Program Agenda

1. Overview of Oracle Policy Automation
2. New features in November 2016 release
3. For more information
Program Agenda

1. Overview of Oracle Policy Automation
2. New features in November 2016 release
3. For more information
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
Customers expect simple, accurate and personalized advice
Required: Customer satisfaction, compliance and agility

Policy Automation
✓ Advise
✓ Audit
✓ Manage

Self-service Customers
Policy Experts
Agile Lifecycle
Call Center and Chat Agents
Administrators
Field Agents
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

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

- Mobile App
- Mobile SDK

Oracle Policy Automation for Mobile Devices

- Modeling
- Interviews
- APIs

Oracle Policy Automation Cloud Service

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
Build Trust through Transparency

Compliance Management

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

Compliance Management
Simplify Policy Management
Policy Lifecycle

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 November 2016 Release

✓ Next generation interviews
   Deliver dynamic best of breed experiences for self service advice

✓ Embed fonts and barcodes in generated forms
   For maximum brand fidelity and business process integration

✓ Collect data for inferred entities
   Simplify application integration and product selection scenarios

✓ Access control for policy models
   Securely share a single OPA hub across the enterprise
Provide Best of Breed Interactive Advice

NOV 2016: Next Generation Interviews

CAPABILITY HIGHLIGHTS

- **Respond in real-time to customer input** with automatic formatting, calculated fields, display of additional questions and more
- **New control options** such as image toggles, masked inputs, switches, sliders, password fields, button groups and user location
- **Unified mobile app appearance**, ensures the same look and feel options and behaviour are available for disconnected mobile advice

KEY BENEFITS

- **Wow your customers** with powerful interactive “what-if” experiences that are easy to keep up to date as rules and requirements change
- **Deliver beautiful and intuitive self-service** and mobile advice more quickly and easily than ever before
Integrate High Fidelity Forms with Customer Processes

NOV 2016: Embed Fonts and Barcodes in Generated Forms

CAPABILITY HIGHLIGHTS

- Choose which fonts to embed in generated PDF forms, by selecting from those used in any form template
- Include dynamic bar codes in forms, by using a specific field code in combination with a supported bar code font

KEY BENEFITS

- Ensure complete consistency of form appearance for all users, and over time
- Match corporate font standards for any form generated from an OPA interview
- Embed scannable tracking information in any generated document, with the use of bar codes
CAPABILITY HIGHLIGHTS

- Enter data values for inferred entities, while allowing rules to dynamically define which records an interview user must complete.
- Choose from a set of inferred entities, allowing interview users to select from a dynamically populated set of options.

KEY BENEFITS

- Simplify integration with other applications by avoiding the need for placeholder records to be supplied to the OPA interview.
- Simplify policy maintenance for product selection and similar scenarios, by using rules to dynamically define the available options as well as the selection criteria.

Simplify Integration and Product Selection Scenarios

NOV 2016: Collect Data for Inferred Entities
Securely Share a Single OPA Hub Across the Enterprise

NOV 2016: Access Control for Policy Models

**CAPABILITY HIGHLIGHTS**

- Create collections of repository projects, deployments and connections
- Assign permissions by user to limit access via Policy Modeling, OPA Hub and the OPA mobile app

**KEY BENEFITS**

- Centralize policies for all lines of business in a single OPA site, while controlling who can change policies and use on a mobile device
- Easily control who can create, modify and view policies by organizing them into meaningful groups
Feature Deep Dive

Next generation interviews
Next generation interviews – Overview
Provide modern dynamic advice experiences on any channel

- Dynamic behaviour
- Enhanced navigation
- Restart and exit buttons
- Capture user location
- Lots of new control types
- Unified mobile and web styles
- No change on upgrade
Next generation interviews – Dynamic behavior
Deliver engaging experiences that drive successful customer self-service

- Live update any control with rules
  - Use any attribute anywhere, even if its rule needs data on the same screen
  - For default values, calculations in labels, to show/hide controls etc.

- Perfect for what-if type scenarios
  - Try out different situations on a single screen with no navigation required
Next generation interviews – Live formatting and validation
Deliver engaging experiences that drive successful customer self-service

✔ Dynamic formatting
  • On leaving an input control, its value is formatted per the attribute’s format

✔ Dynamic validation
  • On leaving an input control:
    1. The attribute’s value is validated
    2. Required option is checked
  • If more input is needed, a validation error indicator appears immediately
  • Error and warning event rules processed when relevant on-screen data changes

A message from a triggered error event

Health Diagnosis Tool
You must agree to the disclaimer before proceeding

In a few minutes the health diagnosis tool will give you personal and reliable information about your symptoms.

Currency format

What is the application filing date and time?

Validation error indicator

Purchase price
$500,000.00

Nov 2016
Next generation interviews – Enhanced navigation styles
Show intuitive navigation options, on any device

- Enhanced navigation styles
  - Single-line ribbon
  - Train-stops
  - Cleaner left hand menu
  - Screen list within stages, when required
  - Configurable colors and icons

- Full mobile support
  - Use any nav. style in OPA mobile app
  - Enhanced responsive design for both mobile browsers and OPA app
Next generation interviews – Enhanced navigation behavior

Easily move between all relevant input screens, on any device

☑ Valid data is always kept
  • Navigating away from a partially complete screen no longer prompts user
  • All valid information on the current screen is now always used
  • This makes free navigation interviews in particular much easier to use
  • Can even do away with the Next and Back buttons completely!
Next generation interviews – Restart and exit buttons

Start over or return to original launch page, without custom code

- Restart from any screen
  - Reloads any mapped in seed data
  - Uses the same startsession URL params
  - Resumed sessions also start anew

- Exit to any other page
  - Include attribute values in the URL

- Buttons appear at bottom of screen
  - Hide either/both buttons on any screen
  - Configurable button color and text

Nov 2016
Next generation interviews – Capture user location
Change interview behaviour depending on the location of the user

✔ Obtain the user’s position
  • Capture location on any interview screen
  • Uses standard browser location support
  • Save the captured latitude and longitude to any pair of attributes

✔ Apply location-specific behaviour
  • For example, automatically select the closest branch based on distance
Next generation interviews – New boolean inputs

New touch friendly controls for choosing yes/no options

- Simple switch control
  - Just like on many mobile OSes
  - Apply easily to any Boolean control

- Configurable image toggles
  - Image only, or image with caption
  - Supply any images for the selected and not selected states
  - Caption appears below each toggle – designed for use in groups of options
  - If caption is hidden, its text is still used as the accessible control description
Next generation interviews – Button groups

New touch friendly controls for selecting between multiple options

- Flexible button appearance
  - Text
  - Image
  - Text and image

- Easy to configure
  - Enter list directly, or use any value list
  - For images, a value list must be used
  - Choose separate images for selected and unselected states
Next generation interviews – Sliders

Touch friendly selection of values in a range

- Select either from a list of categories, or a range
  - Categories can be entered per control, or as a value list
  - Range defaults to 0 to 10, or uses attribute min and max

- Easy to configure
  - Supply min and max labels for a range
  - Click and drag to change slider width
Next generation interviews – Time of day input

Easy selection of specific time ranges

Easy to use time entry

- For *Date and time* and *Time of Day* types
- Multi-input time controls
- Shows seconds only if the project-wide time format specifies they are needed
- Choose the minute and second increments to use (1, 5, 6, 10, 15, 20, 30)
Next generation interviews – Password and masked inputs

Hide passwords and auto-format phone numbers, SSNs etc.

Secure password entry

- New *password* text control type
- Password fields hide the entered text
- Password is saved in the attribute and can be validated on-screen as needed

Masked text values

- New *masked* text control type
- Input mask specifies the “shape” it has
  - 9 = 0-9; A = letters; * = either
  - Punctuation inserted as user types
- Fixed length; all invalid input ignored
Next generation interviews – Unified mobile and web styles
Same set of options apply to both web and mobile app interviews

✔ All styles now apply to mobile
  • Easily maintain the look and feel for both web and mobile app interviews
  • Fully responsive interview layout works on any form factor device

✔ Simplified styling
  • Overridable “theme” colors are applied to all relevant visual elements
  • Advanced styling with more control over individual elements is optional
Next generation interviews – Explanation usability

See any explanation detail in at most 2 clicks

0

The household may be eligible for SNAP.

SHOW DETAILS

1

The household may be eligible for SNAP.

The household satisfies the resource test for SNAP.

The household satisfies the gross income test for SNAP.

The household includes a household member who is aged 60 years or older or who is disabled or blind.

The household satisfies the net income test for SNAP.

HIDE DETAILS

2

The household satisfies the resource test for SNAP.

The household satisfies the gross income test for SNAP.

- The household's total gross monthly income is $0.00.
  - The household's gross monthly earned income is $0.00.
    - The monthly income from wages and salary is $0.00.
    - The monthly income from tips is $0.00.

Easier explanation navigation

- Show Details label clearly indicates that an explanation is available
- Expanding an explanation shows the first level, with each top level reason clearly separated
- Expanding one final time shows all the remaining detail, visually separated from the other top-level reasons in the list
Next generation interviews – Enhanced timeout warnings

Fully accessible timeout warnings, and improved appearance

✔ Improved appearance
  • Now overlaid on screen to be obvious regardless of screen scrolling position

✔ Accessible to screen-readers
  • Full accessibility annotations ensure that screen readers are notified when the session is 5 minutes from expiry
Next generation interviews – No change on upgrade
Keep existing interview behavior until ready to use the new experience

- Upgraded projects are unchanged
  - By default they continue to use the August 2016 behaviour and appearance
  - Simply option to switch to the latest version interview experience

- Make the switch when ready
  - Remove all custom CSS/Javascript
  - Remove any custom controls
  - Use new interview features instead
  - Stay on existing experience for now if all existing functionality can’t be achieved
Next generation interviews – No custom controls
Customization framework not yet available for next generation interviews

- Existing custom controls do not work with the new interview experience
- Projects that need custom controls should continue to use existing August 2016 interviews for now
- Check back in future versions for new developments in this area
Feature Deep Dive

Embed barcodes and fonts in generated forms
Embed fonts in generated forms

Ensure complete brand fidelity of generated documents

- Ensure PDF forms match desired appearance
  - Use TrueType fonts in the BI Publisher form template
  - Then choose to embed any such fonts, if they allow it
  - Generated form will automatically include the font as needed

Fonts embedded in generated PDF form

Picking the fonts to embed at design time
Include barcodes in generated forms
Uniquely identify and integrate printed forms into business processes

Add barcodes to forms
- In form template, use standard BI Publisher barcode fields
- Must format the field in an otherwise unused font
- In Policy Modeling, choose the right substitute barcode font in its place
- Supported barcode types are UPC, Code 128 and Code 39

Choosing the barcode font to substitute in
Feature Deep Dive

Collect data for inferred entities
Collect data for inferred entities – Overview
Allow users to enter data for and choose from inferred entities

- Simplify application integrations and product selection scenarios
- Use rules to create the exact objects users need to fill in
- Allow users to pick from a dynamic set of entity instances
Collect data for inferred entities – Attributes

Use rules to define the set of entities that must be populated by the user

- Create the necessary entities using rules – e.g. for relevant tax years or to hold relationship data
- Allow user to enter data for those entities – e.g. taxable income, or relationship type
- Note that all instances of the entity must be inferred – user cannot manually add more instances

Rule to infer the tax year entities

User entering values for the inferred tax year entities

Infer entity instances for users to fill in the details
Collect data for inferred entities – References

Choose from inferred entity instances when setting reference relationships

Use inferred entities as choices

- Relationship to inferred entities can now be set by a user choosing from that set – e.g. pick from a list of recommended products

Excel rule table to infer recommended products

<table>
<thead>
<tr>
<th>The selected phone's brand</th>
<th>The recommended products</th>
<th>Price</th>
<th>Discount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Juni</td>
<td>Sure Kryptonite Screen Protection</td>
<td>$99.99</td>
<td>10.0%</td>
</tr>
<tr>
<td>MMC</td>
<td>MMC Fast Charger</td>
<td>$29.99</td>
<td>0%</td>
</tr>
<tr>
<td>Pineapple</td>
<td>Pineapple Headset</td>
<td>$75.99</td>
<td>5.0%</td>
</tr>
<tr>
<td>Saturn</td>
<td>Saturn Genuine Spare Battery</td>
<td>$29.99</td>
<td>5.0%</td>
</tr>
<tr>
<td>Saturn</td>
<td>XYZ Universal Charger</td>
<td>$17.99</td>
<td>0%</td>
</tr>
<tr>
<td>Pineapple</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Juni</td>
<td>XYZ Battery Pack</td>
<td>$25.00</td>
<td>0%</td>
</tr>
<tr>
<td>MMC</td>
<td>XYZ Fancy Headset</td>
<td>$49.99</td>
<td>5%</td>
</tr>
<tr>
<td>Pineapple</td>
<td>XYZ Pineapple Case</td>
<td>$54.98</td>
<td>5%</td>
</tr>
<tr>
<td>Juni</td>
<td>XYZ Saturn Case</td>
<td>$19.99</td>
<td>0%</td>
</tr>
<tr>
<td>MMC</td>
<td>XYZ MMC Case</td>
<td>$24.99</td>
<td>5%</td>
</tr>
<tr>
<td>Juni</td>
<td>XYZ Fire Extinguishing Case for Juni</td>
<td>$359.99</td>
<td>5.0%</td>
</tr>
</tbody>
</table>

New: Picking from the dynamic set of recommended products
Collect data for inferred entities – Flexible usage
Allowing users to set data on inferred entities is useful for many scenarios

- Household relationships
  - Infer a relationship entity instance between each household member
  - The user can simply pick the type of the relationship for each pair
  - Sensible defaults are easy to provide

- Picking entities
  - Have a Boolean attribute on an inferred entity for whether the user wants to include it
  - Then infer a reference relationship for the set of chosen things
Feature Deep Dive

Access control for policy models
Access control for policy models – Overview

Securely share an OPA Hub across multiple project teams and mobile users

- Manage access easily
  - Organize repository projects and deployments into *collections*
  - Assign each user the roles they have for each collection

- Share securely
  - Limit the use of connections to particular collections
  - Must have hub administrator role to create collections and assign roles

**Collections**

- **Retail banking**
  - RB Loan Calculator
  - RB Checklist
  - Joe is Policy Author
  - Mary is Policy Author and Deploy Admin

- **Business banking**
  - BB Onboarding
  - BB KYC
  - Joe and Mary are Policy Authors
  - George is Deploy Admin

- **Insurance**
  - Life Premium Calculator
  - Life Claims Assessor
  - Mary is Policy Author
  - George is Deploy Admin
Access control for policy models – Manage permissions

Manage all users and collections from one place

Centrally manage permissions

- Permissions tab in OPA Hub is renamed from *Users* of Aug 2016
- Create, modify and delete collections, as well as users
- Assign users to roles in each collection
- View and modify permissions by user, and by collection
Access control for policy models – Create collections

Create collections by business area, project phase, or for any other purpose

- Created by hub administrators
  - Collections can only be created by users with the Hub Admin role
  - When creating, can easily assign the roles each user should have

- Default collection
  - New and upgraded sites start with a single “Default Collection”
  - Can be renamed as needed
Access control for policy models – Organize projects

Control which users have permission to modify policies in the repository

- All projects are in one collection
  - When adding projects to the hub repository, a collection must be chosen
  - Available collections are those for which the user has Policy Author role

- Updates don’t prompt for collection

- Change the collection at any time
  - On the Repository tab, Policy Authors (of both collections) can move projects between two collections
Access control for policy models – Organize deployments

Control which users have permission to deploy policies

- All deployments are in one collection
  - When deploying a project for the first time, a collection must be chosen
  - Available collections are those for which the user has Deploy Admin role
- Redeploy keeps existing collection
- Move between collections
  - On the Deployments tab, Deploy Admins (of both collections) can move a deployment to a different collection
Access control for policy models – Limit connection access

Control which policies and users can access each connected application

- Limit data access by business area
  - Policy Modeling users can only choose connections that are associated to collections in which they have the *Policy Author* role
  - Can only deploy projects to a collection that has access to the required connection
  - If access is revoked for a connection, deployed interviews in the collection will report an error when used
Access control for policy models – Global roles

Hub administrator and web service roles apply globally

- Global permission administration
  - Only users with the Hub Administrator role can modify permissions for a user or collection
  - Hub Admins can modify permissions for any user and any collection

- Global web service access
  - Only users with Determinations API role can use deployed web services
  - This role applies to all deployments for which web services are enabled
Access control for policy models – Upgrade experience

All existing permissions are retained on upgrade to November 2016

A simple upgrade experience
- Users are given their existing roles for the Default Collection
- All repository projects and deployments are placed into the Default Collection
- The Default Collection is given access to every connection

Minimal process change
- Only new projects and deployments will see the choose collection prompt
Other Enhancements
Other enhancements

- Self-service compatibility mode for deployments
- Static metadata-only connections
- Additional value list data types
- Policy Modeling environment enhancements
- Create Policy Modeling projects on the command line
Self-service compatibility mode for deployments

Extend the time to resolve unexpected post-upgrade behavior

**Compatibility Mode**

If you are experiencing issues with deployed interviews or web services after upgrade, you can temporarily enable compatibility mode to give you more time to resolve them.

- Off: Always use the latest product release (recommended)
- On: Use the previous product release
  
  **NOTE:** Compatibility mode will be turned off when the next upgrade occurs.

- Activate on upgrade: Stay on the current product release after the next upgrade
  
  Use this only if you know that the next upgrade will break this deployment.

If you are unable to resolve your compatibility issue, please contact support.

- Ensure continuity during upgrade
  
  - Put any interview into compatibility mode
  
  - Can be set to auto-trigger on upgrade
  
  - Provides time to resolve layout or behaviour differences between versions

- Designed for customized interviews
  
  - When in compatibility mode, interviews run on the previous quarterly release
  
  - Applies also to web services
  
  - Turn off compatibility mode when issues are resolved, ready for next upgrade
Static metadata-only connections

Accelerate projects where policies are referencing a known data model

- Data mapping without a web service
  - Create a metadata only “connection”
  - Provide static metadata that will be used for data mapping in Policy Modeling
- Mapping experience is identical to a full web service connection
- Streamline connector development
  - Capture and pin the metadata response from an existing web service connection
  - Manually enhance the metadata while waiting for connector implementation to catch up
Additional value list data types

Accelerate projects where policies are referencing a known data model

- Provide selection lists for any type of value
  - Customize order and display name of Boolean options
  - Define lists of Date, Date and time, Time of day and Currency values
  - Use in existing and new controls such as lists and button groups
Policy Modeling environment enhancements
Maximize the speed and scalability of the authoring experience

- Take full advantage of 64-bit Windows
  - Policy Modeling runs as 64-bit application
  - Automatically installs and uses 64-bit Java
  - Large test suites and complex debugging sessions can use all available memory

- Easily view dependencies
  - Diagnostics available by clicking Build number on Welcome screen
  - Microsoft .NET Framework 4.5.2 or later now required
Create Policy Modeling projects on the command line
A first step towards an extensible policy modeling platform

Automate new policy modeling project creation

- OPMNewProject.exe
- Specify project location
- Optionally choose a language, locale and timezone
- List the available options

```bash
OPMNewProject
Creates a new Policy Modeling project.


Parameters:

- <projectfile>
  The full path and file name of the project to create. The project file name must not contain any of the following characters /,*?:"<\;.
- lang=<language code>
  The rule language to use for the project. If not provided, the default language is used.
- region=<region code>
  The region to use for the project. If not provided, the default region is used.
- timezone=<timezone code>
  The timezone to use for the project. If not provided, the default timezone is used.
- listcodes
  Displays a list of available languages, region and timezone codes. When this parameter is provided, all other parameters are ignored.
```
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Where to get more information

Background

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

Documentation


Forums

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

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

https://www.facebook.com/OraclePolicyAutomation

https://twitter.com/OracleOPA

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

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

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Integrated Cloud
Applications & Platform Services