RTP Interoperability Statement

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Objectives

We are required by RFC2026 to demonstrate interoperability of RTP implementations in order to move the specification to draft standard.

We also wish to demonstrate correct implementation of those features which affect the scaling of the protocol.

draft-ietf-avt-rtp-interop-00.txt is a first version of the interoperability statement.

Requirement for Interoperability

"...at least two independent and interoperable implementations from different code bases..."

"The requirement for at least two independent and interoperable implementations applies to all of the options and features of the specification. In cases in which one or more options or features have not been demonstrated in at least two interoperable implementations, the specification may advance to the Draft Standard level only if those options or features are removed."

Features we need to test

- Basic RTP flows
  - Testing use of marker bit and payload type depends on the profile
  - How do we test use of the header extension?
- RTP flows which have passed through a mixer/translator
- RTCP sender and receiver reports
- RTCP source description packets
  - What about PRIV packets?

Features we need to test

- RTCP BYE packets
- Use of application defined RTCP packets
- Encryption
- *Anything else?*

A new draft (draft-ietf-avt-rtptest-00.txt) suggests testing procedures, but these are not mandatory!

We have to test all features of the profile too...

How do we document the results?

We have to document...

> "...specific implementations which qualify the specification for draft standard status along with documentation about testing of the interoperation of these implementations. The documentation must include information about the support of each of the individual options and features."

Our intention is that such documentation will be added to draft-ietf-avt-rtp-interop-00.txt

What about scalability?

A number of features affect the scalability of RTP, but not basic interoperability

- Scaling RTCP transmission interval with group size
- RTCP reconsideration algorithms
- Random choice of SSRC including collision detection

These are the areas where RTP has changed most since RFC1889 – we wish to ensure that the new algorithms are implementable.

What about scalability?

Should we require that multiple independent implementations exist which can demonstrate correct implementation of the scaling algorithms?

- Rosenberg's draft-ietf-avt-rtcptest-01.txt shows how we might perform the tests...

To do...

1. Complete RTP feature list
2. Interoperability tests
3. Start on the profile

We need your help for number 2!