

Configuring Auto Attendant and Call Queues

Planning and Designing a PSTN Solution



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Overview



Teams voice application

- **Call Queues**
- **Auto Attendant**

Managing resource accounts

Designing voice application

Hybrid deployment overview



Call Queues



Call Queues



Holding area for callers

Connects a caller to a group of agents

- Agents are enterprise voice-enabled
(minimum Phone System license)

Multiple options for call distribution

Agent opt-in or opt-out capability

Custom hold music

Handle queue overflow or timeouts



Call Queues Routing Methods



Attendant Routing: ring all agents at the same time



Serial Routing: rings agent one at a time in specific order



Round Robin: balances so each agent gets the same number of calls



Longest Idle: routes to longest available agent based on status



Additional Configuration

Conference Mode

- Reduces time for caller/agent connection
- Not supported when routed from a Direct Routing gateway enabled for Location-Based Routing

Channel-Based

- Support up to 200 agents via a Teams channel
- Shared call history and voice mail

Custom Music on Hold

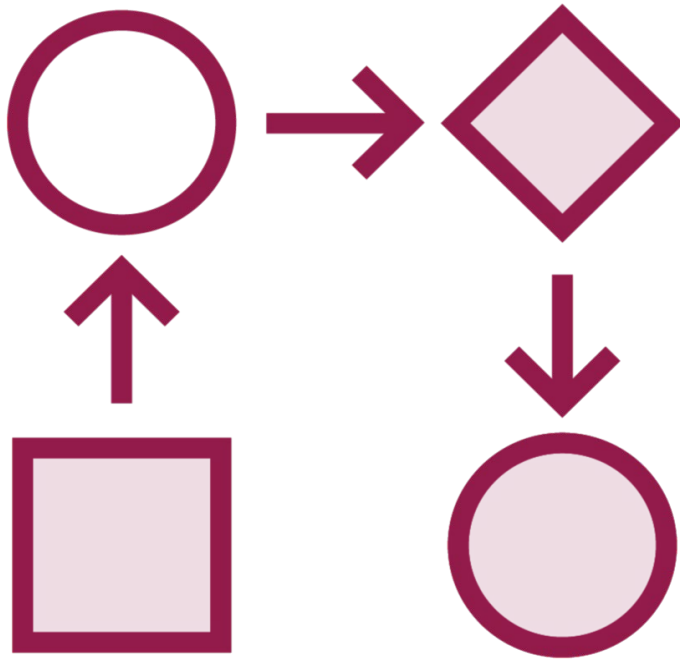
- Teams provides default music
- Upload MP3, WAV, or WMA file



Auto Attendant



Auto Attendants



Menu system for routing incoming calls

Direct to people, call queues, voice mail, or another auto attendant

Use service phone numbers for external access



Auto Attendant Features



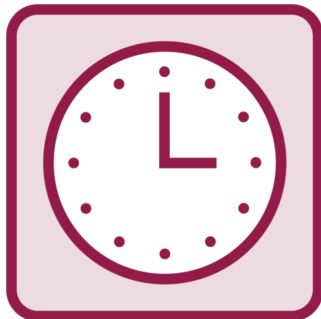
**Text-to-speech or
recorded audio**



**Keypad or voice
recognition**



Operator



**Business hours and
holidays**



**Multiple languages
supported**



**Director search
(name or extension)**



Menu Action

**Operator or person
in an organization**

Voice App

Voice mail

**External Phone
Number**

Announcement



Microsoft 365 Group Shared Voice Mail

Enabled for Voice mail by default

Users Access shared mailbox to manage messages

Define group as voice mail action target

Channel-based call queue, use team

- Teams is backed by an M365 group



Resource Accounts



Resource Accounts



Disabled user object in Azure Active Directory

- Sign-in is blocked

Dedicated account for each call queue and auto attendant

Uses Phone System – Virtual User License (Teams Phone Resource Accounts)

Can assign service phone numbers to resource account

- Toll or toll-free



Licensing Resource Accounts

Phone System – Virtual User license (Resource Accounts)

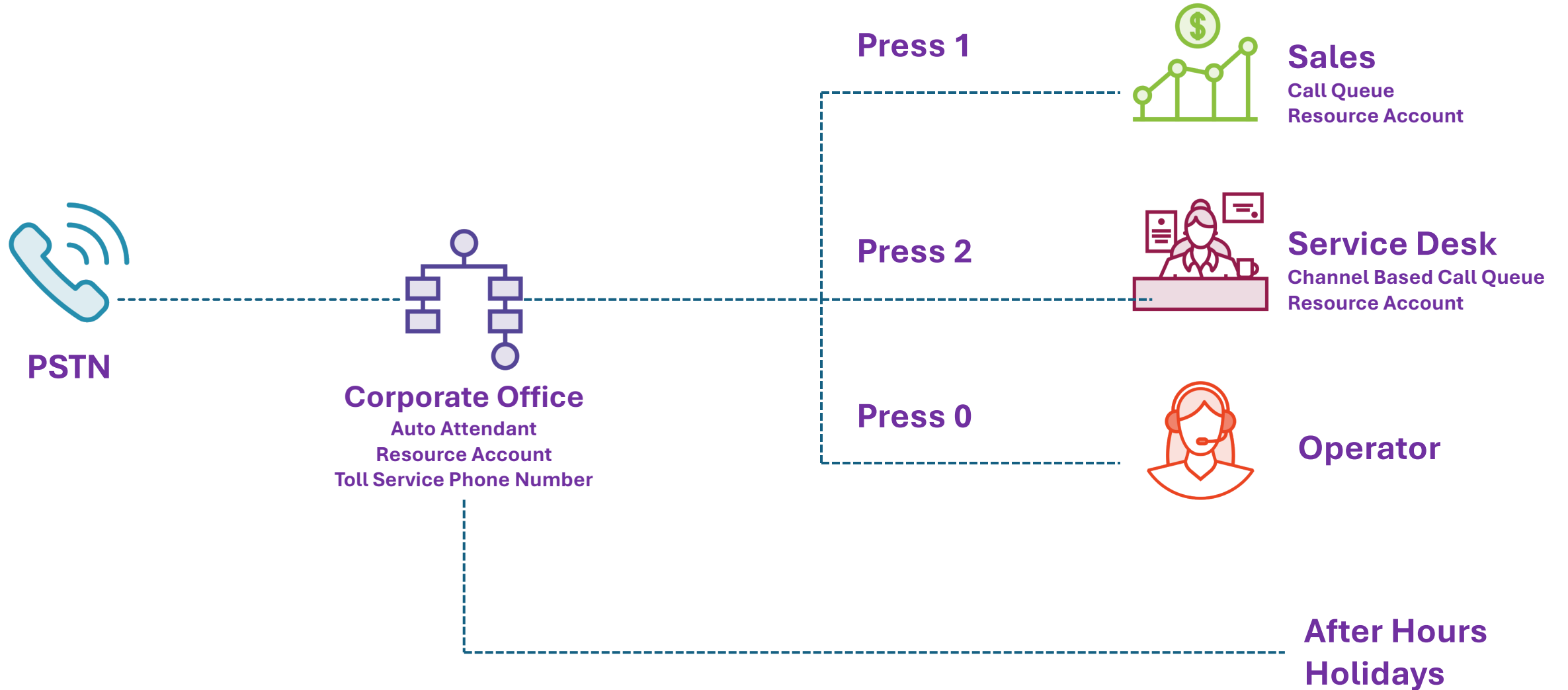
- Free license
- Enables Teams Phone System functionality

Outbound calling

- Calling Plan
- Operator Connect
- Direct Routing (Voice Routing Policy)



Voice Application Design



Demo



Verify phone number availability

Verify Phone System - Resource Account Licenses

Deploy prerequisites for voice application solution

- **Provision resource accounts**
- **Assign licenses**
- **Assign Phone Number**



Demo



Create Call Queues

- **Sales**
- **Service Desk**

Set Options

- **Agents**
- **Call routing method**
- **Overflow and timeout options**



Demo



Create Brooklyn Office Auto Attendant

- **Configure operator, time zone, and language**
- **Set greetings and menu options**
- **Configure dialed key actions**
- **Set holiday schedule**
- **Configure directory search**



Hybrid Deployment



Integrate with Skype for Business Server



Skype for Business Server 2019 or newer supports Cloud Voice Features

- Auto Attendant, Call Queue, Voice Mail

Incoming calls from Microsoft PSTN, Skype for Business Server, or SBC

Resource accounts can be homed online or on-premise

Requires hybrid configuration with Teams and Skype for Business Server



Hybrid Resource Account PowerShell

```
# Create on-premises resource account for auto attendant or call queue
New-CsHybridApplicationEndpoint `
  -ApplicationID <GUID> `
  -DisplayName "Brooklyn Office Auto Attendant" `
  -SipAddress aa-brooklynoffice@rizinbiz.net `
  -OU "ou=Brooklyn,dc=rizinbiz.net,dc=net"

# Assign an online service number to resource account
Set-CsHybridApplicationEndpoint `
  -Identity aa-brooklynoffice@rizinbiz.net `
  -LineURI tel:+14255550100

# Or assign a Direct Routing or hybrid number to resource account
Set-CsOnlineApplicationInstance `
  -Identity aa-brooklyn-office@rizinbiz.net `
  -OnpremPhoneNumber tel:+14255550100
```



Summary



Teams voice applications

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- Auto Attendants

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Up Next: Configuring Audio Conferencing

