

ORACLE®

Oracle Digital Assistant

The Complete Training

Advanced Common Response Component Topics

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Topic agenda

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

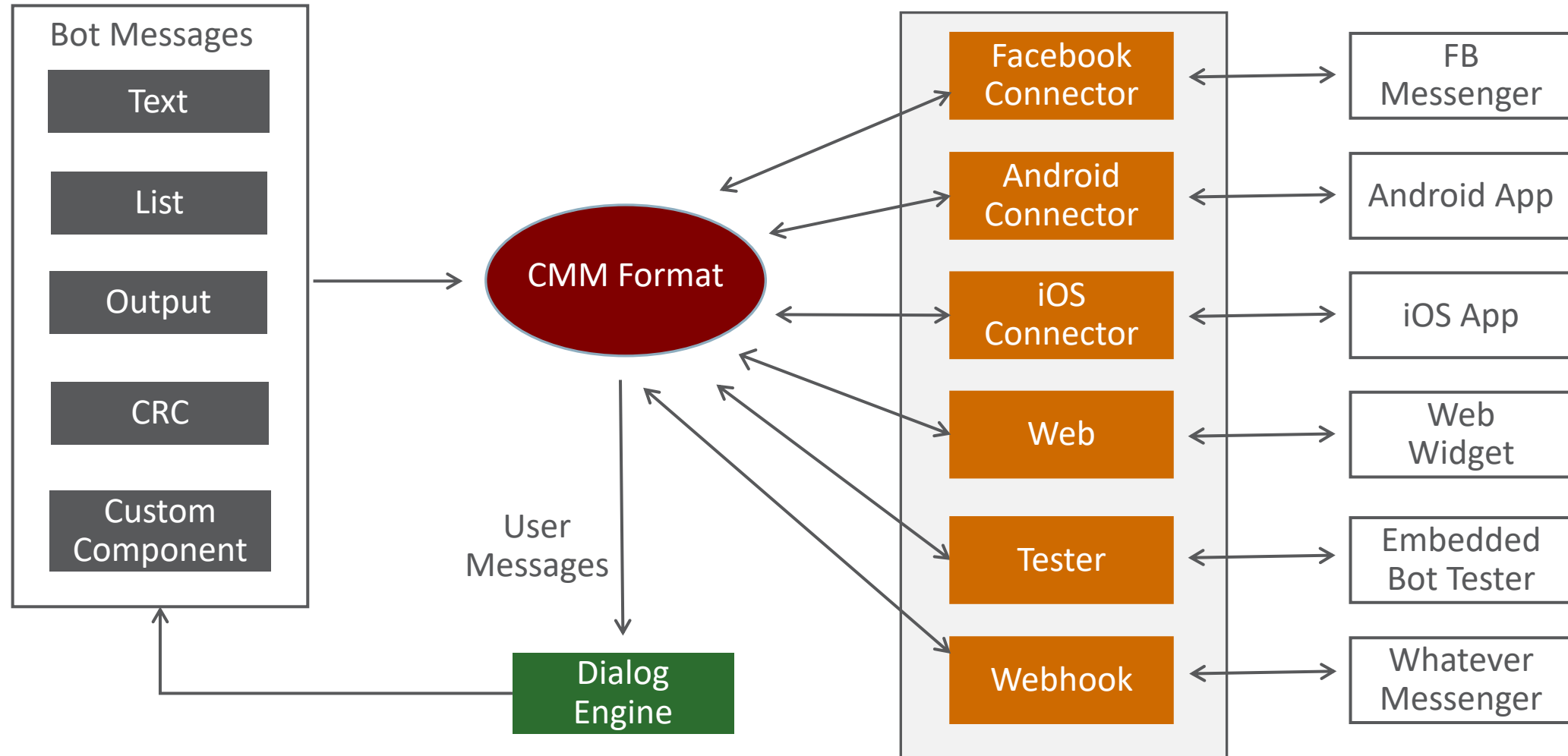
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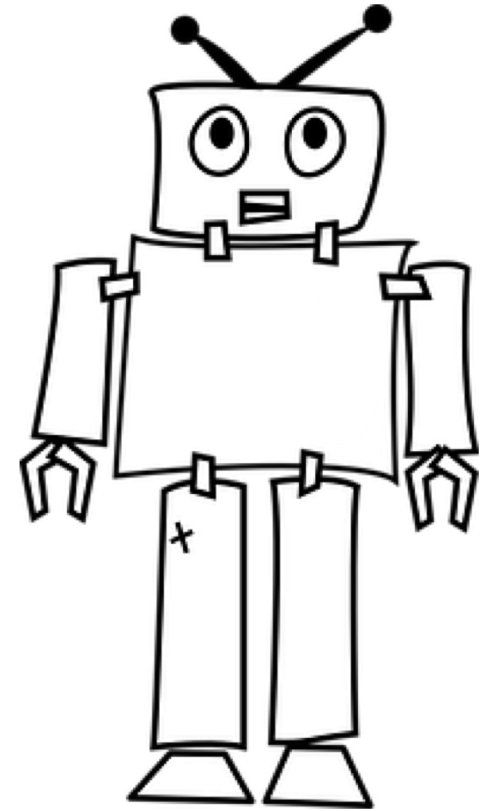
About the conversation message model (CMM)

- 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

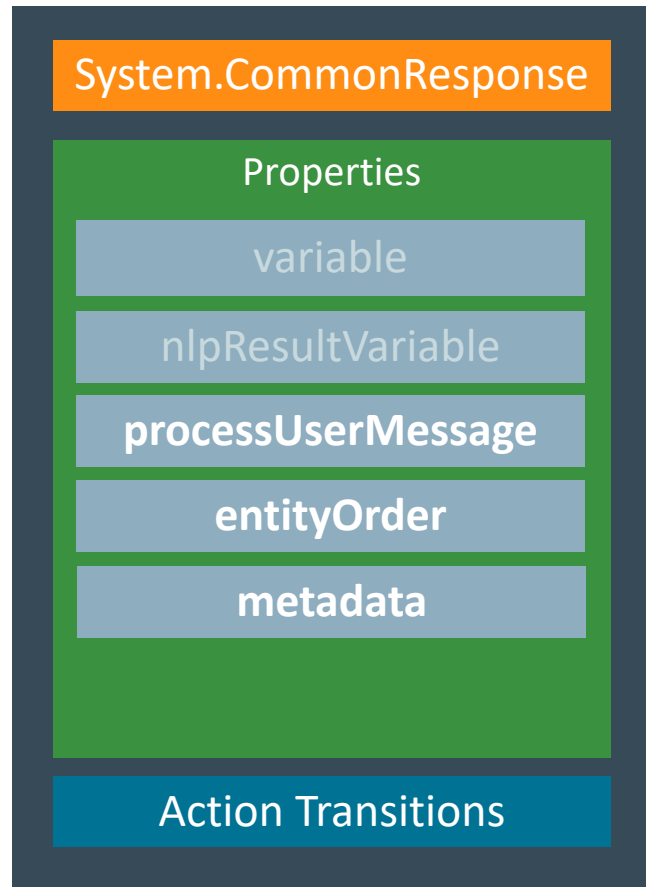
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Entity slotting and component rendering



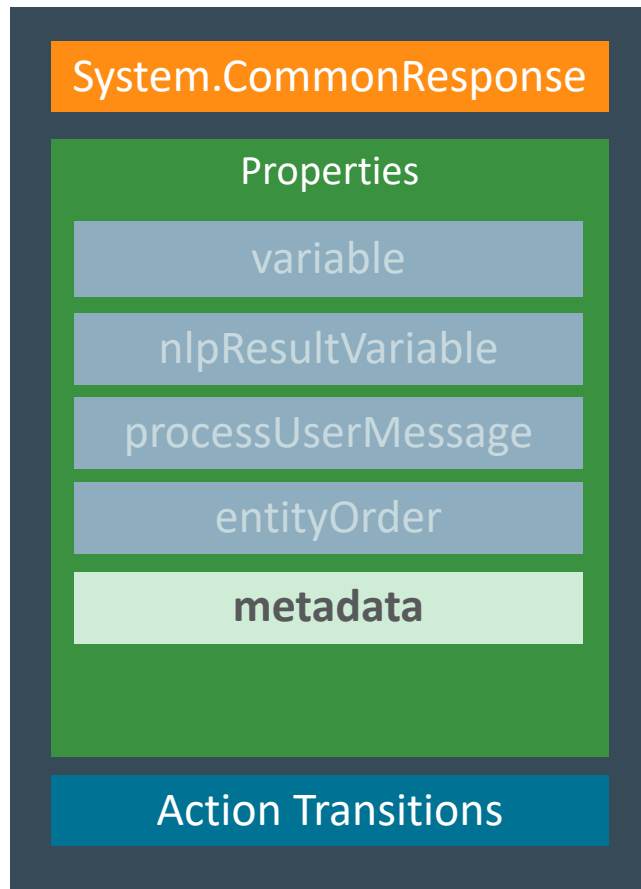
- If context variable referenced from *variable* property has value, then component is not rendered
- Referenced context variable is updated through user input in CR component or postback action
- If set, the *nlpResultVariable* property must reference a context variable of type "nlpresult".
 - For variables 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"
```

I like to book a flight

Please provide a code for the destination airport

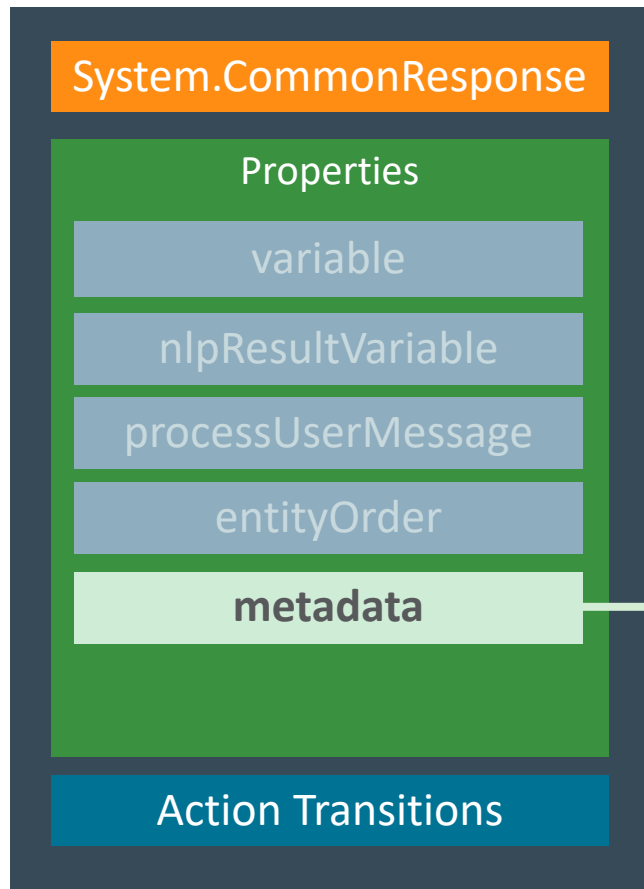
huh?

"huh?" is not a valid entry. Please select a departing airport.

MUC
LHR
CDG
SFO

Cancel Help

Specific System.CommonResponse component properties

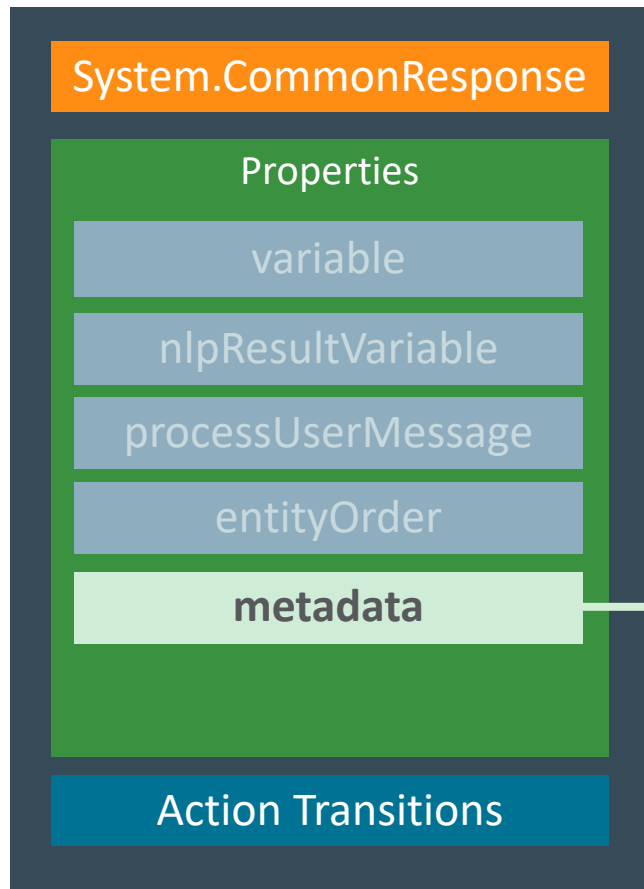


- **responseItem**

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

- 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



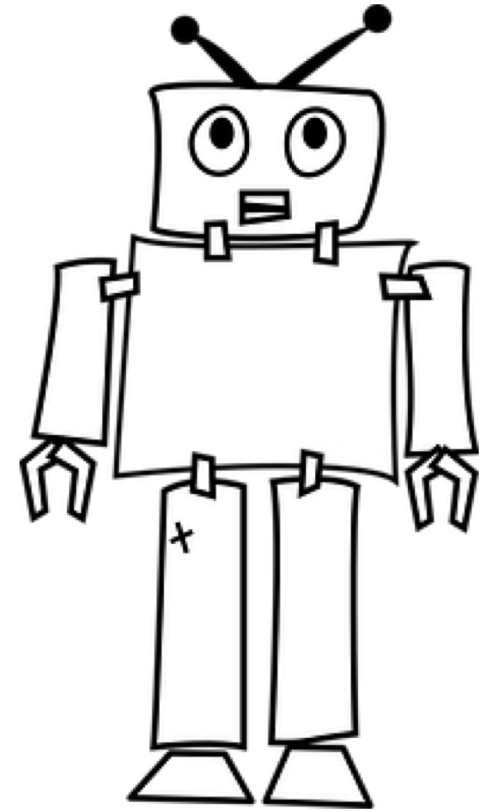
- **responseItem**

- 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**

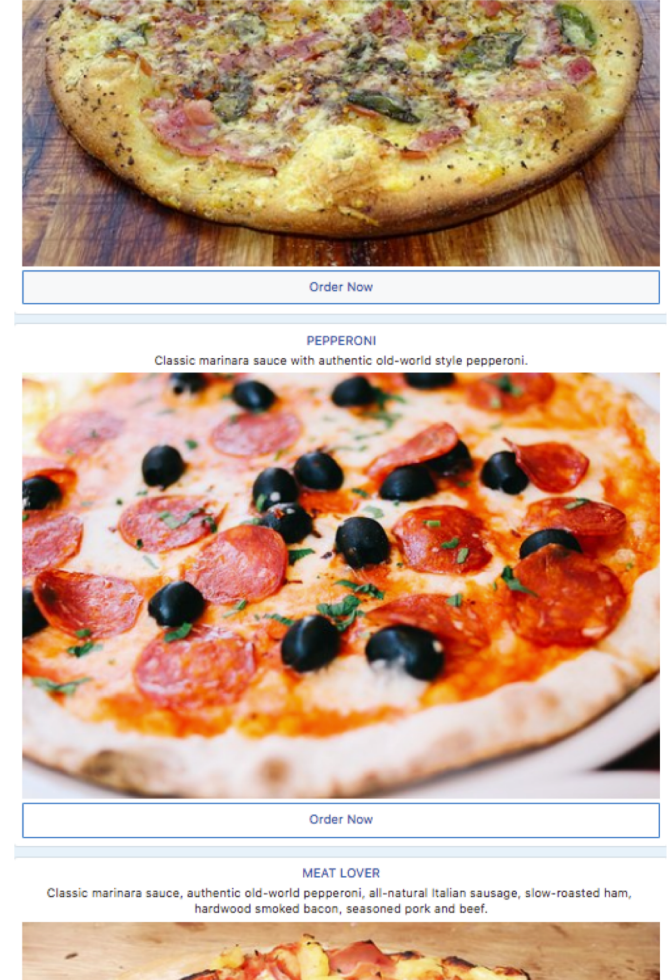


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Cards response specific properties

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



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)

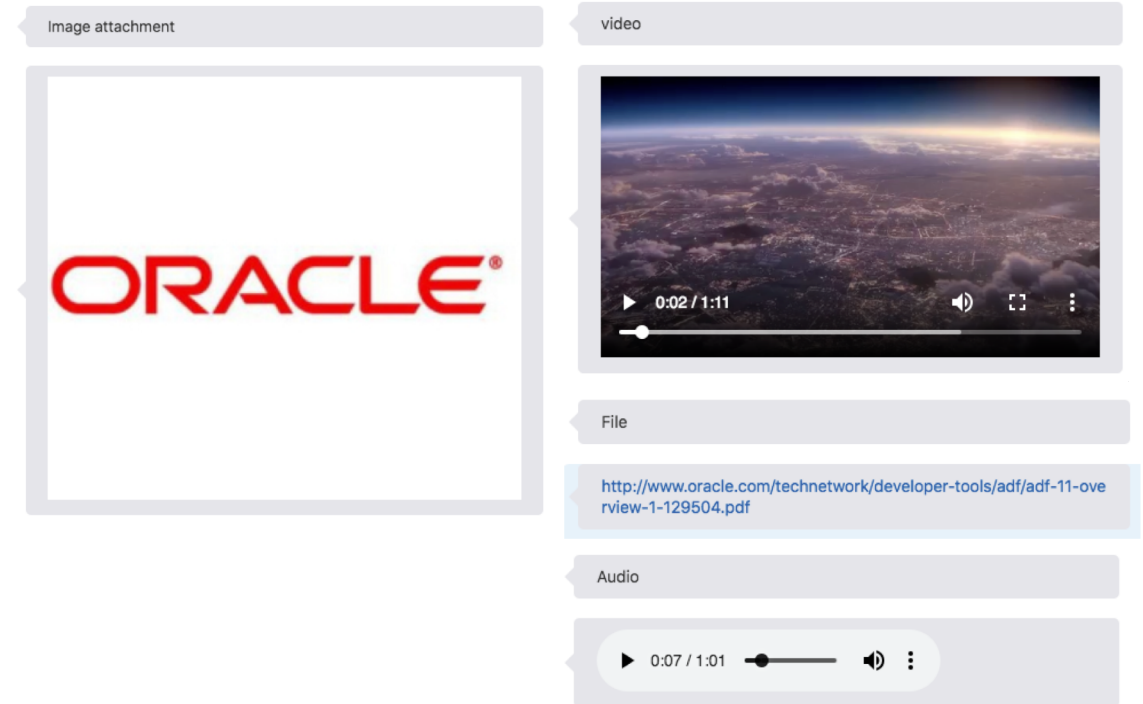
- visible (optional)
- iteratorVariable (optional)
 - Stamps cards by iterating over items stored in an array
- rangeStart / rangeSize (optional)
 - Used with iteratorVariable set
 - Stamp a subset of cards
- channelCustomProperties (optional)
 - Channel-specific properties that cannot be controlled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

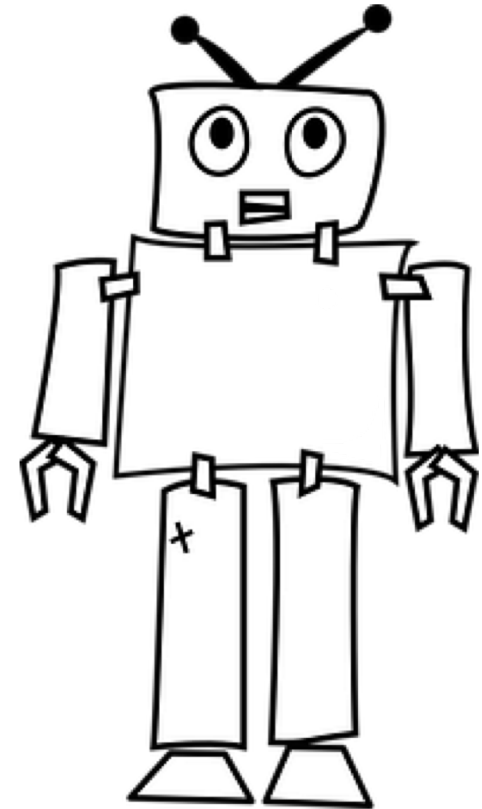
Attachment response item specific properties

- 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**.

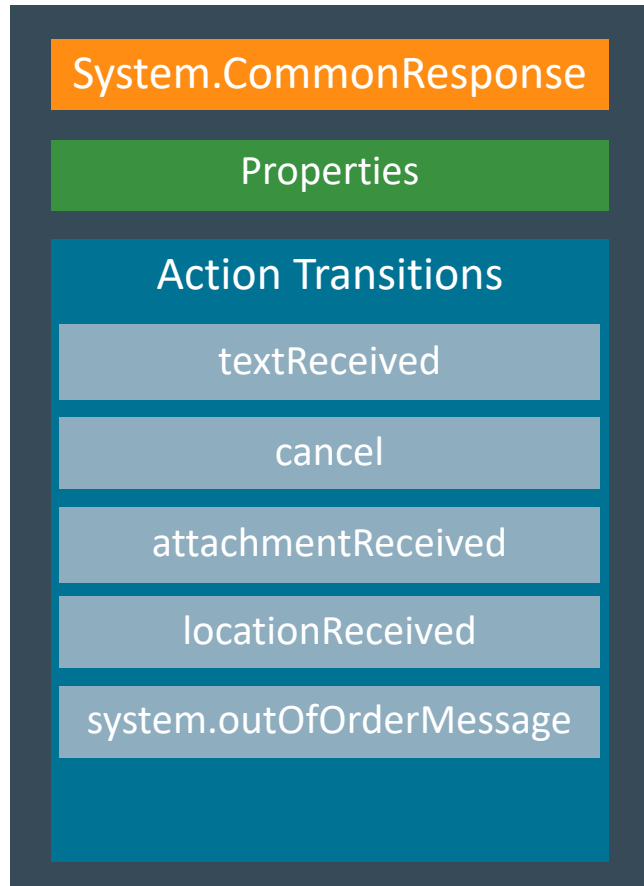
Use pagination when not all card or action items can be rendered



Topic agenda

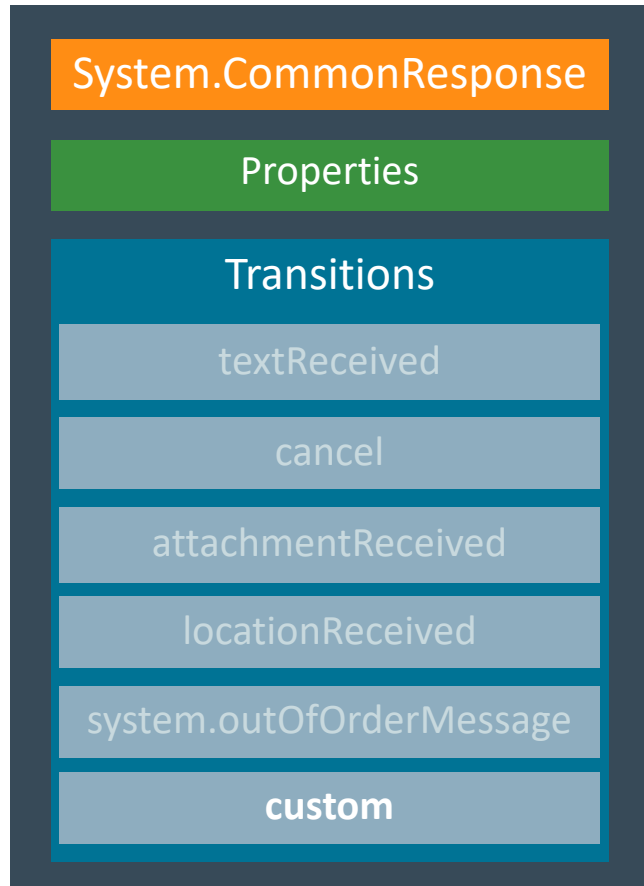
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System.CommonResponse component action transitions



- `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



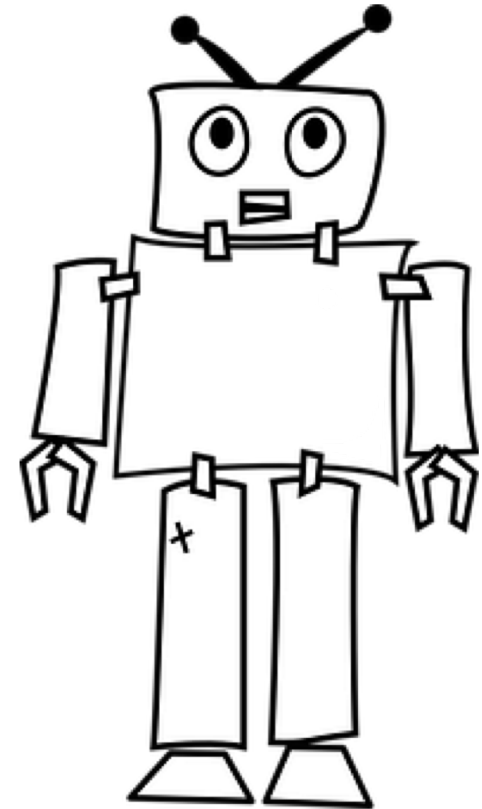
- Custom actions set as part of the action payload

```
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