



H.325

Beyond Today's Second Generation Systems

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What will H.325 be?

- A **new** multimedia system
- **Not just a Voice** over IP system
- **Enables physically separate devices**, like a desk phone, mobile phone, or LCD panel on the wall
- **Enables multiple applications** to work together in order to deliver a rich communication experience



Where is H.325 at the Moment?

- H.325 is a **work in progress**
- Being developed by the same multimedia communications experts group that created H.320, H.323, H.324, etc.



Have I Heard This Before?

- H.325 is the name of what will be published by the ITU as **Recommendation H.325**
- Concept discussed at an **IMTC meeting in 2006**
- Experts in SG16 reached agreement on the idea of building a system around the concept of a **decomposed terminal architecture** in 2007
- **ITU approved a new study** area in 2008

Aren't We Re-Inventing the Wheel?



No, but we're making improvements.

Advances in technology require us to think about what we have today to see whether it **makes sense** for the future.

Technology is always changing.

We decided that today's systems are simply not designed for the more **advanced capabilities** that we want to enable.

H.323 and SIP

- Legacy systems are **monolithic** in design
- Are hard to enhance with new functionality
 - Any new capability requires terminal upgrades
 - Most new functionality requires network upgrades
- Usually only offer basic voice or video
- Enable more advanced functionality with **proprietary glue**

H.323 and SIP (cont.)

- **Interoperability issues** abound
- Introducing new capabilities is **painful**
 - How many of you have instant messaging integrated in your phone/video network
 - Interoperable?
 - And how much work was it?
 - Are you ready to tackle the next application?
- We want to **avoid phone and network upgrades** with the introduction of new applications

State of Convergence Today



1 – Call into a Conference Bridge

2 – Use PC to connect to a meeting bridge

3 – Email conference presentation / materials

4 – “Can somebody IM Paul and help him get in?”

*This is convergence? Every step
requires different credentials
and/or procedures to follow*



Now the
meeting can
start

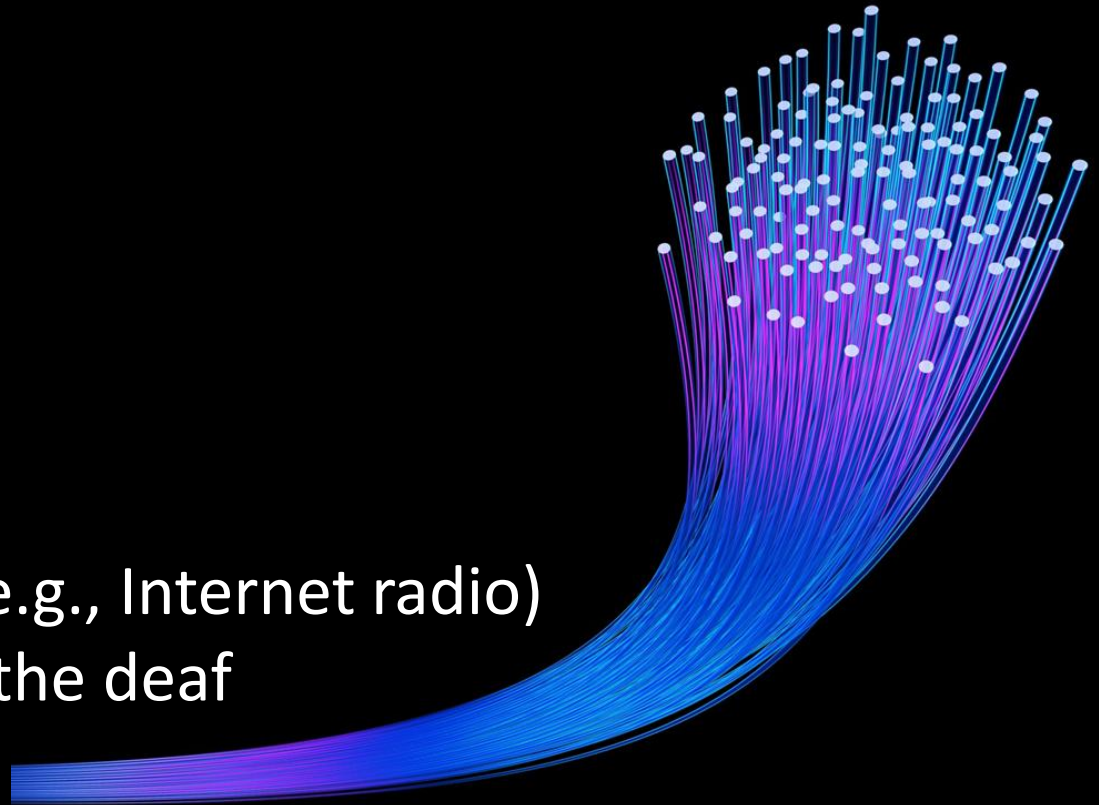
Solutions Today

- There are **proprietary solutions** that make this smoother
- Proprietary solutions **do not cross enterprise boundaries**
- We are **lacking standards** to enable multimedia application **convergence**
- We want to enable *any* kind of application and are **constrained by current generation systems**

User demands are changing...

We Want Applications!

- Voice
- Video
- Text (IM and RTT)
- App sharing
- Whiteboarding
- File transfer
- Video streaming
- Video games
- Streaming audio (e.g., Internet radio)
- Flashing lights for the deaf



Extensible and Flexible

- H.325 will be designed to be **extensible and flexible**
- Nobody can imagine the kinds of new applications that will be created, so we want a **platform** that enables the imagination
- Our job is to design a system that is **open, flexible, extensible, and interoperable**



Imagine...

Anytime, Anywhere

- Imagine being in the airport talking on the phone and viewing a presentation on your mobile phone



Anytime, Anywhere

- Imagine taking a video call in the back of a taxi



Enabling New Interactive Media

- Imagine playing interactive video games (or using other applications) as easily as making a phone call
 - Using the same communication platform
 - Interconnecting devices
 - Sharing network resources



Freedom to Roam

- Imagine moving from a **mobile call** into a **telepresence** conference by simply placing the mobile device on the table
- Imagine taking a **video call** at any nearby video display device
- Imagine **sharing your presentation** via an in-room projector from your mobile phone, with content sourced from the office

We want to get this right...

Accessibility Considerations

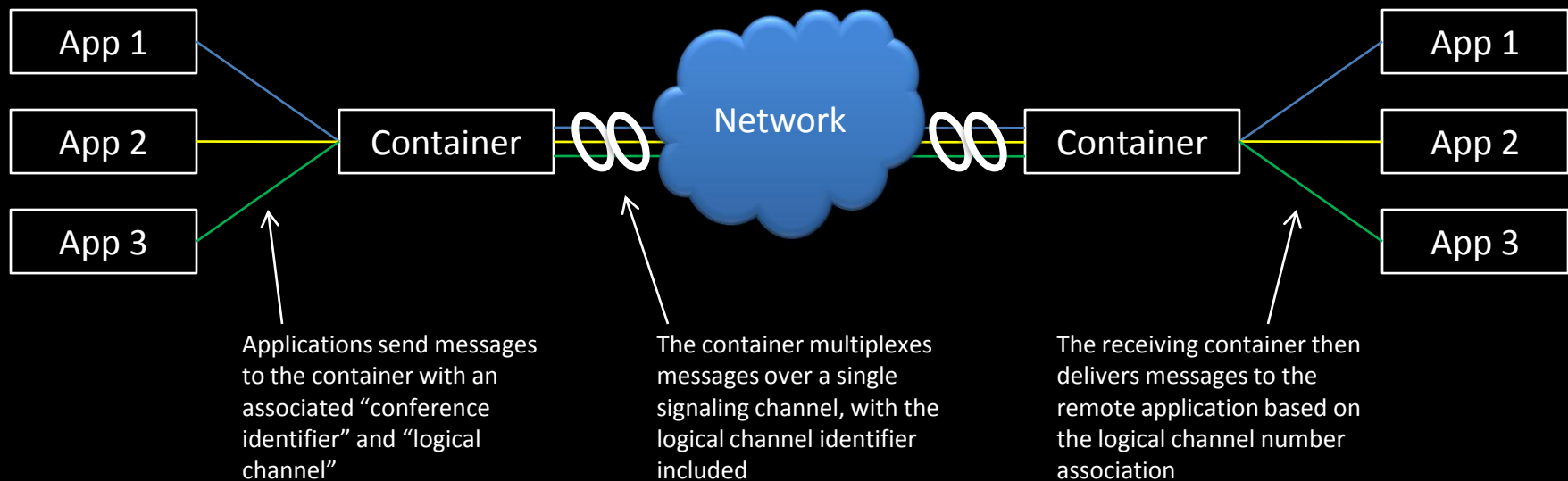
- **Accessibility needs were not considered** in the development of H.323 and SIP
- Deaf users need a way to be alerted when an incoming call arrive
- H.325 will allow a device to register and receive a notification of an “alerting” event
- This device could be a lamp that flashes
- The same mechanics can drive all kinds of inter-application communication



Interconnecting Devices

- A central feature of H.325 is **interconnecting devices**
 - The user has a central control device (we refer to as a “container”)
 - That device interfaces with all of the devices either discovered or configured
 - All forms of media offered by those devices is available to the user
- Devices may have one or more applications to offer the user

H.325 Application Signaling Flow



Note: Media does not necessarily flow through the container. Rather, it may flow end-to-end between communicating applications

The Container

- Mobile phone
- Residential gateway
- Desk phone
- Soft phone
- PBX
- Etc.

The Applications

- Anything you can imagine
- Implement a consistent and predictable interface
- May be running on the same or different physical devices
- Applications may interact with multiple containers
- Fully distributed, yet centrally controlled (from the user's perspective)

The Protocol

- It will be **different** than the previous generation
 - An interface between apps and the container
 - An interface between the container and the network
- Protocol will be **defined using XML**
 - Programmers already know how to work with XML
 - H.325 will likely use Efficient XML Interchange (EXI) for XML compression (from the W3C)*

* Still under discussion

A Simple Vision

- ✓ The **network** and the **devices** therein should serve to enhance our lives and **better enable people to communicate**
- ✓ The advanced multimedia system will be an **extensible application platform**
- ✓ Our system should be intelligent and **enable new modes of communication** as people create them
- ✓ Implementing and deploying new modes of communication **should be simple** – the platform deals with the mundane/complex parts
- ✓ One should be able to utilize a **multiplicity of devices**
- ✓ It is time for **multimedia systems to advance**



