

SIPPING Working Group  
Internet Draft

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**The Session Initiation Protocol (SIP) and Session Description Protocol (SDP) static dictionary for Signaling Compression (SigComp)**  
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## Abstract

The Session Initiation Protocol (SIP) [2] is a text-based protocol for initiating and managing communication sessions. The protocol can be compressed by using Signaling Compression (SigComp) [1]. Similarly, the Session Description Protocol (SDP) [24] is a text-based protocol

intended for describing multimedia sessions for the purposes of session announcement, session invitation, and other forms of

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multimedia session initiation. This memo defines the SIP/SDP-specific static dictionary that SigComp may use in order to achieve higher efficiency. The dictionary is compression algorithm independent.

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### **[1. Introduction](#)**

SIP [2] and SDP [24] are text-based protocols that use the UTF-8 charset ([RFC 2279](#) [4]). SIP and SDP were designed for rich bandwidth links. However, when SIP/SDP is run over narrow bandwidth links, such as radio interfaces or low speed serial links, the session setup time increases substantially, compared to an operation over a rich bandwidth link.

The session setup time can decrease dramatically if the SIP/SDP signaling is compressed. The signaling compression mechanisms specified in SigComp [1] provide a multiple compression/decompression algorithm framework to compress and decompress text-based protocols such as SIP and SDP.

When compression is used in SIP/SDP, the compression achieves its maximum rate once a few message exchanges have taken place. This is due to the fact that the first message the compressor sends to the decompressor is only partially compressed, as there is not a previous stored state to compress against. As the goal is to reduce the session setup time as much as possible, it seems sensible to investigate a mechanism to boost the compression rate from the first message.

In this memo we introduce the static dictionary for SIP and SDP. The dictionary is to be used in conjunction with SIP, SDP and SigComp. The static SIP/SDP dictionary constitutes a SigComp state that can be referenced in the first SIP message that the compressor sends out.

## 2. Design considerations

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The static SIP/SDP dictionary is a collection of well-known strings that appear in most of the SIP and SDP messages. The dictionary is not a comprehensive list of reserved words, but it includes most of the strings that appear in SIP and SDP signaling.

The dictionary is unique and MUST be available in all Sigcomp implementations for SIP/SDP. The dictionary is not going to evolve as SIP or SDP evolve. It is defined once, and stays as is forever. This solves the problems of updating, upgrading and finding out the dictionary that is supported at the remote end when several versions of the same dictionary coexist.

[Section 3](#) defines the collection of strings that are part of the SIP static dictionary. It contains references to the documents that define those strings.

[Section 4](#) defines the collection of strings that are part of the SDP static dictionary. It contains references to the documents that define those strings.

[Section 5](#) is the binary form of the SIP/SDP dictionary. This is the dictionary that is included in the SigComp implementation. This dictionary is formed upon the collection of individual dictionaries in sections [3](#) and [4](#).

The dictionary is a collection of UTF-8 encoded character strings. In order to facilitate the readability, we describe the dictionary in a table.

Each row in the dictionary represents an entry. Each entry contains the string in the dictionary, its priority, its numerical ascendant position, its offset from the first octet, and a reference.

The columns are described as follows:

String: represents the UTF-8 string that is inserted into the dictionary. Note that the quotes ("") are not part of the string itself. Note also that the notation [CRLF] represents a Carriage Return character (ASCII code 0x0D) followed by a Line Feed character (ASCII code 0x0A).

Pr: indicates the priority of this string within the dictionary. Some compression algorithms, such as DEFLATE, offer an increased efficiency when the most commonly used strings are located at the bottom of the dictionary. We have decided to allocate a priority to each string in the dictionary. Priorities range from 1 until 5. A low number in the priority column (e.g., 1) indicate high probability of finding the string in most SIP or SDP messages. A high number in the priority column (e.g., 5) indicate very low probability of finding the string in a SIP or SDP message. This is typically the case of rare error codes or optional infrequent tags.

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Off: indicates the hexadecimal offset of the entry with respect the first octet in the dictionary.

Len: the length of the string (in hexadecimal).

References: contains a reference to the RFC and the section within the RFC where the string is defined.

Note that the strings stored in the dictionary are case sensitive. The strings do not comprise the quotes (""), they are just shown here to increase the readability. Where there string is a header field, it also comprises the colon ":" and a white space. Note that this is a restriction against the SIP Augmented BNF, that allows other combinations (e.g., a white space or horizontal tabulator before the colon (":") sign).

Some strings appear followed by an equal sign and some other not. This depends on whether the string is part of a parameter name or a parameter value.

In a SIP message, all the SIP header fields terminate with a CRLF pair characters. As these characters are appended to the end of each SIP header line, right after the header values, and because the header values are typically not part of the static SIP dictionary, we cannot include the terminating CRLF, as part of the SIP static dictionary. Instead, the approach we have taken is to include in each header field entry the CRLF from the previous line that prepends every header field. We have represented CRLF by the notation [CRLF]. Therefore, an entry in the dictionary represented as: "[CRLF]From: " SHALL be interpreted as an entry whose value is CR, LF, the word From, a colon and a whitespace.

SIP responses are composed of a status code (e.g., "302") and a reason phrase (e.g., "Moved Temporarily"). The status code is a normative part, whereas the reason phrase is not normative, it is just a

suggested text. Therefore, both "302 Moved Temporarily" and "302 Redirect" are valid SIP responses.

In the SIP dictionary we have included two entries per response code, one including only the status code and a white space (e.g. "302 ") and another one including both the status code and the suggested reason phrase (e.g., "302 Moved Temporarily"). The former can be used when the SIP response changed the suggested reason phrase by another one. The latter can be used when the suggested reason phrase is part of the response. In this way, we accommodate both alternatives.

### **3. Input strings to the SIP static dictionary for Signaling Compression (SigComp)**

String	Pr	Off	Len	References
"sip:"	1	0E71	0004	[2] 19.1.1

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"sips:"	3	0BCE	0005	[2] 19.1.1
"tel:"	3	098E	0004	[6] 2.2
"SIP/2.0"	1	0E21	0007	[2] 25.1
"SIP/2.0/UDP "	1	0E46	000C	[2] 25.1
"SIP/2.0/TCP "	3	0E21	000C	[2] 25.1
"INVITE"	1	0E62	0006	[2] 25.1
"INVITE "	1	0E62	0007	[2] 25.1
"ACK"	2	0C84	0003	[2] 25.1
"ACK "	2	0C84	0004	[2] 25.1
"OPTIONS"	4	033A	0007	[2] 25.1
"OPTIONS "	4	033A	0008	[2] 25.1
"BYE"	2	0DD5	0003	[2] 25.1
"BYE "	2	0DD5	0004	[2] 25.1
"CANCEL"	4	0720	0006	[2] 25.1
"CANCEL "	4	0720	0007	[2] 25.1
"REGISTER"	2	0CBA	0008	[2] 25.1
"REGISTER "	2	0CBA	0009	[2] 25.1
"INFO"	4	0833	0004	[7] 2
"INFO "	4	0833	0005	[7] 2
"SUBSCRIBE"	2	0AEB	0009	[8] 8.1.1
"SUBSCRIBE "	2	0AEB	000A	[8] 8.1.1
"NOTIFY"	2	0D26	0006	[8] 8.1.2
"NOTIFY "	2	0D26	0007	[8] 8.1.2
"PRACK"	2	0C82	0005	[9] 6
"PRACK "	2	0C82	0006	[9] 6
"UPDATE"	2	0D1F	0006	[10] 7, 10
"UPDATE "	2	0D1F	0007	[10] 7, 10
"REFER"	4	07B1	0005	[12] 3, 10
"REFER "	4	07B1	0006	[12] 3, 10

"MESSAGE"	4	069D	0007	[20]	9
"MESSAGE "	4	069D	0008	[20]	9
"[CRLF]Accept: "	4	0829	000A	[2]	20.1
"[CRLF]Accept-Contact: "	5	0000	0012	[22]	5
"[CRLF]Accept-Encoding: "	4	05FB	0013	[2]	20.2
"[CRLF]Accept-Language: "	4	05E8	0013	[2]	20.3
"[CRLF]Alert-Info: "	4	0712	000E	[2]	20.4
"[CRLF]Allow: "	3	0A2B	0009	[2]	20.5
"[CRLF]Allow-Events: "	3	09E2	0010	[8]	8.2.1
"[CRLF]Authentication-Info: "	4	0378	0017	[2]	20.6
"[CRLF]Authorization: "	2	0CC3	0011	[2]	20.7
"[CRLF]Call-ID: "	1	0E75	000B	[2]	20.8
"[CRLF]Call-Info: "	5	005F	000D	[2]	20.9
"[CRLF]Contact: "	1	0E80	000B	[2]	20.10
"[CRLF]Content-Disposition: "	4	03AE	0017	[2]	20.11
"[CRLF]Content-Encoding: "	4	0342	0014	[2]	20.12
"[CRLF]Content-Language: "	4	0465	0014	[2]	20.13
"[CRLF]Content-Length: "	2	0CA4	0012	[2]	20.14
"[CRLF]Content-Type: "	2	0CDC	0010	[2]	20.15
"[CRLF]CSeq: "	1	0E99	0008	[2]	20.16
"[CRLF]Date: "	4	088B	0008	[2]	20.17
"[CRLF]Error-Info: "	5	0044	000E	[2]	20.18
"[CRLF]Event: "	3	09F2	000C	[8]	8.2.1

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"[CRLF]Expires: "	2	0D44	000B	[2]	20.19
"[CRLF]From: "	1	0E91	0008	[2]	20.20
"[CRLF]In-Reply-To: "	4	06DD	000F	[2]	20.21
"[CRLF]Max-Forwards: "	1	0E52	0010	[2]	20.22
"[CRLF]Min-Expires: "	4	06CE	000F	[2]	20.23
"[CRLF]Min-SE: "	4	081F	000A	[17]	5
"[CRLF]MIME-Version: "	5	0034	0010	[2]	20.24
"[CRLF]Network-Asserted-ID: "	2	0BD3	0017	[36]	7.1
"[CRLF]Organization: "	5	0024	0010	[2]	20.25
"[CRLF]Path: "	3	0A34	0008	[15]	3
"[CRLF]Priority: "	4	0754	000C	[2]	20.26
"[CRLF]Privacy: "	2	0D4F	000B	[37]	4.2
"[CRLF]Proxy-Authenticate: "	4	040C	0016	[2]	20.27
"[CRLF]Proxy-Authorization: "	4	035D	0017	[2]	20.28
"[CRLF]Proxy-Require: "	4	0655	0011	[2]	20.29
"[CRLF]P-Media-Authorization: "	3	0B71	0019	[21]	5.1, 9
"[CRLF]Media-Authorization: "	3	0938	0017	[21]	5.1, 9
"[CRLF]RAck: "	2	0DBD	0008	[9]	7.2
"[CRLF]Reason: "	3	0A21	000A	[16]	2
"[CRLF]Record-Route: "	3	09D2	0010	[2]	20.30
"[CRLF]Refer-To: "	4	079C	000C	[12]	3, 10
"[CRLF]Reject-Contact: "	5	0012	0012	[22]	5
"[CRLF]Replaces: "	4	0760	000C	[13]	3.1

"[CRLF]Reply-To: "	5 006C 000C [2] 20.31
"[CRLF]Request-Disposition: "	4 0393 0017 [22] 5
"[CRLF]Require: "	2 0D5A 000B [2] 20.32
"[CRLF]Retry-After: "	4 06BF 000F [2] 20.33
"[CRLF]Route: "	2 0D89 0009 [2] 20.34
"[CRLF]RSeq: "	2 0DCD 0008 [9] 7.1
"[CRLF]Security-Mechanism: "	2 0C04 0016 [19] 6.4
"[CRLF]Server: "	4 0801 000A [2] 20.35
"[CRLF]Session-Expires: "	3 0992 0013 [17] 4
"[CRLF]Subject: "	5 0083 000B [2] 20.36
"[CRLF]Subscription-State: "	3 0953 0016 [8] 8.2.3
"[CRLF]Supported: "	2 0D2D 000D [2] 20.37
"[CRLF]Timestamp: "	5 0052 000D [2] 20.38
"[CRLF]To: "	1 0EA1 0006 [2] 20.39
"[CRLF]Unsupported: "	4 06B0 000F [2] 20.40
"[CRLF]User-Agent: "	4 06F6 000E [2] 20.41
"[CRLF]Via: "	1 0E1A 0007 [2] 20.42
"[CRLF]Via: SIP/2.0/UDP "	1 0E3F 0013 [2] 20.42
"[CRLF]Via: SIP/2.0/TCP "	3 0E1A 0013 [2] 20.42
"[CRLF]Warning: "	5 0078 000B [2] 20.43
"[CRLF]WWW-Authenticate: "	2 0C47 0014 [2] 20.44
"[CRLF][CRLF]"	2 0B6F 0004 [2] 7
";transport="	4 07D8 000B [2] 25.1
"udp"	4 0677 0003 [2] 25.1, [24] A
"tcp"	4 0BA9 0003 [2] 25.1
"sctp"	4 0332 0004 [2] 25.1
"tls"	4 05A0 0003 [2] 25.1
";user="	3 0A3C 0006 [2] 25.1
"phone"	3 0155 0005 [2] 25.1

"ip"	4 012F 0002 [2] 25.1
";method="	4 0863 0008 [2] 25.1
";ttl="	4 08A6 0005 [2] 25.1
";lr"	2 0CD4 0003 [2] 25.1
"Digest "	2 0DD9 0007 [5] 3.2.1, 3.2.2
"username="	2 0C29 0009 [5] 3.2.2
"uri="	2 0DED 0004 [5] 3.2.2
"qop="	2 0DF1 0004 [5] 3.2.1, 3.2.2
"cnonce="	2 0DE0 0007 [5] 3.2.2
"nc="	2 0DF5 0003 [5] 3.2.2
"response="	2 0B0B 0009 [5] 3.2.2
"nextnonce="	2 0B97 000A [5] 3.2.3
"rspauth="	2 0BB3 0008 [5] 3.2.3
"realm="	2 0AE5 0006 [5] 3.2.1
"domain="	2 0AC3 0007 [5] 3.2.1
"nonce="	2 0B9B 0006 [5] 3.2.1
"opaque="	4 0893 0007 [5] 3.2.1

"stale="	4 0182 0006 [5] 3.2.1
"true"	4 056A 0004 [5] 3.2.1, [22] 5.2
"false"	4 0C32 0005 [5] 3.2.1
"algorithm="	2 0C3D 000A [5] 3.2.1, [18] 3.1
"MD5"	2 0C5F 0003 [5] 3.2.1, [18] 3.1
"MD5-sess"	2 0C5F 0008 [5] 3.2.1, [18] 3.1
"auth"	4 0453 0004 [5] 3.2.1
"auth-int"	4 0453 0008 [5] 3.2.1
"AKAv"	2 0D01 0004 [18] 6
"auts="	4 08A1 0005 [18] 3.1
"to="	3 09CF 0003 [19] 6.4
"from="	3 0A42 0005 [19] 6.4
"mech="	3 0A47 0005 [19] 6.4
"digest"	4 02F1 0006 [19] 6.4
"ipsec-ike"	4 07A8 0009 [19] 6.4
"ipsec-man"	4 0B33 0009 [19] 6.4
"smime"	4 0298 0005 [19] 6.4
"pref="	4 0679 0005 [19] 6.4
"alg="	4 023C 0004 [19] 6.4
";purpose="	5 00B6 0009 [2] 20.9
"icon"	5 0DB6 0004 [2] 20.9, 20.11
"info"	5 0CB6 0004 [2] 20.9
"card"	5 010D 0004 [2] 20.9
";expires="	2 0D9B 0009 [2] 25.1, [8] 8.4
"render"	5 0AE0 0006 [2] 20.11
"session"	5 0C63 0007 [2] 20.11, [37] 4.2
"alert"	5 0C9F 0005 [2] 20.11
";handling="	5 00A2 000A [2] 20.11
"optional"	2 0C99 0008 [2] 20.11, [11] 4
"required"	5 0978 0008 [2] 20.11
"text"	5 00FD 0004 [2] 25.1
"image"	5 085E 0005 [2] 25.1
"audio"	5 0C95 0005 [2] 25.1
"video"	5 0A76 0005 [2] 25.1
"application"	2 05A7 000B [2] 25.1

"application/sdp"	2 0B60 000F [2] 25.1
"message"	4 029B 0007 [2] 25.1,
"sip"	4 0615 0003 [14] 1
"sipfrag"	4 0615 0007 [14] 2
"multipart"	4 067E 0009 [2] 25.1, 7.4.1
"sdp"	2 0770 0003
"xml"	2 0DF8 0003
"Mon, "	4 08AB 0005 [2] 25.1
"Tue, "	4 08C4 0005 [2] 25.1
"Wed, "	4 08BF 0005 [2] 25.1
"Thu, "	4 0358 0005 [2] 25.1

"Fri, "	4 08BA 0005 [2] 25.1
"Sat, "	4 08B0 0005 [2] 25.1
"Sun, "	4 08B5 0005 [2] 25.1
" Jan "	4 0478 0005 [2] 25.1
" Feb "	4 0C5A 0005 [2] 25.1
" Mar "	4 0421 0005 [2] 25.1
" Apr "	4 0C19 0005 [2] 25.1
" May "	4 0968 0005 [2] 25.1
" Jun "	4 038E 0005 [2] 25.1
" Jul "	4 03C4 0005 [2] 25.1
" Aug "	4 0BE9 0005 [2] 25.1
" Sep "	4 0373 0005 [2] 25.1
" Oct "	4 094E 0005 [2] 25.1
" Nov "	4 03A9 0005 [2] 25.1
" Dec "	4 0B89 0005 [2] 25.1
" GMT"	4 0355 0004 [2] 25.1
";tag="	1 0EA7 0005 [2] 25.1
"emergency"	4 027C 0009 [2] 20.26
"urgent"	4 0A65 0006 [2] 20.26
"normal"	4 0C69 0006 [2] 20.26
"non-urgent"	4 0A61 000A [2] 20.26
";duration="	4 07E3 000A [2] 20.33
";maddr="	4 089A 0007 [2] 20.42
";received="	4 07F7 000A [2] 20.42
";branch="	5 0E30 0008 [2] 20.42
";branch=z9hG4bK"	1 0E30 000F [2] 8.1.1.7
"SIP"	5 0E21 0003 [2] 25.1, [16] 2
"UDP"	2 0E4E 0003 [2] 20.42
"TCP"	2 0E29 0003 [2] 20.42
"TLS"	4 0E2D 0003 [2] 20.42
"SCTP"	4 0C7F 0004 [2] 20.42
"active"	4 09AB 0006 [8] 8.4
"pending"	4 0309 0007 [8] 8.4
"terminated"	4 0BFA 000A [8] 8.4
";reason="	4 086B 0008 [8] 8.4
";retry-after="	4 0727 000D [8] 8.4
"deactivated"	4 025A 000B [8] 8.4
"probation"	4 0E0A 0009 [8] 8.4
"rejected"	4 08FC 0008 [8] 8.4
"timeout"	4 0686 0007 [8] 8.4
"giveup"	4 0211 0006 [8] 8.4

"noresource"	4 03EB 000A [8] 8.4
";id="	4 08C9 0004 [8] 8.4
"100rel"	2 0DE7 0006 [9] 8.1
"precondition"	2 0A56 000C [11] 8
"refer"	3 0CD6 0005 [12] 10

"to-tag"	4	04E3	0006	[13]	3.2
"from-tag"	4	02D4	0008	[13]	3.2
"replaces"	4	02B7	0008	[13]	3.4
"Q.850"	5	0AA8	0005	[16]	2
";cause="	5	00EF	0007	[16]	2
";text="	5	00FC	0006	[16]	2
"path"	3	0BAB	0004	[15]	3
";refresher="	4	07CD	000B	[17]	4
"uac"	4	0749	0003	[17]	4
"uas"	4	08E8	0003	[17]	4
"timer"	4	0ADC	0005	[17]	7.1
";class="	5	00E1	0007	[22]	5.1
";duplex="	5	00D9	0008	[22]	5.1
";feature="	5	00BF	0009	[22]	5.1
";language="	5	0098	000A	[22]	5.1
";media="	5	00E8	0007	[22]	5.1
";mobility="	5	008E	000A	[22]	5.1
"fixed"	5	0108	0005	[22]	5.1
"mobile"	5	0102	0006	[22]	5.1
"personal"	5	0236	0008	[22]	5.1
"business"	5	060E	0008	[22]	5.1
"full"	5	0111	0004	[22]	5.1
"half"	5	0BEE	0004	[22]	5.1
"receive-only"	5	01EE	000C	[22]	5.1
"send-only"	5	0A9F	0009	[22]	5.1
"voice-mail"	5	0D04	000A	[22]	5.1
"attendant"	5	0BA1	0009	[22]	5.1
";priority="	5	00AC	000A	[22]	5.1
"description"	5	012A	000B	[22]	5.1
";methods="	5	00C8	0009	[22]	5.1
";scheme="	5	00D1	0008	[22]	5.2
";only="	5	00F6	0006	[22]	5.2
";q="	4	08E5	0003	[2]	25.1, [22] 5.2
"proxy"	5	0335	0005	[22]	5.5
"redirect"	5	01A6	0008	[22]	5.5
"cancel"	5	0137	0006	[22]	5.5
"no-cancel"	5	0134	0009	[22]	5.5
"fork"	5	0625	0004	[22]	5.5
"no-fork"	5	0622	0007	[22]	5.5
"recurse"	5	0A9A	0007	[22]	5.5
"non-recurse"	5	0A96	000B	[22]	5.5
"parallel"	5	0216	0008	[22]	5.5
"sequential"	5	0C35	000A	[22]	5.5
"queue"	5	0E15	0005	[22]	5.5
"no-queue"	5	0E12	0008	[22]	5.5
";comp=sigcomp"	1	0DFE	000D	[23]	6
"header"	4	0BAE	0006	[37]	4.2

"nai"	4	085C	0003	[36]	7.2
"100 "	5	0D0E	0004	[2]	21.1.1
"100 Trying"	2	0D0E	000A	[2]	21.1.1
"180 "	5	0CF6	0004	[2]	21.1.2
"180 Ringing"	2	0CF6	000B	[2]	21.1.2
"181 "	5	0240	0004	[2]	21.1.3
"181 Call Is Being Forwarded"	4	0240	001B	[2]	21.1.3
"182 "	5	06EC	0004	[2]	21.1.4
"182 Queued"	4	06EC	000A	[2]	21.1.4
"183 "	5	0BBB	0004	[2]	21.1.5
"183 Session Progress"	2	0BBB	0014	[2]	21.1.5
"200 "	5	0E8B	0004	[2]	21.2.1
"200 OK"	1	0E8B	0006	[2]	21.2.1
"202 "	5	092C	0004	[8]	8.3.1
"202 Accepted"	3	092C	000C	[8]	8.3.1
"300 "	5	0285	0004	[2]	21.3.1
"300 Multiple Choices"	4	0285	0014	[2]	21.3.1
"301 "	5	04A7	0004	[2]	21.3.2
"301 Moved Permanently"	4	04A7	0015	[2]	21.3.2
"302 "	5	04BC	0004	[2]	21.3.3
"302 Moved Temporarily"	4	04BC	0015	[2]	21.3.3
"305 "	5	063B	0004	[2]	21.3.4
"305 Use Proxy"	4	063B	000D	[2]	21.3.4
"380 "	5	03F5	0004	[2]	21.3.5
"380 Alternative Service"	4	03F5	0017	[2]	21.3.5
"400 "	5	0980	0004	[2]	21.4.1
"400 Bad Request"	4	0980	000F	[2]	21.4.1
"401 "	5	0C6F	0004	[2]	21.4.2
"401 Unauthorized"	2	0C6F	0010	[2]	21.4.2
"402 "	5	04E9	0004	[2]	21.4.3
"402 Payment Required"	4	04E9	0014	[2]	21.4.3
"403 "	5	03DF	0004	[2]	21.4.4
"403 Forbidden"	4	03DF	000D	[2]	21.4.4
"404 "	5	0648	0004	[2]	21.4.5
"404 Not Found"	4	0648	000D	[2]	21.4.5
"405 "	5	043D	0004	[2]	21.4.6
"405 Method Not Allowed"	4	043D	0016	[2]	21.4.6
"406 "	5	0523	0004	[2]	21.4.7
"406 Not Acceptable"	4	0523	0012	[2]	21.4.7
"407 "	5	0188	0004	[2]	21.4.8
"407 Proxy Authentication Required"	4	0188	0021	[2]	21.4.8
"408 "	5	03C9	0004	[2]	21.4.9
"408 Request Timeout"	4	03C9	0013	[2]	21.4.9
"410 "	5	0741	0004	[2]	21.4.10
"410 Gone"	4	0741	0008	[2]	21.4.10
"413 "	5	0B42	0004	[2]	21.4.11
"413 Request Entity Too Large"	4	0B42	001C	[2]	21.4.11
"414 "	5	01FA	0004	[2]	21.4.12
"414 Request-URI Too Long"	4	01FA	0018	[2]	21.4.12
"415 "	5	021E	0004	[2]	21.4.13

"415 Unsupported Media Type"	4 021E 001A [2] 21.4.13
"416 "	5 0265 0004 [2] 21.4.14

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"416 Unsupported URI Scheme"	4 0265 001A [2] 21.4.14
"420 "	5 0A86 0004 [2] 21.4.15
"420 Bad Extension"	4 0A86 0011 [2] 21.4.15
"421 "	5 0115 0004 [2] 21.4.16
"421 Extension Required"	4 0115 0016 [2] 21.4.16
"422 "	5 0B14 0004 [17] 6
"422 Session Timer Too Small"	4 0B14 001B [17] 6
"423 "	5 02BF 0004 [2] 21.4.17
"423 Interval Too Brief"	4 02BF 0016 [2] 21.4.17
"480 "	5 0904 0004 [2] 21.4.18
"480 Temporarily Unavailable"	3 0904 001B [2] 21.4.18
"481 "	5 0161 0004 [2] 21.4.19
"481 Call/Transaction Does Not Exist"	4 0161 0023 [2] 21.4.19
"482 "	5 056E 0004 [2] 21.4.20
"482 Loop Detected"	4 056E 0011 [2] 21.4.20
"483 "	5 0322 0004 [2] 21.4.21
"483 Too Many Hops"	4 0322 0011 [2] 21.4.21
"484 "	5 013D 0004 [2] 21.4.22
"484 Address Incomplete"	4 013D 0016 [2] 21.4.22
"485 "	5 0C1E 0004 [2] 21.4.23
"485 Ambiguous"	4 0C1E 000D [2] 21.4.23
"486 "	5 096D 0004 [2] 21.4.24
"486 Busy Here"	3 096D 000D [2] 21.4.24
"487 "	5 02DC 0004 [2] 21.4.25
"487 Request Terminated"	4 02DC 0016 [2] 21.4.25
"488 "	5 02A2 0004 [2] 21.4.26
"488 Not Acceptable Here"	4 02A2 0017 [2] 21.4.26
"489 "	5 0594 0004 [8] 8.3.2
"489 Bad Event"	4 0594 000D [8] 8.3.2
"491 "	5 0510 0004 [2] 21.4.27
"491 Request Pending"	4 0510 0013 [2] 21.4.27
"493 "	5 0535 0004 [2] 21.4.28
"493 Undecipherable"	4 0535 0012 [2] 21.4.28
"500 "	5 01AE 0004 [2] 21.5.1
"500 Server Internal Error"	4 01AE 0019 [2] 21.5.1
"501 "	5 04FD 0004 [2] 21.5.2
"501 Not Implemented"	4 04FD 0013 [2] 21.5.2
"502 "	5 05B3 0004 [2] 21.5.3
"502 Bad Gateway"	4 05B3 000F [2] 21.5.3
"503 "	5 0426 0004 [2] 21.5.4
"503 Service Unavailable"	4 0426 0017 [2] 21.5.4
"504 "	5 0ACA 0004 [2] 21.5.5
"504 Server Time-out"	4 0ACA 0013 [2] 21.5.5
"505 "	5 0AAB 0004 [2] 21.5.6

"505 Version Not Supported"	4	0AAB	0019	[2]	21.5.6
"513 "	5	0492	0004	[2]	21.5.7
"513 Message Too Large"	4	0492	0015	[2]	21.5.7
"580 "	5	0AF5	0004	[11]	8
"580 Precondition Failure"	4	0AF5	0018	[11]	8
"600 "	5	08EB	0004	[2]	21.6.1
"600 Busy Everywhere"	3	08EB	0013	[2]	21.6.1
"603 "	5	0B8E	0004	[2]	21.6.2

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"603 Decline"	4	0B8E	000B	[2]	21.6.2
"604 "	5	01D5	0004	[2]	21.6.3
"604 Does Not Exist Anywhere"	4	01D5	001B	[2]	21.6.3
"606 "	5	0547	0004	[2]	21.6.4
"606 Not Acceptable"	4	0547	0012	[2]	21.6.4
"687 "	5	047D	0004	[13]	3.5
"687 Dialog Terminated"	4	047D	0015	[13]	3.5
"Anonymous"	3	0E69	0009	[2]	8.1.1.3

Table 1: SIP input strings to the SIP/SDP dictionary  
for Sigcomp

#### [4. Input strings to the SDP static dictionary for Signaling Compression \(Sigcomp\)](#)

String	Pr	Off	Len	References
=====	==	====	====	=====
"v=0[CRLF]o="	2	0D18	0007	[24] 6
"[CRLF]s="	2	0D84	0004	[24] 6
"[CRLF]s= "	2	0D84	0005	[35] 5
"[CRLF]i="	4	08D9	0004	[24] 6
"[CRLF]u="	4	08DD	0004	[24] 6
"[CRLF]e="	4	08E1	0004	[24] 6
"[CRLF]c=IN IP4 "	3	0A16	000B	[24] 6
"[CRLF]c=IN IP6 "	2	0CEB	000B	[24] 6
"[CRLF]c="	5	0A16	0004	[24] 6
"[CRLF]b="	3	0A4C	0004	[24] 6
"[CRLF]t="	2	0C88	0004	[24] 6
"[CRLF]t=0 0"	2	0C88	0007	[35] 5
"[CRLF]r="	4	08D1	0004	[24] 6
"[CRLF]z="	4	08D5	0004	[24] 6
"[CRLF]k=clear:"	4	0815	000A	[24] 6
"[CRLF]k=base64:"	4	07C2	000B	[24] 6
"[CRLF]k=uri:"	4	0883	0008	[24] 6
"[CRLF]k=prompt:"	4	06A5	000B	[24] 6
"[CRLF]k="	5	06A5	0004	[24] 6
"[CRLF]a=cat:"	4	087B	0008	[24] 6
"[CRLF]a=keywds:"	4	07B7	000B	[24] 6

"[CRLF]a=tool:"	4 084A 0009 [24] 6
"[CRLF]a=ptime:"	4 07ED 000A [24] 6
"[CRLF]a=maxptime:"	4 0734 000D [24] 6
"[CRLF]a=rtpmap:"	2 0D65 000B [24] 6, [35] 5
"[CRLF]a=recvonly"	3 09FE 000C [24] 6
"[CRLF]a=sendrecv"	3 0A6B 000C [24] 6
"[CRLF]a=sendonly"	3 0A0A 000C [24] 6
"[CRLF]a=inactive"	3 09A5 000C [24] 6
"[CRLF]a=orient:portrait"	4 04D1 0013 [24] 6
"[CRLF]a=orient:landscape"	4 02F7 0014 [24] 6
"[CRLF]a=orient:seascape"	4 05D5 0013 [24] 6
"[CRLF]a=type:broadcast"	4 0559 0012 [24] 6
"[CRLF]a=type:meeting"	4 068D 0010 [24] 6
"[CRLF]a=type:moderated"	4 0629 0012 [24] 6

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"[CRLF]a=type:test"	4 09C3 000D [24] 6
"[CRLF]a=type:H.332"	4 091F 000E [24] 6
"[CRLF]a=type:recvonly"	4 0666 0011 [24] 6
"[CRLF]a=charset:"	4 0790 000C [24] 6
"[CRLF]a=sdplang:"	4 076C 000C [24] 6
"[CRLF]a=lang:"	4 0853 0009 [24] 6
"[CRLF]a=framerate:"	4 0704 000E [24] 6
"[CRLF]a=quality:"	4 0784 000C [24] 6
"[CRLF]a=fmtp:"	2 0DA4 0009 [24] 6
"[CRLF]a=curr:"	2 0D92 0009 [11] 4
"[CRLF]a=des:"	2 0DC5 0008 [11] 4
"[CRLF]a=conf:"	2 0DAD 0009 [11] 4
"[CRLF]a=mid:"	4 0873 0008 [29] 3
"[CRLF]a=group:"	4 080B 000A [29] 3
"[CRLF]a=key-mgmt:MIKEY"	4 0310 0012 [31] 2.1, [32] 6
"[CRLF]a=key-mgmt:"	4 0310 000D [31] 2.1
"[CRLF]a="	5 02F7 0004 [24] 6
"[CRLF]m=audio "	2 0D7A 000A [24] 6
"[CRLF]m=video "	2 0D70 000A [24] 6
"[CRLF]m=application "	4 05A3 0010 [24] 6
"[CRLF]m=data "	4 0841 0009 [24] 6
"[CRLF]m=control "	4 0778 000C [24] 6
"[CRLF]m="	5 05A3 0004 [24] 6
"AS "	3 0A53 0003 [24] 6
"CT "	3 0A50 0003 [24] 6
"RTP/AVP "	2 0D3C 0008 [24] A
"RTP/SAVP "	3 09B1 0009 [33] 13
"RTP/AVPF "	3 09BA 0009 [34] 4.1
"udp"	4 0677 0003 [2] 25.1, [24] A
"0.0.0.0"	4 0C8E 0007 [24] A
"qos"	2 0DFB 0003 [11] 4
"mandatory"	2 0B39 0009 [11] 4

"optional"	2	0C99	0008	[2]	20.11,	[11]	4
"none"	2	0DB9	0004	[11]	4		
"failure"	4	0BF1	0007	[11]	4		
"unknown"	4	061C	0007	[11]	4		
"e2e"	2	0B5D	0003	[11]	4		
"local"	2	0B2E	0005	[11]	4		
"remote"	2	0BF6	0006	[11]	4		
"send"	2	0A0E	0004	[11]	4		
"recv"	2	066F	0004	[11]	4		
"sendrecv"	2	0A6F	0008	[11]	4		
"AMR"	2	0D3A	0003	[28]	8		
"octet-align=	4	0A7A	000C	[28]	8		
"mode-set=	4	0838	0009	[28]	8		
"mode-change-period=	4	05C2	0013	[28]	8		
"mode-change-neighbor=	4	057F	0015	[28]	8		
"crc=	4	08CD	0004	[28]	8		
"robust-sorting=	4	01C6	000F	[28]	8		
"interleaving=	4	0458	000D	[28]	8		
"channels=	4	074B	0009	[28]	8		
"octet-align"	4	0A7A	000B	[28]	8		

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"telephone-event"	4	0151	000F	[30]	3.3,	6.1
"events"	4	015B	0006	[30]	6.1	
"rate"	4	0636	0004	[30]	6.1,	6.2
"tone"	4	03DB	0004	[30]	6.2	

Table 2: SDP input strings to the SIP/SDP dictionary  
for Sigcomp

## 5. Binary representation of the SIP/SDP dictionary

This section contains the result of combining the SIP and the SDP dictionaries described in sections [3](#) and [4](#) in order to create a single dictionary that is loaded into SigComp as a state.

As defined in [section 3.3.3](#) in the Signaling Compression [1], a SigComp state is characterized by a set of information. In the case of the static SIP/SDP dictionary, the following information characterizes the state:

Name:	Value:
=====	=====
state_identifier	hash value(TBD)
state_length	0x0EAC
state_address	0 (not relevant for the dictionary)
state_instruction	0 (not relevant for the dictionary)
minimum_access_length	6

state\_value

Representation of the table below.

0000	0d0a	4163	6365	7074	2d43	6f6e	7461	6374	..Accept-Contact
0010	3a20	0d0a	5265	6a65	6374	2d43	6f6e	7461	: ..Reject-Conta
0020	6374	3a20	0d0a	4f72	6761	6e69	7a61	7469	ct: ..Organizati
0030	6f6e	3a20	0d0a	4d49	4d45	2d56	6572	7369	on: ..MIME-Versi
0040	6f6e	3a20	0d0a	4572	726f	722d	496e	666f	on: ..Error-Info
0050	3a20	0d0a	5469	6d65	7374	616d	703a	200d	: ..Timestamp: .
0060	0a43	616c	6c2d	496e	666f	3a20	0d0a	5265	.Call-Info: ..Re
0070	706c	792d	546f	3a20	0d0a	5761	726e	696e	ply-To: ..Warnin
0080	673a	200d	0a53	7562	6a65	6374	3a20	3b6d	g: ..Subject: ;m
0090	6f62	696c	6974	793d	3b6c	616e	6775	6167	obility=;languag
00A0	653d	3b68	616e	646c	696e	673d	3b70	7269	e=;handling=;pri
00B0	6f72	6974	793d	3b70	7572	706f	7365	3d3b	ority=;purpose=;
00C0	6665	6174	7572	653d	3b6d	6574	686f	6473	feature=;methods
00D0	3d3b	7363	6865	6d65	3d3b	6475	706c	6578	=;scheme=;duplex
00E0	3d3b	636c	6173	733d	3b6d	6564	6961	3d3b	=;class=;media=;
00F0	6361	7573	653d	3b6f	6e6c	793d	3b74	6578	cause=;only=;tex
0100	743d	6d6f	6269	6c65	6669	7865	6463	6172	t=mobilefixedcar
0110	6466	756c	6c34	3231	2045	7874	656e	7369	dfull421 Extensi
0120	6f6e	2052	6571	7569	7265	6465	7363	7269	on RequiredDescri
0130	7074	696f	6e6f	2d63	616e	6365	6c34	3834	ptiono-cancel484
0140	2041	6464	7265	7373	2049	6e63	6f6d	706c	Address Incompl
0150	6574	656c	6570	686f	6e65	2d65	7665	6e74	etelephone-event
0160	7334	3831	2043	616c	6c2f	5472	616e	7361	s481 Call/Transa
0170	6374	696f	6e20	446f	6573	204e	6f74	2045	ction Does Not E

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0180	7869	7374	616c	653d	3430	3720	5072	6f78	xistale=407 Prox
0190	7920	4175	7468	656e	7469	6361	7469	6f6e	y Authentication
01A0	2052	6571	7569	7265	6469	7265	6374	3530	Requiredirect50
01B0	3020	5365	7276	6572	2049	6e74	6572	6e61	0 Server Interna
01C0	6c20	4572	726f	726f	6275	7374	2d73	6f72	1 Errorrobust-sor
01D0	7469	6e67	3d36	3034	2044	6f65	7320	4e6f	ting=604 Does No
01E0	7420	4578	6973	7420	416e	7977	6865	7265	t Exist Anywhere
01F0	6365	6976	652d	6f6e	6c79	3431	3420	5265	ceive-only414 Re
0200	7175	6573	742d	5552	4920	546f	6f20	4c6f	quest-URI Too Lo
0210	6e67	6976	6575	7061	7261	6c6c	656c	3431	ngiveupparallel41
0220	3520	556e	7375	7070	6f72	7465	6420	4d65	5 Unsupported Me
0230	6469	6120	5479	7065	7273	6f6e	616c	673d	dia Typersonalg=
0240	3138	3120	4361	6c6c	2049	7320	4265	696e	181 Call Is Bein
0250	6720	466f	7277	6172	6465	6465	6163	7469	g Forwardedeacti
0260	7661	7465	6434	3136	2055	6e73	7570	706f	vated416 Unsuppo
0270	7274	6564	2055	5249	2053	6368	656d	6572	rted URI Schemer
0280	6765	6e63	7933	3030	204d	756c	7469	706c	gency300 Multipl
0290	6520	4368	6f69	6365	736d	696d	6573	7361	e Choicesmimessa
02A0	6765	3438	3820	4e6f	7420	4163	6365	7074	ge488 Not Accept
02B0	6162	6c65	2048	6572	6570	6c61	6365	7334	able Hereplaces4

02C0	3233	2049	6e74	6572	7661	6c20	546f	6f20	23	Interval	Too
02D0	4272	6965	6672	6f6d	2d74	6167	3438	3720	Brief	from-tag	487
02E0	5265	7175	6573	7420	5465	726d	696e	6174	Request	Terminat	
02F0	6564	6967	6573	740d	0a61	3d6f	7269	656e	edigest..a=orien		
0300	743a	6c61	6e64	7363	6170	656e	6469	6e67	t:landscapending		
0310	0d0a	613d	6b65	792d	6d67	6d74	3a4d	494b	..a=key-mgmt:MIK		
0320	4559	3438	3320	546f	6f20	4d61	6e79	2048	EY483	Too Many H	
0330	6f70	7363	7470	726f	7879	4f50	5449	4f4e	opsctproxyOPTION		
0340	5320	0d0a	436f	6e74	656e	742d	456e	636f	S ..Content-Enco		
0350	6469	6e67	3a20	474d	5468	752c	200d	0a50	ding: GMThu, ..P		
0360	726f	7879	2d41	7574	686f	7269	7a61	7469	roxy-Authorizati		
0370	6f6e	3a20	5365	7020	0d0a	4175	7468	656e	on: Sep ..Authen		
0380	7469	6361	7469	6f6e	2d49	6e66	6f3a	204a	tication-Info: J		
0390	756e	200d	0a52	6571	7565	7374	2d44	6973	un ..Request-Dis		
03A0	706f	7369	7469	6f6e	3a20	4e6f	7620	0d0a	position: Nov ..		
03B0	436f	6e74	656e	742d	4469	7370	6f73	6974	Content-Disposition		
03C0	696f	6e3a	204a	756c	2034	3038	2052	6571	ion: Jul 408 Req		
03D0	7565	7374	2054	696d	656f	7574	6f6e	6534	uest Timeoutone4		
03E0	3033	2046	6f72	6269	6464	656e	6f72	6573	03 Forbiddenores		
03F0	6f75	7263	6533	3830	2041	6c74	6572	6e61	ource380 Alterna		
0400	7469	7665	2053	6572	7669	6365	0d0a	5072	tive Service..Pr		
0410	6f78	792d	4175	7468	656e	7469	6361	7465	oxy-Authenticate		
0420	3a20	4d61	7220	3530	3320	5365	7276	6963	: Mar 503 Servic		
0430	6520	556e	6176	6169	6c61	626c	6534	3035	e Unavailable405		
0440	204d	6574	686f	6420	4e6f	7420	416c	6c6f	Method Not Allo		
0450	7765	6461	7574	682d	696e	7465	726c	6561	wedauth-interlea		
0460	7669	6e67	3d0d	0a43	6f6e	7465	6e74	2d4c	ving=..Content-L		
0470	616e	6775	6167	653a	204a	616e	2036	3837	anguage: Jan 687		
0480	2044	6961	6c6f	6720	5465	726d	696e	6174	Dialog Terminat		
0490	6564	3531	3320	4d65	7373	6167	6520	546f	ed513 Message To		
04A0	6f20	4c61	7267	6533	3031	204d	6f76	6564	o Large301 Moved		
04B0	2050	6572	6d61	6e65	6e74	6c79	3330	3220	Permanently302		

04C0	4d6f	7665	6420	5465	6d70	6f72	6172	696c	Moved Temporaril		
04D0	790d	0a61	3d6f	7269	656e	743a	706f	7274	y..a=orient:port		
04E0	7261	6974	6f2d	7461	6734	3032	2050	6179	raito-tag402 Pay		
04F0	6d65	6e74	2052	6571	7569	7265	6435	3031	ment Required501		
0500	204e	6f74	2049	6d70	6c65	6d65	6e74	6564	Not Implemented		
0510	3439	3120	5265	7175	6573	7420	5065	6e64	491 Request Pend		
0520	696e	6734	3036	204e	6f74	2041	6363	6570	ing406 Not Accep		
0530	7461	626c	6534	3933	2055	6e64	6563	6970	table493 Undecip		
0540	6865	7261	626c	6536	3036	204e	6f74	2041	herable606 Not A		
0550	6363	6570	7461	626c	650d	0a61	3d74	7970	cceptable..a=typ		
0560	653a	6272	6f61	6463	6173	7472	7565	3438	e:broadcasttrue48		
0570	3220	4c6f	6f70	2044	6574	6563	7465	646d	2 Loop Detectedm		
0580	6f64	652d	6368	616e	6765	2d6e	6569	6768	ode-change-neigh		
0590	626f	723d	3438	3920	4261	6420	4576	656e	bor=489 Bad Even		

05A0	746c	730d	0a6d	3d61	7070	6c69	6361	7469	tls..m=application
05B0	6f6e	2035	3032	2042	6164	2047	6174	6577	on 502 Bad Gatew
05C0	6179	6d6f	6465	2d63	6861	6e67	652d	7065	aymode-change-period=..a=orient:
05D0	7269	6f64	3d0d	0a61	3d6f	7269	656e	743a	riod=..a=orient:
05E0	7365	6173	6361	7065	0d0a	4163	6365	7074	seascape..Accept
05F0	2d4c	616e	6775	6167	653a	200d	0a41	6363	-Language: ..Accept
0600	6570	742d	456e	636f	6469	6e67	3a20	6275	ept-Encoding: bu
0610	7369	6e65	7373	6970	6672	6167	756e	6b6e	sinessipfragunkn
0620	6f77	6e6f	2d66	6f72	6b0d	0a61	3d74	7970	owno-fork..a=typ
0630	653a	6d6f	6465	7261	7465	6433	3035	2055	e:moderated305 U
0640	7365	2050	726f	7879	3430	3420	4e6f	7420	se Proxy404 Not
0650	466f	756e	640d	0a50	726f	7879	2d52	6571	Found..Proxy-Req
0660	7569	7265	3a20	0d0a	613d	7479	7065	3a72	uire: ..a=type:r
0670	6563	766f	6e6c	7975	6470	7265	663d	6d75	ecvonlyudpref=mu
0680	6c74	6970	6172	7469	6d65	6f75	740d	0a61	ltipartimeout..a
0690	3d74	7970	653a	6d65	6574	696e	674d	4553	=type:meetingMES
06A0	5341	4745	200d	0a6b	3d70	726f	6d70	743a	SAGE ..k=prompt:
06B0	0d0a	556e	7375	7070	6f72	7465	643a	200d	..Unsupported: .
06C0	0a52	6574	7279	2d41	6674	6572	3a20	0d0a	.Retry-After: ..
06D0	4d69	6e2d	4578	7069	7265	733a	200d	0a49	Min-Expires: ..I
06E0	6e2d	5265	706c	792d	546f	3a20	3138	3220	n-Reply-To: 182
06F0	5175	6575	6564	0d0a	5573	6572	2d41	6765	Queued..User-Age
0700	6e74	3a20	0d0a	613d	6672	616d	6572	6174	nt: ..a=framerate: ..
0710	653a	0d0a	416c	6572	742d	496e	666f	3a20	Alert-Info: ..a=framerate: ..
0720	4341	4e43	454c	203b	7265	7472	792d	6166	CANCEL ;retry-after=..a=maxptime
0730	7465	723d	0d0a	613d	6d61	7870	7469	6d65	:410 Goneuachann
0740	3a34	3130	2047	6f6e	6575	6163	6861	6e6e	els=..Priority: ..Replaces: ..a=sdplang:..m=control ..a=quality: ..a=charset:..Refer-To: ipsec-ik
0750	656c	733d	0d0a	5072	696f	7269	7479	3a20	eREFER ..a=keyword: ..s:k=base64:;refresh=;transports:duration=..a=ptime:;received
0760	0d0a	5265	706c	6163	6573	3a20	0d0a	613d	..a=charset:..Refer-To: ipsec-ik
0770	7364	706c	616e	673a	0d0a	6d3d	636f	6e74	..a=quality: ..a=charset:..Refer-To: ipsec-ik
0780	726f	6c20	0d0a	613d	7175	616c	6974	793a	..a=charset:..Refer-To: ipsec-ik
0790	0d0a	613d	6368	6172	7365	743a	0d0a	5265	..a=charset:..Refer-To: ipsec-ik
07A0	6665	722d	546f	3a20	6970	7365	632d	696b	..a=charset:..Refer-To: ipsec-ik
07B0	6552	4546	4552	200d	0a61	3d6b	6579	7764	..a=charset:..Refer-To: ipsec-ik
07C0	733a	0d0a	6b3d	6261	7365	3634	3a3b	7265	..s:k=base64:;refresh=;transports:duration=..a=ptime:;received
07D0	6672	6573	6865	723d	3b74	7261	6e73	706f	..a=charset:..Refer-To: ipsec-ik
07E0	7274	3d3b	6475	7261	7469	6f6e	3d0d	0a61	..a=charset:..Refer-To: ipsec-ik
07F0	3d70	7469	6d65	3a3b	7265	6365	6976	6564	..a=charset:..Refer-To: ipsec-ik

0800	3d0d	0a53	6572	7665	723a	200d	0a61	3d67	=..Server: ..a=g
0810	726f	7570	3a0d	0a6b	3d63	6c65	6172	3a0d	roup:..k=clear:..
0820	0a4d	696e	2d53	453a	200d	0a41	6363	6570	.Min-SE: ..Accept
0830	743a	2049	4e46	4f20	6d6f	6465	2d73	6574	t: INFO mode-set
0840	3d0d	0a6d	3d64	6174	6120	0d0a	613d	746f	=..m=data ..a=to
0850	6f6c	3a0d	0a61	3d6c	616e	673a	6e61	696d	ol:..a=lang:naim
0860	6167	653b	6d65	7468	6f64	3d3b	7265	6173	age;method=;reas
0870	6f6e	3d0d	0a61	3d6d	6964	3a0d	0a61	3d63	on=..a=mid:..a=c

0880	6174	3a0d	0a6b	3d75	7269	3a0d	0a44	6174	at:..k=uri:..Dat
0890	653a	206f	7061	7175	653d	3b6d	6164	6472	e: opaque=;maddr
08A0	3d61	7574	733d	3b74	746c	3d4d	6f6e	2c20	=auts=;ttl=Mon,
08B0	5361	742c	2053	756e	2c20	4672	692c	2057	Sat, Sun, Fri, W
08C0	6564	2c20	5475	652c	203b	6964	3d63	7263	ed, Tue, ;id=crc
08D0	3d0d	0a72	3d0d	0a7a	3d0d	0a69	3d0d	0a75	=..r=..z=..i=..u
08E0	3d0d	0a65	3d3b	713d	7561	7336	3030	2042	=..e=;q=uas600 B
08F0	7573	7920	4576	6572	7977	6865	7265	6a65	usy Everywhereje
0900	6374	6564	3438	3020	5465	6d70	6f72	6172	cted480 Temporar
0910	696c	7920	556e	6176	6169	6c61	626c	650d	ily Unavailable.
0920	0a61	3d74	7970	653a	482e	3333	3230	3220	.a=type:H.33202
0930	4163	6365	7074	6564	0d0a	4d65	6469	612d	Accepted..Media-
0940	4175	7468	6f72	697a	6174	696f	6e3a	204f	Authorization: 0
0950	6374	200d	0a53	7562	7363	7269	7074	696f	ct ..Subscriptio
0960	6e2d	5374	6174	653a	204d	6179	2034	3836	n-State: May 486
0970	2042	7573	7920	4865	7265	7175	6972	6564	Busy Herequired
0980	3430	3020	4261	6420	5265	7175	6573	7465	400 Bad Requeste
0990	6c3a	0d0a	5365	7373	696f	6e2d	4578	7069	l:..Session-Expi
09A0	7265	733a	200d	0a61	3d69	6e61	6374	6976	res: ..a=inactiv
09B0	6552	5450	2f53	4156	5020	5254	502f	4156	eRTP/SAVP RTP/AV
09C0	5046	200d	0a61	3d74	7970	653a	7465	7374	PF ..a=type:test
09D0	6f3d	0d0a	5265	636f	7264	2d52	6f75	7465	o=..Record-Route
09E0	3a20	0d0a	416c	6c6f	772d	4576	656e	7473	: ..Allow-Events
09F0	3a20	0d0a	4576	656e	743a	2020	2020	0d0a	: ..Event: ..
0A00	613d	7265	6376	6f6e	6c79	0d0a	613d	7365	a=recvonly..a=se
0A10	6e64	6f6e	6c79	0d0a	633d	494e	2049	5034	ndonly..c=IN IP4
0A20	200d	0a52	6561	736f	6e3a	200d	0a41	6c6c	..Reason: ..All
0A30	6f77	3a20	0d0a	5061	7468	3a20	3b75	7365	ow: ..Path: ;use
0A40	723d	6672	6f6d	3d6d	6563	683d	0d0a	623d	r=from=mech=..b=
0A50	4354	2041	5320	7072	6563	6f6e	6469	7469	CT AS preconditi
0A60	6f6e	6f6e	2d75	7267	656e	740d	0a61	3d73	onon-urgent..a=s
0A70	656e	6472	6563	7669	6465	6f63	7465	742d	endrecvvideoctet-
0A80	616c	6967	6e3d	3432	3020	4261	6420	4578	align=420 Bad Ex
0A90	7465	6e73	696f	6e6f	6e2d	7265	6375	7273	tensionon-recurs
0AA0	656e	642d	6f6e	6c79	512e	3835	3035	2056	end-onlyQ.8505 V
0AB0	6572	7369	6f6e	204e	6f74	2053	7570	706f	ersion Not Suppo
0AC0	7274	6564	6f6d	6169	6e3d	3530	3420	5365	rtdomain=504 Se
0AD0	7276	6572	2054	696d	652d	6f75	7469	6d65	rver Time-outime
0AE0	7265	6e64	6572	6561	6c6d	3d53	5542	5343	rendrealm=SUBSC
0AF0	5249	4245	2035	3830	2050	7265	636f	6e64	RIBE 580 Precond
0B00	6974	696f	6e20	4661	696c	7572	6573	706f	ition Failurespo
0B10	6e73	653d	3432	3220	5365	7373	696f	6e20	nse=422 Session
0B20	5469	6d65	7220	546f	6f20	536d	616c	6c6f	Timer Too Small
0B30	6361	6c69	7073	6563	2d6d	616e	6461	746f	calipsec-mandato

0B40	7279	3431	3320	5265	7175	6573	7420	456e	ry413 Request En
0B50	7469	7479	2054	6f6f	204c	6172	6765	3265	tity Too Large2e

0B60	6170	706c	6963	6174	696f	6e2f	7364	700d	application/sdp.
0B70	0a0d	0a50	2d4d	6564	6961	2d41	7574	686f	...P-Media-Autho
0B80	7269	7a61	7469	6f6e	3a20	4465	6320	3630	rization: Dec 60
0B90	3320	4465	636c	696e	6578	746e	6f6e	6365	3 Declinextnonce
0BA0	3d61	7474	656e	6461	6e74	6370	6174	6865	=attendantcpathe
0BB0	6164	6572	7370	6175	7468	3d31	3833	2053	aderspauth=183 S
0BC0	6573	7369	6f6e	2050	726f	6772	6573	7369	ession Progressi
0BD0	7073	3a0d	0a4e	6574	776f	726b	2d41	7373	ps:..Network-Ass
0BE0	6572	7465	642d	4944	3a20	4175	6720	6861	erted-ID: Aug ha
0BF0	6c66	6169	6c75	7265	6d6f	7465	726d	696e	lfailuremotermin
0C00	6174	6564	0d0a	5365	6375	7269	7479	2d4d	ated..Security-M
0C10	6563	6861	6e69	736d	3a20	4170	7220	3438	echanism: Apr 48
0C20	3520	416d	6269	6775	6f75	7365	726e	616d	5 Ambiguousenam
0C30	653d	6661	6c73	6571	7565	6e74	6961	6c67	e=falsequentialg
0C40	6f72	6974	686d	3d0d	0a57	5757	2d41	7574	orithm=..WWW-Aut
0C50	6865	6e74	6963	6174	653a	2046	6562	204d	enticate: Feb M
0C60	4435	2d73	6573	7369	6f6e	6f72	6d61	6c34	D5-sessionnormal4
0C70	3031	2055	6e61	7574	686f	7269	7a65	6453	01 UnauthorizedS
0C80	4354	5052	4143	4b20	0d0a	743d	3020	302e	CTPRACK ..t=0 0.
0C90	302e	302e	3061	7564	696f	7074	696f	6e61	0.0.0audiooptiona
0CA0	6c65	7274	0d0a	436f	6e74	656e	742d	4c65	lert..Content-Le
0CB0	6e67	7468	3a20	696e	666f	5245	4749	5354	ngth: infoREGIST
0CC0	4552	200d	0a41	7574	686f	7269	7a61	7469	ER ..Authorizati
0CD0	6f6e	3a20	3b6c	7265	6665	720d	0a43	6f6e	on: ;lrefer..Con
0CE0	7465	6e74	2d54	7970	653a	200d	0a63	3d49	tent-Type: ..c=I
0CF0	4e20	4950	3620	3138	3020	5269	6e67	696e	N IP6 180 Ringin
0D00	6741	4b41	766f	6963	652d	6d61	696c	3130	gAKAvoice-mail10
0D10	3020	5472	7969	6e67	763d	300d	0a6f	3d55	0 Tryingv=0..o=U
0D20	5044	4154	4520	4e4f	5449	4659	200d	0a53	PDATE NOTIFY ..S
0D30	7570	706f	7274	6564	3a20	414d	5254	502f	upported: AMRTP/
0D40	4156	5020	0d0a	4578	7069	7265	733a	200d	AVP ..Expires: .
0D50	0a50	7269	7661	6379	3a20	0d0a	5265	7175	.Privacy: ..Requ
0D60	6972	653a	200d	0a61	3d72	7470	6d61	703a	ire: ..a=rtpmap:
0D70	0d0a	6d3d	7669	6465	6f20	0d0a	6d3d	6175	..m=video ..m=au
0D80	6469	6f20	0d0a	733d	200d	0a52	6f75	7465	dio ..s= ..Route
0D90	3a20	0d0a	613d	6375	7272	3a3b	6578	7069	: ..a=curr;;expi
0DA0	7265	733d	0d0a	613d	666d	7470	3a0d	0a61	res=..a=fmtp:..a
0DB0	3d63	6f6e	663a	6963	6f6e	6f6e	650d	0a52	=conf:iconone..R
0DC0	4163	6b3a	200d	0a61	3d64	6573	3a0d	0a52	Ack: ..a=des:..R
0DD0	5365	713a	2042	5945	2044	6967	6573	7420	Seq: BYE Digest
0DE0	636e	6f6e	6365	3d31	3030	7265	6c75	7269	cnonce=100reluri
0DF0	3d71	6f70	3d6e	633d	786d	6c71	6f73	3b63	=qop=nc=xmlqos;c
0E00	6f6d	703d	7369	6763	6f6d	7072	6f62	6174	omp=sigcomprobat
0E10	696f	6e6f	2d71	7565	7565	0d0a	5669	613a	iono-queue..Via:
0E20	2053	4950	2f32	2e30	2f54	4350	2054	4c53	SIP/2.0/TCP TLS
0E30	3b62	7261	6e63	683d	7a39	6847	3462	4b0d	;branch=z9hG4bK.
0E40	0a56	6961	3a20	5349	502f	322e	302f	5544	.Via: SIP/2.0/UD
0E50	5020	0d0a	4d61	782d	466f	7277	6172	6473	P ..Max-Forwards
0E60	3a20	494e	5649	5445	2041	6e6f	6e79	6d6f	: INVITE Anonymo
0E70	7573	6970	3a0d	0a43	616c	6c2d	4944	3a20	usip:..Call-ID:

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```
0E80 0d0a 436f 6e74 6163 743a 2032 3030 204f ..Contact: 200 0
0E90 4b0d 0a46 726f 6d3a 200d 0a43 5365 713a K..From: ..CSeq:
0EA0 200d 0a54 6f3a 203b 7461 673d 0e71 0004 ..To: ;tag=.q..
```

Table 3: binary representation of the static SIP/SDP dictionary for SigComp

## **6. Security Considerations**

This memo does not introduce any known security risk.

## **7. IANA Considerations**

None.

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## **9. Acknowledgements**

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#### Expiration Date

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