



The Business Technology Event

ITEXPO Vegas 2013

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Mandalay Bay Resort & Casino Conference Center
Las Vegas, Nevada

Ingate Session 12:30 August 28

SIP FORUM

Fax-over-IP T.38 Issues

FAX-OVER-IP (FoIP) TASK GROUP

Background and Current Status

T.38 Interoperability

FAX-OVER-IP (FoIP) TASK GROUP

Task Group Co-Chairs

Gonzalo Salguerio

Max Schroeder

Task Group Whip

Cisco Systems, Inc.

FaxCore, Inc.

Max Schroeder

Today's Program

Overview of the SIP Forum / I3 Forum

- Testing programs
- Observations
- Current recommendations for FoIP

SIP FORUM

Why Is Fax Relevant

- A legal document in most countries
- Simple to use with minimal equipment
- Meets HIPPA and other regulatory requirements
- Continues to grow and expand

The Beginning

- ITU Telecommunication Standardization Sector (ITU-T)
- T.30 protocol (published by the ITU in 1980)
- T.38 protocol (FoIP) approved and published in 1998 - Some input from the IETF
- Early days of general Internet usage

FoIP Interoperability Workshop

San Francisco, November 10, 2008

- SIP Forum 2008 Annual General Meeting on 18 September 2008
- Westin Bonaventure Hotel & Suites - Lobby Lounge
 - Dr. Eric Burger - Chairman of the Board, SIP Forum
 - Rich Shockey - Board of Directors
 - Marc Robins - SIP Forum Managing Director
 - Max Schroeder

FoIP Interoperability Workshop

San Francisco, November 10, 2008

- Issue: G.711 Fax Reliability
- Issue: T.38 Fax Interoperability
- Topics of Interest
 - Interoperability failures seen in the field or lab
 - Reliability or quality issues seen in the field or lab
 - Deployment experiences

FoIP Interoperability Workshop

Short Summary of Action Items

- Publish problem statement
- Define a successful fax transmission(s)
- Marketing and dissemination of information
- Technical Issues

FoIP Task Group Timelines

Problem Statement

- Feb 2009 Strawman - Mike Oliszewski (FaxBack)
- April --Neil Weldon of Dialogic – 1st Task Group chair
- May – First Task Group Conference Call
- July --1st Draft of problem statement completed
- Aug -- SIP Forum announced Version 1.0 of the Fax-over-IP Interoperability Task Group Problem Statement

FoIP Task Group / i3 Forum

i3 Forum

- Founded Q3 2007 by 8 major International Carriers
- 48 telecommunications operators
- Combined retail base in excess of one billion customers
- In over 80 countries

FoIP Task Group / i3 Forum

Timelines

- Nov/Dec 2009 Richard Shockey initiates contact with I3 Forum
- December 2009 first conference call
- January 2010 - i3 Meeting in Rome
- June 2010 - i3 Meeting in Warsaw

FoIP Task Group / i3 Forum

Timelines

- September 2010 - SIP Forum and i3 Forum Launch Groundbreaking International Test Program for Fax over Internet Protocol
- October 2011 - SIP Forum and i3 Forum complete Phase I testing
- December 2011 – IETF publishes informational RFC

Testing Report Fax-over-IP Service Results/Conclusions

Task Group/i3 tests show that neither SIP nor T.38 are themselves the problem

- Voice is generally the initial default in setup
- Many networks are untested for FoIP.
- Many firewalls and other network elements are not correctly configured.
- Excessive signaling delay remains undiagnosed

Testing Report Fax-over-IP service Results/Conclusions

Status of SIP and T.38

- SIP works properly to setup FoIP calls
- T.38 works well to carry them on a par with pure PSTN fax calls if route controlled
- Goal is to make it just as effective when the carriers use SIP and T.38.
- Intelligent FoIP Routing is **Essential**

Results/Conclusions

Best Practices Quarter 1, 2012

- ENUM – not preferred as of 2012
- User=fax - Working with this as the preferred choice. Selected mostly as a default choice
- March 1, 2012 Meeting Agenda
 - Update on testing
 - Progressing 'user=fax' discussion - Possible IETF concerns -not a supported/proper usage

The Alternative - RFC 6913

Internet Engineering Task Force (IETF) RFC

Indicating Fax over IP Capability in the Session
Initiation Protocol

Authors: D. Hanes, G. Salguiro – Cisco Systems
K. Fleming – Digium, Inc.

RFC 6913

Alternative to “user=fax”

Define a 'fax' media feature tag for SIP Section 12.1 of RFC 3840 [RFC3840].

New 'media feature tag' in a SIP UA would:

- Indicate path selected can support FAX
- Tag would be applied in Contact headers, of the form "sip.fax"

RFC 6913

The "sip.fax" media feature tag is a new string parameter

Calling UA SHOULD include the "sip.fax" media feature tag in the Accept-Contact header

Additional procedures defined in RFC 3840 and RFC 3841 to express a requirement instead of a preference

Additional Comments

RFC 6913

Additional Features defined in RGC 3840 and RFC 3841

sip.fax" feature tag has two allowed values: "t38" and "passthrough"

UAs should use procedures as documented in ITU-T T.38 [T38] for T.38 fax calls and ITU-T G.711

Additional Comments

RFC 6913

Although this solution shows great promise and a path to more reliable IP faxing, it first has to be implemented by the global carriers and this will take time.

FAX-OVER-IP TASK GROUP INFORMATION

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SIP Forum and Task Group Links

SIP Forum Home Page

www.sipforum.org

Direct Link to RFC 6913 Announcement

<http://www.sipforum.org/content/view/414/171/>

SIP FORUM

Questions

Time Permitting