The Advanced Television Systems Committee, Inc., is an international, non-profit organization developing voluntary standards and recommended practices for digital television. ATSC member organizations represent the broadcast, broadcast equipment, motion picture, consumer electronics, computer, cable, satellite, and semiconductor industries. ATSC also develops digital television implementation strategies and supports educational activities on ATSC standards. ATSC was formed in 1983 by the member organizations of the Joint Committee on Inter-society Coordination (JCIC): the Electronic Industries Association (EIA), the Institute of Electrical and Electronic Engineers (IEEE), the National Association of Broadcasters (NAB), the National Cable Telecommunications Association (NCTA), and the Society of Motion Picture and Television Engineers (SMPTE). For more information visit www.atsc.org.

Note: The user's attention is called to the possibility that compliance with this standard may require use of an invention covered by patent rights. By publication of this standard, no position is taken with respect to the validity of this claim or of any patent rights in connection therewith. One or more patent holders have, however, filed a statement regarding the terms on which such patent holder(s) may be willing to grant a license under these rights to individuals or entities desiring to obtain such a license. Details may be obtained from the ATSC Secretary and the patent holder.

Implementers with feedback, comments, or potential bug reports relating to this document may contact ATSC at https://www.atsc.org/feedback/.

Revision History

<table>
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<th>Version</th>
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<td>Amendment approved</td>
<td>1 October 2021</td>
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ATSC Standard:
A/331:2021 Amendment No. 4, “User-Agent”

1. OVERVIEW

1.1 Definition
An Amendment is generated to document an enhancement, an addition or a deletion of functionality to previously agreed technical provisions in an existing ATSC document. Amendments shall be published as attachments to the original ATSC document. Distribution by ATSC of existing documents shall include any approved Amendments.

1.2 Scope
This document clarifies the User-Agent string syntax and adds new parameters.

1.3 Rationale for Changes
The use of A/332 capabilities is imprecise due to issues with the A/332 ABNF. Variations in API support and behavior of the runtime dictates platform-dependent app execution and knowledge of the platform details.

1.4 Compatibility Considerations
The changes described in this document are backward-compatible relative to the currently published version of the standard to which this Amendment pertains and any previously approved Amendments for that standard.

2. LIST OF CHANGES
Change instructions are given below in *italics*. Unless otherwise noted, inserted text, tables, and drawings are shown in blue; deletions of existing text are shown in red-strikeout. The text “[ref]” indicates that a cross reference to a cited referenced document should be inserted.

2.1 Normative References

2.2 Informative References
[Enter changes to the Informative Reference section, if any.]

2.3 Acronyms and Abbreviations

2.4 Terms
[Enter changes to the Terms section, if any.]

2.5 Change Instructions

*Change 7.1.2.4 HTTP User-Agent Header Field as follows:*

7.1.2.4 HTTP User-Agent Header Field
In order for HTTP servers to customize the delivery of apps, HTTP requests from the receiver on behalf of a Broadcast Application, including the launch URL request, shall provide a User-Agent header field as defined in HTTP [31] and this section.
The syntax shall conform to HTTP [31] Section 5.5.3 and the syntax defined below:

"ATSC3/"<yyyy><mm> "("<capabilities>; <vendorName>; <modelName>; <softwareVersion>; <familyName>; [ hardwareVersion]")" <HTML>

where:
- yyyy shall be the required year of publication of A/300;
- mm shall be the optional month of publication of A/300, which is required if it is the second or more publication in that year;
- capabilities shall be a required string conforming to the syntax of sa:Capabilities as defined in A/332 [5] Section 5.2.2.3.3;
- vendorName shall be a required string of the Receiver vendor’s name;
- modelName shall be a required string of the Receiver vendor’s model name (vendor-dependent);
- softwareVersion shall be a required string of the Receiver vendor’s software version (vendor-dependent);
- familyName shall be a required string of the Receiver vendor’s family name, e.g. org.vendor.x (vendor-dependent);
- hardwareVersion shall be an optional string of the Receiver vendor’s model name (vendor-dependent); and
- HTML shall be the receiver’s HTML User-Agent information.

Although the full syntax of “capabilities” is permitted, it is expected that supported capabilities are ANDed together (e.g., “509 50a &”), and it is expected that the OR (“|”) is not used.

The ABNF [22] below is authoritative over the pseudocode and description above.

; !syntax("abnf")
ATSCUser-Agent  = ATSCproduct RWS ATSCcomment
ATSCproduct    = "ATSC3/" date
ATSCcomment    = "(" SAcapabilities vendorName modelName softwareVersion
familyName [hardwareVersion] ")"
date           = year ["-" month]
year           = 4DIGIT
month          = 2DIGIT
SAcapabilities = capabilities
vendorName     = commentBody
modelName       = commentBody
softwareVersion = commentBody
familyName     = commentBody
hardwareVersion = commentBody
commentBody    = ";" RWS 1*(ATSCctextNSP / quoted-pair)
ATSCctext      = HTAB / SP / ATSCctextNSP
ATSCctextNSP   = %x21-27 / %x2A-3A / %x3C-5B / %x5D-7E / obs-text ;except
semicolon      = 1*4HEXDIG
string-code    = ubyte ";" 1*UTF8-char
An example for a receiver conforming to A/300:2022 that signals SHEVC and AC-4 HDR and with “HTML” strings from a popular web browser is as follows:

```
Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/75.0.3770.142 Safari/537.36
```

– End of Document –