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**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/](https://www.atsc.org/feedback/).

### Revision History

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<td>Amendment approved</td>
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ATSC Standard:
A/331:2022-11 Amendment No. 1, “Application Lifecycle”

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 amendment is in response to New Project Proposal N-047r0-(S33-595r2)-Contrib-NPP-A331-AMD-App-Lifecycle.” It removes the Broadcaster Application Lifecycle provisions (7.1.2.3), and then defers to a revision of A/344 currently under development. This includes semantics of some of the HELD fields.

1.3 Rationale for Changes
The existing text has various provisions that are inconsistent with the related lifecycle text in A/344 as well as current practices. It is very difficult to split the model across two specifications and make sense of it. The recent consensus of both S33 and S38 was to move it (and fix it) in A/344.

1.4 Compatibility Considerations
The changes described in this document have no impact on interoperability directly, but the work in A/344 is being changed which it will reference. There is evidence that there is not interoperability in this area today and anything that clarifies the model would be a benefit to the industry.

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 Change Instructions
7.1.2.3 Broadcaster Application Lifecycle
For the Broadcaster Application Lifecycle, see A/344, Section 6.3 [47].
The application lifecycle is indicated by the presence or absence of a valid HELD and the entries in it. This section informatively describes the application life cycle. For specific syntax and semantics of the HELD, see Section 7.1.8.

- Receipt of a valid HELD is an indication to a receiver that an Entry Page accessible via the @bcastEntryPageUrl attribute or the @bbandEntryPageUrl attribute in the HELD is
available to be loaded immediately or according to the @validFrom and @validUntil attributes, if present.

- When a new @bcastEntryPageUrl attribute or a new @bbandEntryPageUrl attribute is signaled via HELD, it is an indication to the receiver to unload the previous Entry Page and load the new one accessible via the new @bcastEntryPageUrl attribute or @bbandEntryPageUrl attribute immediately or according to the @validFrom and @validUntil attributes, if present.

Note that logic within a given Entry Page may load and unload sub-pages as described in Section 7.1.2.2 above; such actions are application-specific and are not governed by the HELD.

- When the date/time indicated by the @validUntil attribute in HELD is reached and no new valid @bcastEntryPageUrl attribute or @bbandEntryPageUrl attribute has been signaled, it is an indication to the receiver to unload the previous Entry Page and not load a new Entry Page.

- When the HELD is no longer present or no longer valid, it is an indication to the receiver to unload the previous Entry Page and not launch a new Entry Page.

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