

Testing Challenges in Real Time VideoTeleConferencing(VTC) solutions.

Shrinivas Gurunath Alageri
¹ Hewlett Packard Company ,
Corvallis,USA (Oregon State)
Shrinivas.alageri@hp.com

Abstract:

Testing Challenges encountered during validation of VTC products and solutions.

Keywords:

HP(Hewlett Packard)
VTC(VideoTeleConferencing),

1 Introduction

- HP's VTC is a network of precisely designed rooms that lets you meet with colleagues on the other side of the world as if they were right across the table from you.This is what we call the Halo Telepresence experience.

Some Halo Telepresence session.



2 Our Role

- We are a part of team validating and verifying this product.
- As testing and validation needs to be performed from Global locations from 4 different locations as it is on a dedicated network and bandwidth.
- Some of the operations include Adding a VTC node/Removing a Node.Sharing a Laptop and a high resolution Overhead Camera.
- Product Automation and CHO(Continuous Hours of Automation) tests.

3 Our Delivery

- Qualify the product after validation to the Operations team before it is handed over to the customers.

3.1 VTC headways:

- **How efficient would your company be with these VTC rooms throughout your enterprise?**
People could meet in two, three, four different countries in a single day. You don't travel, but you do meet.
- **No more guessing who's saying what.**
Just like real meetings, you can hear, see and understand everyone. Remote locations no longer feel as remote with the ability to truly experience people's expressions and reactions.
- **Competitive edge, sharpened.**
You're meeting all over the globe. They're flying all over it. You're collaborating. They're spending two hours trying to figure out who's saying what. It's almost not fair. Every shoulder shrug, raised eyebrow, and softly spoken word is true to life.

3.1.1 Challenges Involved.

- Pixellation on People Displays. These could be associated with loss of packets during streaming over a network.
- Loss of Audio when a Node is added or removed.
- Other issues include GUI freeze's .

3.1.2 Work Arounds

- We have automated most of the functionality dealing with Adding/Removing/Sharing/UnSharing ,but this causes and fixes from the Code point of view when it throws Code related Exceptions.
- Testing should be more automated and then it could be a very agile process involving both Development ,Unit Testing API using Junit/NUnit come in handy as used in our product automation. They can be integrated with Ant and allowed to produce a html report structure containing Pass/Fail results which when run overnight would get the resultant details next day.
- Since Audio and Video are related ,automation cannot help much since all the VTC locations needs to be manned to visually see and audibly hear Video or Audio issues. This causes resource cost as he may need to travel different location to staff the studio.

3.1.3 Open Questions

- How do we qualify Audio/Video for different VTC Room Nodes without actually staffing the Room ?
- Do we have any tools to remotely check Audio/Video issues and determine the Audio/Video quality. What is the process?

3.1.4 Testing as a Career

- Testing is a rewarding career if taken in the true sense and right spirit because the testers are the one who finally roll out the product for market release.
- Testing can be made more productive by developing custom automated tools which could be easily maintained within the organization.

Citation

- Digital Media publishing.

References

- [1] www.hp.com/halo