Oracle Policy Automation
The Modern Enterprise Advice Platform

Features and Benefits
May 2017
Program Agenda

1. Overview of Oracle Policy Automation
2. New features in May 2017 release
3. For more information
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Safe Harbor Statement

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle’s products remains at the sole discretion of Oracle.
Modern service delivery involves many kinds of policies:

- Government Policies
- Regulations
- Service Policies
- Organizational Policies
- Legislation
- Product Policies
Customers expect simple, accurate and personalized advice
Required: Customer satisfaction, compliance and agility

Policy Automation
✓ Advise
✓ Audit
✓ Manage
Oracle CX
Complete Customer Experience Platform

Integrated Customer Experience Foundation
- Social Network
- Mobile
- Analytic KPIs & Dashboards
- Predictive Analytics
- Integrations
Oracle Policy Automation helps across industries

- Compliance automation
- Warranty management
- Needs Analysis
- Sales bonus incentives
- Complaint logging
- Education course applications
- Customer needs and on-boarding
- Mobile inspections and ticketing
- Claim eligibility
- Payment determinations

Hundreds of customers in over 20 different industries, from large enterprises to small mid-market businesses
Oracle Policy Automation overview

Oracle Policy Automation for Mobile Devices

Mobile App

Mobile SDK

Oracle Policy Automation Cloud Service

Modeling

Interviews

APIs

Management

Cloud Applications

On-Premises Applications
The Oracle Policy Automation difference

- Manage policies (Word and Excel)
- No need for custom development
- Deploy across multiple channels
- Provide detailed explanations

- Share logic with other apps
- Track and audit any decision
- Understand impact with what if analysis
- Manage complete policy lifecycle
Personalize Your Customer Interactions

Dynamic Interviews

Personalized Advice
- Provide precise advice tailored for each customer
- Collect customer data more accurately and efficiently

Intelligent Interviews
- Build and pre-fill Interviews to only show relevant data and fields

Cross Channel Consistency
- Ensure a consistent experience regardless of channel – self-service, call center, mobile, or in-person

Personalized Explanations
- Provide documents that record data provided and explain decisions
Empower Policy Experts
Rule Modeling

Natural Language Policy Capture
- Model rules in Word and Excel
- Share easily with any policy expert

Intuitive Interviews
- Design interview layout and organize interactive advice screen

Policy Debugging
- Test before deploying

Built-in Data Mapping
- Out of the Box Integration to Oracle Service Cloud
- Easily map to data in other systems
Policy History Tracking
- Empower agents to explain why a decision was made
- Avoid customer complaints

Handle New Obligations
- Easily manage changes using the structure and wording of the source material

Decision Audit Reports
- Empower auditors with detailed explanations of how each rule was applied for every customer decision
- View easily in a report
Policy Quality
- Leverage built-in quality tools to ensure policy changes converge quickly

Multi-language Support
- Create policies in your customer’s preferred language with streamlined translation management

Seamless Collaboration
- Collaborate between stakeholders
- Avoid conflicts
- Share changes
- Deploy the latest policies quickly
Make Consistent Decisions Anywhere
Integration Services

Easy to Integrate
• Integrate decision making with standard APIs to other applications or processes
• Deliver consistency across legacy and cloud architectures

Mobile Ready
• Deploy interviews to mobile devices
• Deliver policies to all parts of your organization
Understand the Impact of Policy Changes

Policy Analytics

Understand Impact of Revisions

- Easily analyze new or changes policies
- View the impact as it relates to each of your customers prior to changing

Policy Refinement

- Analyze and adapt policy outcomes to avoid unexpected results
- Provide feedback to policy makers

What-if Analysis

- View potential policy outcomes and impacts
- See outcomes side-by-side
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Highlights of Policy Automation May 2017 Release

✓ **PDF form templates**
  Generate documents that match paper forms

✓ **Interview extensions**
  Create innovative and upgradeable online advice

✓ **Embeddable interviews**
  Provide seamless advice in any experience

✓ **Batch Assess REST API**
  Automate periodic assessments
Generate Documents that Match Paper Forms

MAY 2017: PDF Form Templates

CAPABILITY HIGHLIGHTS

- Maintain form templates as PDF files using standard Oracle BI Publisher form design capabilities
- Use any PDF editing tool of choice to modify an existing form template, or to design new ones

KEY BENEFITS

- Leverage existing paper-based processes by populating any pre-printed form layout with data collected during OPA interviews
- Provide pixel perfect documents to customers as an official record of advice, and attach them to the transaction record in your application

Use any PDF form editor

Fill with data and decisions
Create Innovative and Upgradable Online Advice

MAY 2017: Interview Extensions

CAPABILITY HIGHLIGHTS

- Use an upgrade-safe JavaScript framework to modify the appearance and behavior of any part of an OPA interview
- Selectively override styles for the navigation bar, buttons, input controls and more
- Provide complete custom behaviors for input controls, including containers and entity collect

KEY BENEFITS

- Confidently upgrade to each new OPA release, knowing that even extensively customized experiences will continue to operate correctly
- Apply consistent corporate branding to web and mobile OPA interviews, easily reusing existing style sheets and components as needed
- Provide unique advice experiences that your competitors don’t have, by getting creative with the latest web development approaches
Provide Seamless Advice in any Experience

MAY 2017: Embeddable Interviews

CAPABILITY HIGHLIGHTS

- **Display interviews directly** in any HTML page, without the need for iframes, by using the provided script and stylesheets
- **Specifically control which web sites** any deployed interview can be embedded within

KEY BENEFITS

- **Ensure maximum compatibility and security** of OPA interviews that are integrated into other application experiences
- **Easily comply with corporate branding requirements** by referencing styles from the parent page’s stylesheet as needed
- **Use OPA in creative ways** by showing more than one interview on the same web page, each with independent styling

This interview is in a div, not in an iframe 😊
Automate Periodic Reassessments
MAY 2017: Batch Assess REST API

CAPABILITY HIGHLIGHTS

- **Efficiently process multiple assessments** in a single call, with the Batch Assess REST API
- **Take advantage of cost effective pricing** with the new OPA Assessment API SKU (planned for June price list update)

KEY BENEFITS

- **Improve service quality** with regular bulk reassessment of case or incident status, payment determinations and more
- **Apply policies consistently** across interactive decisions and batch processes
Feature Deep Dive
PDF Form Templates
PDF Form Templates – Overview

Reuse existing printed form layouts for consistency with existing processes

- Save customers time
  - Use self-service interviews to pre-populate the same forms used in existing paper-based processes
  - Customers can print the form, or submit it in the online transaction

- Leverage existing systems
  - Reuse existing form handling processes where appropriate, while also reducing errors, call center traffic and training costs
PDF Form Templates – Authoring

Prepare form templates using any PDF editing tool

- Edit the form template in your preferred PDF editing tool
  - Add the PDF form template to the Policy Modeling project
  - Use the OPA PDF Form Assistant toolbar to copy and paste field codes
  - Uses standard BI Publisher markup to define which data to include
- Preview generated PDF output in the OPA debugger
PDF Form Templates – Generation

Forms generated from PDF templates are treated just like others

- Provide download links for customers to save and print
- Attach to records in Service Cloud
- Submit to other applications via a web service connector
Feature Deep Dive

Interview extensions
Interview extensions – Overview

Deliver satisfying tailored experiences that work consistently on upgrade

- Deliver any end user experience
  - Apply your own corporate styles to any interview component
  - Use any control you can imagine, such as maps, menus or calendars

- Worry-free upgrades
  - Only override what you need to
  - Documented framework designed to work seamlessly in future releases
  - No conflicts with or dependency on existing OPA control styles
  - Works with web and mobile
Interview extensions – Architecture

Develop and maintain upgradable extensions for all OPA projects

Simple, flexible and reliable

- Add JavaScript to project in custom interview style files
- Register extensions with the OraclePolicyAutomation object
- Only override the components and behaviors that you need to
- Use custom properties to identify individual input controls
- Get/set data on the same screen only, for security purposes
Interview extensions – Styles
Easily unify interview appearance with your corporate look and feel

☑ Safely restyle interview elements
  • Simplest type of customization
  • Choose to restyle almost any component in an interview
  • For full control, supply a CSS style name that defines all styling
  • Or tweak existing appearance by individually overriding a permitted set of visual style properties
  • Existing component layout and behavior is retained

Default styles

With a style extension for text inputs
Interview extensions – Navigation

Show progress navigation that is consistent with your brand

- Take complete control of how interview progress is shown
  - Stage number and text are provided
  - Incorporate custom images
  - Highlight the active stage
  - Works with vertical and horizontal navigation bars

Navigation bar extension
Interview extensions – Custom controls

Provide intuitive data entry to deliver satisfying self-service

- Provide custom experiences for entering data in an interview, e.g.:
  - Choose point or enter path on map
  - Validate credit card entry
  - Pick from available calendar slots

- Flexible framework provided
  - Control only, or label + control
  - Includes support for containers and entity collection
  - Extension can get and set any data fields on the same screen
Interview extensions – Searching inputs

Help customers provide valid information every time

- Get matching values from an external data provider
- Wide variety of applications
  - Address picker
  - Product catalog
  - Company lookup
- Designed for public data only
  - No built-in user authorization
  - Full URL is visible in browser
Upgradeable interview customizations – And more
Documentation provides full details for developers

<table>
<thead>
<tr>
<th>Method</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>getPropert...&lt;name&gt;</td>
<td>Returns the value of the given custom property. The undefined value if the control doesn’t have that property</td>
</tr>
<tr>
<td>getCaption()</td>
<td>The text of the question</td>
</tr>
<tr>
<td>getValue()</td>
<td>Return the current value of the control</td>
</tr>
<tr>
<td>setValue(&lt;value&gt;)</td>
<td>Set the current value of the control</td>
</tr>
<tr>
<td>getType()</td>
<td>Return the data type of the control</td>
</tr>
<tr>
<td>getControlType()</td>
<td>Return the original input control type</td>
</tr>
<tr>
<td>isMandatory()</td>
<td>Return true if the control is currently mandatory</td>
</tr>
<tr>
<td>isReadOnly()</td>
<td>Return true if the control is currently read only</td>
</tr>
<tr>
<td>getOptions()</td>
<td>Returns an array of options for the control if the authored control was a list of values. Each option is an object that has text (display text), value (underlying value), and also checkedImage and unchecke...</td>
</tr>
</tbody>
</table>

- Define fully dynamic option lists
- Override headers and footers
- API methods for interacting with interview state
- And more!
Feature Deep Dive
Embeddable interviews
Embeddable interviews – Overview

Provide seamless advice in any experience

- Easily use OPA embedded within other applications
  - Inherit styles from parent page
  - Access shared scripts etc.
  - Avoid cross-domain security issues

- Show multiple OPA interviews on a single page
  - For example, for helper interviews within a longer advice session
  - Separate styling, but interview extensions are shared
Embeddable interviews – Configure security

Ensure only permitted sites can embed deployed OPA interviews

- Limit sites in which interview can be embedded
  - Add permitted sites to host list maintained on OPA Hub
  - Applies to all deployed interviews
  - Automatically uses standard CORS header, which works in all supported browsers
Embeddable interviews – Development

Easy to use JavaScript API provides flexible embedding behavior

Simple embedding steps

1. Link in the required JS and CSS files
2. Create the <div> where the interview will appear
3. Start the interview!

Flexible behaviour

• Resume existing interviews
• Launch multiple interviews
• Catch load, redirect and exit events
• Trigger restart, data save and submit
Feature Deep Dive

Batch Assess REST API
Batch Assess REST API – Overview
Automate periodic assessments

✓ Efficiently assess many cases
  - For periodic and continuous determinations
  - Pass up to 10MB of assessment data in each REST API call (can be increased if needed)
  - Up to thousands of assessments per second, depending on data size and policy complexity

✓ Use a simple API
  - Easily discover the data schema required for each policy model
  - Invoke a single URL to submit case data and receive assessment results
  - OAUTH2 for authentication
Batch Assess REST API – Discoverability
Self-documenting API simplifies development cycle

API is designed for programmatic discoverability
- Sub-resource URIs are provided at every level
- *Data model* resource outlines all valid properties for each assessment (corresponding to attributes and entities)
- *Example assessment* resource shows full structure of request and response, including errors, warnings and summary

<table>
<thead>
<tr>
<th>URI</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>/determinations-server/batch/12.2.7/...</td>
<td>List of deployments available via the Batch Assess REST API on this OPA site</td>
</tr>
<tr>
<td>.../policy-models</td>
<td>The data model for a particular deployed policy model</td>
</tr>
<tr>
<td>.../&lt;model&gt;/data-model</td>
<td>An example batch request for a particular deployed policy model</td>
</tr>
<tr>
<td>.../&lt;model&gt;/assessor/example</td>
<td></td>
</tr>
</tbody>
</table>
Batch Assess REST API – Assessments
Simple API makes integration easy

✓ Assess up to thousands of cases in a single API call
  • Prepare case data in JSON format
  • Provide an ID for each one
  • Specify which outcomes are needed
  • POST the request to `assessor` URI
  • Outcomes returned for each case

✓ Errors and warnings are detailed inline for affected cases
  • Errors have no affect on successful cases in the same batch

Example Assessment

Request

```json
{
  "outcome": {
    "goal_eligible": true,
    "net_worth": ...
  },
  "cases": {
    "@id": "1",
    "loan_purchase_price": 100000,
    ...
  },
  "assets": {
    "@id": "assets-1",
    "asset_name": "Cash",
    "asset_type": "Cash",
    "asset_value": 30000
  },
  ...
}
```

Response

```json
{
  "cases": {
    ...
    "@id": "1",
    "loan_purchase_price": 100000,
    ...
  },
  "assets": {
    ...
    "@id": "assets-1",
    "asset_name": "Cash",
    "asset_type": "Cash",
    "asset_value": 30000
  },
  "summary": {
    "casesRead": 5,
    "casesProcessed": 5,
    "casesIgnored": 0,
    ...
  }
}
```
Other Enhancements
Other enhancements

- Add test case result column to testing worksheets
- Conditionally show individual items in a value list
- Show controls on a screen only when they are relevant
- Configure generated form names and browser behaviour
Add test case result column to testing worksheets
Easily track and report on overall policy model quality

- Summarize test case results
  - Add an overall outcome column to any test case worksheet
  - Use to summarize number of passing and failing test cases
  - Keep track of results over time
  - Combine with Excel’s reporting capabilities to produce summaries of policy quality
Conditionally show individual items from value lists
Simplify user experiences by only showing applicable options

Dynamically choose which value list items appear
- For each list item, optionally set a rule for when it will appear
- Evaluated dynamically even when condition is on the same screen

Examples
- Exclude certain medical conditions, based on a patient’s gender
- Show only loan types available based on person’s credit score
Show controls on a screen only when they are relevant

Simplify maintenance for interviews with many screens or questions

- Show questions only if they are needed to help reach a decision
  - Use relevance as a visibility or behavior condition for controls
  - Apply to individual questions, or to groups (containers)
  - Relevance can be influenced by controls on the same screen, and on other screens

- Can help make screen logic more resilient to future policy changes

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**Paternity Details**

What type of paternity leave are you applying for?
- Partner giving birth
- Adopting

What is the expected child due date?

When were you notified of having been matched for adoption?

Fields shown only when relevant

**What is the expected child due date?**

Collects attribute the expected child due date for paternity leave. Will be shown if control collects relevant information

Design time configuration
Configure generated form names and browser behaviour
Help customers easily track multiple documents

- Set downloaded form name
  - Uses template name by default
  - Override with any text
  - Can also include substitutions

- Set browser link behavior
  - Download document
  - Open inline (replaces the interview)
  - Open in a separate window/tab
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Where to get more information

Background

• Oracle Service Cloud: https://cloud.oracle.com/service-cloud

Documentation

• Service Cloud User Guide: https://docs.oracle.com/cloud/latest/servicecs_gs/FAMUG

Forums

• RightNow: http://communities.rightnow.com/groups/eedd6685ae/summary
Social Media Resources

http://www.youtube.com/user/OraclePAVideos

https://www.facebook.com/OracleServCloud

https://twitter.com/OracleOPA

http://www.linkedin.com/groups/Oracle-Policy-Automation-3431282/about

https://blogs.oracle.com/OPA/

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