

An Introduction to IMS Application Servers

by

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What is an Application Server (AS)?

1. a component that provides services to the end user
2. the natural way of adding new functionality to an IMS core
3. a SIP end point, most of the time

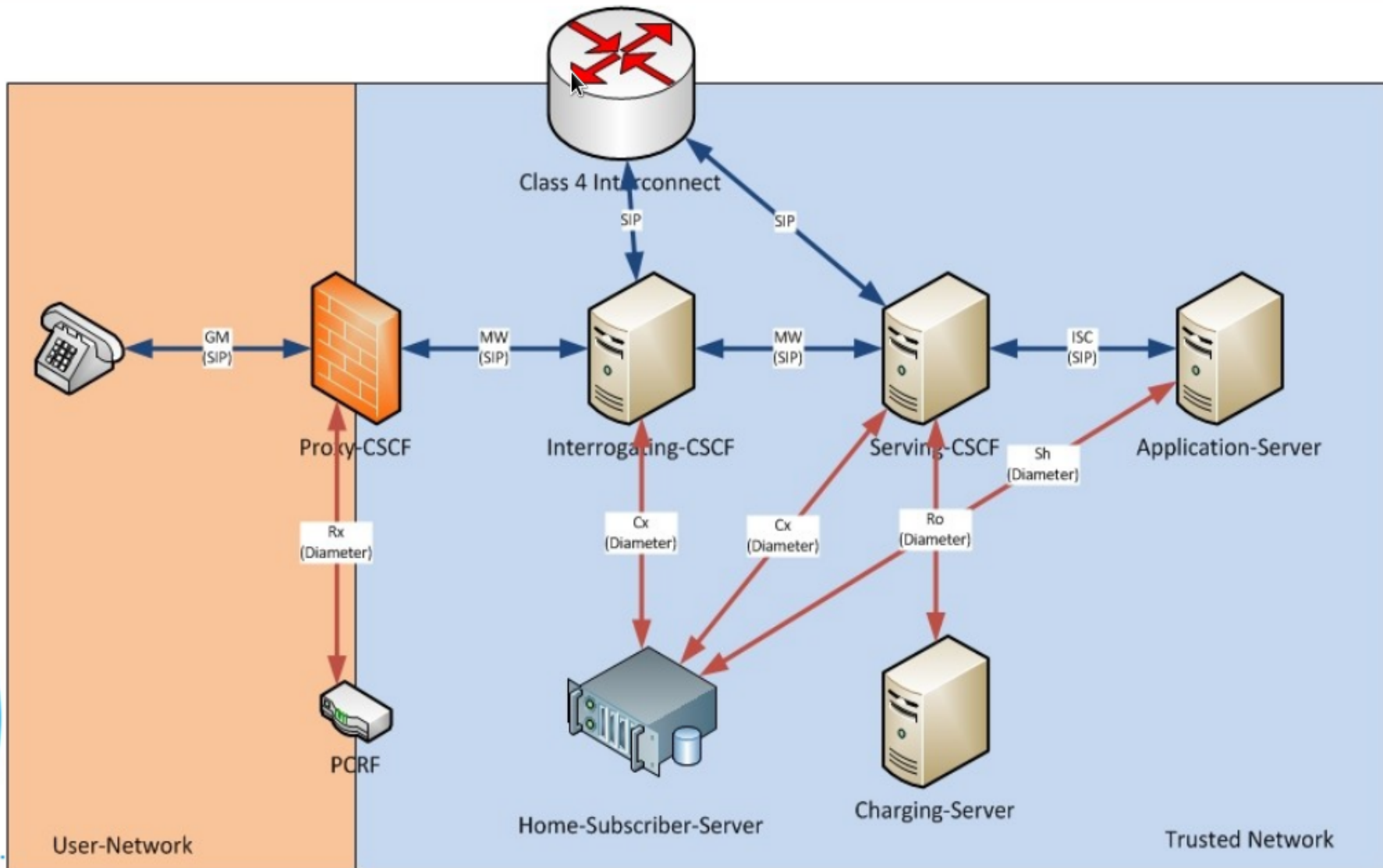
How does an AS behave?

1. User Agent (both originating and terminating)
2. SIP Proxy
3. SIP redirect server
4. SIP B2BUA

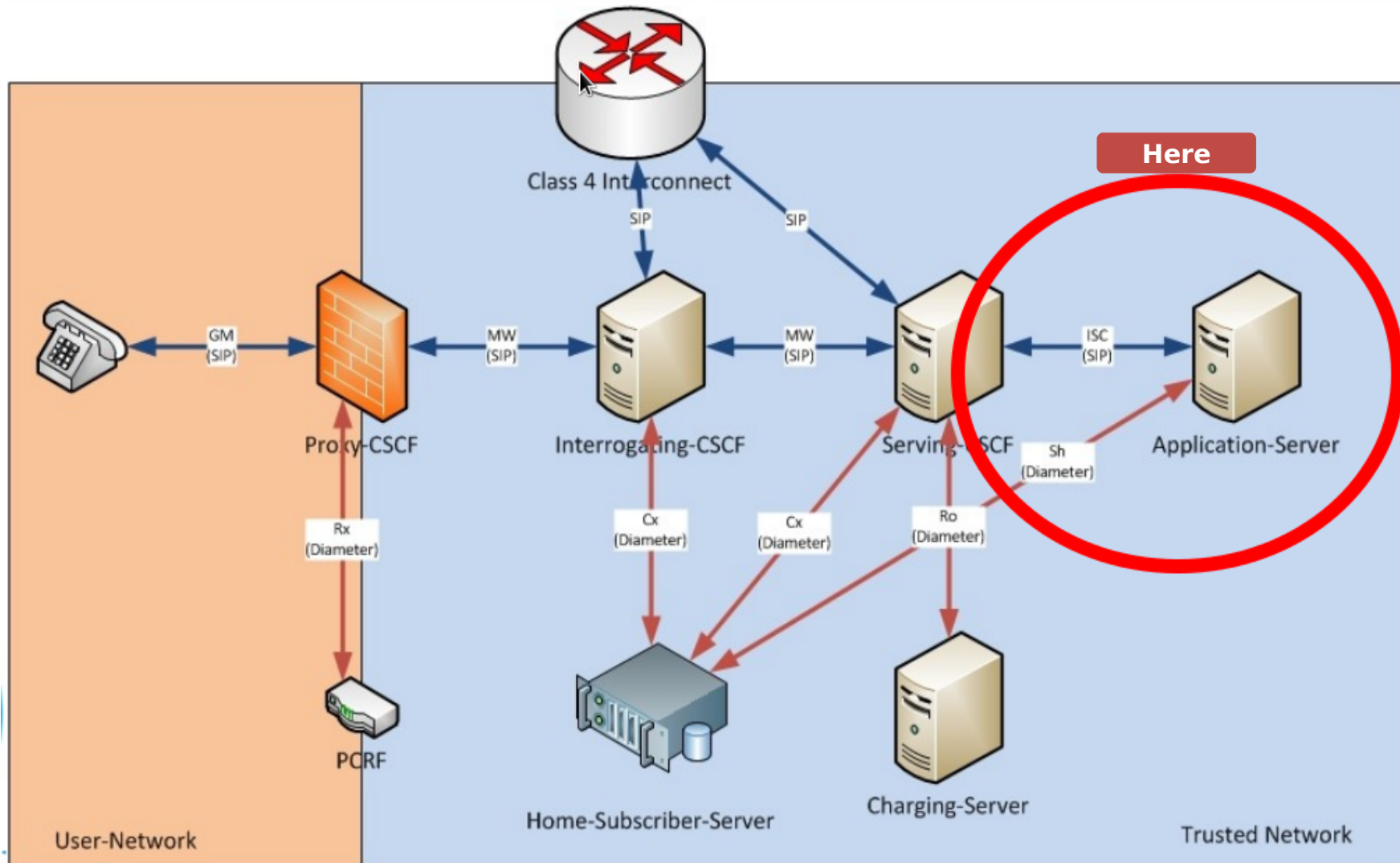
Examples of Application Servers

1. Presence
2. Conference bridges
3. Text to Speech Apps
4. Billing apps
5. IVRs
6. etc.

Where do I plug my AS?



Where do I plug my AS?

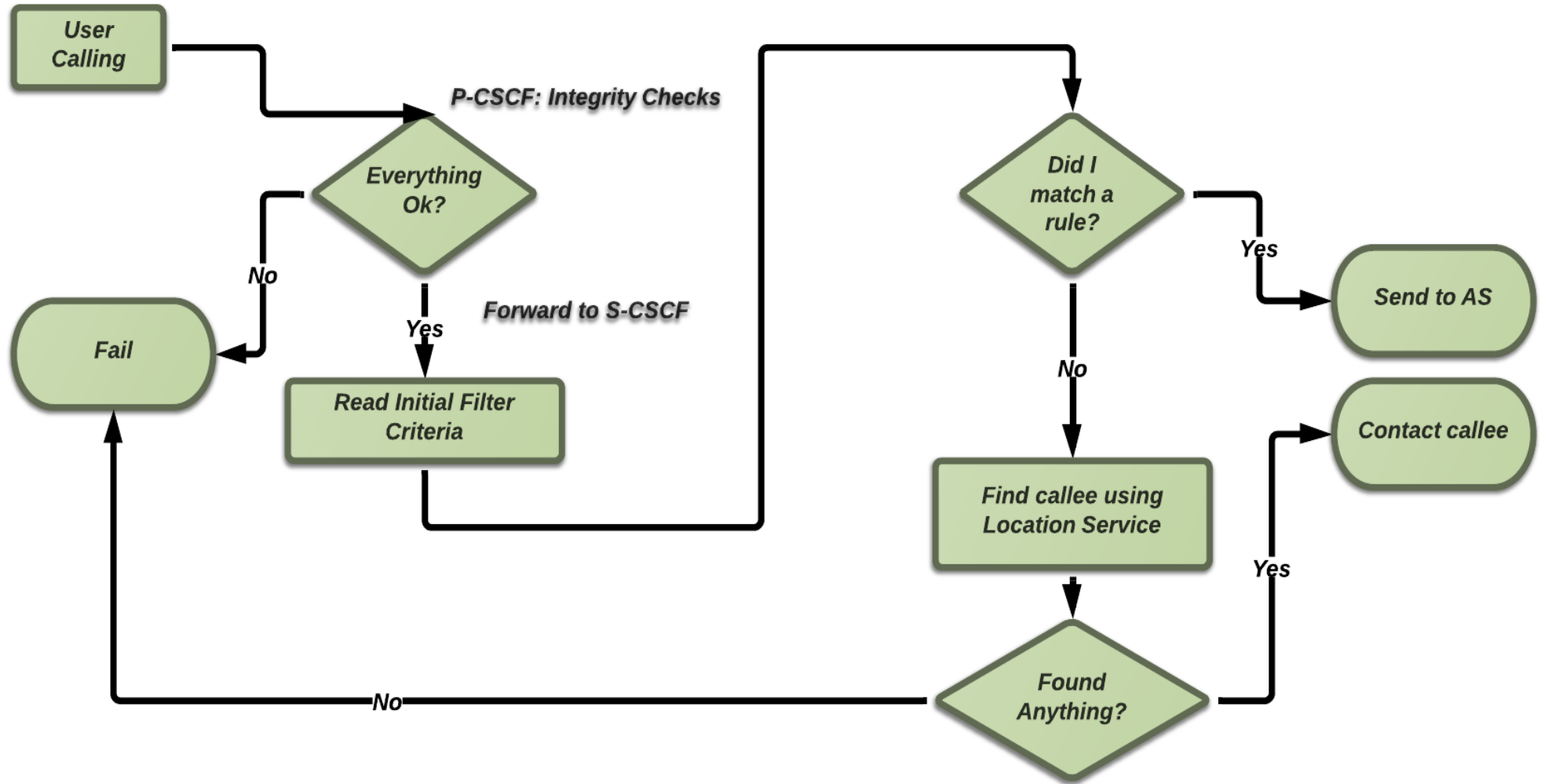


Application Server triggering

User Profile

```
-<IMSSubscription>
  <PrivateID>carlosrd123py@ims.voiceblue.com</PrivateID>
  -<ServiceProfile>
    -<PublicID>
      <Identity>sip:caruizdiaz@ims.voiceblue.com</Identity>
    </PublicID>
    -<InitialFilterCriteria>
      <Priority>0</Priority>
      -<TriggerPoint>
        -<Condition>
          -<Expression>
            <Negated>0</Negated>
            <Method>INVITE</Method>
          </Expression>
          -<Expression>
            <Negated>0</Negated>
            <ruri>^sip:conf</ruri>
          </Expression>
        </Condition>
      </TriggerPoint>
    -<ApplicationServer>
      <ServerName>sip:conferenceAS.ims.voiceblue.com</ServerName>
    </ApplicationServer>
  </InitialFilterCriteria>
</ServiceProfile>
</IMSSubscription>
```

Basic IMS call flow



How can I configure one? (in summary)

Set up...

1. ... the Initial Filter Criteria
2. ... the AS definition
3. ... the Trigger Point

Real-world configuration example

mmtel



Application Server	mmtel
Trigger Point	mmtel
Profile Part Indicator	Any

VideoConf



Application Server	VideoConference
Trigger Point	videoconf
Profile Part Indicator	Any

VideoConference



SIP FQDN	sip:conference.caruizdiaz.com:5070
Diameter FQDN	conference.caruizdiaz.com
Default Handling	Session - Continued
Repository Data Size Limit	1024

Service-Point-Triggers

Request-URI	=	sip:conf					

What can I use to build an AS?



Some options out there

JSSIP

Asterisk

FreeSWITCH

Mobicents



Practical Example

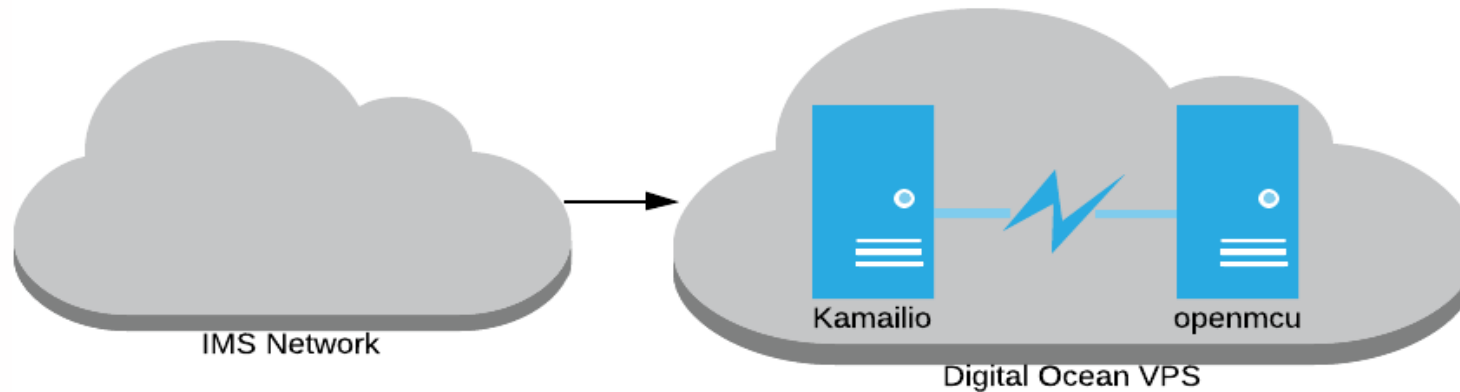


Open
MCU

Creation of an AS with the following characteristics:

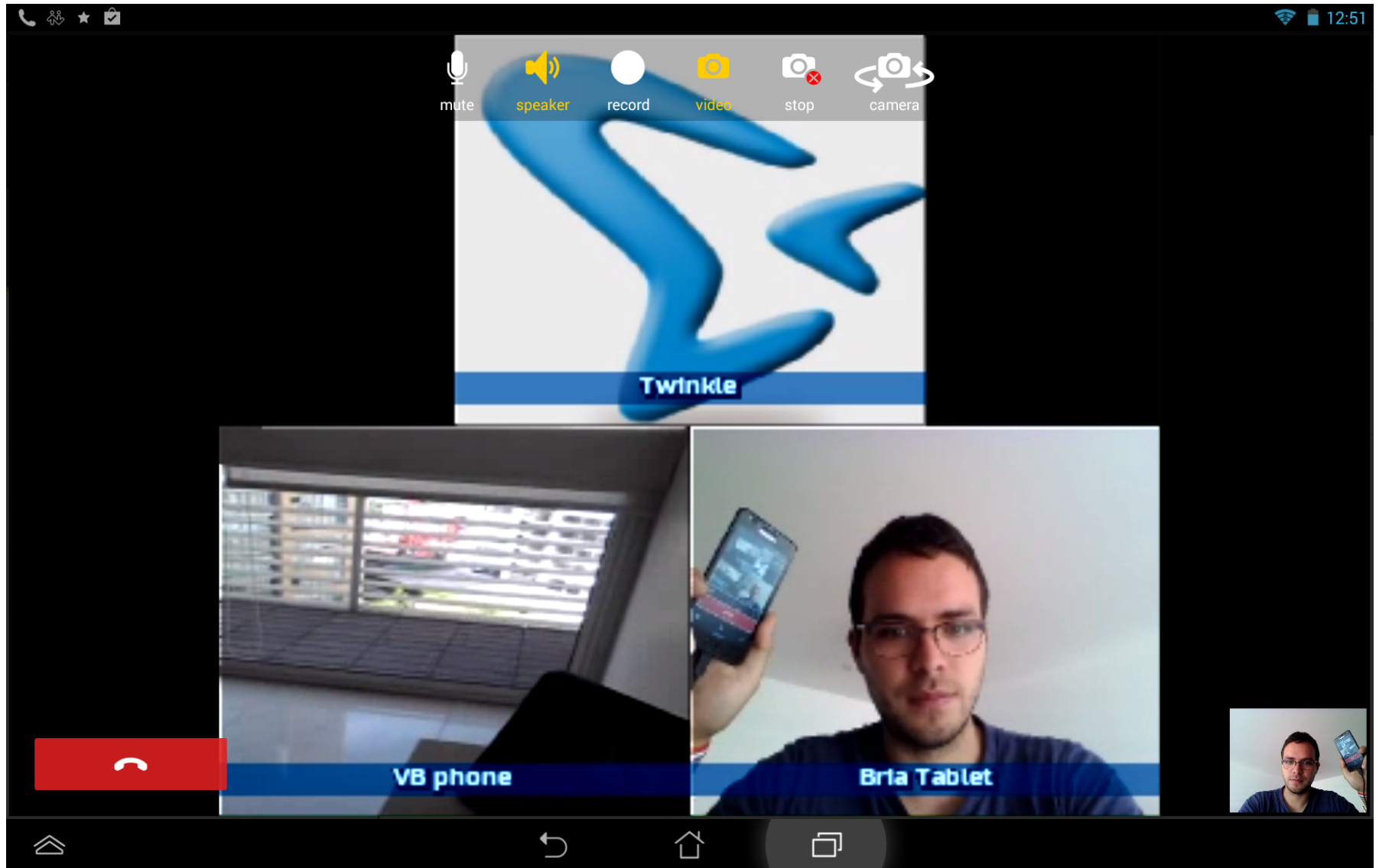
- **Serve as a conference room**
- **Accept Audio/Video Calls**
- **Support TCP/TLS/UDP/WS transports**
- **Support most common audio/video codecs**

How we did it?



1. We searched for an open-source conference server
2. We filtered options
3. We put Kamailio in front of it to make it work better

And the result was this...



In conclusion

1. Application Servers are extremely useful
2. They are fairly easy to build
3. You don't have to be an IMS expert to do it
4. You probably know already how to build one :-)

Thank you!

Questions?



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