



Video experience and interoperability

Microsoft IT Showcase Course

Get ready to be what's next.

Agenda



Understanding video communications

Managing video conferencing technologies

Video conferencing at Microsoft

Managing devices

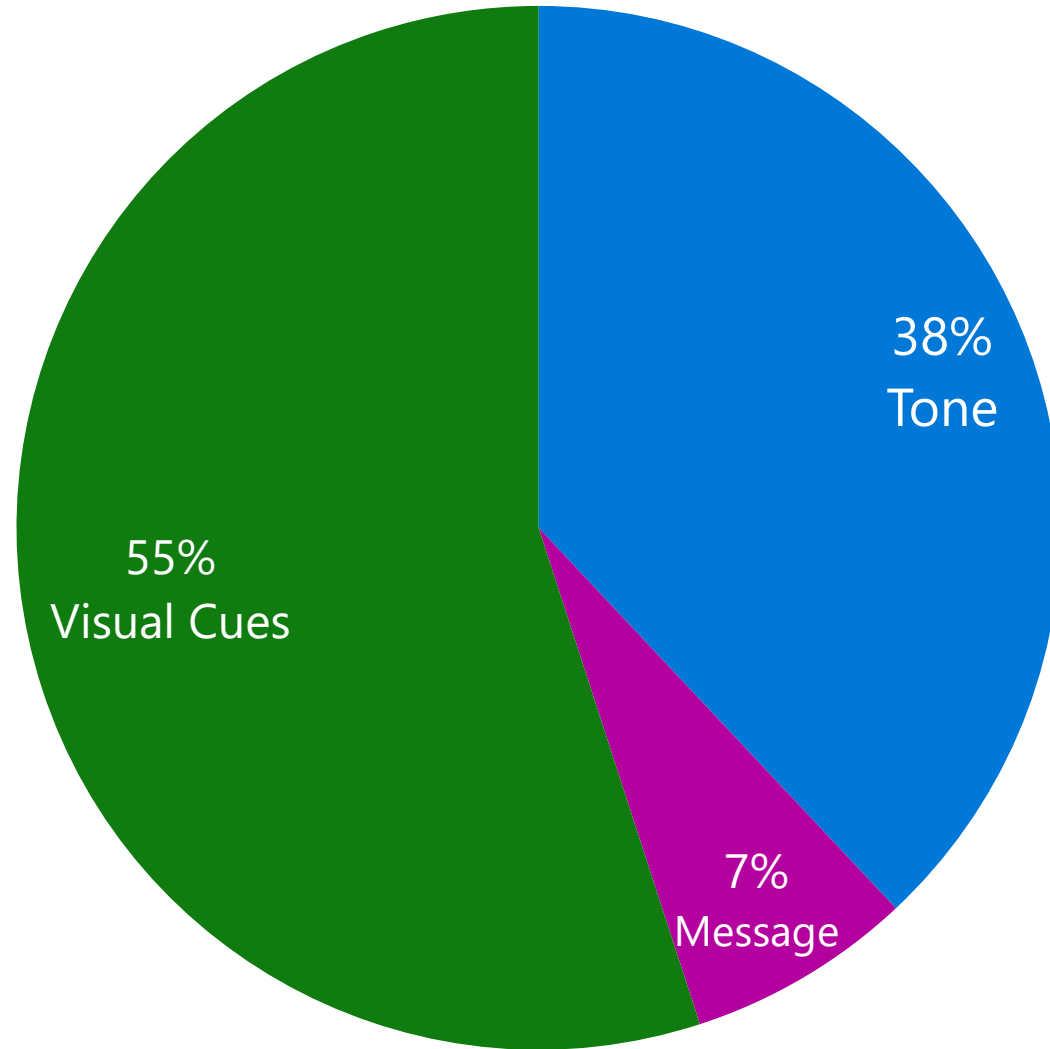
Best practices

Understanding video communications

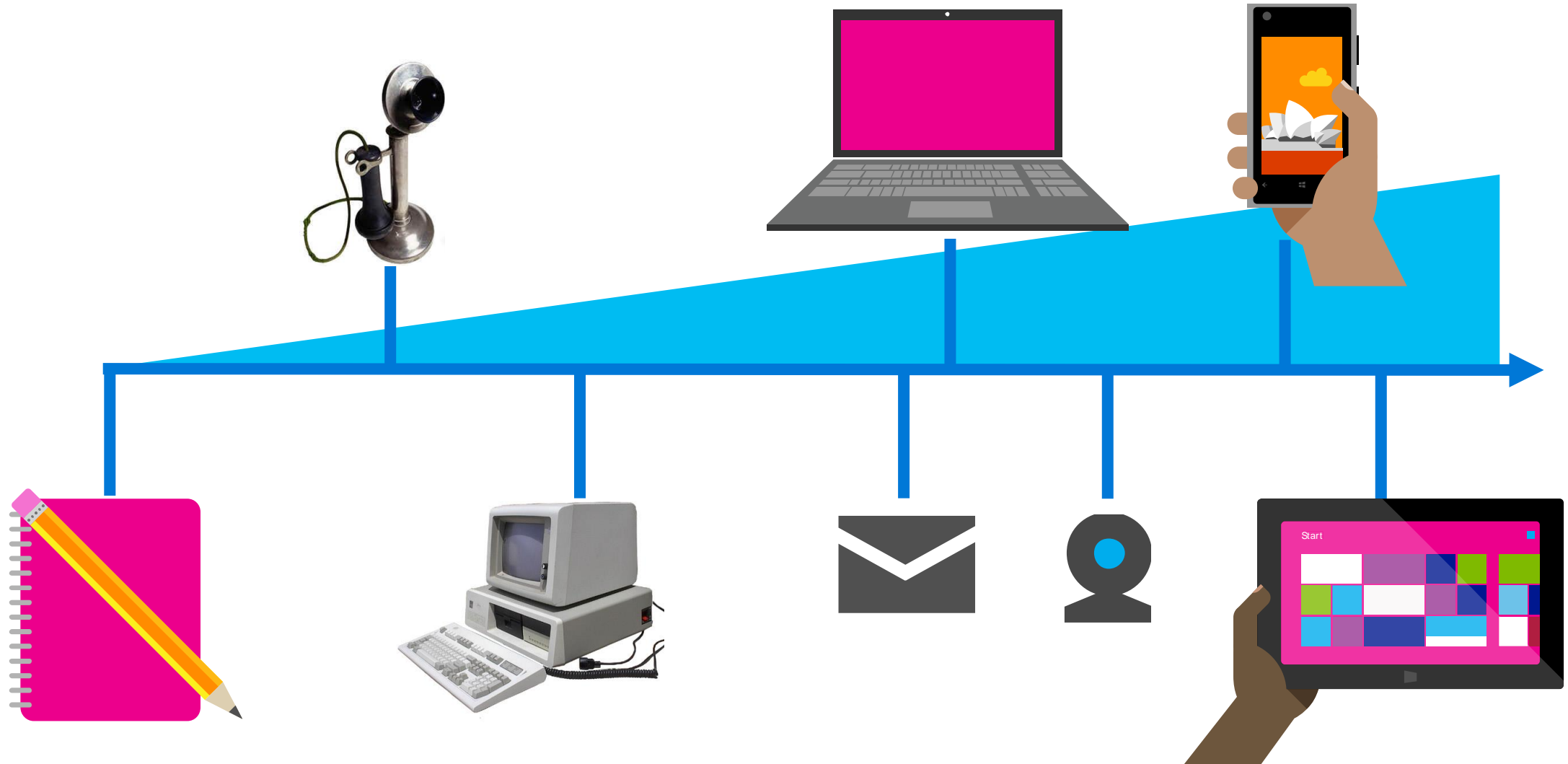


Communications is visual
History of communication
Fifteen years of video in review
Protocol soup
SfB/Lync video explained

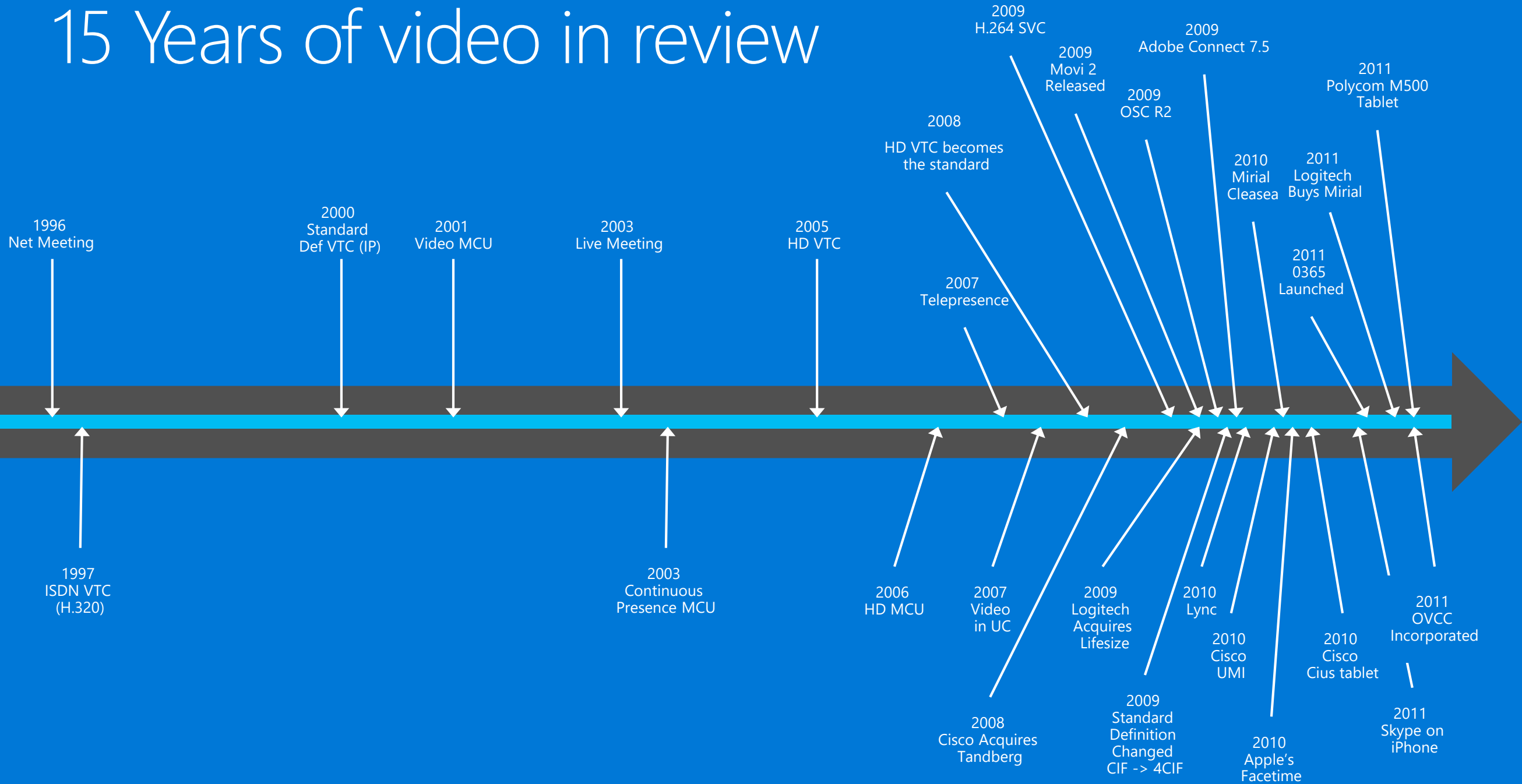
Communication is visual



History of communication



15 Years of video in review



Protocol soup



H.261

H.263

H.264 AVC
H.264 SVC

RTV

H.323

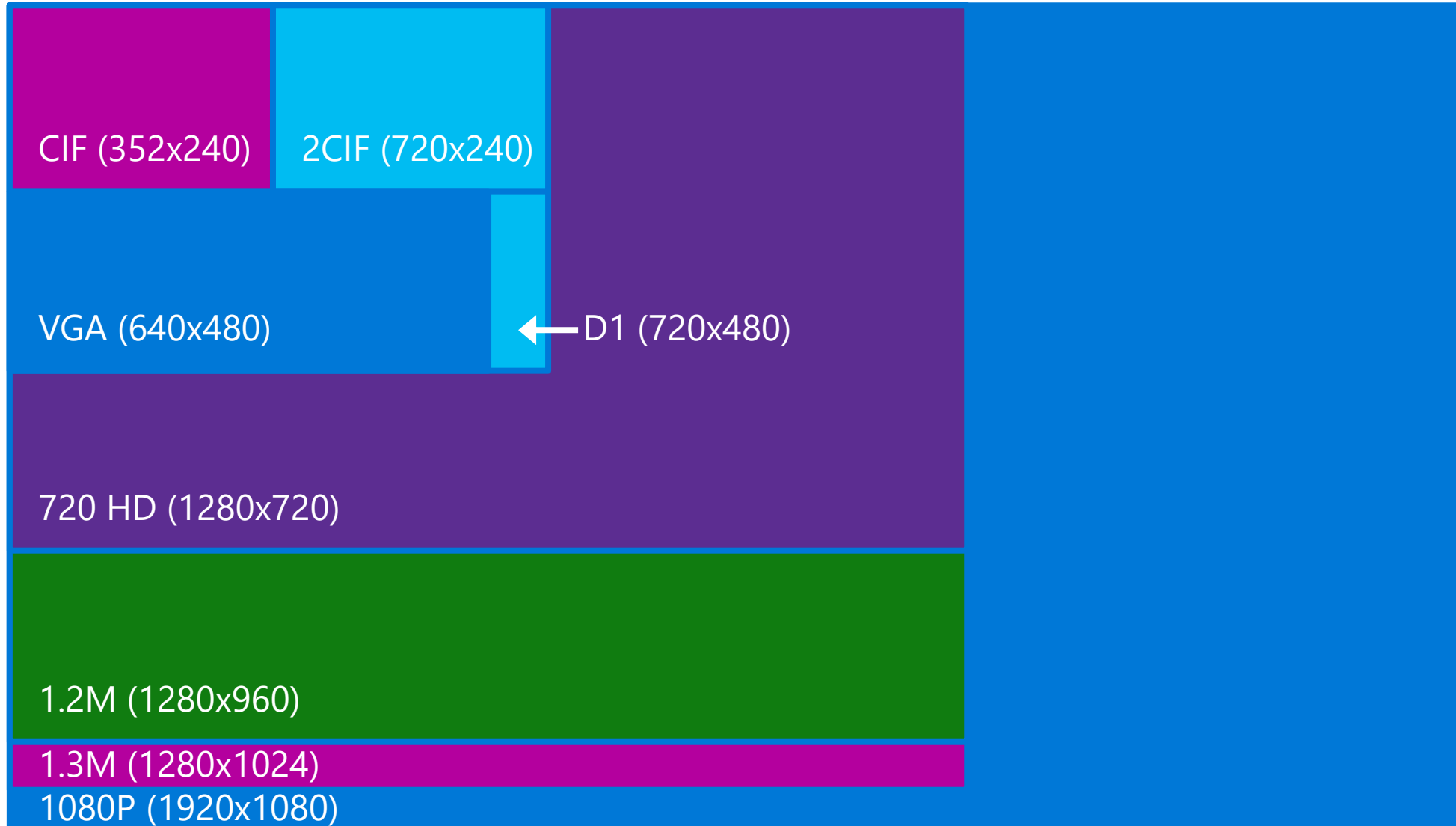
SIP

H.460

H.239

CCCP

Skype for Business (SfB)/Lync video explained



Summary

55% of effective communication relies on reading visual cues during conversation. At Microsoft, we want effective communication within our organization. We want that 55% included in as many of our communication methods as possible.

Managing video conferencing technologies



Video

Call flow

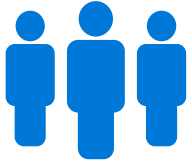
SfB/Lync interoperability

Video conferencing

Devices and meeting room
solutions

Video bandwidth

Video in SfB/Lync 2013



People anchor the experience -
promoting the human experience

Great P2P

Up to 1080p

I see what I want on my screen (shrink/stretch)

Gallery View:

Horizontal is natural

All attendees are present

Smart Framing

Focus on the conversation, not the controls

You know who you interact with:

Names of participants

Active speaker

Joining/leaving animations

Roster

You are in control:

Video Preview

Video Pinning, Video Spotlight



One click

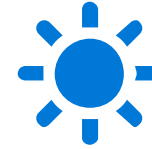
Starting a video call is compelling
and easy



Video connection from Microsoft Office

Start a video call from any Office application

Quick links, people card



Great views

Dynamic layouts - easily switch to
what you want to see

See and Collaborate!



H.264 SVC Support

Higher quality, higher performance



Use video anywhere you need it

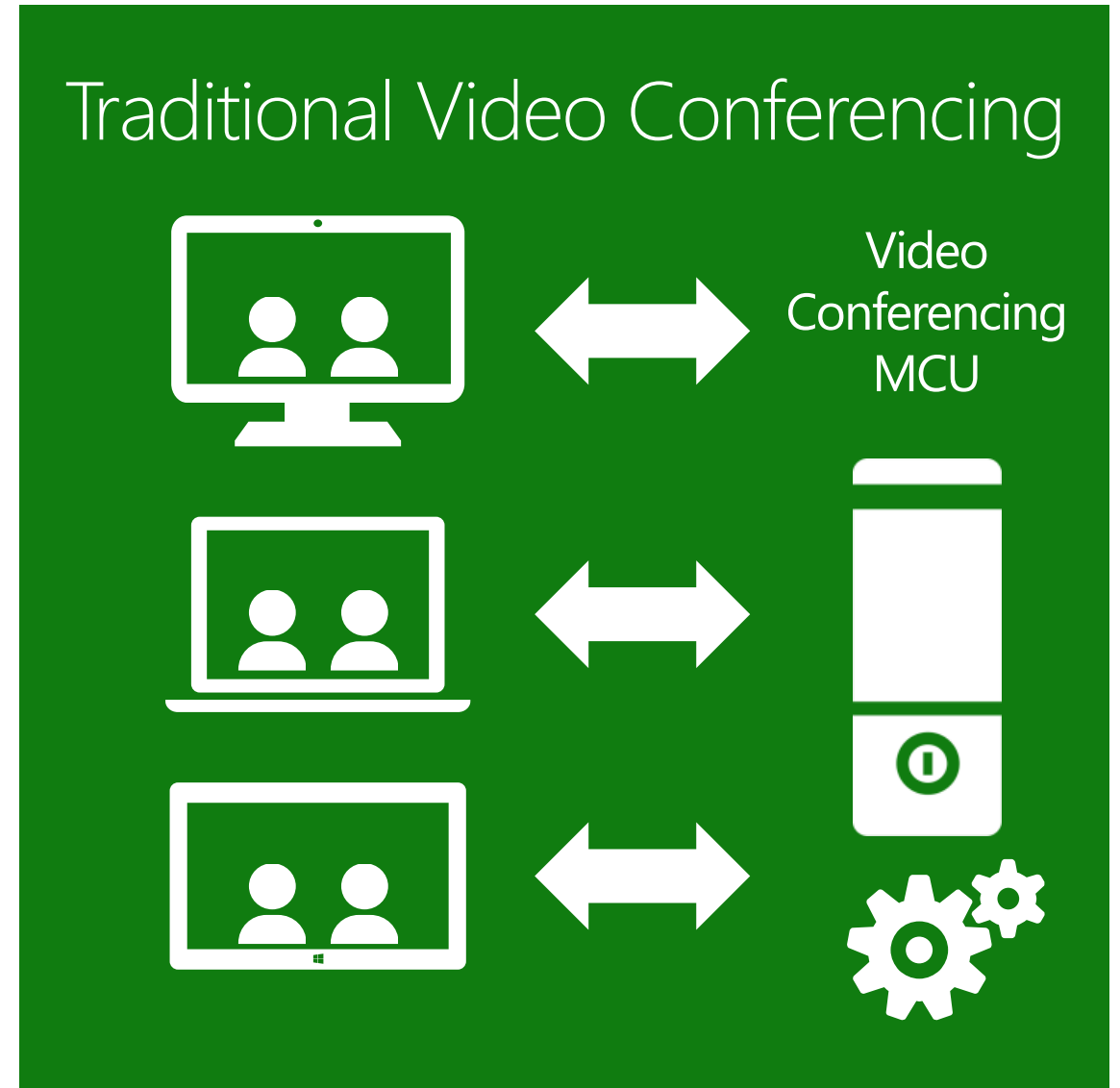
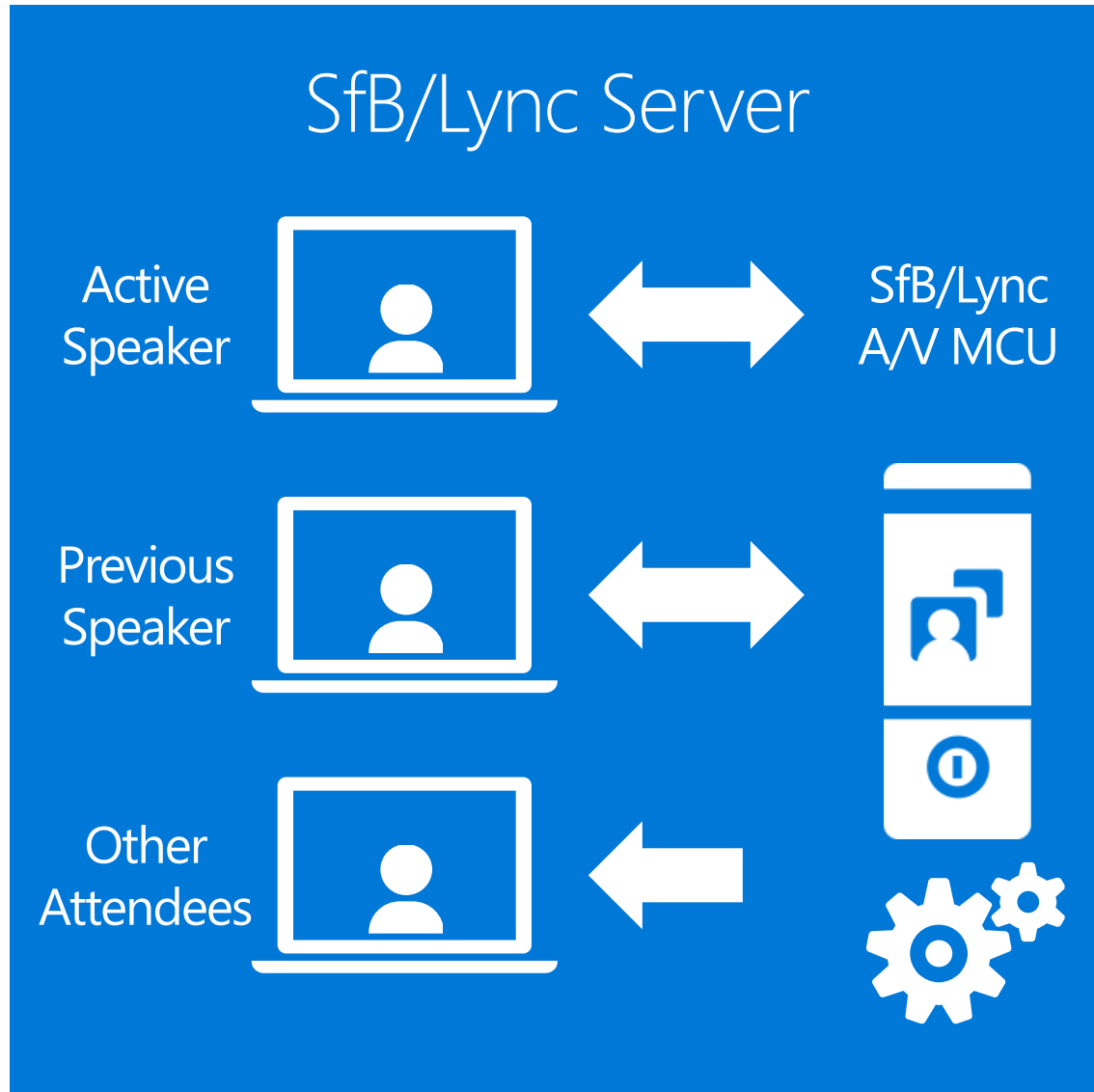
SfB/Lync 2013 Mobile clients support
video over Wi-Fi and 3G/4G



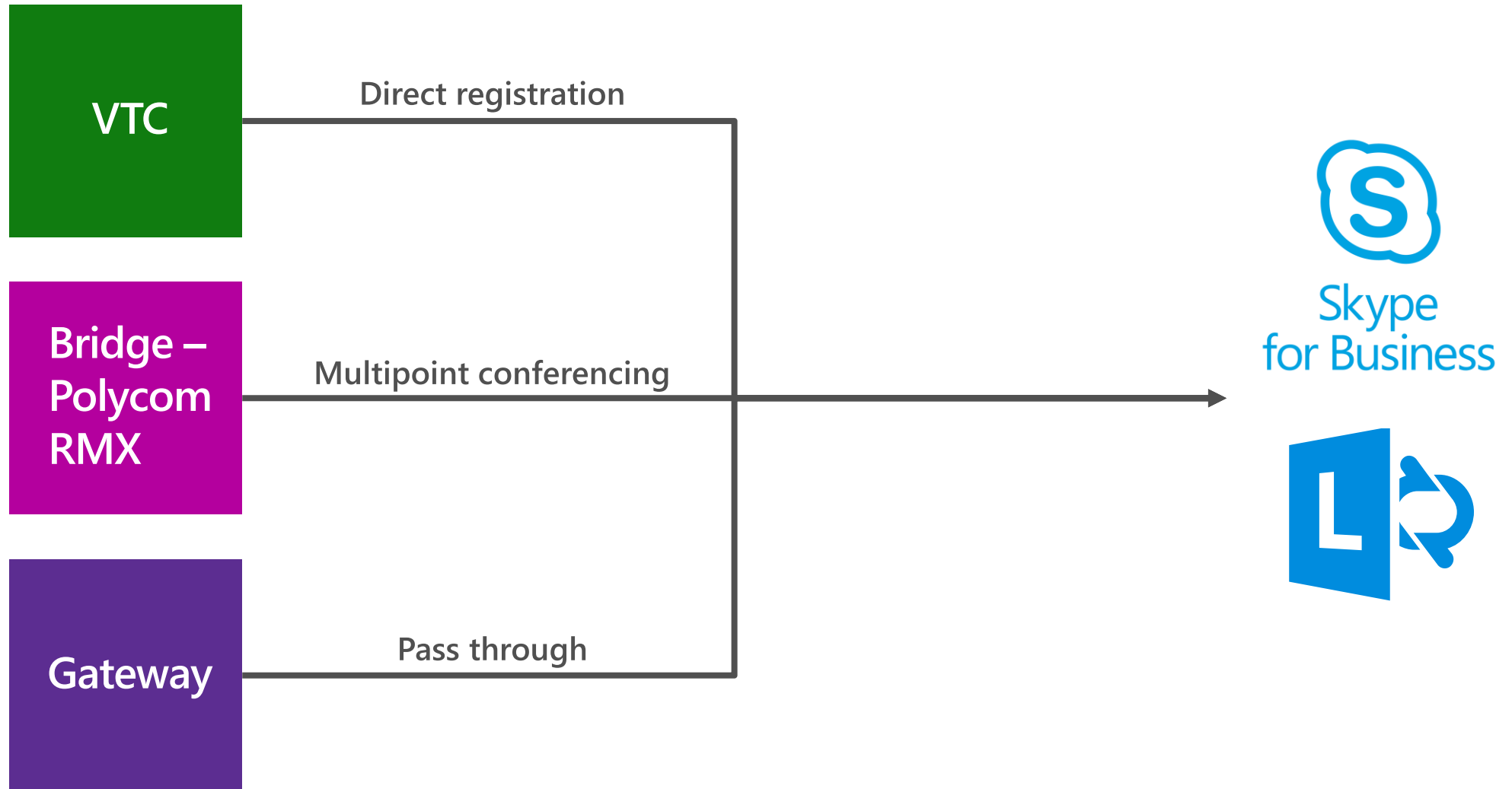
Invite external contacts to your video
conference

Join video conference from web
browser using SfB/Lync Web App (LWA)

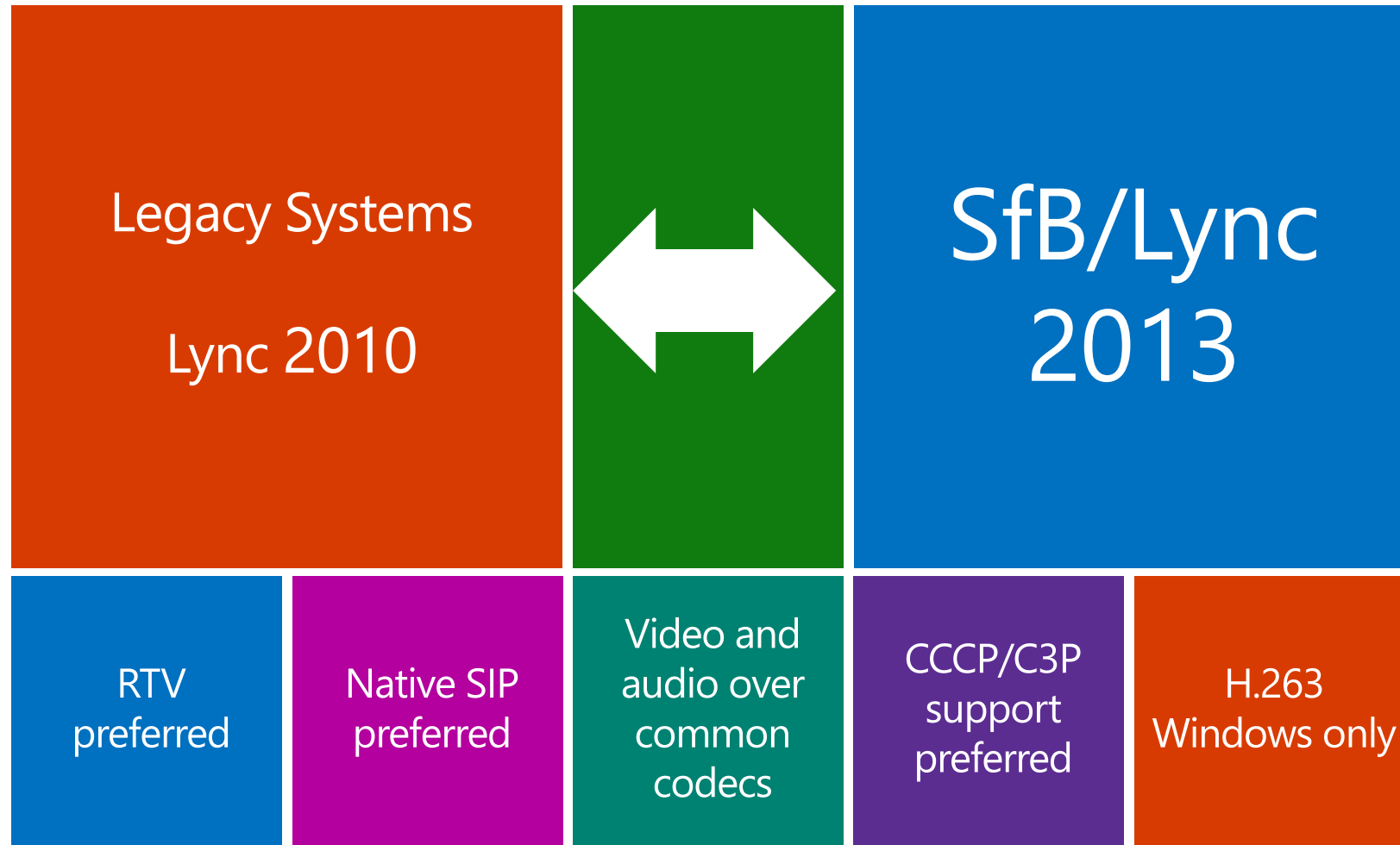
How SVC is different



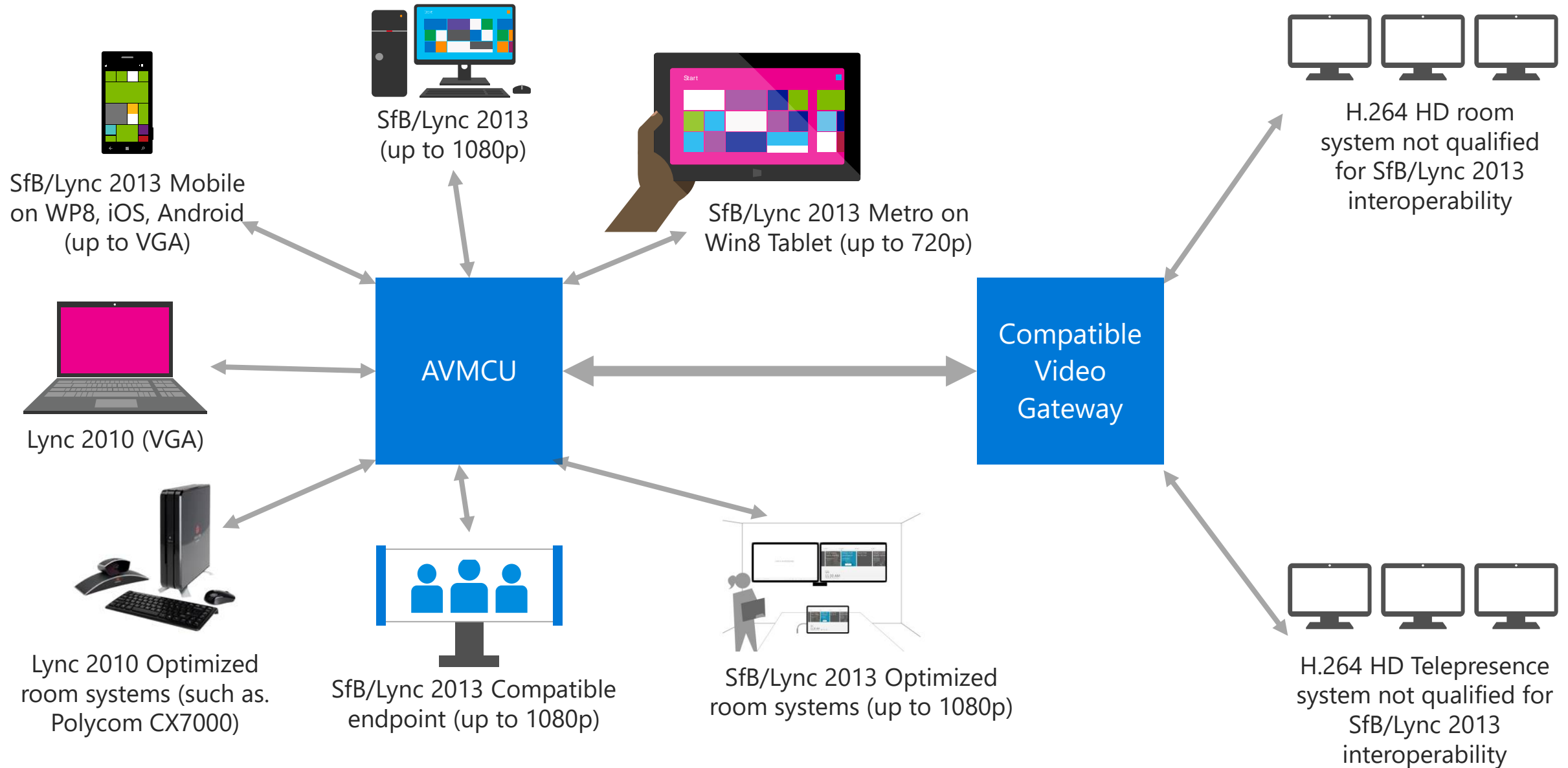
Call flow to SfB/Lync



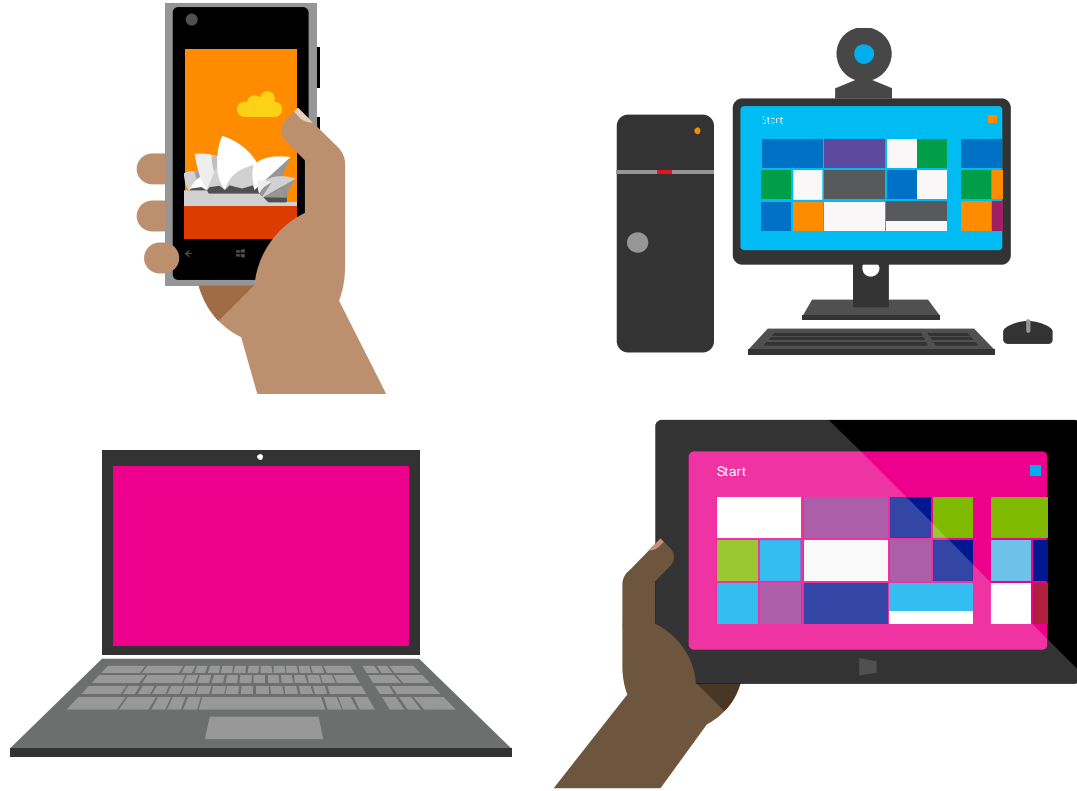
SfB/Lync interoperability



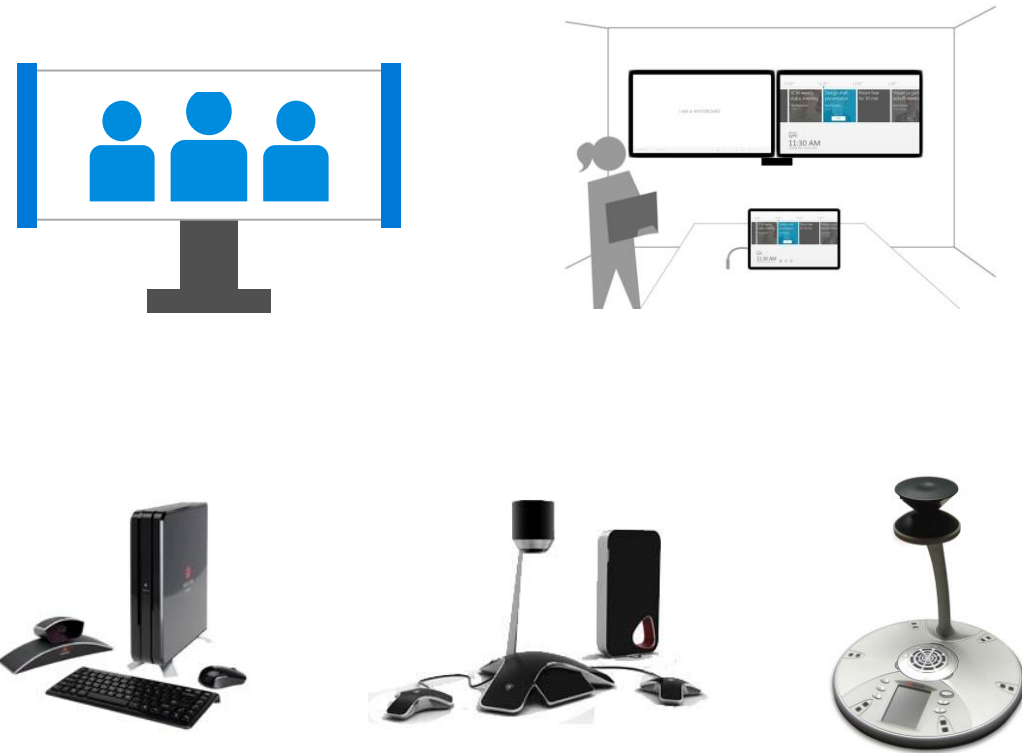
Video conferencing overview



Devices and room solution overview



End User Devices



Meeting Room Solutions

Video bandwidth recommendations

Quality	P2P or single view		Multi-view with five incoming videos	
	Bandwidth (kbps)	Resolution	Bandwidth (kbps)	Resolution
Minimum	100	320x180	420	180x180
Moderate quality	350	424x240	1000	240x240
Good quality	1500	1280x720	2500	360x360
Best (default setting)	Up to 4000	1920x1080	Up to 8000	Up to two 1080x1080

Controlling video bandwidth

Options available to control video bandwidth:

1. **Call Admission Control (CAC)**

CAC determines if there is sufficient network bandwidth to establish a real-time session of acceptable quality.

2. **Conferencing Policies**

Enable/disable multiple video streams (Audio/Video Policy), enable participants to join with multiple video streams (Participant Policy).

Summary

Follow Microsoft recommended configuration and settings in order to effectively manage video conference calls.

Video conferencing at Microsoft



Microsoft SfB/Lync environment

Vision & Mission

Maturity of video

Dedicated network telepresence solution

Video at Microsoft

Microsoft SfB/Lync environment

200,000+
active
SfB/Lync
users



9 million+
audio
sessions
per month

4
data centers
with
SfB/Lync
infrastructure

980,000
monthly
SfB/Lync
meetings



107
countries

568
buildings

8
data centers

131,400
Enterprise
Voice users

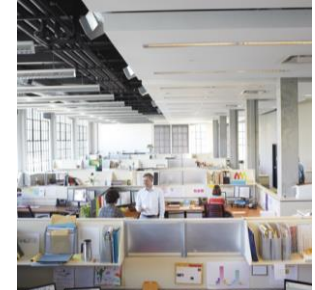
16,000+
federated
companies



120 Million
monthly
instant
messages



89%
meetings
using app
sharing



44,000
monthly
peer-to-peer
video calls

50%
remote
SfB/Lync
usage



90,000
unique active
SfB/Lync
mobile users

10,000 +
conference
rooms

Vision

2016

Video available
in every meeting

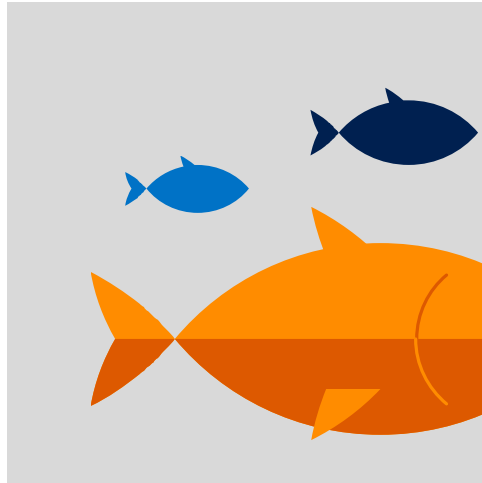


Mission

Develop a video ecosystem and service that enables real-time collaboration on any device, anytime, anywhere.

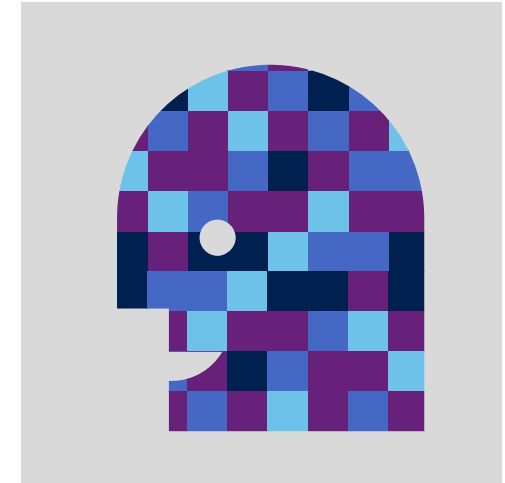


Areas of difficulty at the beginning



Ecosystem
is not
SfB/Lync-centric

Full potential not
being used



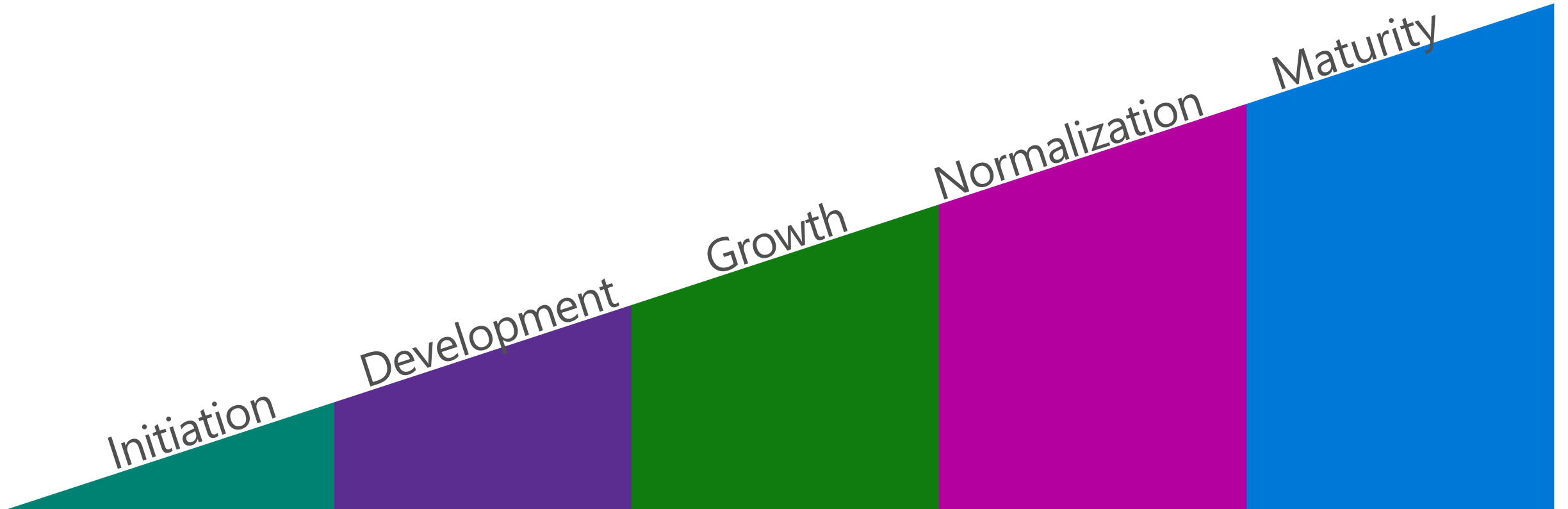
Disjointed
technologies



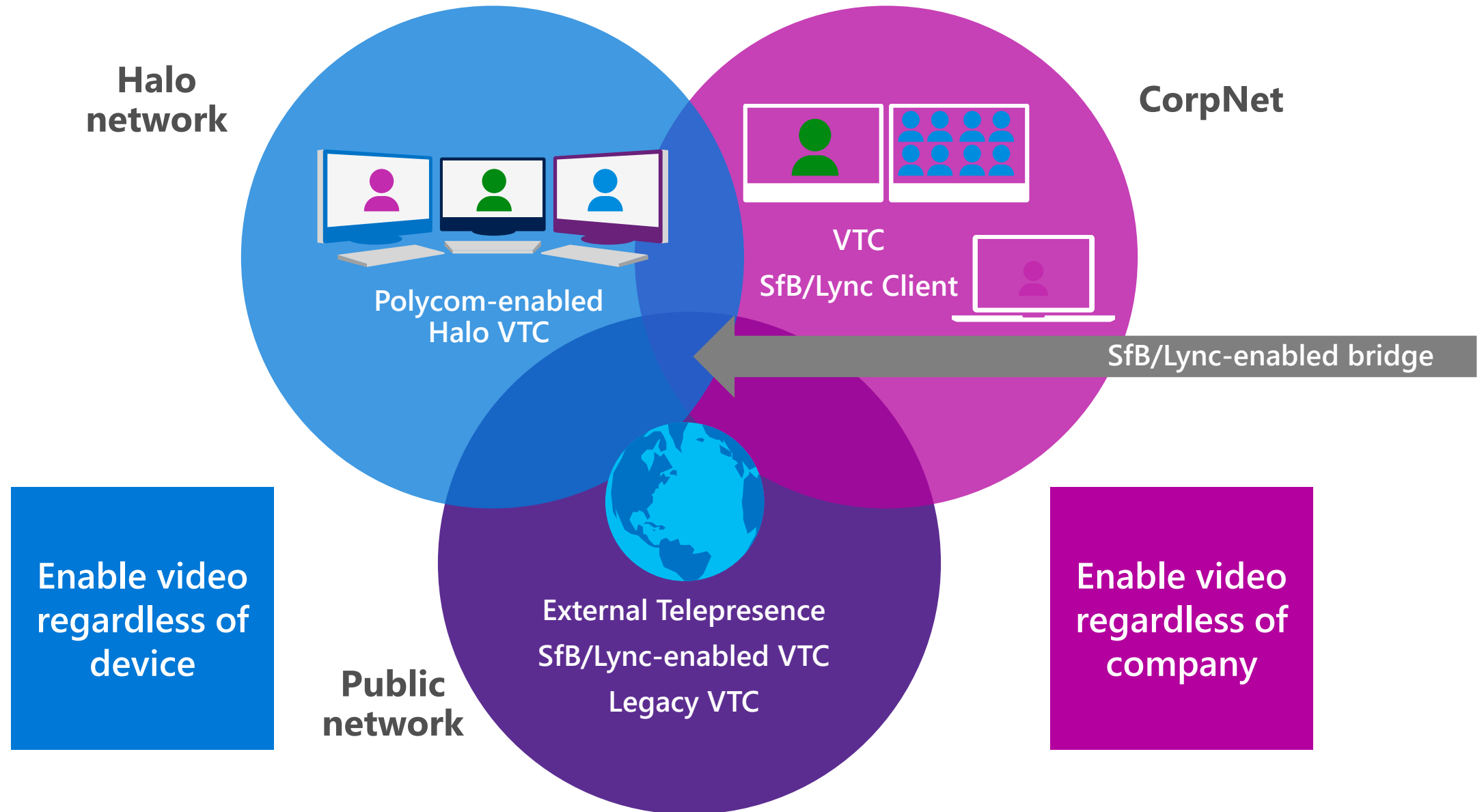
Users want
collaborative
video to
simply work

Too complicated

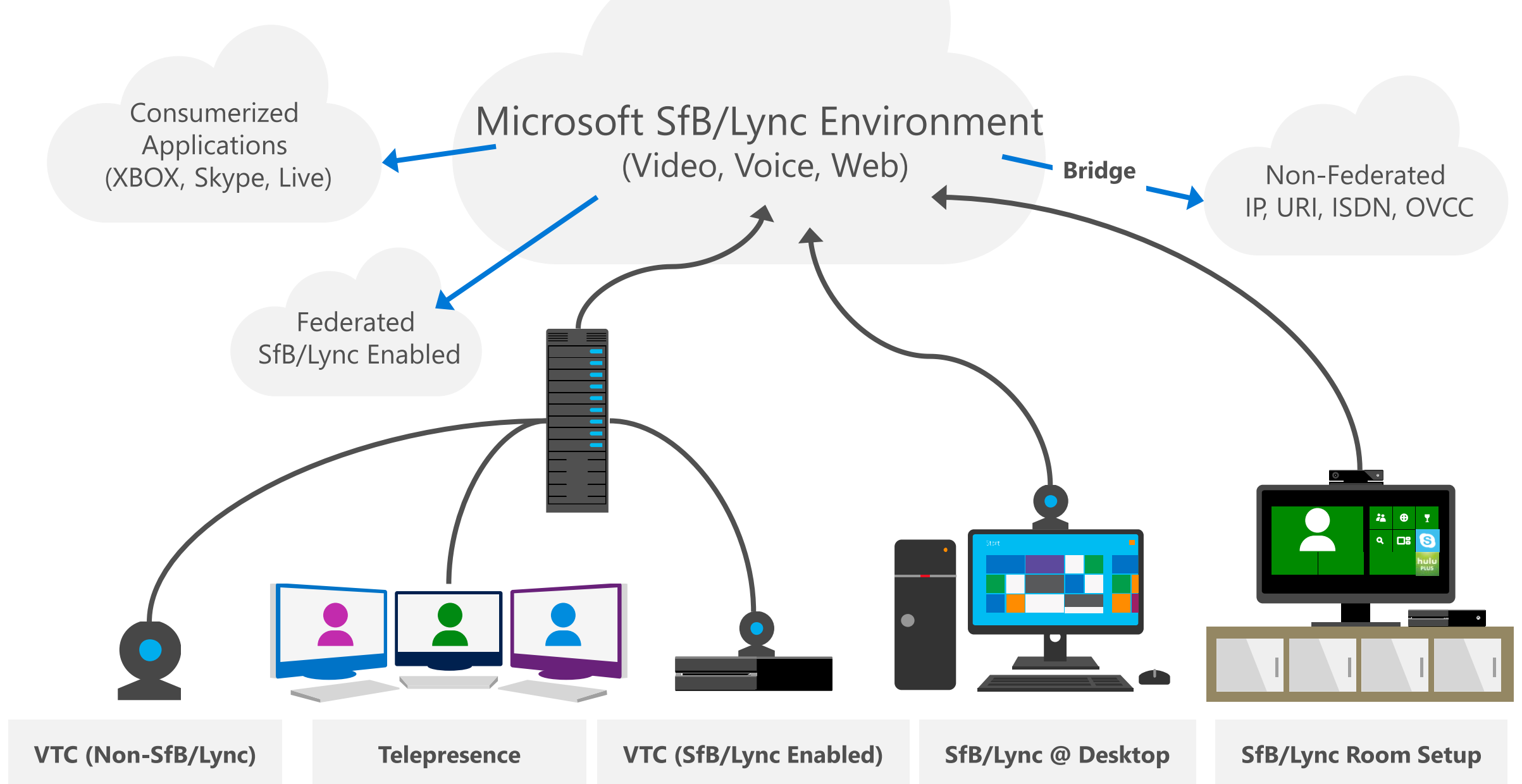
Maturity of video



Dedicated network telepresence solution



Video at Microsoft



Summary

With a mission to develop a video ecosystem and service that enables real-time collaboration on any device, anytime, anywhere, our vision is that by the year 2016, video would be available for every meeting.

Managing devices



SfB/Lync device categories

Device program

Device selection

Providing user direction

SfB/Lync room system
program

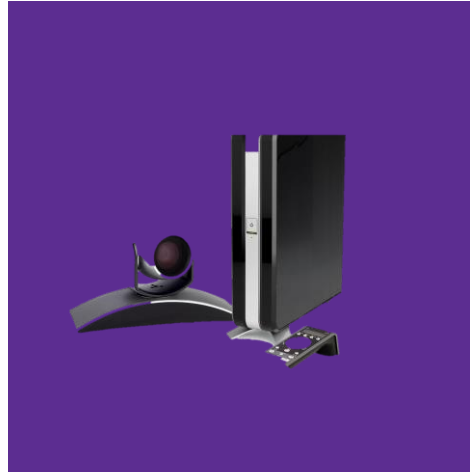
SfB/Lync device categories



USB peripheral



IP phone



Meeting room

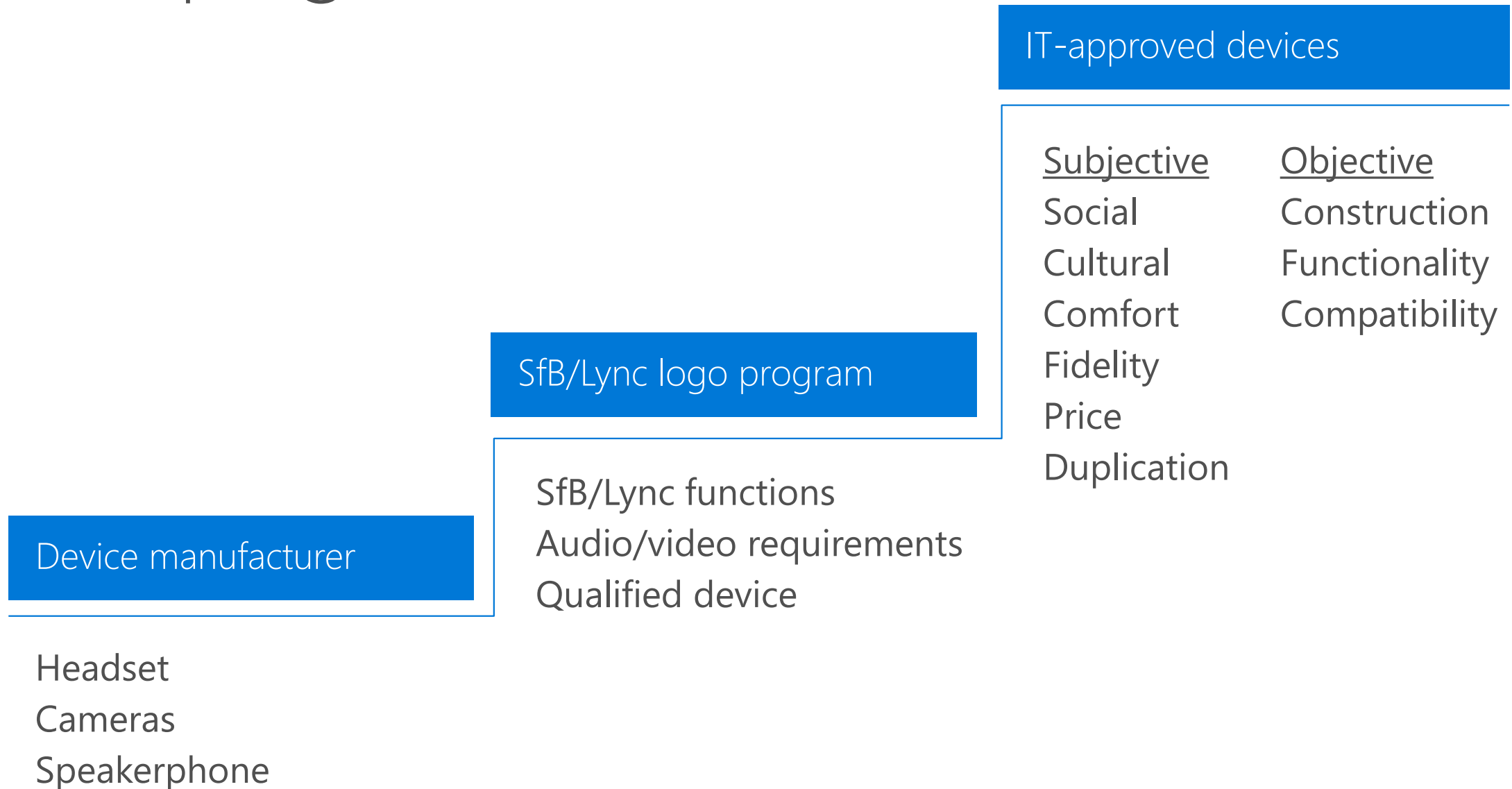


Infrastructure



PC and mobile

Device program



Device selection

USB Audio & Video Devices

\$100+

\$150-200

\$200-300

\$850+



AMSTRA

Jabra

SENNHEISER

Logitech

Microsoft
Hardware
for Business


plantronics



POLYCOM

snom
VoIP phones

Providing user direction

ITWeb Alerts 

Communication Software Hardware Network Security

Phones

Windows Phone Audio Devices

Audio Devices

FAQs

Known Issues

Desk Phone Information (Non-EV)

Centergy Manager User Guide

Desk and Conference Room Phones

USB Headsets and Speaker Phones

→ Desk Phones

→ Conference Phones

→ Accessories and Misc.



→ Wired





→ Wireless

→ Mobile

→ USB Speaker Phones

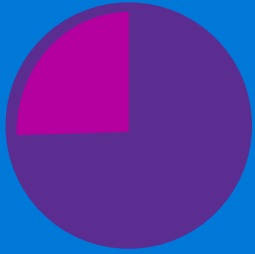
Provide users access to the information they need

ITWeb Alerts  Search  Welcome, Sean Wilson ▾

Wireless Headsets	Description	Order/User Guide
 Logitech H820E Mono	<ul style="list-style-type: none">• DECT Wireless• On-boom (microphone) mute button with LED indicator• Acoustic echo cancelation & noise canceling microphone.• Up to 300-foot roaming range• Up to 10 hours of wideband talk time.• Single ear padded headset	Order Device User Guide
 Logitech H820E Dual	<ul style="list-style-type: none">• DECT Wireless• On-boom (microphone) mute button with LED indicator• Acoustic echo cancelation & noise canceling microphone.• Up to 300-foot roaming range• Up to 10 hours of wideband talk time.• Double ear padded headset	Order Device User Guide
 Jabra 930	<ul style="list-style-type: none">• DECT Wireless• Up to 350-foot wireless range• 2 wearing styles: headband and earhook• USB connection only	Order Device User Guide
 Jabra PRO 9470	<ul style="list-style-type: none">• DECT Wireless• Up to 450-foot wireless range• USB connection to PC, analog connection to desk phone, and Bluetooth connection to mobile phone simultaneously• 3 wearing styles: headband, neckband, and earhook• Touch screen display	Order Device User Guide

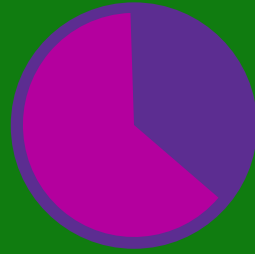
<http://itweb/v7/phones/Pages/Audio-Devices.aspx>

The SfB/Lync room system program



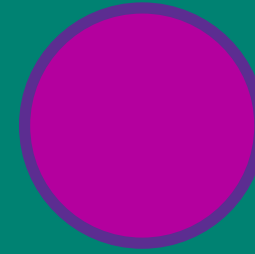
Proof of concept

- Provisioning
- Remote management
- Monitoring



Global field pilot

- Refine support
- User experience
- Productivity improvement



Official rollout

- Service onboarding
- Global support
- Standards



Microsoft environment

- 10,000+ conference rooms globally
- 500+ offices
- 100+ countries
- Multiple business units



Manageable



Efficient



Supportable



Measurable

Summary

Your organization should have an approved device program to ensure that the devices used in your video conferencing implementation are fully compatible with SfB/Lync. The device program also should prevent quality issues pertaining to unsupported or problematic equipment.

Microsoft IT best practices



Microsoft IT best practices

Microsoft IT best practices

What	Understand the needs of your users and customers.
Why	Reduces complexities and improves overall end user experience.
How	Develop an IT-approved list of devices. Leverage the SfB/Lync Logo program. Provide user guidance on devices.



© 2015 Microsoft Corporation. All rights reserved. Microsoft, Windows, Windows Vista and other product names are or may be registered trademarks and/or trademarks in the U.S. and/or other countries.

The information herein is for informational purposes only and represents the current view of Microsoft Corporation as of the date of this presentation. Because Microsoft must respond to changing market conditions, it should not be interpreted to be a commitment on the part of Microsoft, and Microsoft cannot guarantee the accuracy of any information provided after the date of this presentation. MICROSOFT MAKES NO WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, AS TO THE INFORMATION IN THIS PRESENTATION.