Cloud PBX – Options (AA CQ CCE and more)

Disclaimer

This is a point of time view

- This session was written in March/April 2017
- The features and functionality describe are current as of this date

O365 is ongoing innovation

- New features and functionality are added frequently

Always refer to latest information

- Go to http://aka.ms/SkypeAcademy for updated training material
- Engage in the community: http://aka.ms/sfbcommunity/

Agenda

- What is Cloud-PBX
- Cloud-PBX Scenarios
- Considerations
- CQ
- AA

Cloud-PBX

What is “Cloud-PBX”

License for PBX functionality

- E1 + Cloud-PBX Add on
- E3 + Cloud-PBX Add on
- E5

Assigned to users

Not actual PSTN connectivity

Requirement for PSTN connectivity, CQ and AA

https://products.office.com/en-us/skype-for-business/cloud-pbx

Cloud-PBX functionality

- Call delegation and call on-behalf
- Call forwarding and simultaneous ring
- Call history
- Call hold/retrieve
- Call transfer (blind, consult, and mobile)
- Caller ID
- Call waiting notifies
- Camp-on
- Device switching
- Distinctive ring
- Do-not-disturb
- Enterprise calendar call routing
- Skype and federated calling
- Team calling
- Using video call monitor
- Voicemail
- Music on hold
- Integrated dial-pad
- Clients for PC, Mac, and Mobile
- Qualified IP desk phones

https://products.office.com/en-us/skype-for-business/cloud-pbx

Cloud-PBX Scenarios

On-premises hybrid deployment (Session 5)

On-premises CCE deployment

- As a box
- Dedicated server

PSTN Calling (US, UK, PR, FR, ESP) – And expanding (Ireland and Netherlands in www.skypepreview.com)

Cloud-PBX Considerations

CCE + On-Premises Hybrid not supported (for now)

PSTN calling plans required online

Online vs On-premises functionality

Dial-in conferencing (separate license online)

Porting numbers / migration

Regional meetings

Auto Attendant

Slides: Outtake from https://aka.ms/sof-sablog

Benefits of Auto Attendant

Provide an interactive virtual receptionist

Relieve Operators from simple chores

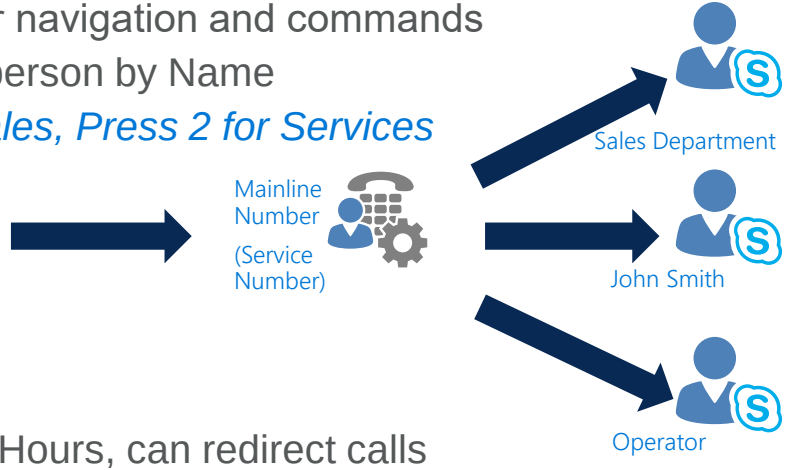
Sorts the incoming calls, freeing up first line

„Makes your company more friendly“

Auto Attendants – what do they do?

Auto Attendant – provides automated interactive system for incoming calls

- Can have Business Hours and different Corporate Greetings
- Accepts caller's DTMF (keypad) and Speech input for navigation and commands
- Allows caller to perform Directory Search to reach a person by Name
- Provides interactive Menu Options like *Press 1 for Sales, Press 2 for Services*
- Can have an Operator or Voicemail as backup



- Plays a different Greeting and Menu Prompt for After Hours, can redirect calls
- Can be interfaced with Call Queues, other Auto Attendants, Users, Voicemail

The Experience

During Business Hours

- *"Welcome to Contoso"* (Configurable)
- *"Please type or say the name of the person you are trying to reach, followed by a Pound"* (Configurable)

Outside Business Hours

- *"Welcome to Contoso"* (Configurable)
- *"We are currently closed, please leave a voicemail"* (Configurable)

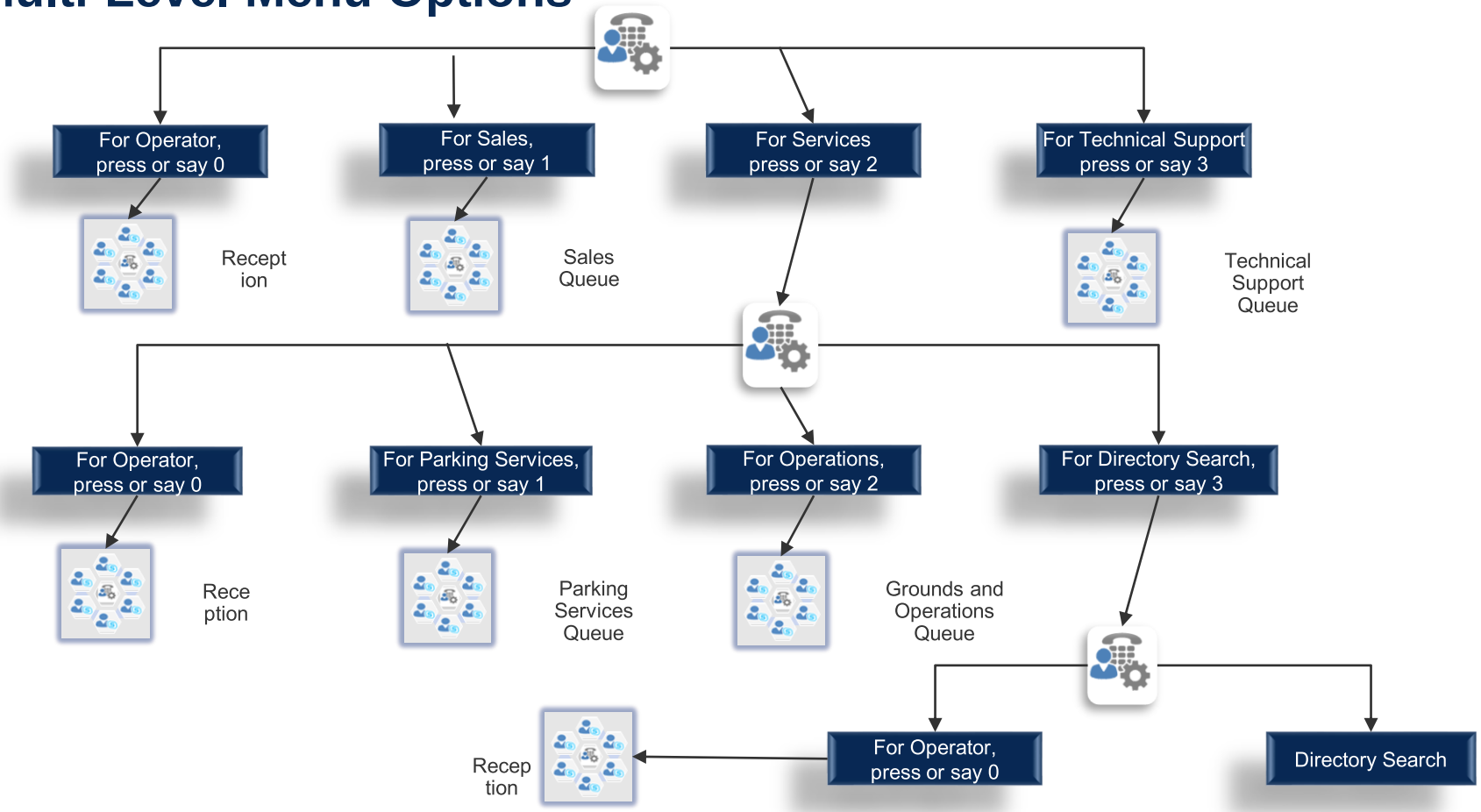
Speech is configurable

- Upload your own file or use text to speech

Options are configurable

- Type the name or say the name
- Use DTMF for additional options (press 1 for sales, 2 for support, 3 for operator)
- Operator can be Cloud PBX enabled user, Call Queue, Auto Attendant or Voicemail

Multi-Level Menu Options



Dial by Name (Directory Search)

Allow callers to say or type a name to reach a person

Who can be reached at GA?

All Online SfB Users homed in any of the tenant's Regions

- No PSTN calling license is required
- No PSTN Number is required
- No Enterprise Voice is required

Who cannot be reached at GA?

On Premises SfB users

Users with Cloud PBX with on premises PSTN connectivity (either via existing pool or CCE)

External PSTN Numbers

Auto Attendant Dial Scopes

Dial by Name searches the entire Active Directory by default

Dial Scope can be configured to narrow down the reach of Dial By Name

- Search only within a certain group of people
- Search the entire directory, except a certain group
- Exclude certain people from the Directory search

Dial by Name - Limitations

Name Recognition with **Speech** is **not available** for Azure Active Directories > 50K Users

Speech Recognition	Enabled
Dial by Name	Enabled
Active Directory	<50K Users

Name Recognition – falls back to DTMF

Speech Recognition – **available** for in other scenarios except Name Recognition with Speech

Voice Commands – **available** to the caller

Admins are notified that Voice Name Search is not available in UI and cmdlet!

Callers are dynamically notified to use their keypad to enter names in the flow!

Ben Jones

I am sorry, but Name Recognition with Speech is not currently possible. Please use your keypad to enter a name.

Ben0Jones#

Operator (optional) in Auto Attendants

Allow callers to break out of the automated flow

Who can be an Operator at GA?

Online SfB Users with Cloud PBX license

- Users in multiple Regions
- PSTN Number or PSTN Calling user license is not required

Call Queues

Voicemail

Who cannot be an Operator at GA?

On Premises SfB users

Users with Cloud PBX with on premises PSTN connectivity (either via existing pool or CCE)

On Premises objects (i.e. RGS groups)

Language Support – Auto Attendant

Language

Set 1 language per Auto Attendant

27 languages available

Female System Voice

Text to Speech

Custom Greetings and Menu Prompts

- with Text to Speech or audio files

Speech Recognition

14 languages

Optional setting

- can be disabled

DTMF is always available!

Voice Commands

Custom Voice Commands

Hands-free System Navigation!

Auto Attendant - Language Support at GA

Text to Speech

English (US)
English (CA)
English (GB)
English (AU)
English (NZ)
English (IN)
French (FR)
French (CA)
Italian (IT)
German (DE)
Spanish (ES)
Spanish (MX)
Dutch (NL)
Swedish (SV)
Finnish (FI)
Danish (DA)
Norwegian (NO)
Portuguese (PT)
Portuguese (BR)
Russian (RU)
Polish (PL)
Arabic (EG)
Japanese (JP)
Korean (KO)
Chinese (ZH)
Chinese (HK)
Chinese (TW)

Speech Recognition

English (US)
English (CA)
English (GB)
English (AU)
English (IN)
French (FR)
French (CA)
Italian (IT)
German (DE)
Spanish (ES)
Spanish (MX)
Portuguese (BR)
Japanese (JP)
Chinese (ZH)

Know-Before-You-Go (deploy)

Auto Attendant will search the entire tenant by default

Address Book Segregration should be configured

Service Numbers must be available

- Service Numbers are numbers that can be requested in a limited supply per customer and can handle a large amount of calls
- Service Numbers can be requested in a similar manner as User Numbers
- Service Numbers can be Toll and Toll-Free
- Toll-Free requires PSTN Consumption Billing

- Info behind the assignment of numbers : https://aka.ms/sa-orgaa-sn

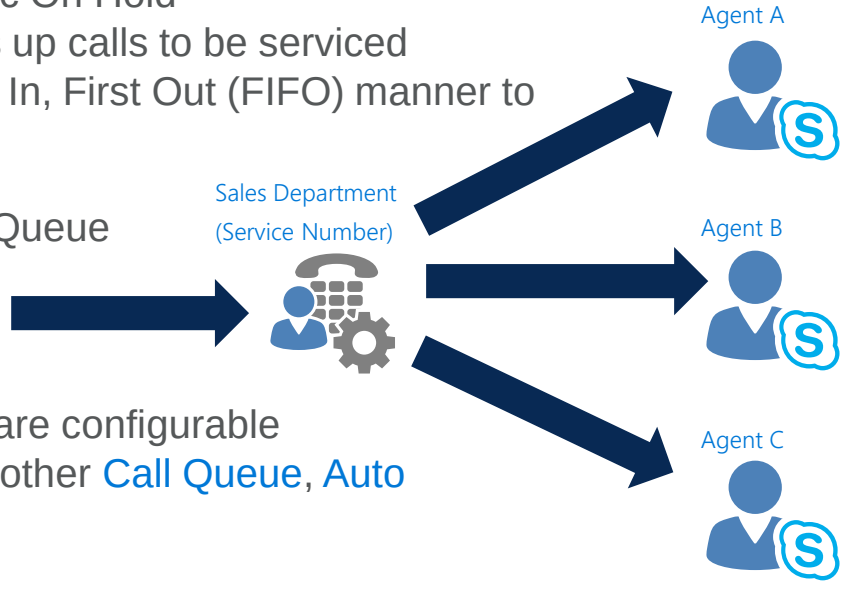
Call Queue

Slides: Outtake from https://aka.ms/sof-sablog

What is Call Queues?

Call Queues – provide automated call distribution for incoming calls

- Often used together with Auto Attendants
- Can have custom Corporate Greetings and Music On Hold
- Accepts up to 200 calls per instance and queues up calls to be serviced
- Automatically distributes the waiting calls in First In, First Out (FIFO) manner to the
- available Agents
- Allows to designate up to 50 Agents for the Call Queue



- Max Queue size and max allowed call wait time are configurable
- Can setup overflow or timed-out calls to go to another Call Queue, Auto Attendant, Voicemail, or Users

Comparison

	Online Call Queue	Skype for Business Hunt Groups
Location	SfB Online	SfB On Premises
Routing Target	Distribution\Security Group with up to 50 Online Users	Distribution\Security Group with On Premises Users
Text to Speech	No	Yes
Speech to Text	No	Yes
Custom Greeting	Yes	Yes
Music on Hold	Yes	Yes
Maximum Concurrent incoming Calls	200 per queue	Hardware Based
Routing Options	Attendant Routing	Attendant Routing, Round Robin, Last Active, Priority, parallel
Agent Participation	Informal	Formal, Informal
Sub Menus	No	Yes
Overflow Option	Yes	Yes

The caller's experience

Configurable greeting

- No default but configurable to
- *"Welcome to Contoso, we are connecting you to the next available agent"*

Caller is connected to Agent

- Based on agent availability

When maximum concurrent calls or timeout is reached

- Connect to different queue (overflow)
- Connect to Auto Attendant (overflow)
- Call can be disconnected
- Forwarded to a separate agent
- Directly to an agent's voicemail

The callee's experience

Call information

Toast shows Call Queue Name and Caller's ID

Agent actions

- Can choose to pick up or not
- If call is picked up, Agent is connected with caller after the connection is complete (1-3 seconds)
- If call is ignored, no missed call notification is generated and next incoming call will be displayed

Know-Before-You-Go (deploy)

An optional greeting can be uploaded

- No text to speech

Music Copyright Considerations

- For Music on Hold, make sure music is rights-free or royalties are paid

Service Numbers must be available

- Service Numbers can handle a large amount of calls
- Service Numbers can be requested in a similar manner as User Numbers (limits apply)
- Service Numbers can be Toll and Toll-Free
- Toll-Free requires PSTN Consumption Billing

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Attendant Routing Method

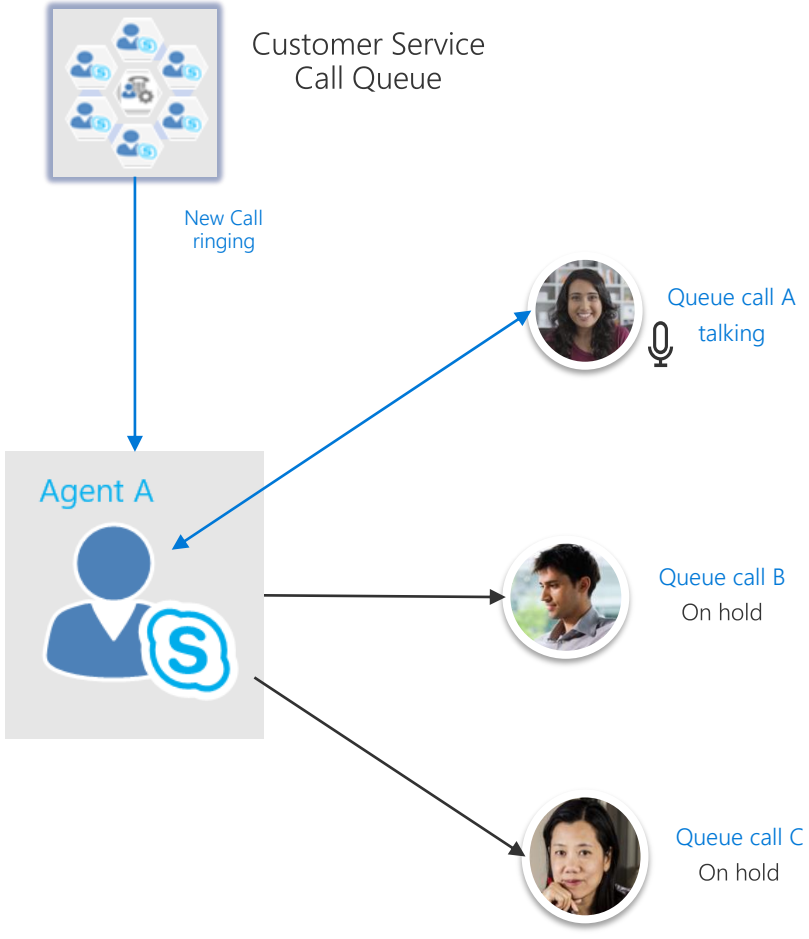
Call rings all the Agents in parallel

Same as Attendant Routing in RGS

Agents already in a call can get a new call from a Call Queue

Only Agents Offline or on Do not Disturb will not get a call

Agents can have multiple calls on hold



Agent Groups

Distribution Lists and mail-enabled Security Groups

- Online or synched from on-premises
- Nested Distribution Lists are supported

Need to be synchronized from Azure Active Directory (AAD) to Azure Address Book Service (AABS)

- Synchronization delay for new DLs and Security Groups: up to 4-6 hours

DLs need to be in AABS before Call Queue can use them

- Cmdlet Find-CsGroup searches in AABS
- Distribution List membership updated each 30 minutes
- See DistributionListsLastExpanded in Get-CsHuntGroup

Call Agents

People who get calls distributed from a Call Queue

Who can be a Call Agent?

Online SfB Users with CloudPBX license homed in any of the tenant's Regions

No PSTN calling license needed!
No PSTN Number needed!

SfB 2016 and Lync 2013 Desktop Clients
IP Phones (certified for Cloud PBX)

Who cannot be a Call Agent?

On Premises SfB users

Users with Cloud PBX with on premises PSTN connectivity (either via existing pool or CCE)

External PSTN Numbers

Users on Mac or Mobile Clients

Call Queue Greetings

Greetings are optional

Pre-recorded greeting can be uploaded

- No text to speech
- MP3, WMA or WAV are supported
- Maximum file size is 5 megabytes

Music on Hold or ringback is supported

- Custom Music on Hold is possible
- MP3, WMA or WAV are supported
- Maximum file size is 5 megabytes

Agent Training is required

Agents are part of agent groups

- When online, calls will be offered
- No agent option to sign in or out of agent groups

Agent behavior affects call routing

- Do not disturb, or offline deflects calls
- Sometimes this status is triggered by accident

Thank You for listening!

Microsoft