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>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
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<td>Amendment approved</td>
<td>23 December 2019</td>
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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 adds “capabilities” as defined in Service Announcement (A/332) to the Device Info Query. Note that the modified text overlaps Amendment #1, Persistent Identifiers.

1.3 Rationale for Changes
Apps can alter their behavior based on the capabilities of the runtime platform. Currently, the only information available to the app is the make and model which would only allow gross assumptions about the actual feature variations with the model. Apps can be made more robust with this additional information.

1.4 Compatibility Considerations
This amendment is backwards compatible since the changes are the addition of one data item that is optional. (Existing) receiver implementations need not support the items. And, when supported by a receiver, apps are expected to ignore items that they do not understand per the provisions of Section 9.1: “The Broadcaster Application is expected to gracefully ignore unknown keys and unknown values for existing keys, including unknown enumeration values.”

2. LIST OF CHANGES
Change instructions are given below in italics. Unless otherwise noted, inserted text, tables, and drawings are shown in blue1; 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.

A/344 maintains a “revision log” of its included APIs from revision to revision by listing the changes in Table 9.1. In addition, each revision includes an Annex which captures the API from the previous edition in unchanged form. By maintaining the previous API definition in the document, implementers may look at the history of each API. When this amendment is finally rolled into the main revision document, Table 9.1 will need to be updated and the original text of the API modified below may be copied into the Annex for the revision.

Modify Section 9.13 as follows:

9.13 Query Device Info API
The Query Device Info API provides an interface between a Broadcaster Application and the Receiver to retrieve device-specific information. It is a generic conduit between the Receiver and

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1 Note that changes to JSON schema are shown in red.
the Broadcaster Application to provide basic device information including make and model of
device, along with optional additional key/value pair information about the device. The format and
definition of the optional additional key/value pairs are manufacturer-specific and not specified
here. Specific parameters may be defined as part of a business relationship between a broadcaster
and a device manufacturer.

The Query Device Info API request params object is optional. If params is omitted (or if
deviceInfoProperties is omitted or is an empty array), the Receiver shall respond with only the
device make and model. The Broadcaster Application can then use the device make and model to
determine which additional properties to query. The deviceInfoProperties is an array of desired
properties, and the Receiver provides the values of these properties in the response.

The Query Device Info API shall be defined as follows:

method: "org.atsc.query.deviceInfo"

params: An optional JSON object.

params JSON Schema:

```json
{
  "type": "object",
  "properties": {
    "deviceInfoProperties": {
      "type": "array",
      "items": {"type": "string"}
    }
  }
}
```

deviceInfoProperties – This parameter is an array of strings, each representing a particular
aspect of the device about which the Broadcaster Application is interested.

Response:

result: a JSON object containing the device make and model and optionally a request for
additional information about a given device make/model.

result JSON Schema:

```json
{
  "type": "object",
  "properties": {
    "deviceMake": {"type": "string"},
    "deviceModel": {"type": "string"},
    "deviceInput": {"type": "object"},
    "deviceInfo": {"type": "object"},
    "deviceCapabilities": {"type": "string"}
  },
  "required": ["deviceMake", "deviceModel", "deviceInput"]
}
```

deviceMake: – This required string indicates the manufacturer of the Receiver.

deviceModel: – This required string indicates the model of the Receiver.

deviceInput: – This required object indicates the user input name and codes of the Receiver user
interface. It is a collection of input key/value pairs where the key is the user input name and
the value is the associated integer code. The minimum set of user input names is listed in [9.4].
deviceInfo: – This optional object includes key/value pairs. The deviceInfo is included in the response if the request included one or more deviceInfoProperties strings corresponding to information the Receiver can supply.

deviceCapabilities: – This optional string describes the capabilities, or features, of the receiver and shall conform to A/332, Section 5.2.2.3.3.2 “Device Capabilities Syntax and Semantics” [2]. This is, in essence, a standardized version of the deviceInfo string.

End of Document