

Microsoft Teams for Service Providers

Everything you need to know for a successful deployment



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Microsoft Teams

The hub for teamwork in Microsoft 365



Persistent 1:1 & Group Chat



Powerful Online Meetings

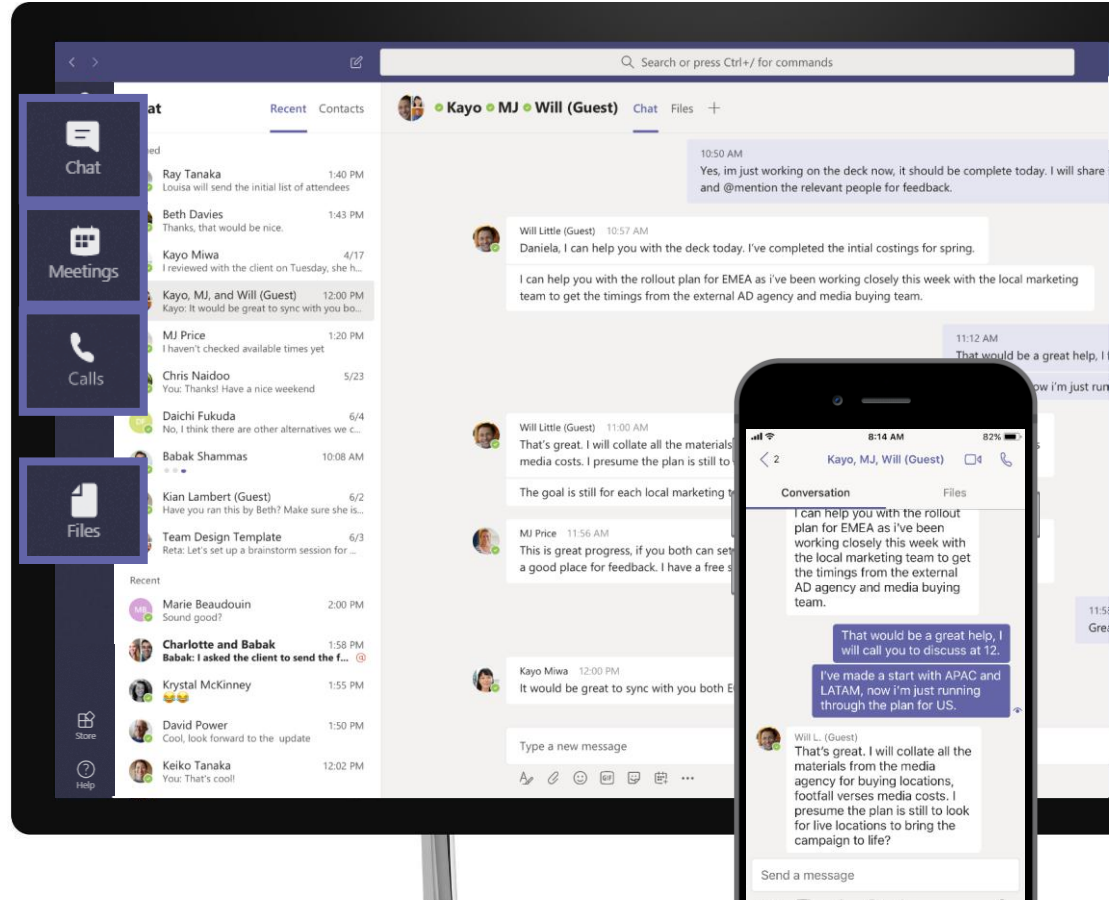


Enterprise Calling & Voice



Built-in Office 365 Apps

Built with the enterprise-grade security and compliance our customers rely on



Teams is the fastest growing business app in Microsoft history

500,000+

organizations use Teams



91

Fortune 100
companies use Teams



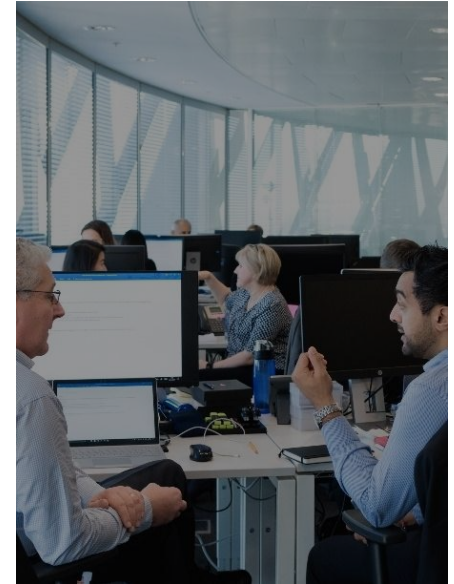
44

languages are
supported in Teams



150

customers have 10,000
or more active users



Cloud Voice Services

Reach worldwide, for business of all sizes



Audio Conferencing

Available in 73 countries
Dial-in for 90 countries
Dial-out to 190+countries



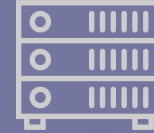
Phone Systems

Modern collaborative calling
Enterprise-grade quality
IVR support 44 languages



Microsoft Calling Plan

Available in 11 geographies
Complete carrier service
Intelligent delivery of PSTN



Direct Routing

Bring your own SIP trunk
Available worldwide
Deployed in 64 countries

Voice Service Management and Extensibility

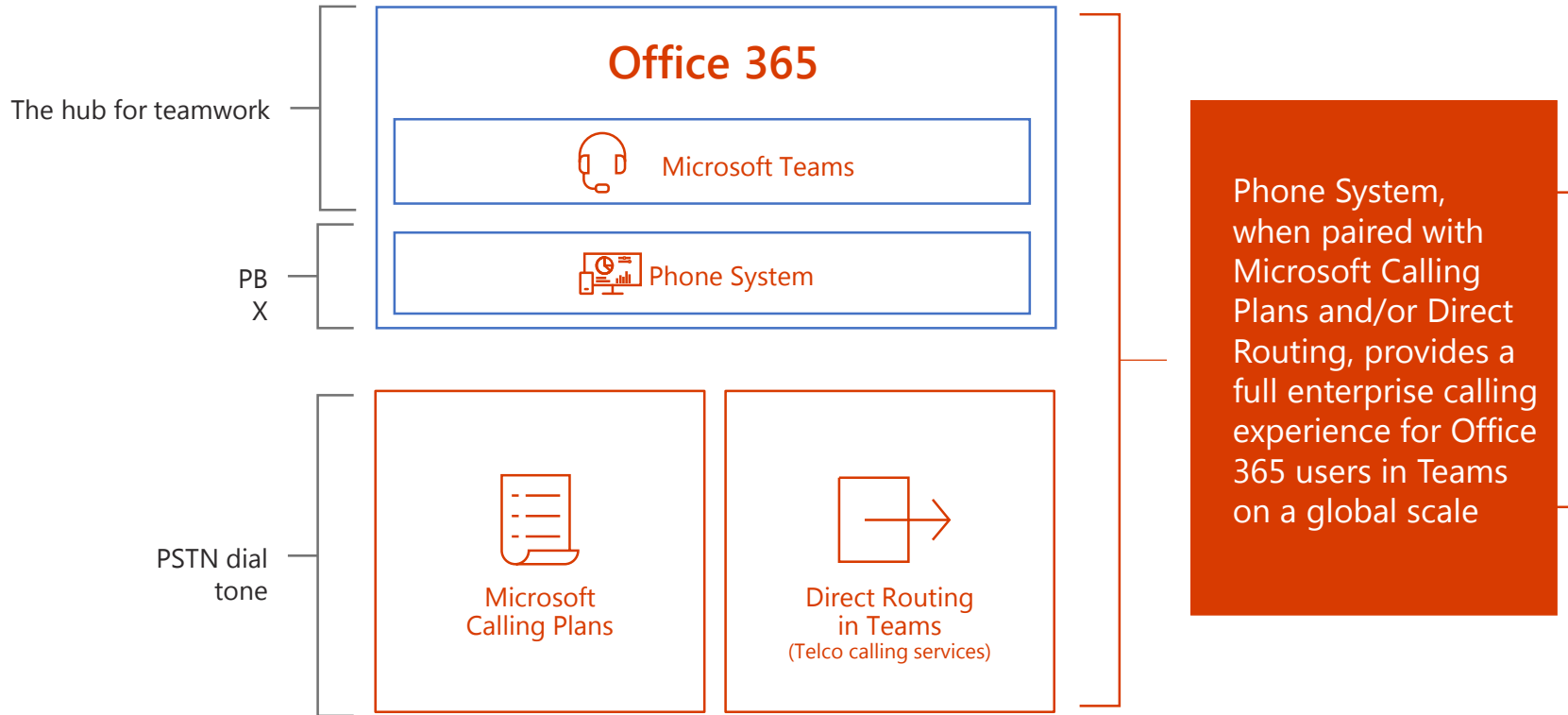
M365 IT Portal, call quality and diagnostics dashboard and reporting, programmable voice and bots framework

Office

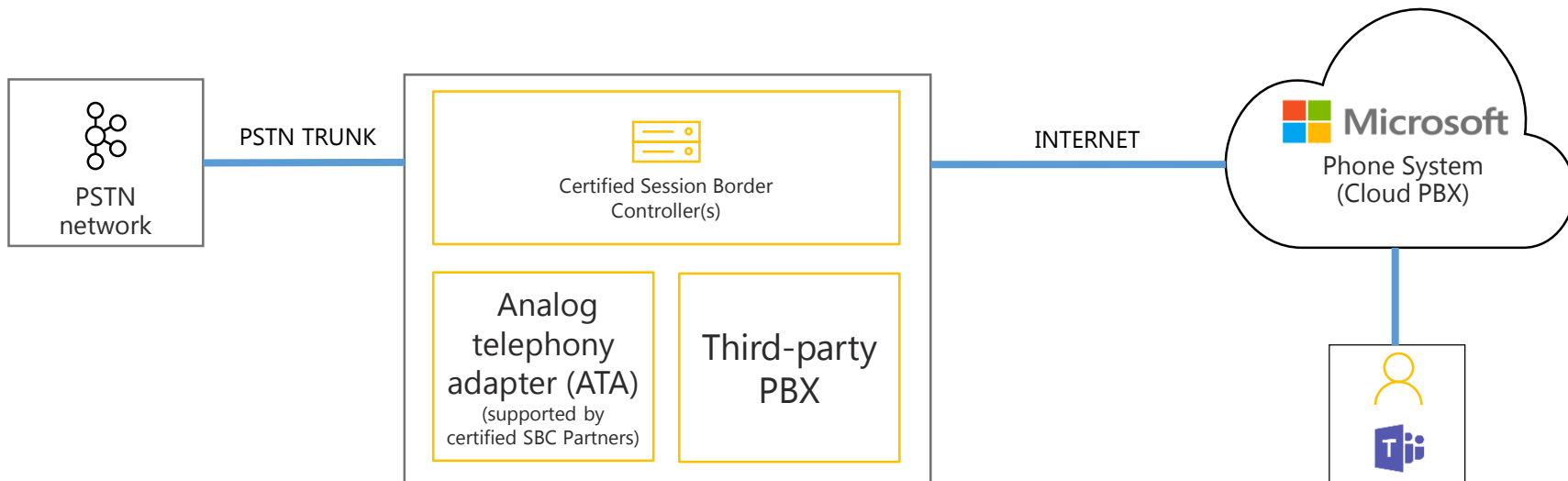
Direct Routing: Technical Overview



Enterprise Voice for the cloud



Direct Routing for Teams



Connect own PSTN trunk

For countries where Microsoft Calling plans are not available
Customers that want to keep existing telco contract

Interoperability with third-party systems

Mix two systems (for example, provide the option to connect analog devices)

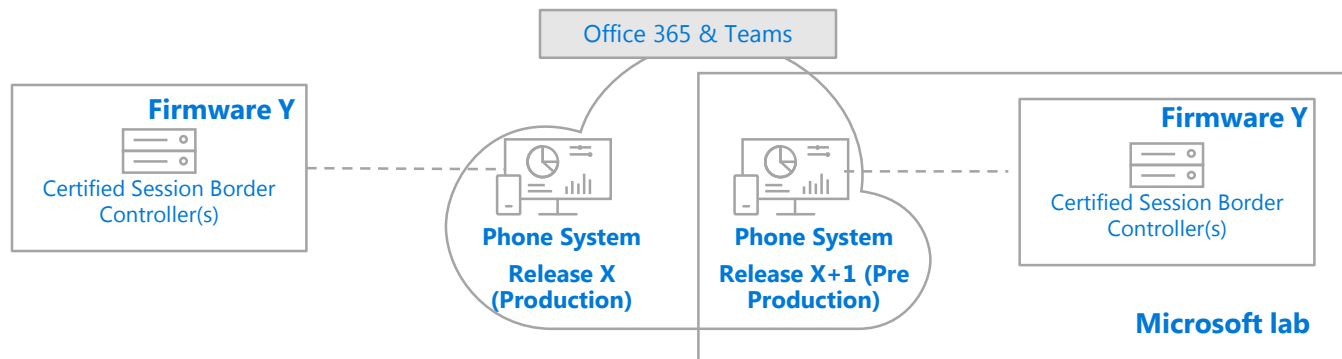
What does it mean “certified SBC”

Delivery of service from the cloud bring new challenges

Challenge: “Continuous Delivery” approach

- Direct routing cloud service constantly updates (every 1 to 2 weeks). Reason - we react on customer feedback and bugs.
- While this approach significantly increase speed of delivery (no need to release a patch or service pack, distribute it to customers and wait for deployment) the challenge is how to make sure that new code on Microsoft side does not break interoperability with SBCs

Answer: Microsoft validates every certified SBC in preproduction environment before new release of our code goes to production



- Series of tests before pre reduction release (x+1) becomes production
- Microsoft guarantees that changes in Microsoft code will not break the certified SBC interoperability

Challenge: The complete solution consists from two components: SBC and Microsoft Phones system

- Customers can end up in a “finger pointing” activity where to vendors can point to each other
- Transferring accurate description of the issue between vendors is not an easy task

Answer: Microsoft and certified SBC vendors have joint support process. Customers can open a bug with Microsoft or SBC vendors and escalation, of needed, will be handled internally between the SBC vendor and Microsoft



Fully validated
Pre-production testing
Joint support process

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Jurgen Van Maele
Solution Director EMEA,
AudioCodes



AudioCodes - The One Voice Company



One vendor for connectivity, phones, and value-added applications

One suite of management tools for voice network lifecycle management

One vendor for logistics, support and professional services



SBC

Fully certified by Microsoft for Direct routing



C4xxHD

Native Phones for Teams and 3PIP family



UMP 365

User Management Pack for lifecycle management



OVOC

Centralized network & device management with quality monitoring



Microsoft Teams
Skype for Business

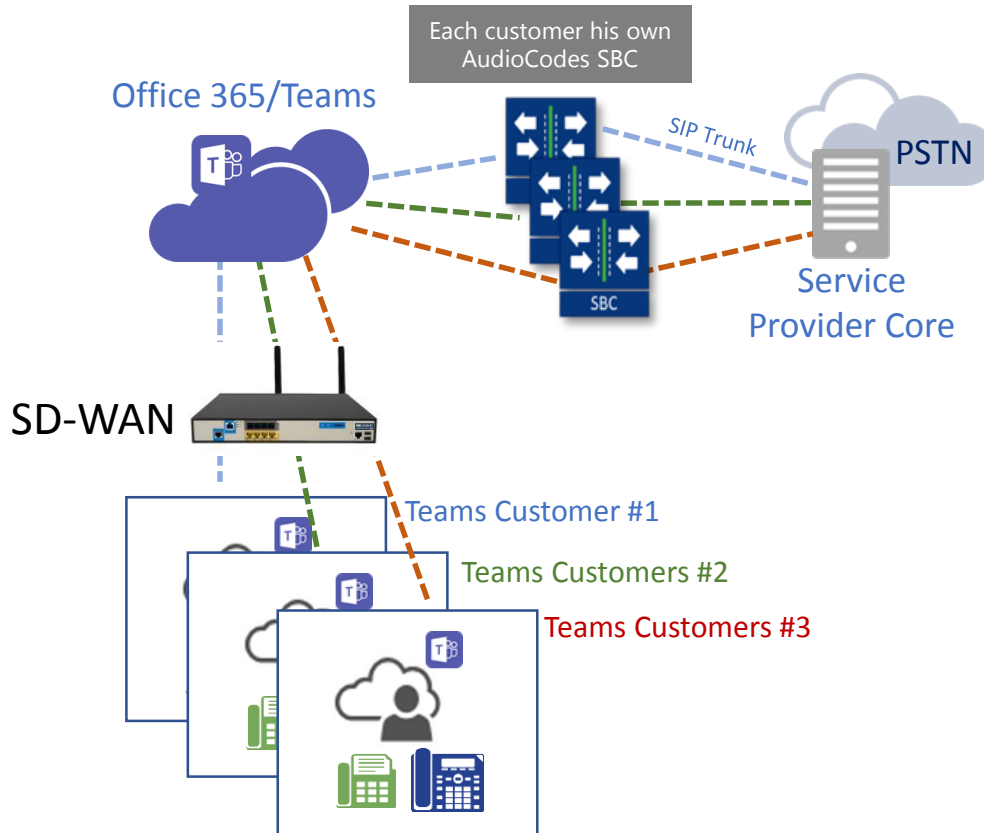


Teams Direct Routing

With AudioCodes Session Border Controllers

Deployment Options for SBC-as-a-service

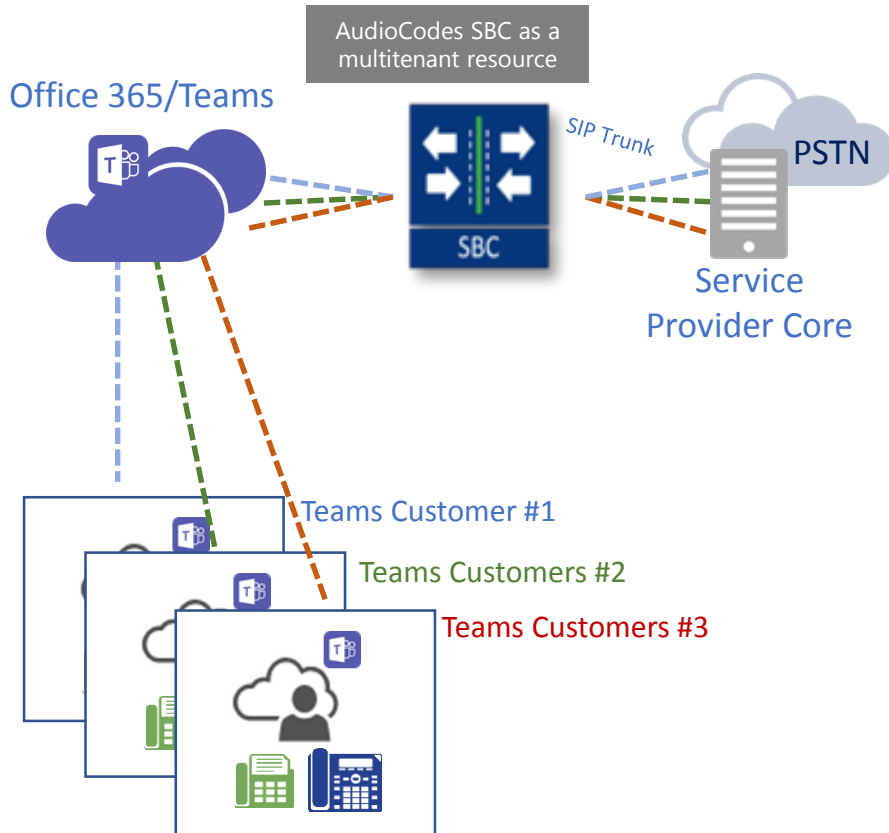
Option 1. dedicated AudioCodes SBC



- Host a dedicated SBC per customer
 - Use the customer provided TLS certificate
 - Route between Teams and the customer SIP trunk
 - Size the AudioCodes SBC according to the customer
 - Hardware appliance or Virtual or Cloud based
 - available in cost effective sizes from 10 to 50.000 concurrent calls
- Use the AudioCodes SD-WAN solution for secure, cost effective and resilient connection of customers or their branches to the O365 cloud

Deployment Options for SBC-as-a-service

Option 2. Multitenant AudioCodes SBC



- Host a single SBC for any customer
 - Use your own wildcard TLS certificate
 - Still possible to use a customer provided TLS certificate
 - Route between Teams and the PSTN
 - Using a customer SIP trunk
 - Using a shared SIP trunk
 - Size the AudioCodes SBC according to the sum of all customers
 - Hardware appliance or Virtual or Cloud based
 - available in cost effective sizes from 10 to 50.000 concurrent calls

One Product Family | Same feature-set | Same release

Why AudioCodes for Teams Direct Routing?

- Don't touch your core SBC!
 - eliminate risk by deploying dedicated Teams SBCs at customer premises or hosted
 - don't interfere with mainstream usage profiles for your existing access SBC
- Benefit from AudioCodes One Voice for Teams
 - fully certified by Microsoft
 - AudioCodes One Voice for Microsoft UC exists for over a decade
 - rapid adaptation of new direct routing features
 - media optimization
 - emergency call detection
 - scalable without risk
 - from single session to 50k Concurrent calls
 - from 1 customer to 5000 per SBC instance



- Deploy it in the most suitable way for you
 - your size and platform preference
 - OPEX or Capex
 - on customer premise
 - in your datacenter
 - in your cloud
 - in someone else's cloud
 - managed by AudioCodes
 - a fully managed AudioCodes SBC for your direct routing customers
 - running in the AudioCodes Azure tenant or in your cloud !
- No need to integrate it into the customers network





User Devices

AudioCodes phones for Teams

<https://www.audiocodes.com/solutions-products/products/ip-phones/c450hd-ip-phone>

AudioCodes 400HD Device Portfolio



Price

Outstanding User Experience through voice quality, intuitive design, and powerful features



Low-cost, entry level model
Basic LCD with 4 programmable soft keys
1GB Ethernet
405HD IP Phone



Cost-effective, basic model
Basic LCD with 4 programmable soft keys
1GB Ethernet
420HD IP Phone



Advanced mid-range model
Improved Graphic LCD 256x128
Dedicated LCD displaying **12 contacts + presence**
1GB Ethernet
USB Port
440HD IP Phone



Advanced mid-range **color**
4.3" color display (480x272)
6 softkeys + integrated sidecar (12 contacts)
1GB Ethernet
WiFi / BT support
445HD IP Phone



High end, executive model
5" color **touch** screen
Wifi / BT Support
1GB Ethernet
Optional Expansion unit
C450/450HD IP Phone



Conference Solution
Scalable: 6 ppl | 12 ppl | 15 ppl
Full Meeting Management
Integrated Bluetooth
USB Port
1GB Ethernet

45x Huddle Room

Skype for Business (3PIP) phones for use with Microsoft Teams

Features

AudioCodes C450HD: Native Teams Phone



C450HD native Teams phone highlights

- color 5" capacitive touch screen
- 1280x720 resolution
- High End native Teams client experience
- contact pictures
- integrated Bluetooth / Wi-Fi (optional)
- Microsoft provided / managed Teams app

[YouTube Demo](#)



Phones, value proposition for Service Providers

- Bundle it with your Direct Routing proposal for Teams
 - drive your license sales as Microsoft Cloud Solution Provider (CSP)
 - propose the AudioCodes Device manager for management of the 3PIP phones
- Maximize voice quality
 - AudioCodes phones have AudioCodes DSP technology for best possible audio
- Win all users within your Teams end customers
 - offer “a real Phone” for those who prefer, without isolating them from the adopters of UC





UC Lifecycle

User Management Pack 365

Lifecycle management for Microsoft Teams

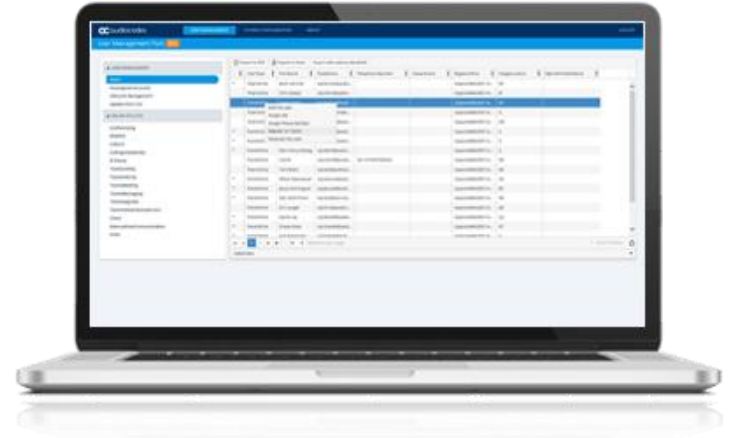
- PBX replacement with Office 365 Phone System (*aka Teams*) leaves a gap
 - large PBX had service contracts with the vendor
 - All moves adds and changes of phones and users is done by the PBX expert
 - SMB PBX have a simple tool or GUI for daily changes
 - Teams is part of the O365 ecosystem scalable up to large enterprise
 - deep integration with other O365 applications and services
 - largely PowerShell (CLI) based
 - daily user management activities require robust PowerShell skills.



Introducing AudioCodes User Management Pack 365



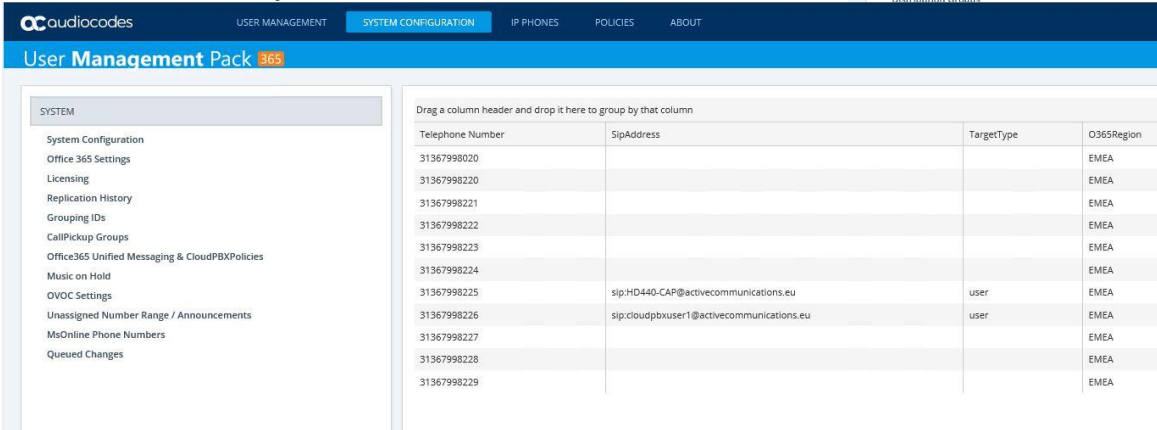
- A web-portal user interface
- Simplifies user life cycle management
- Hides the PowerShell complexity
 - AudioCodes experts guarantee compatibility with O365
 - close follow up of Microsoft product evolution and guidelines
 - we are the experts
- Useable for any deployment model
 - Teams, SfB-Online, SfB 2015/2019, hybrid
- Role Based Access Control



User Management Pack 365 is a powerful software application that simplifies user management & life cycle management across Microsoft Teams and Skype for Business deployments

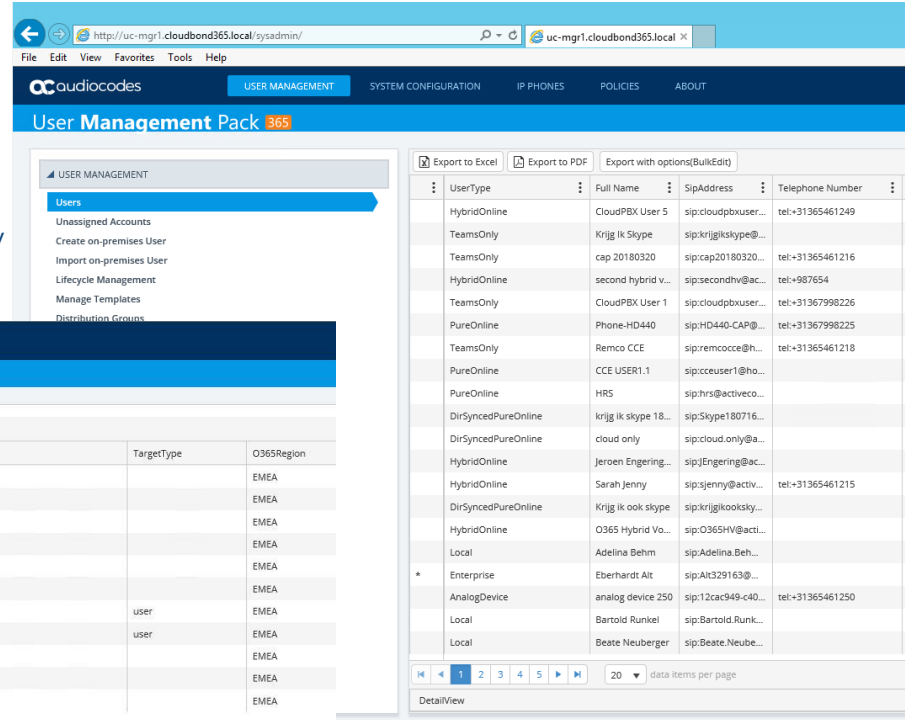
Manage users and numbers

- click, drag & drop
- avoid mistakes
 - template based
 - add or remove users correctly and completely
 - assign or modify security or call-routing profiles quickly
- allow bulk operations



The screenshot shows the Audiocodes User Management Pack 365 interface. The top navigation bar includes 'USER MANAGEMENT', 'SYSTEM CONFIGURATION', 'IP PHONES', 'POLICIES', and 'ABOUT'. The main content area is titled 'User Management Pack 365' and features a sidebar menu on the left with options like 'System Configuration', 'Office 365 Settings', 'Licensing', 'Replication History', 'Grouping IDs', 'CallPickup Groups', 'Office365 Unified Messaging & CloudPBXPolicies', 'Music on Hold', 'OVOC Settings', 'Unassigned Number Range / Announcements', 'MsOnline Phone Numbers', and 'Queued Changes'. The main area contains a table with columns for 'Telephone Number', 'SipAddress', 'TargetType', and 'O365Region'. A tooltip above the table reads 'Drag a column header and drop it here to group by that column'.

Telephone Number	SipAddress	TargetType	O365Region
31367998020			EMEA
31367998020			EMEA
31367998221			EMEA
31367998222			EMEA
31367998223			EMEA
31367998224			EMEA
31367998225	sip:HD440-CAP@activecommunications.eu	user	EMEA
31367998226	sip:cloudpbuser1@activecommunications.eu	user	EMEA
31367998227			EMEA
31367998228			EMEA
31367998229			EMEA

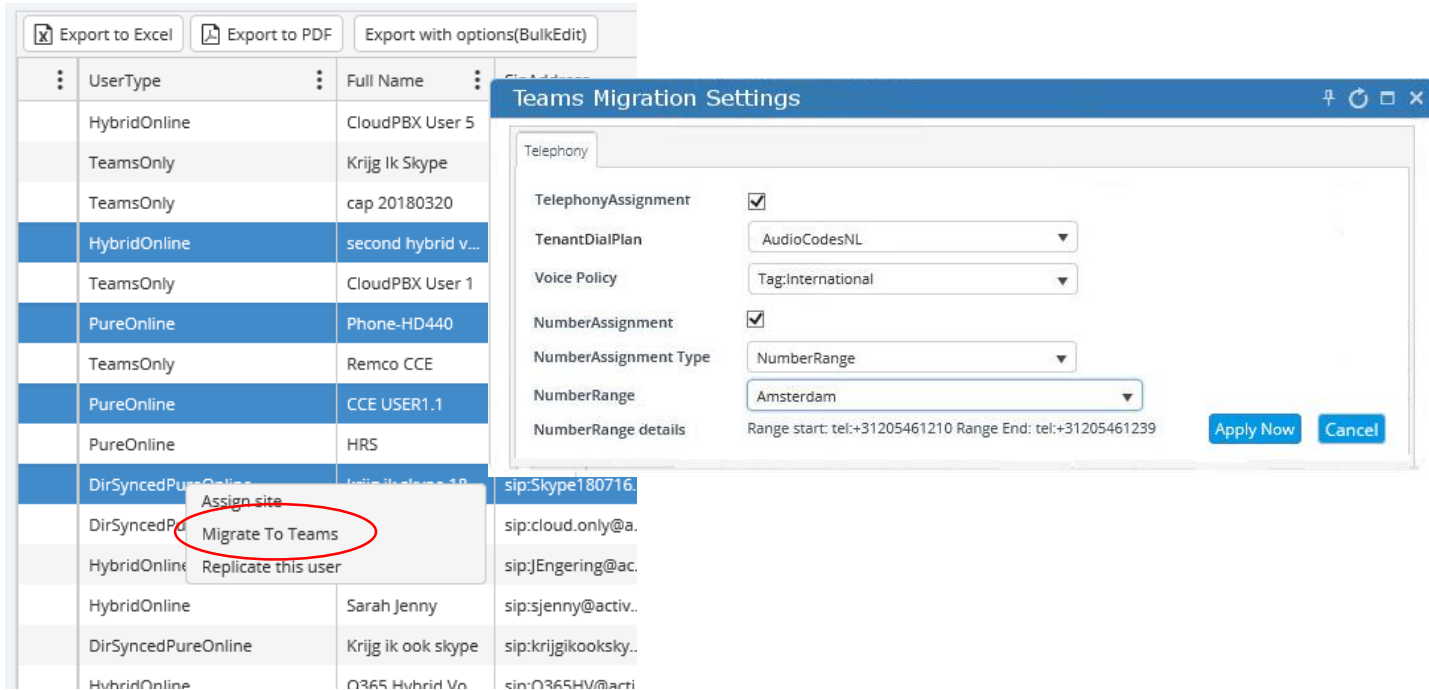


The screenshot shows the Audiocodes User Management Pack 365 interface with a detailed user list table. The table has columns for 'UserType', 'Full Name', 'SipAddress', and 'Telephone Number'. The table is sorted by 'UserType' and shows a list of users with their respective details. The interface also includes a navigation bar at the top with 'USER MANAGEMENT', 'SYSTEM CONFIGURATION', 'IP PHONES', 'POLICIES', and 'ABOUT'. The main content area is titled 'User Management Pack 365' and features a sidebar menu on the left with options like 'Users', 'Unassigned Accounts', 'Create on-premises User', 'Import on-premises User', 'Lifecycle Management', 'Manage Templates', and 'Distribution Groups'. The table includes a search bar and a 'Detail View' button at the bottom.

UserType	Full Name	SipAddress	Telephone Number
HybridOnline	CloudPBX User 5	sip:cloudpbuser...	tel:+31365461249
TeamsOnly	Krijg Ik Skype	sip:krijgikskype@...	
TeamsOnly	cap 20180320	sip:cap20180320...	tel:+31365461216
HybridOnline	second hybrid v...	sip:secondhv@ac...	tel:+987654
TeamsOnly	CloudPBX User 1	sip:cloudpbuser...	tel:+31367998226
PureOnline	Phone-HD440	sip:HD440-CAP@...	tel:+31367998225
TeamsOnly	Remco CCE	sip:remcocce@h...	tel:+31365461218
PureOnline	CCE USER1.1	sip:ccesuser1@ho...	
PureOnline	HRS	sip:hrrs@activeco...	
DirSyncedPureOnline	krijg ik skype 18...	sip:Skype180716...	
DirSyncedPureOnline	cloud only	sip:cloud.only@...	
HybridOnline	Jeroen Engering...	sip:JEngering@ac...	
HybridOnline	Sarah Jenny	sip:sjenny@activ...	tel:+31365461215
DirSyncedPureOnline	Krijg ik ook skype	sip:krijgikookskyy...	
HybridOnline	O365 Hybrid Vo...	sip:O365HV@acti...	
Local	Adelina Behm	sip:Adelina.Beh...	
Enterprise	Eberhardt Alt	sip:Alt329163@...	
AnalogDevice	analog device 250	sip:12cac949-c40...	tel:+31365461250
Local	Barthold Runkel	sip:Barthold.Runke...	
Local	Beate Neuberger	sip:Beate.Neube...	

A quick glimpse in the features

- Manage co-existence between SfB on-prem and Teams
- Migrate users from SfB with a single click



The screenshot displays a user management interface with a table of users and a 'Teams Migration Settings' dialog box. The table has columns for UserType, Full Name, and First Name. A context menu is open over a user, with 'Migrate To Teams' highlighted. The dialog box shows settings for Telephony, including checkboxes for 'TelephonyAssignment' and 'NumberAssignment', dropdown menus for 'TenantDialPlan', 'Voice Policy', and 'NumberRange', and 'Apply Now' and 'Cancel' buttons.

UserType	Full Name	First Name
HybridOnline	CloudPBX User 5	
TeamsOnly	Krijg Ik Skype	
TeamsOnly	cap 20180320	
HybridOnline	second hybrid v...	
TeamsOnly	CloudPBX User 1	
PureOnline	Phone-HD440	
TeamsOnly	Remco CCE	
PureOnline	CCE USER1.1	
PureOnline	HRS	
DirSyncedPureOnline	Judith de Vries 10	sip:Skype180716.
DirSyncedPureOnline		sip:cloud.only@a.
HybridOnline		sip:JEngering@ac.
HybridOnline	Sarah Jenny	sip:sjenny@activ..
DirSyncedPureOnline	Krijg ik ook skype	sip:krijgikooksky..
HybridOnline	0365 Hybrid Vo	sip:0365HM@acti

Teams Migration Settings

Telephony

TelephonyAssignment

TenantDialPlan AudioCodesNL

Voice Policy Tag:International

NumberAssignment

NumberAssignment Type NumberRange

NumberRange Amsterdam

NumberRange details Range start: tel:+31205461210 Range End: tel:+31205461239

Apply Now Cancel

UMP, value proposition for Service Providers

- Bundle it with your Direct Routing proposal for Teams
 - as a hosted service in your DC or on Azure
- Take the complexity out of Office 365 Telephony System user management
 - your customers PBX guy will be able to do it
 - free up your customers PowerShell-Ninjas from these repetitive tasks in good faith
 - AudioCodes will maintain the PowerShell “under the hood”



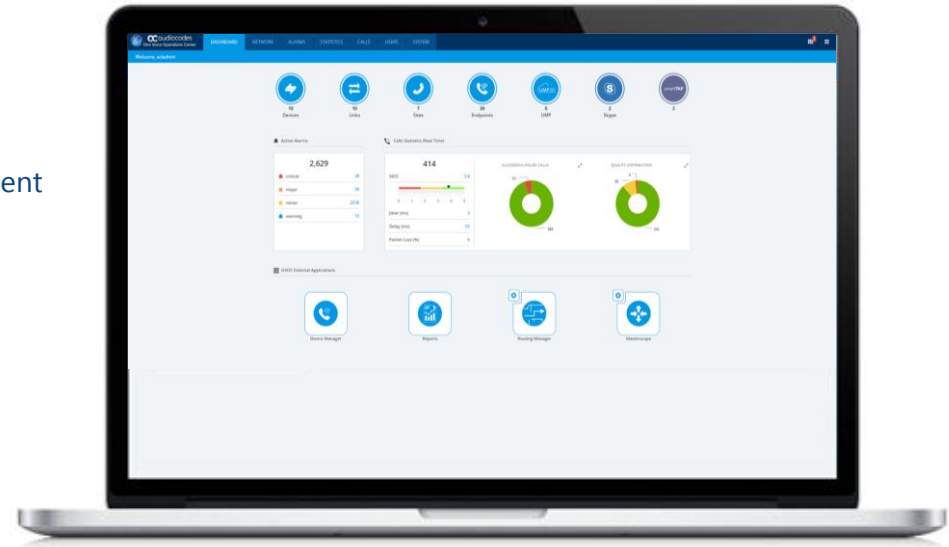


Operations and Monitoring

One Voice Operations Center

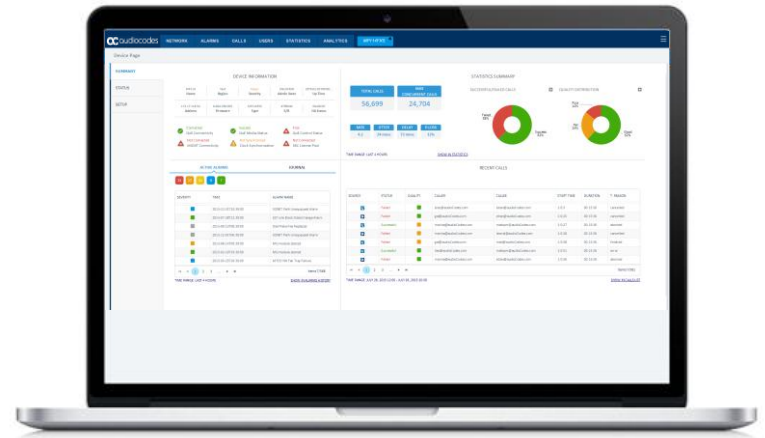
One Voice Operations Center

- A consolidated platform for
 - CPE and SBC monitoring and Configuration
 - Any AudioCodes Mediant or MediaPack
 - end user device management
 - Any AudioCodes Phone, Jabra headset and selected 3rd parties
 - Quality-of-Experience analytics
 - User experience of VoIP calls for SLA reporting
 - northbound reporting
 - Forward selected info to Generic Network Management Systems
- Deployed as virtual machine
 - in public or private networks
 - NAT aware



Focused on usability

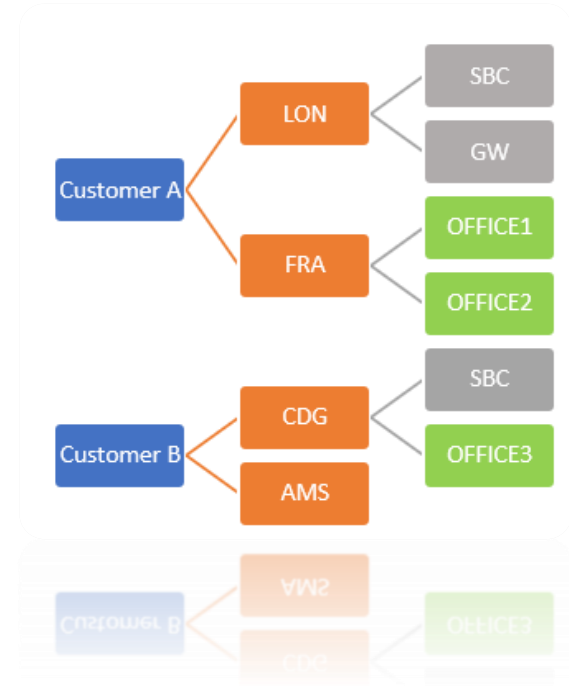
- Point and click for drill down
- Aggregation of relevant data into color coded Graphs and views
- Configurable automation & reporting & journaling
- Multitenant



OVOC, value proposition for service Providers

- Monitor, configure and backup your SBCs
 - Filter and forward relevant data to your overlay NOC tools
- Automate deployment of new customers
 - Full deployment of a new dedicated Teams Direct Routing SBC
 - Incremental deployment to an existing multitenant SBC
- Generate end-customer SLA reports
- Provide end customer access for self-management
 - Device manager of AudioCodes IP phones and Jabra headsets
 - management and QoE of their AudioCodes CPE

Up to 30,000 end-user devices
Up to 5,000 SBC and CPE
Up to 500,000 SNMP performance metrics
Up to 12 months of historical data



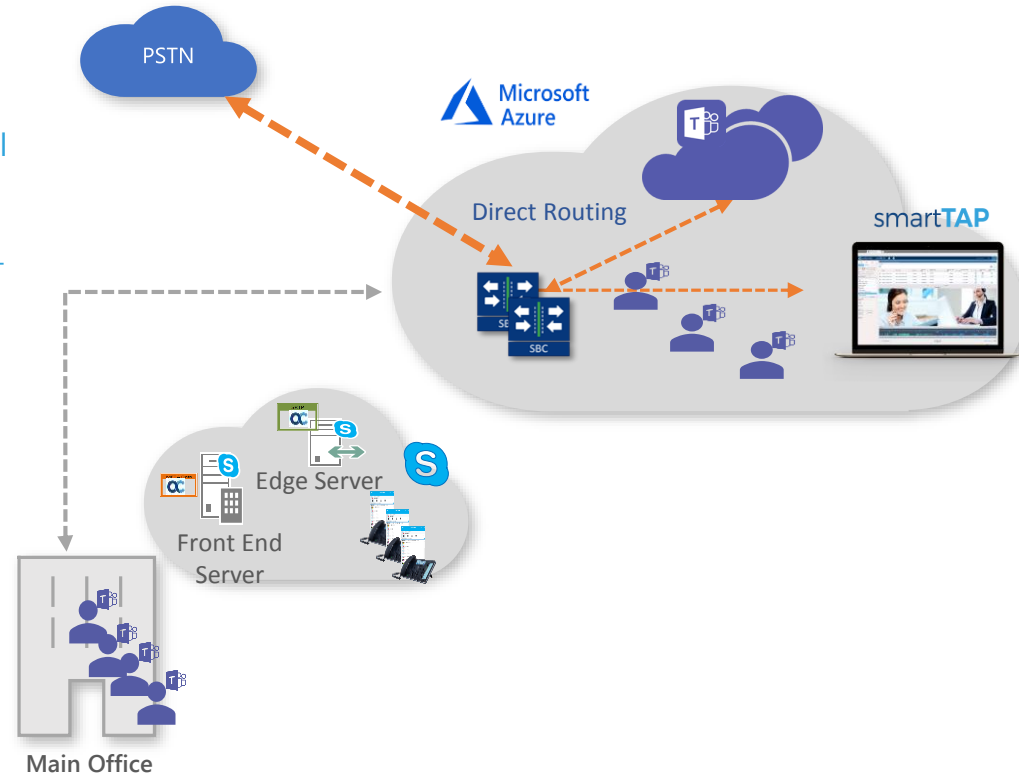


One last thing...

Call recording for Microsoft Teams

SmartTAP 360° for Microsoft Teams

- Recording for
 - voice, video and IM
- Use it for
 - compliance , quality management , malicious call reporting
- Supported today
 - Recording interface into the Direct Routing SBC (SIP-rec)
 - Ready for integration through Microsoft APIs
 - Certification in progress
 - Also for hybrid scenarios with Skype for Business
- Available Deployment models :
 - End Customer premises , SP private DC or public cloud
 - CAPEX or OPEX
 - Call recording as a service





Thank You

Stay in the loop



Microsoft Teams for Service Providers

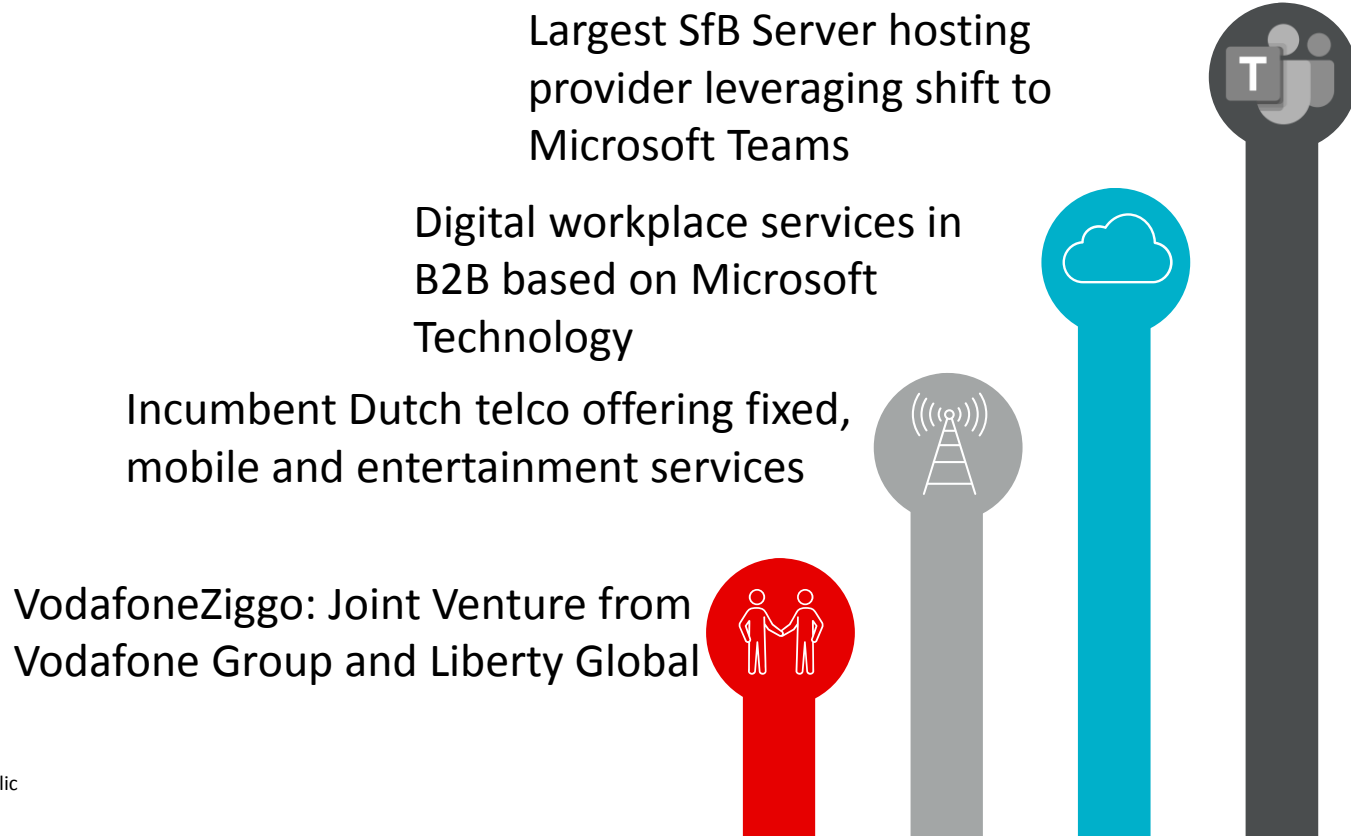
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Remco de Kramer
Product Manager,
VodafoneZiggo



About Vodafone NL Business

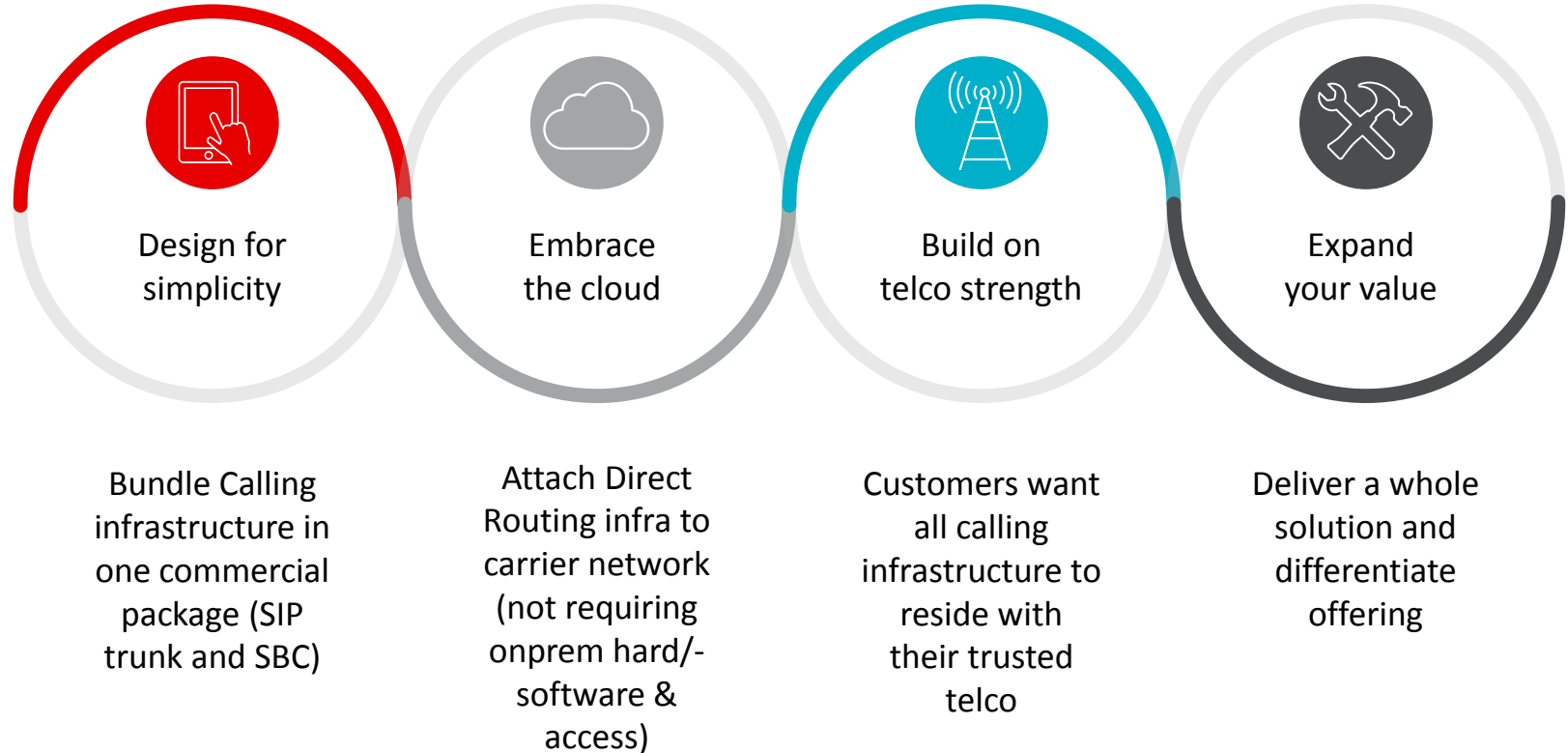


Highly motivated employees make an organisation successful. The trick is in creating the right conditions to make this possible. But where to start?

Provide technology enabling employees to work smarter



Communication is at the heart of collaboration; therefore we extend Microsoft Teams with Vodafone Business Fixed Voice



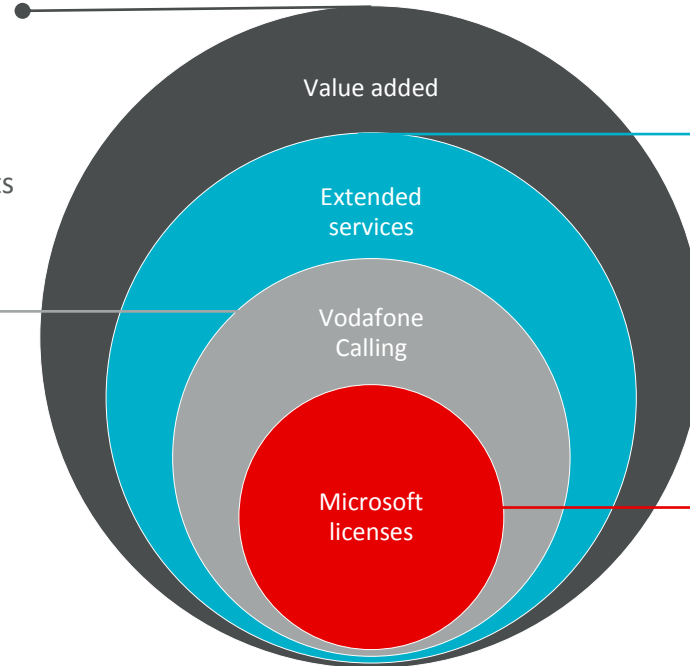
Fulfil customer needs by building a complete solution around Direct Routing for Microsoft Teams

Features and add-ons

- User Management Portal
Analogue Devices via ATA
- Anywhere 365 Contact Center
- Room Systems & USB endpoints

Voice infrastructure

- Fixed number per Teams user
- National & international calls
- Emergency Routing
- Multi tenant & private vSBC
- Floating SBC licences
- Managed via OVOC



Professional Services

- Tenant configuration & user enablement
- Migration from SfB to Microsoft Teams
- Adoption & managed services
- Inlife support

Cloud Solution Provider

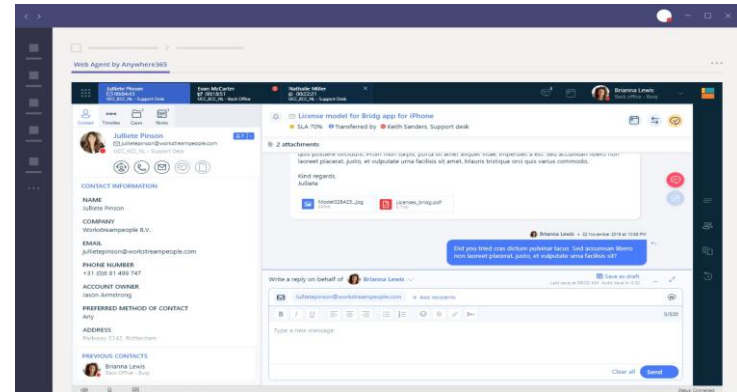
- Microsoft 365
- Office 365
- Phone System

Build on the data & Voice
network that carries the cloud



Differentiate: handle customer contact via Microsoft Teams

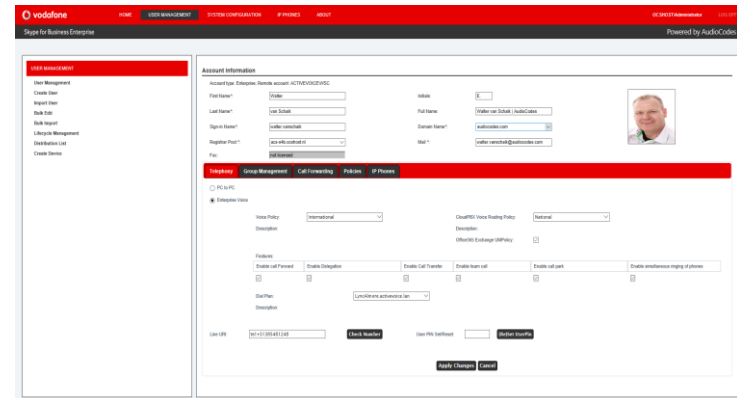
For organizations needing more than Office 365 Auto Attendant and Call Queues we offer Anywhere 365 by WorkStreamPeople



Differentiate: ensure legacy tech is not in the way of Teams adoption

Facilitate migration from SfB to Teams via (white label) AudioCodes User Management Pack 365

Analogue devices must continue to work in Teams via Managed AudioCodes ATA's



AudioCodes ecosystem creates advantages you can leverage to create a differentiating proposition

01 Management & E2E quality monitoring in OVOC (inc. headsets or phones)



02 User Management Pack & IP Phone manager



03 Professional services to compliment Vodafone's



04 Managed Analogue Telephony Adapters



05 Extensive pre-sales / development support



Design consideration

Place Multi tenant and private SBC's "behind" SBC's in core voice network



Do not enforce updates on SBC's in core voice network.



Independent on innovation cycle of core voice network. Updates are required to support all functionality.



Freedom to customize SBC configurations and offer features. E.g. number blocking or manipulation.



Grow and reach scale by onboarding new sales channels, address demand and bypass competition via Office 365

Partner with
Microsoft
ecosystem



Leverage
Microsoft
direct sales

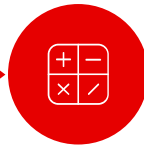


New way to
compete



*“For Vodafone NL Business
Microsoft Teams is starting
to contribute significantly to
revenue streams.”*

Traditional
hosted voice



How Microsoft Teams and Vodafone Calling in Office 365 support Tony's Chocolonely to make chocolate 100% slave free



Click left to read reference case







Andy Elliot
VP Marketing & Business
Development EMEA,
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Jurgen Van Maele
Solution Director EMEA,
AudioCodes



Nikolay Muravlyannikov
Principal Product Manager,
Microsoft



Paul Cannon
Senior Product
Marketing Manager,
Microsoft



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Product Manager,
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Q&A

