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Fax-over-IP T.38 Issues

FAX-OVER-IP (FoIP) TASK GROUP **Background and Current Status** **T.38 Interoperability**

Presenter

MAX SCHROEDER

SIP Forum Fax-over-IP Task Group Whip
Senior Vice President, FaxCore, Inc.

Today's Program

Objective is to present an overview of the
SIP Forum / I3 Forum

Testing programs, observations and suggestions

Why Is Fax Relevant

- Considered a legal document in most countries
- Simple to use with minimal equipment
- Meets HIPPA and other regulatory requirements
- Continues to grow
 - Overall Fax Market 2010 – 2015
 - \$350 to \$620 million
 - 12.1% CAGR

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 LA— Informal Meeting
 - 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
 - Definitions of successful fax transmission
 - Marketing Issues
 - Technical Issues

FoIP Task Group Timelines

- Problem Statement
 - Feb 2009 Strawman - Mike Oliszewski (FaxBack)
 - April -- Neil Weldon - chair for the FoIP Task Group
 - 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
 - 37 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
 - 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 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 default
- 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 to setup FoIP calls
- T.38 works well to carry them on a par with pure PSTN fax calls
- 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

Results/Conclusions

Alternative to user=fax

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

- New 'media feature tag' in a SIP UA could
- Indicate path selected can support FAX
- Tag would be applied in Contact headers, of the form "sip.fax"

Task Group Information

Task Group Co-Chairs

- Mike Coffee – Commetrex
- Gonzalo Salguero -- Cisco Systems, Inc.

Task Group Whip

- Max Schroeder

<http://www.sipforum.org>

<http://www.sipforum.org/content/view/310/252>