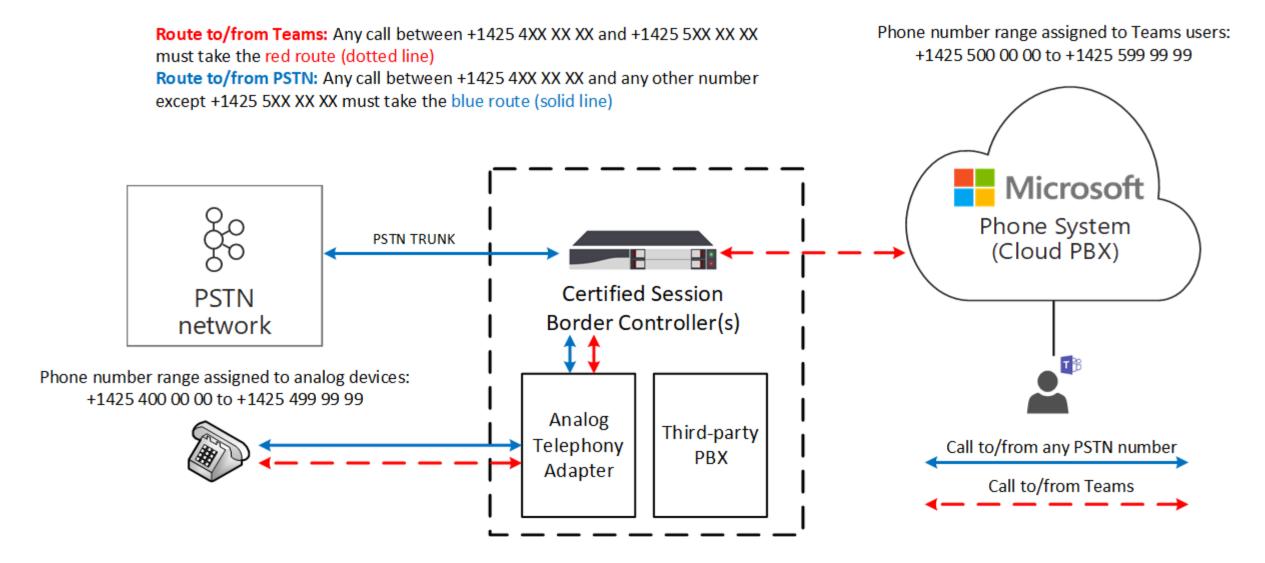
### Is Teams also a Phone System?

This presentation is not offering any opinion on Teams as a workplace collaborative product.

This presentation is only about Teams Phone capabilities as a business phone system.

### Review

- Overview Strengths & Weaknesses
- Purchasing MS Teams Phone
- Basic Call Handling on App
- Call Flow
- Call Features
- General Features
- Equipment Support



### Overview of Major Strengths

Tightly integrated to Office 365 and Teams

Already on a lot of desktops and in OS and O365 by default

Number of teams users? 250M worldwide, number seems inflated, probably 40% are education

Built in voice auto attendant

Transcriptions of voice calls

Hot desking on Yealink MP-56 by logging in as your account

Teams Mobile App supports calls

Loads of 3rd party applications

Price if already have Teams License and only need the minimal features of Teams Phone System

Overview of Major Weaknesses						
Constrained by Teams environment which wasn't designed originally for PSTN Calling processing						
Most developers are likely not experienced PBX developers						
Support is poorly designed and cannot function in an efficient manner						
Desk phones - cannot be taken home, update status slowly (2 or more minutes), require periodic login	Yes					
Invoicing	Yes					
All phones (including common area) require DID and will ring regularly with SPAM calls						
Dysfunctional support for analog equipment						
No cordless phones	Yes					
Potential Accumulating Tax Liability	Yes					
Changes can take affect immediately, 4 hours or 24 hours	Yes					
Call Park will ring back only once. If ring back is missed, call will stay parked but no one will know about it	Yes					
Different Endpoint Required for a Main Answering point	Yes					
Price if Key System or PBX Features Are Needed						

Overview of Major Weaknesses	Solved by Teams Integration with Hosted PBX Service
No unavailable options for redundancy	Yes
CDR is minimalistic and reports are limited and only available through 3rd parties or spreadsheet manipulation	Yes
Clumsy call handling	No
No paging through phones and difficult/expensive integration to external paging	Yes, for service phones with support feature
No Fax Support - need 3rd Party Solution	Yes
No SMS Support - need 3rd Party Solution	Yes
Recording All Calls requires 3rd Party Solution	Yes
No Call Pickup	Yes, for service phones with support feature
Calls forwarded to external number cannot be drawn back to system voicemail	Yes
May require several 3rd Party Relationships to assemble a complete phone system	Yes
Typical PC Softphone Audio Setup and Adjustment Problems	Yes

### **Customer Requirements**

Example Configuration for Small and medium-sized business (fewer than 300 users)

- Microsoft 365 Business Basic \$5.00 user/month or Microsoft 365 Business Standard -\$12.50 user/month or any larger 365 Business platforms
- Microsoft 365 Business Voice \$15.00 user/month
- Includes:
  - Cloud-based phone system supporting auto attendants (requires Service Number \$\$), and call queues (requires Service Number \$\$)
  - Calling plan (Domestic US and Canada or Domestic plus optional International dialing\$\$)
  - Dedicated Dial-in audio conferencing (requires Service Number \$\$)
  - Microsoft Teams app on desktop and mobile



#### Invoice

December 2021 Invoice Date: 12/12/2021

Invoice Number: E0

Due Date: 01/11/2022

#### 71.08 USD

Microsoft 365 Business Voice (US) Adoption Promo										
Service Period	Days	Qty	Monthly Price	Charges	Discounts	Credits	SubTotal	Tax %	Tax	Total
12/11/2021 - 01/10/2022*	31	4	10.07	40.26	0.00	0.00	40.26			40.26
12/11/2021 - 01/10/2022	31	4	4.94	19.74	0.00	0.00	19.74	9.25 %	1.82	21.56
11/23/2021 - 12/10/2021*	18	4	10.07	24.16	0.00	0.00	24.16			24.16
11/23/2021 - 12/10/2021	18	4	4.94	11.84	0.00	0.00	11.84	9.25 %	1.10	12.94
11/11/2021 - 12/10/2021*	30	3	10.07	-30.20	0.00	0.00	-30.20			-30.20
11/11/2021 - 12/10/2021	30	3	4.94	-14.81	0.00	0.00	-14.81	9.25 %	-1.37	-16.18
11/11/2021 - 11/22/2021*	12	3	10.07	12.08	0.00	0.00	12.08			12.08
11/11/2021 - 11/22/2021	12	3	4.94	5.92	0.00	0.00	5.92	9.25 %	0.54	6.46
SubTotal				68.99	0.00	0.00	68.99		2.09	71.08
Grand Total				68.99	0.00	0.00	68.99		2.09	71.08

<sup>\*</sup> The price displayed is a charge for Audio Conferencing and Calling Plan Services. Any applicable transactional taxes are charged exclusively of the amount shown except for sales made within the United States. In the U.S., the price displayed is tax inclusive as it includes a charge for the Calling Plan and Audio Conferencing Services and a charge for the taxes and fees we are required to charge. Audio Conferencing and Calling Plan Services are serviced by the Microsoft Affiliate authorized to provide them. See http://go.microsoft.com/fwlink/?LinkId=690247 for details.

### Missing Taxes?

- 9.5% TN
   Communication
   Services Tax
- \$1.50/user TN E911
- USAC
- Estimate invoice missing at least \$10.40 in taxes

### Customer Requirements

Example Configuration for Small and medium-sized business (fewer than 300 users)

### Requires:

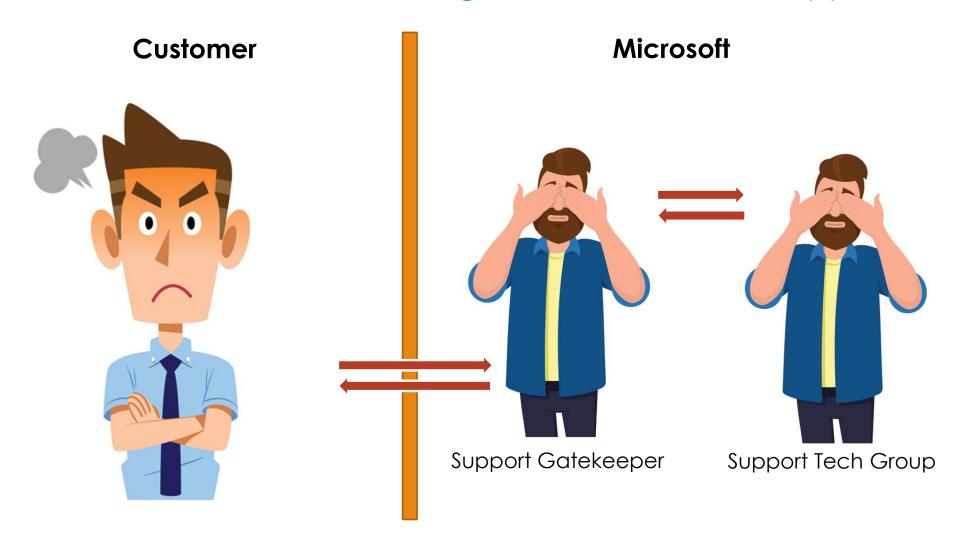
- Communication Credits\$\$ (Pre-paid minutes to cover International calls and Dial Plan Overage)
- Desk Phones\$\$ that support Teams where the Teams app is not applicable
- Qualified MS Global Administrator\$\$ (i.e., MS Solutions Provider)
  - Requires Telephony Experience
  - Ongoing Telephony Support for MAC and Technical Support
- Teams Phone System User Support Staff\$\$
  - User Training and Support
  - Coordinating and Implementing User and System Changes with Administrator

### MS Teams Phone using MS Business Voice Support

### MS 365 Business Voice Support:

- Cannot See Their Customers' Current Configuration
- Cannot Make Any Changes on Behalf of Their Customers
- Knowledgeable Techs Do Not Work Directly with Customers
- Relay All Information, Questions and Configurations Through Intermediate Communication Personnel
- Will Use Screenshare to Watch the Customer Make Changes

### MS Teams Phone using MS Business Voice Support



### Your Number is a SPAM Call

- You Call a Mobile Number and They See Spam Risk
- As a Teams Phone System Customer, who solves these problems?
- Answer: You Do!
- One Potential Answer to Each Problem You Struggle with: It's not solvable



### Planning System and User Needs

### Requires:

- Personnel with Telephony Experience\$\$
  - Must Understand the Customer's Communication Needs
  - Must Know what the MS Phone System can do and how
  - Must Know what the Teams Endpoints can do and how
  - Must Coordinating Needs with MS Global Administrator
  - Able to create the Customer's Total Communication Solution
- Vendor Coordination from Old to New (Who?)
  - Contract Termination or Compliance
  - Number Porting and Ordering
  - Onsite Equipment Swap

Not a task for most customers/employees to do themselves!

### Planning System and User Needs

- Porting or Purchasing Phone Numbers
  - Ported or new numbers are purchased as either for Users\$\$ or Service Purpose\$\$
  - Can Not be Dual Purpose

#### User (subscriber)

These are numbers for users in your organization that need a phone number.

#### Call queue (Toll)

These are service numbers that are used when you are creating a call queue and it will be used on resource accounts.

#### Auto attendant (Toll)

These are service numbers that are used when you are creating an auto attendant and it will be assigned to a resource account.

#### Call queue (Toll Free)

These are service numbers that are used when you are creating a call queue and it will be used on resource accounts.

#### Auto attendant (Toll Free)

These are service numbers that are used when you are creating an auto attendant and it will be assigned to a resource account.

#### Dedicated conference bridge (Toll)

These are service numbers that are used on conference bridges so users can dial in to meetings.

#### Dedicated conference bridge (Toll Free)

These are service numbers that are used on conference bridges so users can dial in to meetings.

#### Call Flow Review

#### Call Park and Retrieve

- Park Zones Not User Selected
- The user Parking the call must Share a Systems Generated Code With Others by messaging or Teams meeting voice call for Them to Retrieve
- No Personal Park Zones
- No User method to see Parked Calls
- Only 1 Park recall, if missed, no staff will be aware of the existence of the call

#### No Hold Recall

### Call Forwarding

- Basic Forwarding by User in the Teams App Only
- No Admin Options for Users

### Day/Night Mode Switching

No User Control, Only by Admin and by Set Schedule

### Call Flow Review

- No Functional Call Pickup Groups
  - MS Claims to Have this Feature but It Is the Equivalent of a Ring Group
  - All Phones in the Group Have to Ring All of the Time

#### Call Flow Review

### Call Center – Limited Ability

- Basic Fixed Call Queue Functions More Like a PBX Ring Groups
- No Recurring Announcements
- No Place in Queue or Estimated Wait Time
- No Exit Digit
- No Callback Options
- No Agent Log in/out
- No Agent Wrap up timer
- No Dynamic activity screen or table for Call Center Managers
- No Call Center Reporting
- The list goes on...

#### Call Features Review

- Users Cannot Make Anonymous Calls
- Calls Can Be Recorded on Demand
  - Cannot Be Recorded Silently
- Recording All Calls Is Only Available through 3<sup>rd</sup> Parties
  - Cannot Be Recorded Silently
- No Call Monitoring of Any Type is Possible
- Can Handle Multiple Calls
  - Each Call Opens a Large Window on Screen
  - No List of Active Calls
- Can Add Additional Parties to a Call
  - Unless Conference Resources Are Configured for the User, Caller ID for Additional Calls is not the Customer's Caller ID

#### Call Features Review

- No Out Dial Voicemail Delivery (Typically Used for After Hours)
- Cannot Limit Incoming Calls Except in a Call Queue
- Unanswered Can Only Forward to 1 Other Option Including Voicemail
- Unanswered Calls Ringing to External Number Cannot End Up in System
   Voicemail
- No Handsfree on Intercom Calling
- It's a softphone call audio is dependent on computer sound system
  - Typical setup and adjustments problems

#### General Weaknesses

### 3<sup>rd</sup> Party Contact Sync

- Limited Ability to Sync with Outlook and only in Web Version of Teams
- Synced Outlook Contacts Are Static
- No Other Contact Syncing is Supported
- Only Favorites as Marked in Web App Appear in Mobile App

## Importing Contacts

- Cannot Have External System Contacts
- Cannot Sync Contacts with Apple or Google
- Cannot Import Any User Contacts
- You can:
  - Type in contact one at a time
  - Using the MS Edge browser, you can sync and manage Outlook contacts to Teams.
     Not a feature in the desktop, mobile or MS Desk phone.



#### tompatterson45 replied to sfanjoy

Apr 18 2020 07:38 AM - edited Apr 18 2020 07:40 AM @sfanjoy

I can't even add one single contact to my Teams. Feeling SUPER frustrated right now, and wondering if I made the wrong decision purchasing Office 365 Business Premium in order to be able use Teams. I've spent many hours since purchasing it yesterday, and have gotten exactly nowhere. This does not strike me as the kind of work one should have to do to get it to function—and then still not have it function. What am I missing?? I'm a sole proprietor in my business, so every contact has to be an external contact. Can someone please help?

3 Likes

Reply Reply



#### HiltonMundell replied to tompatterson45

Apr 20 2020 11:19 PM

<u>@tompatterson45</u> I am in the same boat here! Finding this frustrating. I need to add external users onto teams and so far I am getting nowhere.

1 Like

💬 Reply



#### salesagency replied to tompatterson45

Apr 23 2020 07:13 PM

@tompatterson45

I have the same need and concern. Hope we see a solution.

### General Weaknesses

- No Call Forward Unavailable for Internet Redundancy
  - Alternate Device Must Ring 100% of the Time
- No SMS Support
  - Requires 3<sup>rd</sup> Party Solution
- No Click to Dial in Web Browsers
  - Requires 3<sup>rd</sup> Party Solution and Configuring tel: link in browser

#### General Weaknesses

- User Caller ID Control Not Supported, requires a MS admin with PowerShell skills
  - No Option for Users to Select Caller ID from List

### Set your caller ID policy settings

① Note

To set the caller ID to a resource account phone number and to set the calling party name, use the PowerShell cmdlets New-CsCallingLineIdentity or Set-CsCallingLineIdentity in the Teams PowerShell module 2.3.1 or later. (These options are not currently available in the Microsoft Teams admin center.)

https://docs.microsoft.com/enus/microsoftteams/set-the-caller-id-for-auser?WT.mc\_id=365AdminCSH\_SupportCentral

### General Weaknesses

- Limited Call Detail Reporting Capabilities
  - User Level
    - Limited to what is shown on the Call History portion of the Calls page
    - No editing, exporting or sharing
  - Admin Level
    - Teams admin have access to usage reports. Preview on screen and or export to Excel as raw data.
  - Custom Call Reports
    - Not a provided service. 3<sup>RD</sup> party providers available to purchase.
    - Data Seems Limited to 1 Line per Call i.e. no cradle to grave call information

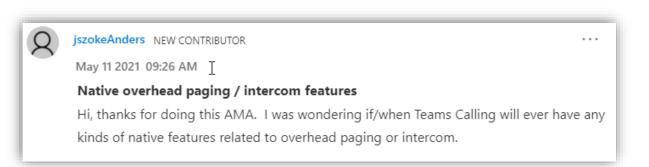
### General Weaknesses

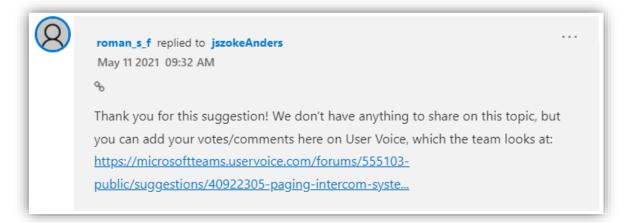
- No eFax Service
  - Customers Must Use 3<sup>rd</sup> Party
- Fax Machine Support Requires 3<sup>rd</sup> Party PSTN Services, MS Certified 3<sup>rd</sup> Party Session Border Controller and Analog Device

### **Equipment Support**

### Paging Not Supported

- All Page, Zone Page, Overhead Page
- Phone Page (One or Two Way)
- Night Ring Over Paging





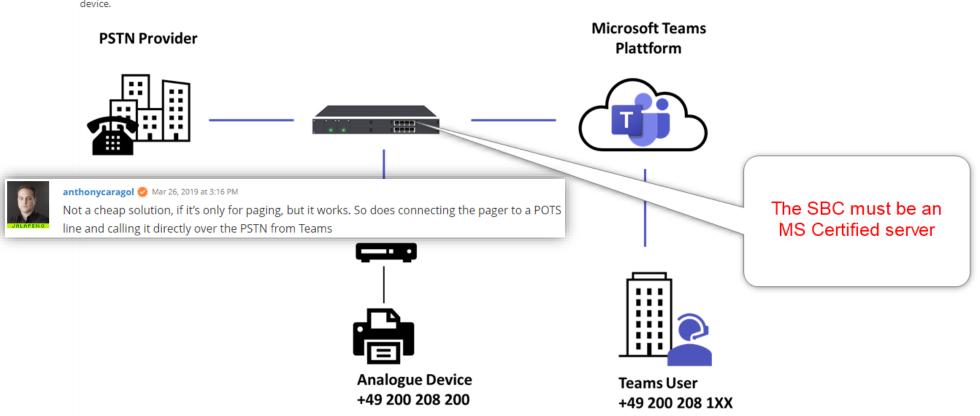
https://techcommunity.microsoft.com/t5/microsoft-teams-ama/native-overhead-paging-intercomfeatures/m-p/2345365

### **Equipment Support**

Fax machine or any endpoint that could be connected by an ATA

#### Going into detail - Example of the call routing

Now, let's go into detail and have a look how to configure the call routing in a SBC. In this scenario, I assume that you successfully connected the SBC to the Microsoft Teams platform and the ATA device is registered to the SBC. We are using the number range from +49 200 208 100 to +49 200 208 199 for our Microsoft Teams Users. The ATA is configured to use +49 200 208 200 for an analogue device.



### **Equipment Support**

- Door Latch Control
  - Not Supported
- Door Intercom Endpoint
  - Not Supported

https://techcommunity.microsoft.com/t5/microsoft-teams/teams-for-calling-with-front-door-security-system-new-office/m-p/1060934



Christine Stack FREQUENT CONTRIBUTOR

Dec 11 2019 12:09 PM

Teams for Calling with front door security system - New Office Planning NEED

#### ADVICE

We are "all in" with Microsoft 365 and Teams Calling (using computers and mobile phone apps). Our office is serverless. We are renovating a new location and I want to plan for a front door entry and security system. What do I need to know now (currently we are in the early stages of demolition) for planning. We rent in our current location so I have not needed to purchase my own front door system in the past. Can this all be done wirelessly or via POE these days connected to WHAT? I really need to know what I need to plan for in terms of wiring (if anything). What 3rd party technology or partners would do this type of work or at least consult on it?



N

Stewart\_Ross replied to Christine Stack

Oct 13 2021 10:15 PM

@Christine Stack Did you ever find a simple door station/intercom solution that did not require a combination of 3rd party products to work? I'm interested in the same.

### **Equipment Support**

- No Teams Enabled Cordless Phones
- MS offers Teams Enable 3<sup>rd</sup> party endpoints
  - Support unknown
- Analog Cordless Phones Need 3<sup>rd</sup> Party PSTN and Session Border Controller
  - Cannot Be Called Directly, Must Use PSTN Assigned Number

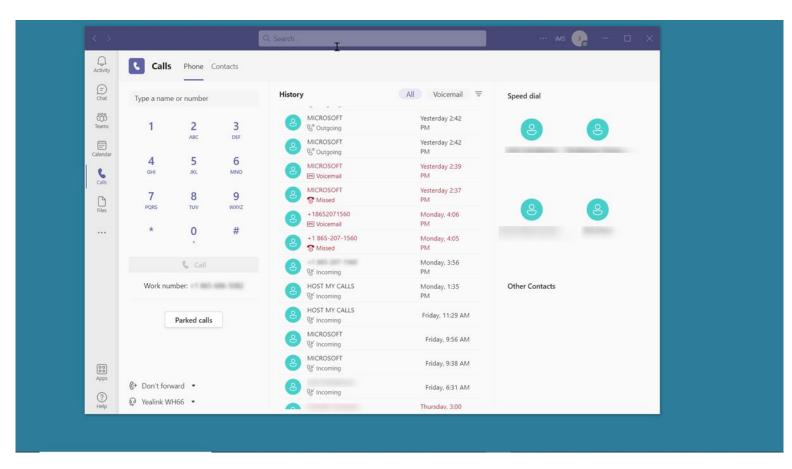
### User Operation Examples

### **Complex and Confusing User Operation**

Here is an Example of the User Steps to –

- 1. Answer an Incoming Call
- 2. Park the Call
- 3. Retrieve the Parked Call
- 4. End the Call
- 5. Return to Idle Teams Calls Page

Answer an Incoming Call

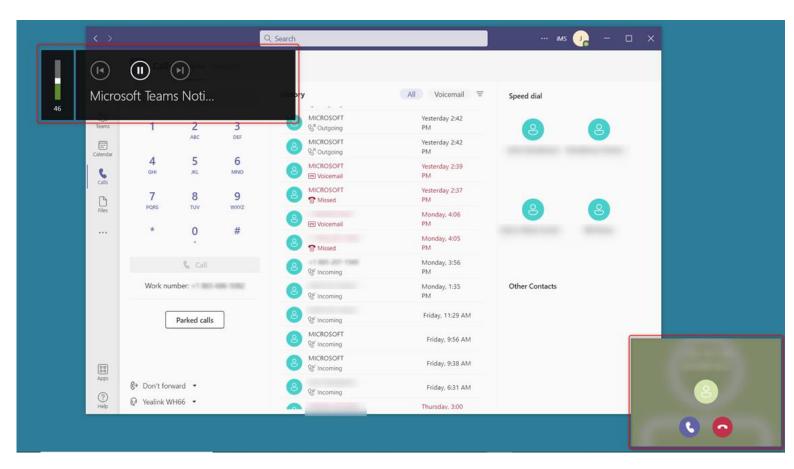


Idle Teams Calls Page

This is the view needed for a user to manage PSTN and Local User calls

Desktop Screenshot

Answer an Incoming Call



Call Begins to Ring

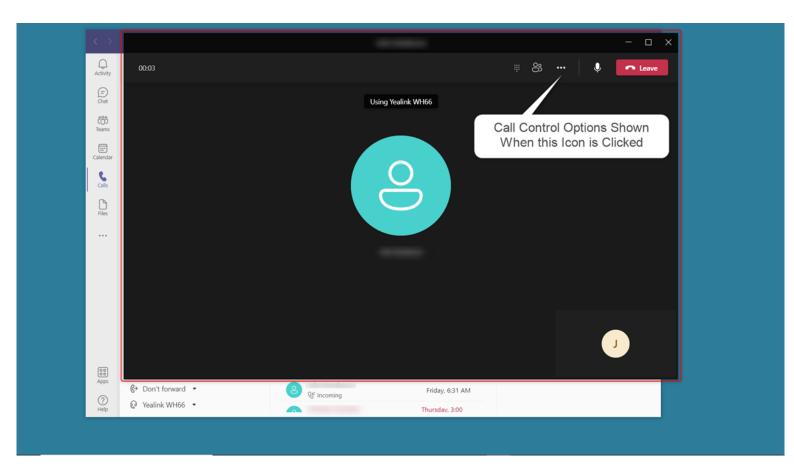
Two additional windows pop up

- One for Audio Control
- One for Call Notification and Control

User Answers Call by Clicking the Answer Icon in the Second Additional Pop-up Window

Desktop Screenshot

Answer an Incoming Call



Call is Answered and Audio is active

Third additional window popup

 This window is dedicated for management of this Call

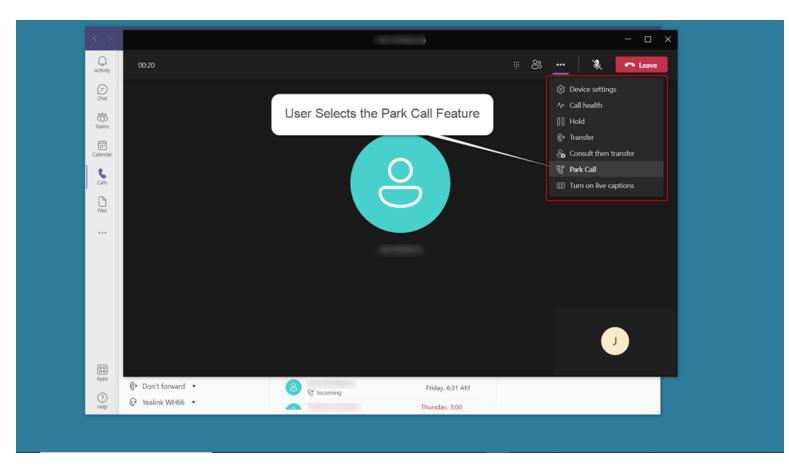
User Answers the Call and has conversation with Caller

User wants to Park the Call

User Clicks the Call Control Options Icon to access the Call Park selection

Desktop Screenshot

#### 2. Park the Call



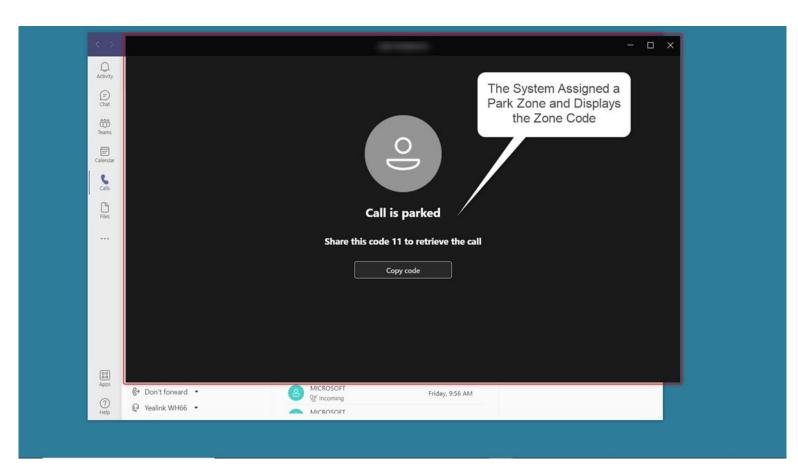
Parking the Call by User

After the Options Icon is Clicked, another Window Appears.

User Clicks the Park Call Option

Desktop Screenshot

#### 2. Park the Call



The System Parks the Call

Previous Window is replaced with an Additional Window with Information about the Parked Call

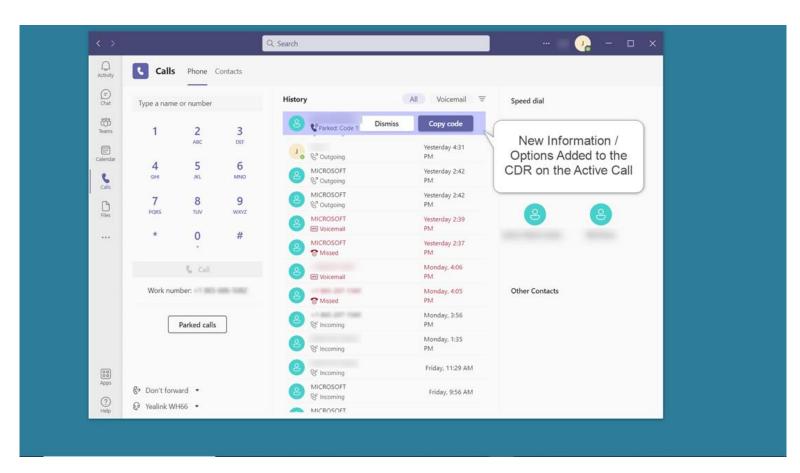
User Clicks the Copy code button or commits the code to memory

User Must Close this Informational Window to Continue

 Clicking the X in the top Right Closes the Window

Desktop Screenshot

#### 2. Park the Call



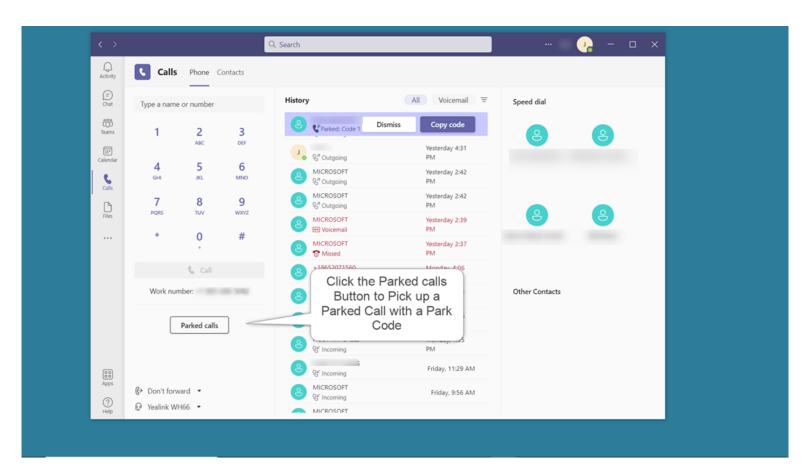
User is Returned to the Idle Calls Page

The CDR for the Call is Shown and with Options that Repeat what was Shown on Previously Shown Window

User can Dismiss the Option to Copy code or Copy Code

Desktop Screenshot

#### 3. Retrieve the Parked Call

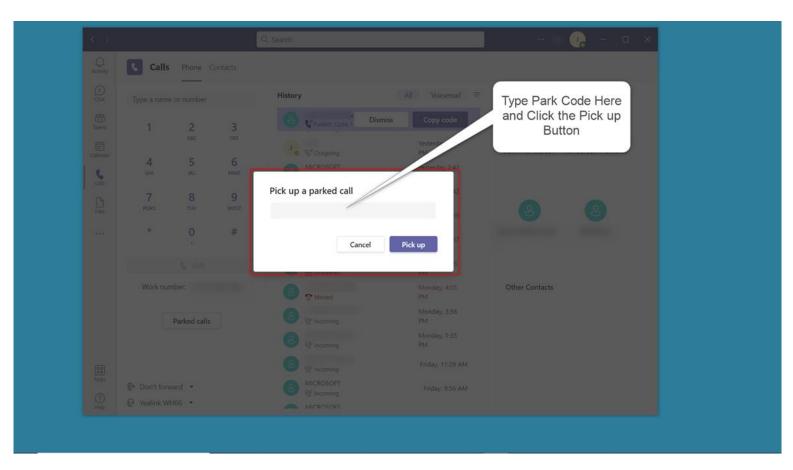


User Retrieves the Parked Call from the Idle Calls Page

User Clicks the Parked calls Button which is below the Dialpad (one of the few direct functions buttons available)

Desktop Screenshot

#### 3. Retrieve the Parked Call

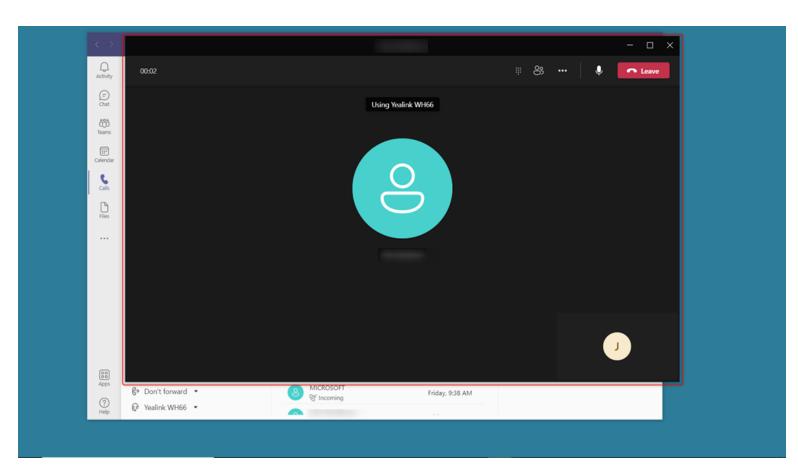


User Retrieves the Parked Call from the Idle Calls Page

- A Pop-up Window Appears
- User Types the Park Code for the Call
- User Clicks the Pick up Button

Desktop Screenshot

#### 3. Retrieve the Parked Call



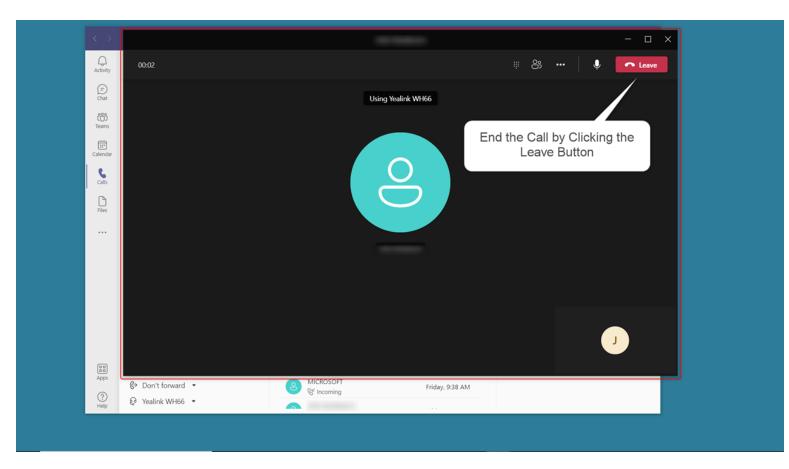
User Retrieves the Parked Call from the Idle Calls Page

A New Call In Progress Screen Appears

Call Audio for Both Parties is Connected

Desktop Screenshot

#### 4. End the Call

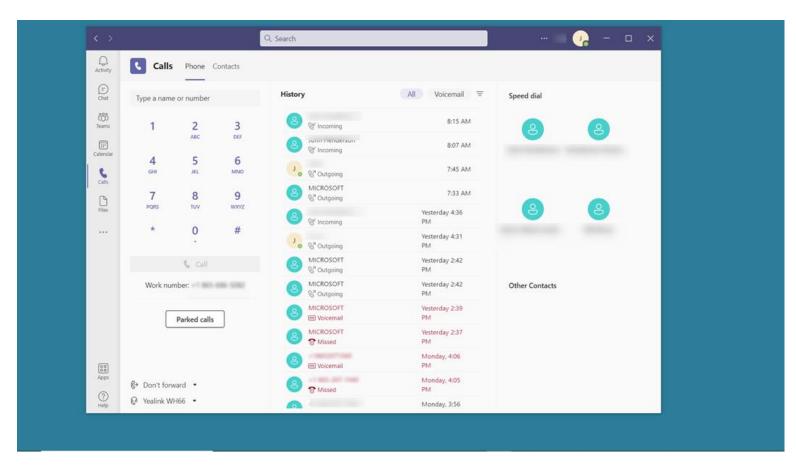


Ending the Call from the Active Call In Progress Screen

User Clicks the Leave Button to End the Call

Desktop Screenshot

### 5. Return to Idle Teams Calls Page

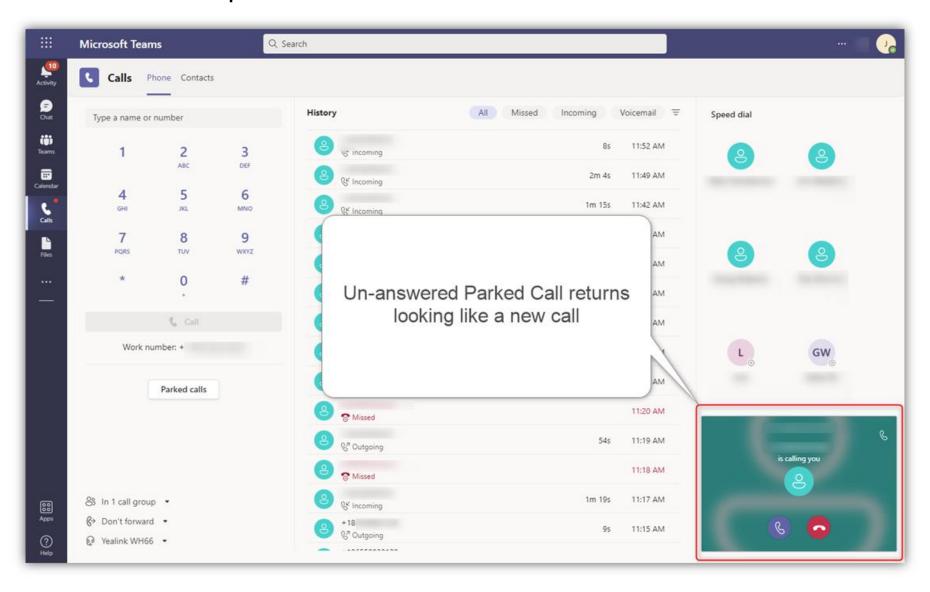


Call was Ended

The Idle Calls Page is Returned

A New Call Function can now be Preformed

Desktop Screenshot



## Meeting Application Requirements

#### User Call Handling

- To Answer a call and Transfer it on the Teams Computer Client, 3 Different Popup Windows are used
- With a Call in Progress, there is no Easy Way for a User to Verify the caller/called party's phone number
- To add-on a 3<sup>rd</sup> party to a call in progress is done by invite, or dialing and joining them into a Teams Meeting
- Call management functions are not in the Dialer window, but in the Meeting window
- Un-answered Parked calls return looking like new calls

## Meeting Application Requirements

- 911 User Changing Location
  - Requires MS Admin
  - User level E911 address change not available by default

#### Notes and restrictions

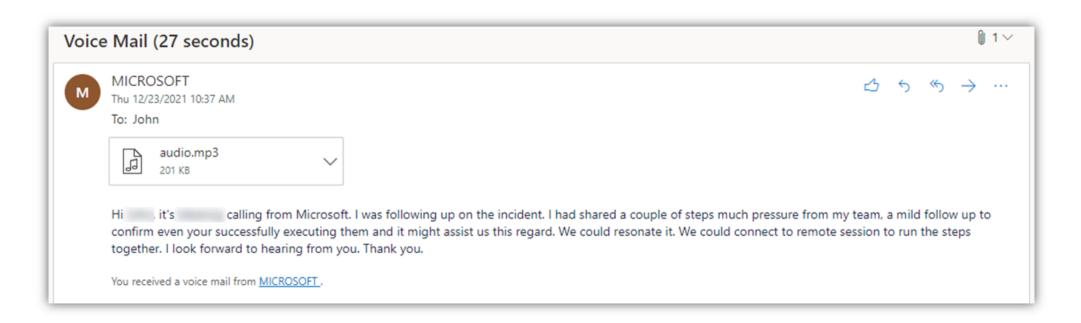
Keep the following in mind:

- The work-from-home experience described is for Teams desktop on Windows and Mac.
- · Teams phones do not support the work-from-home experience.
- Teams mobile supports automatic location detection but not the user entered experience described.
- Privacy settings can conflict with automatic location detection Mobile Device Management systems can be used.

## Meeting Application Requirements

#### Voicemail

- Only basic User Management in Teams
  - Listen, Read, and Delete
  - User's Outlook needed to export recorded message file to archive or share



## Yealink MP-56 Teams Desktop Phone

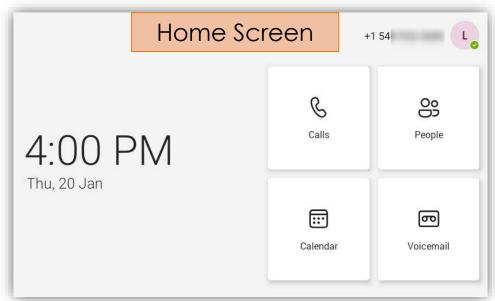
#### **Benefits**

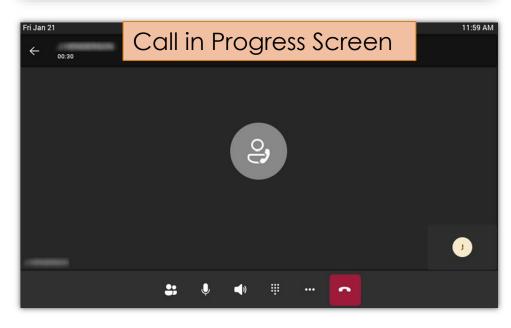
- Provides voice calling solutions with great audio quality
  - No PC softphone sound system issues
  - Supports Hot-desking
  - Common Area Phone (CAP)
  - Meeting Rooms
  - Does not require a computer
  - Handset/Speakerphone switching
  - Dedicated buttons for basic features
  - Easy to view screen

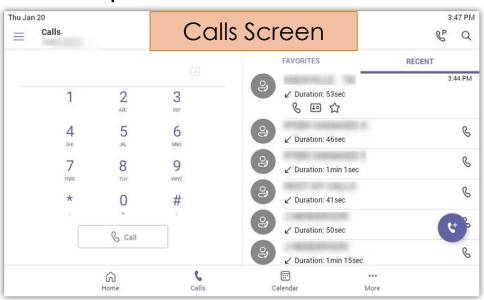
#### Weaknesses

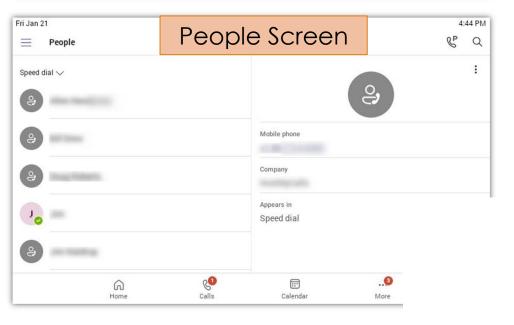
- Difficult to handle multiple calls
- Very limited device management by user
- Very limited device management by via Teams admin
- Slow to see and send status changes to other Teams users – about 2 minutes
- No editing of synced Outlook contacts
- Teams user sign-in lost often, requires resign in
- Pop-up call quality survey appears often
- Un-friendly and limited call handling processes

## Yealink MP-56 Teams Desktop Phone



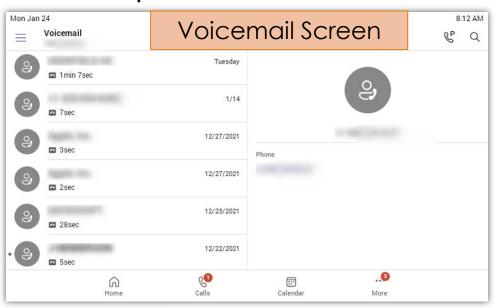


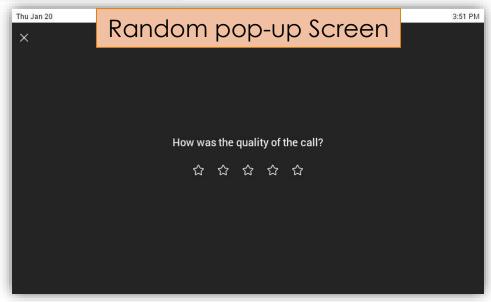




## Yealink MP-56 Teams Desktop Phone



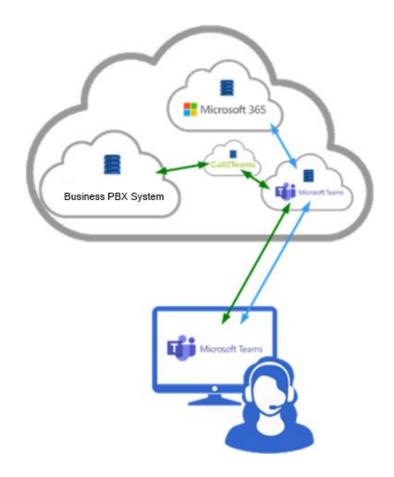




## Support for Microsoft Teams Phone

#### Call2Teams

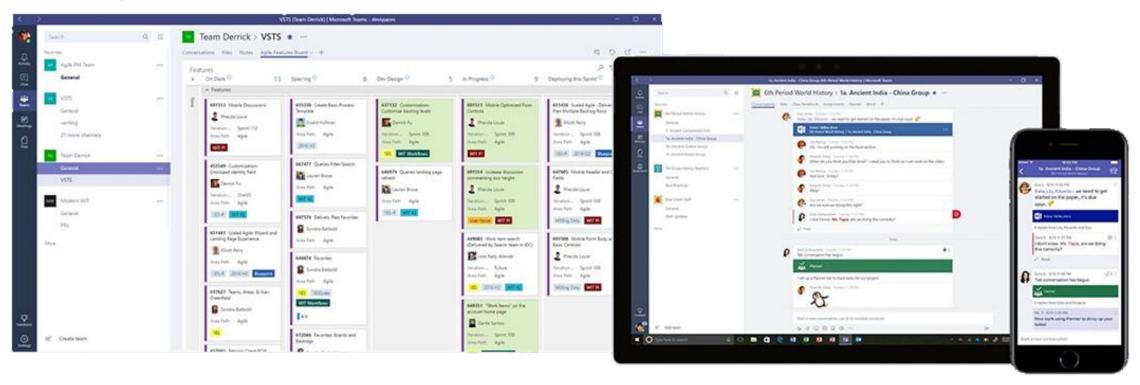
- Call2Teams™ from Qunifi is a cloud service
- Microsoft Teams application registers as an extension
- Call2Teams allows the Teams Phone to support a Business PBX system extension



## Support for Microsoft Teams Phone

#### Call2Teams

- Allows Teams users to leverage the PBX station call handling features providing collaboration, messaging and voice across all devices
- Computer, Tablet and Smart Phone



## Support for Microsoft Teams Phone

## Desktop Environment

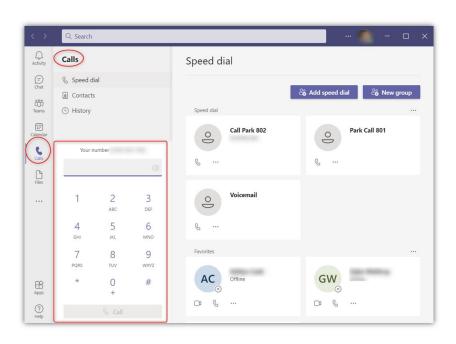
A Shared Extension can enhance call management options



Users can have desk phone or Teams client or both







Overview of Major Weaknesses	Solved by Teams Integration with Hosted PBX Service
Constrained by Teams environment which wasn't designed originally for PSTN Calling processing	Yes
Most developers are likely not experienced PBX developers	Yes
Support is poorly designed and cannot function in an efficient manner	Yes
Desk phones - cannot be taken home, update status slowly (2 or more minutes), require periodic login	Yes
Invoicing	Yes
All phones (including common area) require DID and will ring regularly with SPAM calls	Yes
Dysfunctional support for analog equipment	Yes
No cordless phones	Yes
Potential Accumulating Tax Liability	Yes
Changes can take affect immediately, 4 hours or 24 hours	Yes
Call Park will ring back only once. If ring back is missed, call will stay parked but no one will know about it	Yes
Different Endpoint Required for a Main Answering point	Yes
Price if Key System or PBX Features Are Needed	ŚŚ

Overview of Major Weaknesses	Solved by Teams Integration with Hosted PBX Service
No unavailable options for redundancy	Yes
CDR is minimalistic and reports are limited and only available through 3rd parties or spreadsheet manipulation	Yes
Clumsy call handling	No
No paging through phones and difficult/expensive integration to external paging	Yes, for service phones with support feature
No Fax Support - need 3rd Party Solution	Yes
No SMS Support - need 3rd Party Solution	Yes
Recording All Calls requires 3rd Party Solution	Yes
No Call Pickup	Yes, for service phones with support feature
Calls forwarded to external number cannot be drawn back to system voicemail	Yes
May require several 3rd Party Relationships to assemble a complete phone system	Yes
Typical PC Softphone Audio Setup and Adjustment Problems	Yes

# MS Teams Phone: A Square Peg in a Round Hole

Any Last Questions



# MS Teams Phone: A Square Peg in a Round Hole

Thank You For Your Time!

