

ORACLE®

Oracle Digital Assistant

The Complete Training

Advanced Common Response Component Topics

Safe Harbor Statement

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Topic agenda

- 1 ➤ Component fundamentals
- 2 ➤ Component properties
- 3 ➤ Response type specific properties
- 4 ➤ Component actions

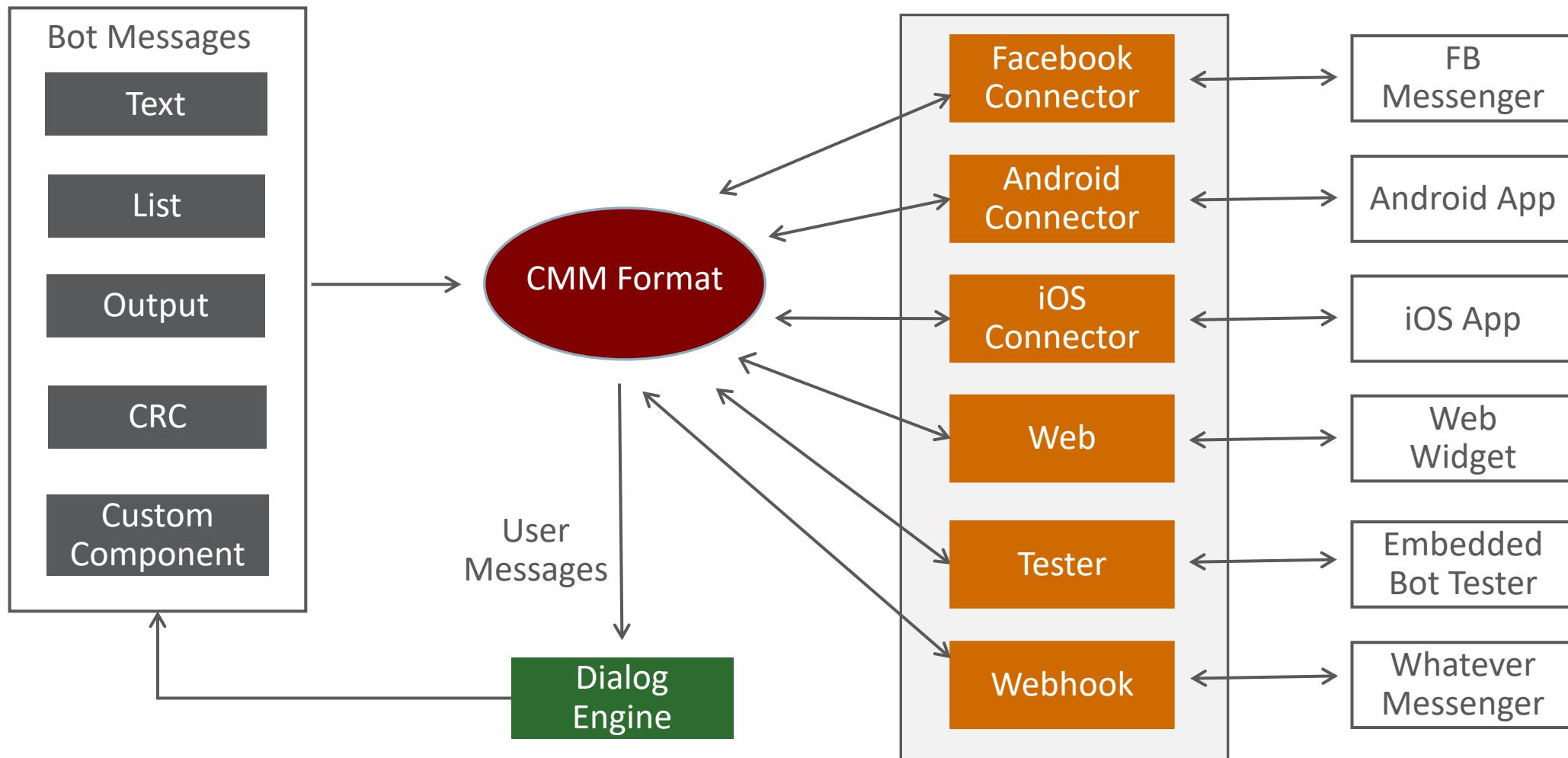
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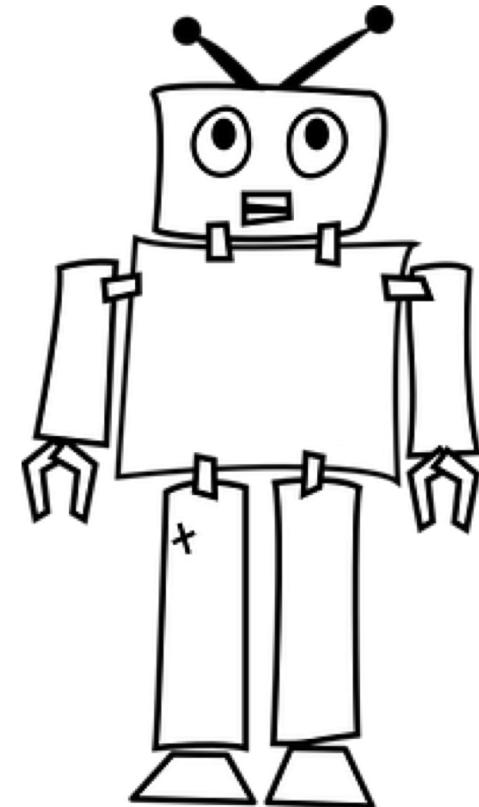
About the conversation message model (CMM)

- Messengers are different
 - in the User Interface they can render for a Bot Response
 - in the format of the incoming and outgoing message payloads
- Oracle Digital Assistant uses a channel agnostic messaging format
 - Conversation Message Model (CMM)
 - Used by all UI components
 - Supported by the Custom Component SDK
 - CMM payload is automatically translated to payload format of target channel

Oracle digital assistant CMM architecture



The **common response component** is
the lid of a pot called the **conversation
message model**



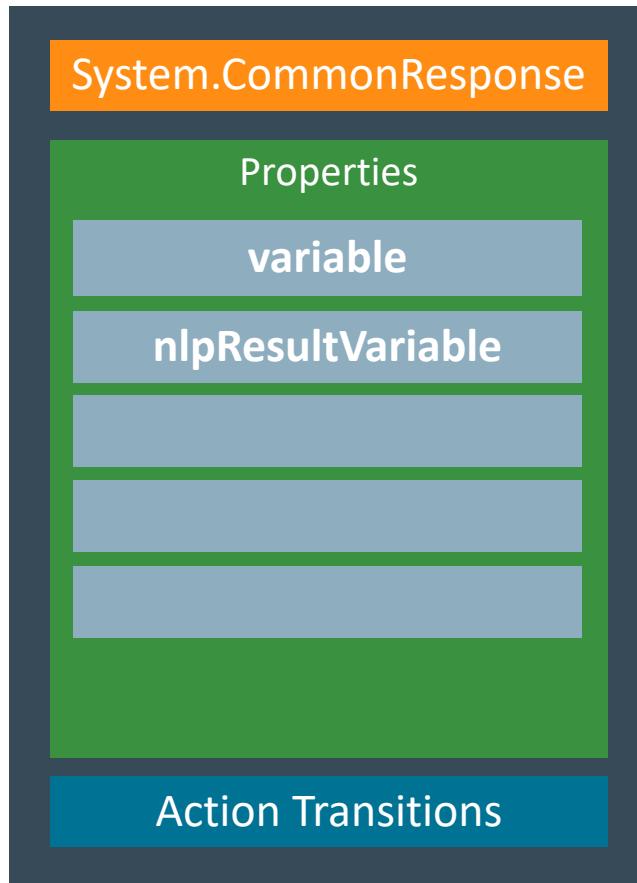
About System.CommonResponse component

- Declarative design time for CMM skill responses
- Can be used for building any kind of user interface
- Most important component to know about
- Dialog flow builder provides quick-start component templates
 - Provided for text, card, attachment responses and use of composite bag entities
 - Not all component properties are part of the component templates

Topic agenda

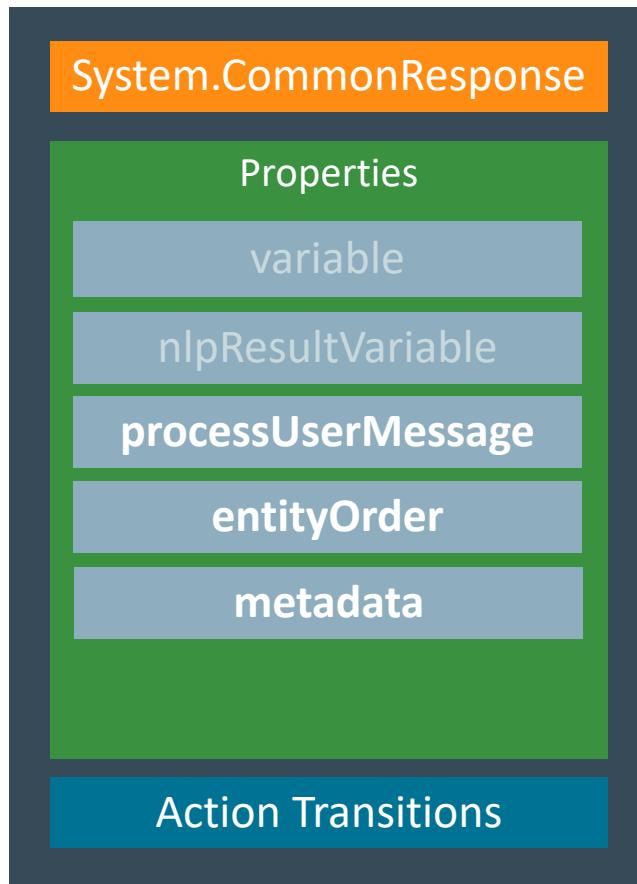
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Entity slotting and component rendering



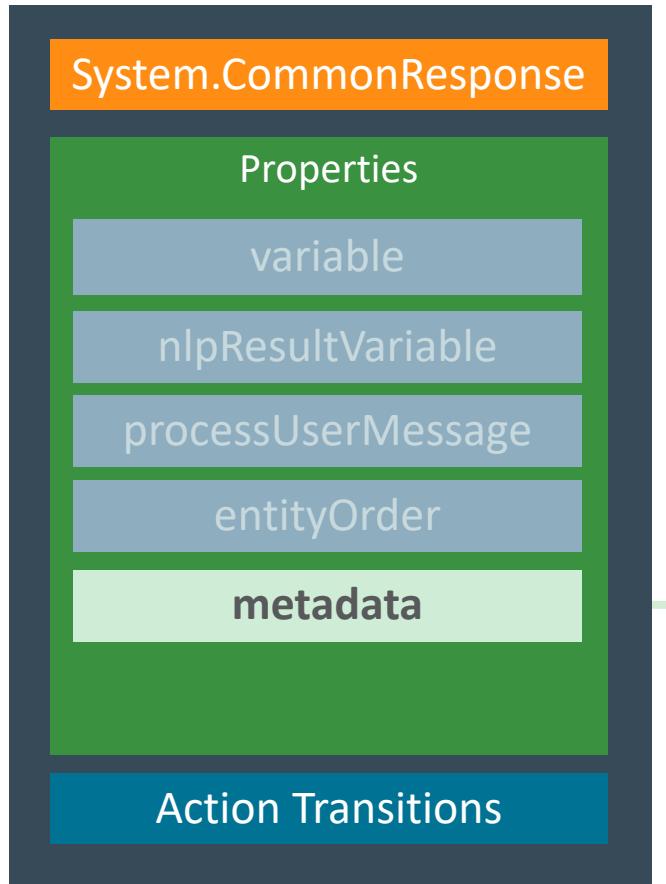
- If context variable referenced from *variable* property has value, then component is not rendered
- Referenced context variable is updated through user input in CR component or postback action
- If set, the *nlpResultVariable* property must reference a context variable of type "nlpresult".
 - For variables of type entity that are referenced from the *variable* property, attempts to extract values through NLP
 - If value is found in NLP then variable property is getting updated and component rendering is skipped

Properties specific to System.CommonResponse



- CR component supports all properties common to system components
- Specific properties
 - Setting *processUserMessage* to false turns component into a read-only view
 - *entityOrder* property used with composite bag entities to override default order in which bag items are resolved
 - The *metadata* property defines the component response to display in the messenger

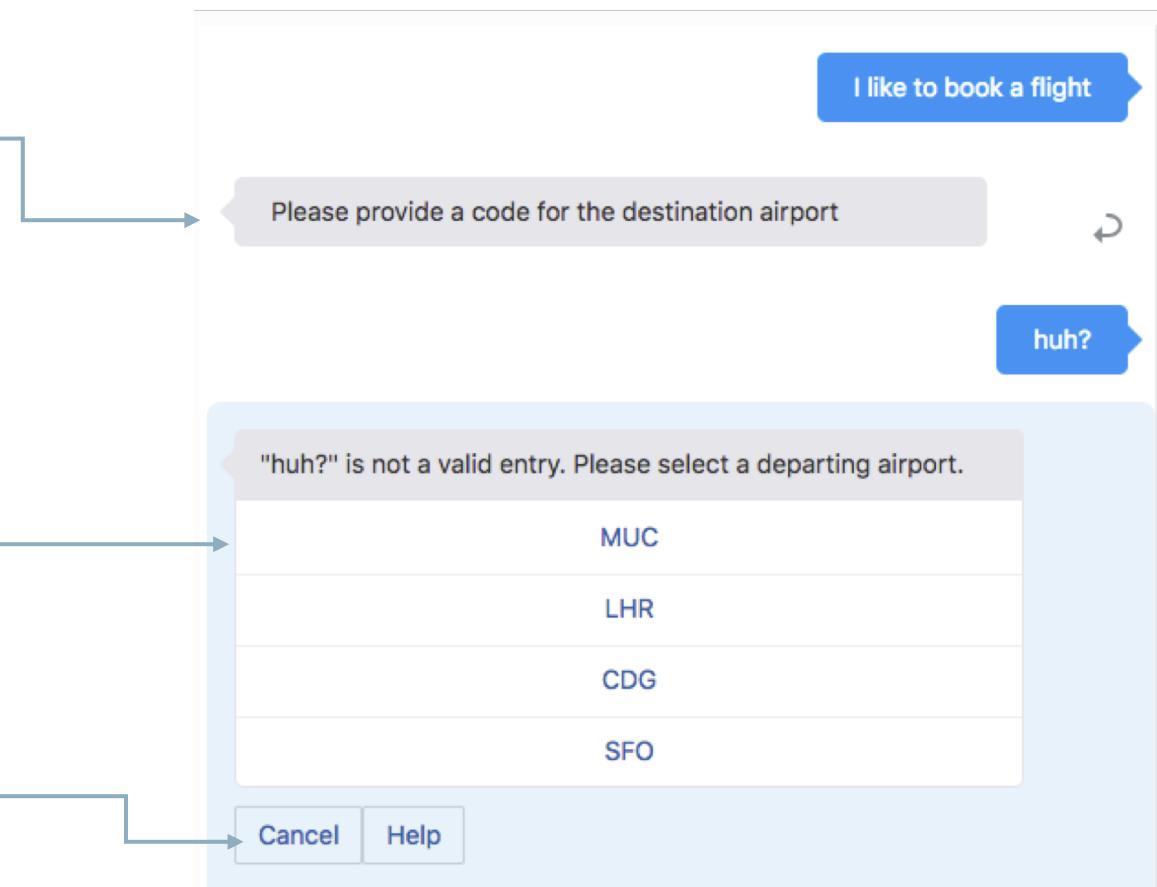
Specific System.CommonResponse component properties



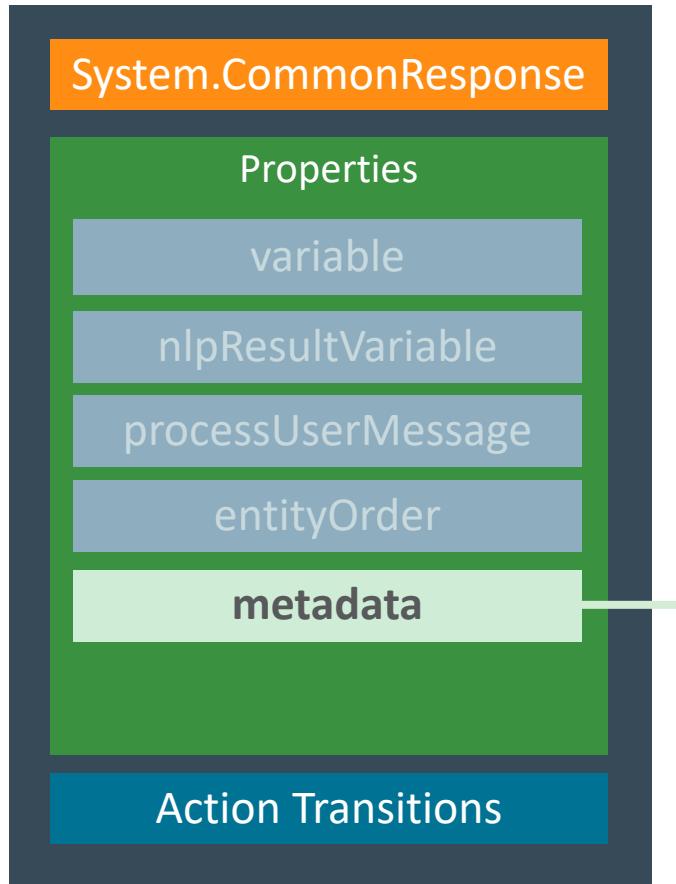
- **responseItem**
 - type (text, card, attachment)
 - visible
- Optional
- Conditionally renders response
 - Apache FreeMarker expression returning true or false
 - onInvalidUserInput
 - channels
 - include (comma separated list of channels)
 - exclude (comma separated list of channels)
 - entitiesToResolve
 - include
 - exclude

Conditional visibility of items

```
14 selectAirport:  
15   component: "System.CommonResponse"  
16   properties:  
17     ...  
18     metadata:  
19       responseItems:  
20         - type: "text"  
21           ...  
22         actions:  
23           - label: "${enumValue}"  
24             type: "postback"  
25             visible:  
26               expression: "${system.invalidUserInput?boolean}"  
27             payload:  
28               variables:  
29                 airports: "${enumValue}"  
30                 iteratorVariable: "airports.type.enumValues"  
31             globalActions:  
32               - label: "Cancel"  
33                 type: "postback"  
34                 visible:  
35                   # expression: "${system.invalidUserInput?boolean}"  
36                   onInvalidUserInput: true  
37                 payload:  
38                   action: "exitComponentLoop"  
39               - label: "Help"  
40                 type: "postback"  
41                 visible:  
42                   #expression: "${system.invalidUserInput?boolean}"  
43                   onInvalidUserInput: true  
44                 payload:  
45                   action: "help"
```



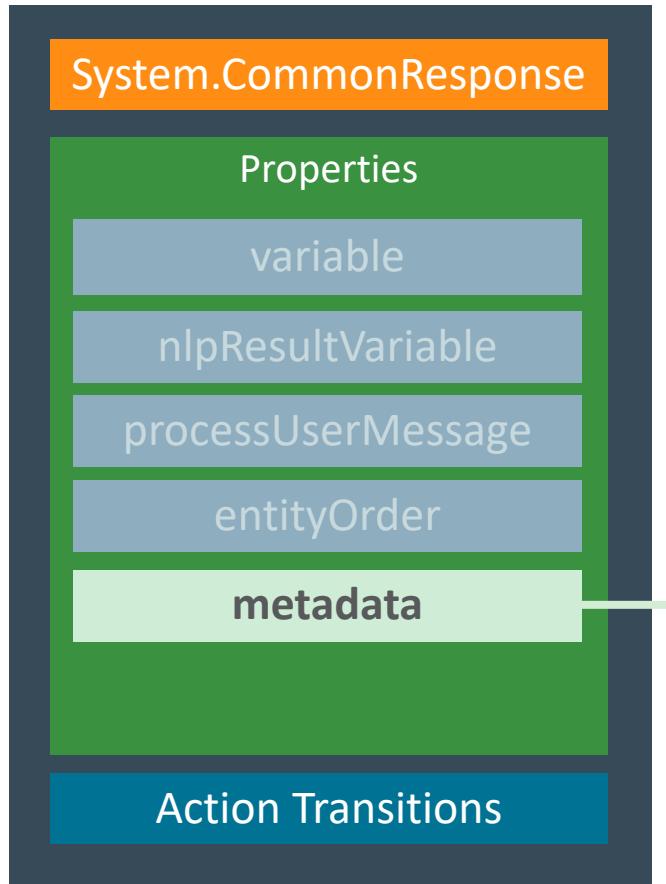
Specific System.CommonResponse component properties



- **responseltem**
 - type (text, card, attachment)
 - visible
 - iteratorVariable, rangeStart, rangeSize
 - channelCustomProperties
- **actions**
 - type (postback, share, call, url, location)
 - Label, imageUrl
 - iteratorVariable
 - channelCustomProperties

- Properties added to the response "as is"
 - Set channel-specific functionality that cannot be set with component properties
- Can be used as a UI hints when building custom messengers
- Example
 - channelCustomProperties:
 - channel: "facebook"
 - properties:
 - top_element_style: "large"

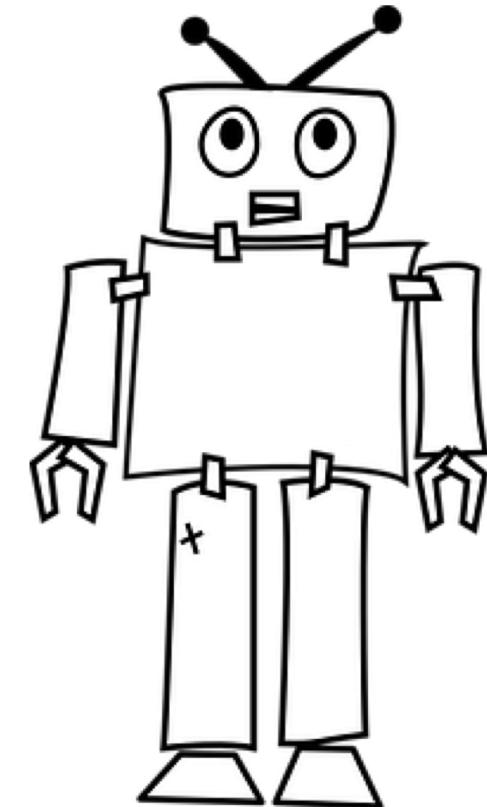
Specific System.CommonResponse component properties



- **responseItem**
 - type (text, card, attachment)
 - visible
 - iteratorVariable, rangeStart, rangeSize
 - channelCustomProperties
 - **actions**
 - type (postback, share, call, url, location)
 - Label, imageUrl
 - iteratorVariable
 - channelCustomProperties
 - payload
- Required for action types 'url', 'postback' and 'call'
- Allowed properties
 - *action* (optional) - custom string mapped in the actions transition
 - *variables* (optional) - one or many key-value pairs of context, system and user variable names and values
 - *url* (optional) website to open for URL type
 - *phoneNumber (optional)* used with call type

You can define **global actions** that are displayed outside the response items below the component.

In Facebook Messenger those are rendered as **quick replies**



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Cards response specific properties

- Cards (required)
 - Defines list of card responses
- cardLayout (optional)
 - Vertical (default), horizontal
- Supports page ranging to overcome channel specific card limits



PEPPERONI

Classic marinara sauce with authentic old-world style pepperoni.



MEAT LOVER

Classic marinara sauce, authentic old-world pepperoni, all-natural Italian sausage, slow-roasted ham, hardwood smoked bacon, seasoned pork and beef.



Card item specific properties (1 of 2)

- title (required)
 - title of the card, displayed as first line on the card
- description (optional)
 - Description of the card (displayed as second line)
- imageUrl (optional)
 - URL of the image to be displayed on card
- cardUrl (optional)
 - URL of site displayed opened when tapping the card
- actions (optional)
 - List of actions rendered with each card



Card item specific properties (2 of 2)

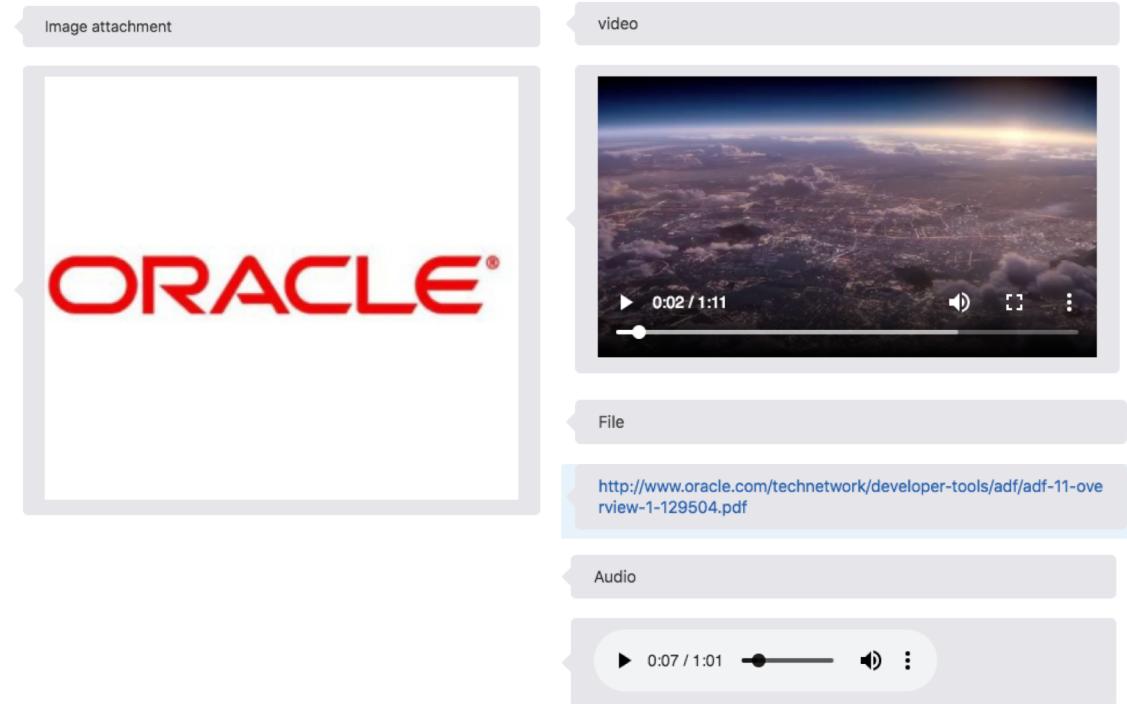
- **visible** (optional)
- **iteratorVariable** (optional)
 - Stamps cards by iterating over items stored in an array
- **rangeStart / rangeSize** (optional)
 - Used with iteratorVariable set
 - Stamp a subset of cards
- **channelCustomProperties** (optional)
 - Channel-specific properties that cannot be controlled with the standard properties

Text response item specific properties

- **text (required)**
 - The message text
 - Supports Apache FreeMarker expressions
- **separateBubbles (optional)**
 - Boolean property
 - Applicable when the iteratorVariable property is set
 - If set to true, each text item is sent as separate message
 - If set to false, one text message is sent with each text item starting at a new line
- **actions (optional)**
 - List of items that are rendered with the text response. Used e.g. to render select lists

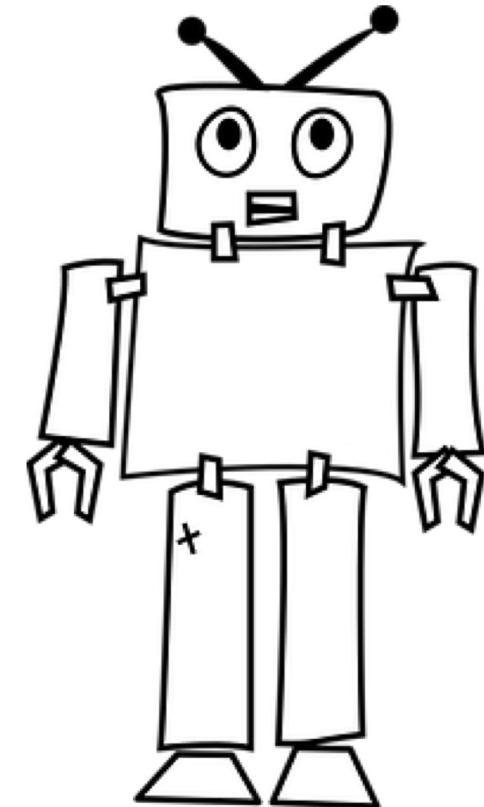
Attachment response item specific properties

- attachmentType (required)
 - image
 - audio
 - video
 - file
- attachmentUrl (required)
 - Attachment download URL
- Attachments may or may not render inside messenger



The number of actions and cards that can be displayed for a bot response is channel dependent.

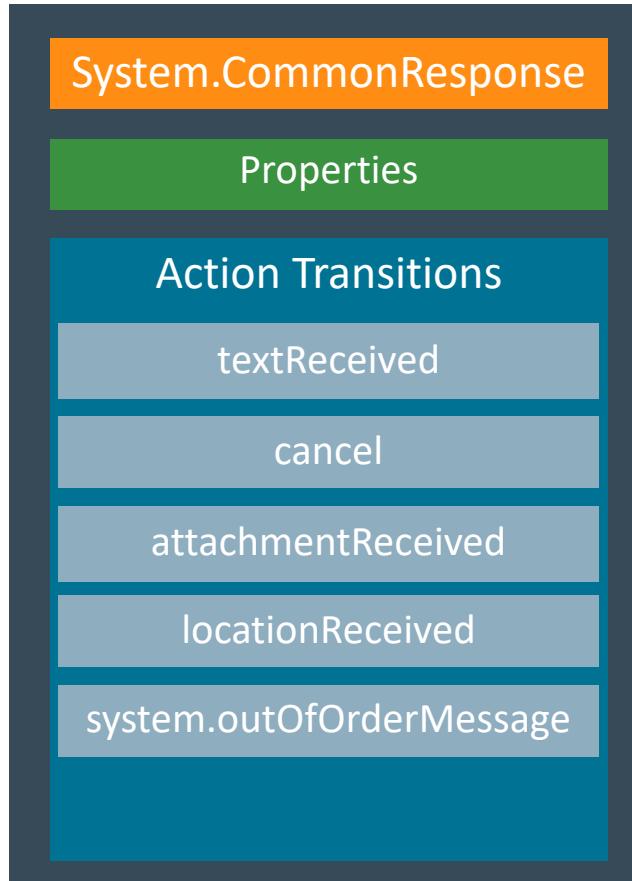
Use pagination when not all card or action items can be rendered



Topic agenda

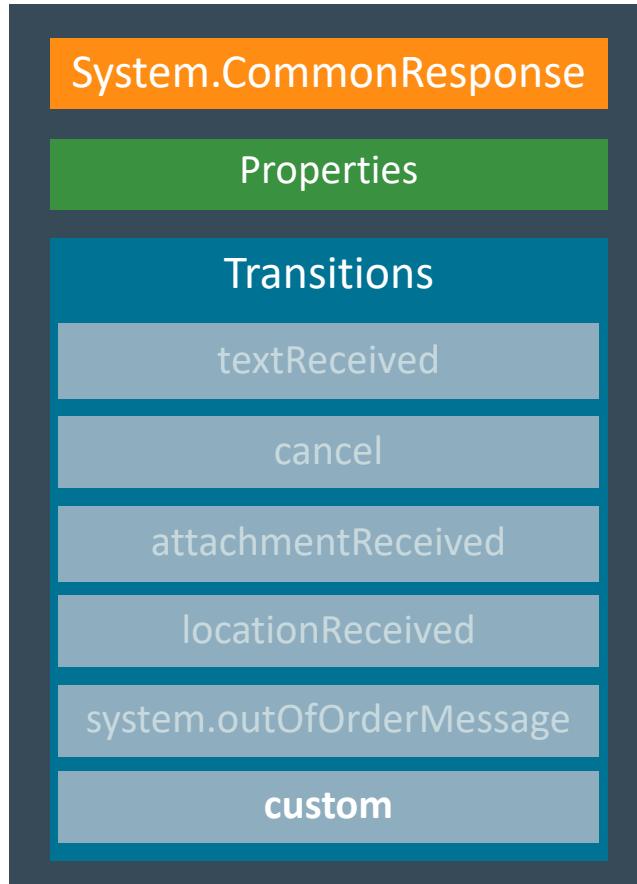
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System.CommonResponse component action transitions



- **textReceived**
 - Set when user enters free text or sends an emoji
- **cancel**
 - When data input attempts exceed maxPrompts value
- **attachmentReceived**
 - When user sends an image, audio, video or file attachment
- **locationReceived**
 - Followed when user sends geo location
- **System.outOfOrderMessage**
 - Out-of-order message handling

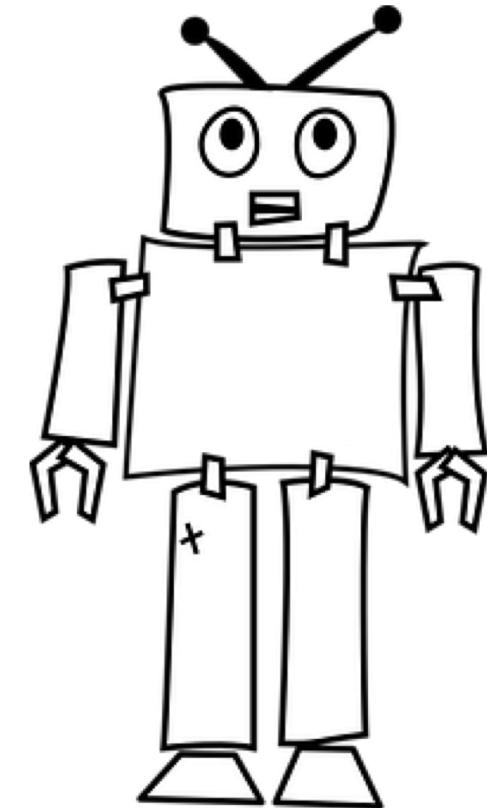
System.CommonResponse component action transitions



- Custom actions set as part of the action payload
- actions:
- label: "Postback action"
 type: "postback"
 payload:
 action: "myCustomAction"
 variables:
 orderId: "\${orders.id}"
- Action name is mapped in actions transition on state

```
transitions:  
actions:  
  myCustomAction : "stateHandlingTheAction"
```

Always define a "next" transition for
a Common Response component
state because **not every component**
interaction results in an action
transition



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Oracle Digital Assistant Hands-On

TBD