Implementing Complex Rules in Obamacare

Case Study

Consulting and Implementing
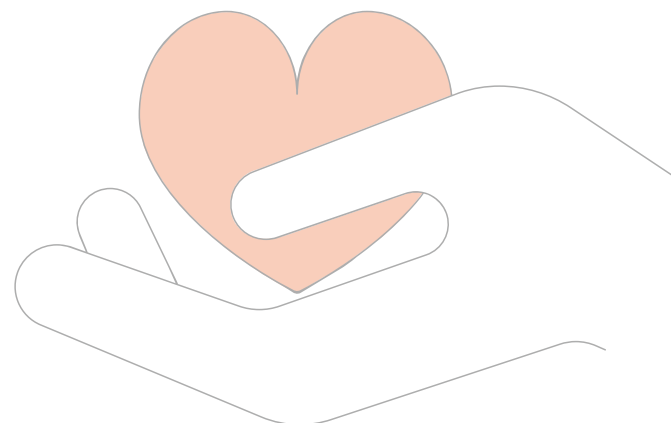**Process Automation for Last 10 Years**

Introduction

Connect for Health Colorado

Connect for Health Colorado is a professional health insurance portal in Colorado, USA. It is a non-profit entity set up by "Senate Bill 2011" in compliance with the Patient Protection and Affordable Care Act. This body is to get trusted resources for health insurance plans for individuals, house-owners, and businesses. It is an organization that assists Americans with correct price for health insurance. A person can compare and select the most appropriate health insurance plan, according to his/her requirements. Along with customer support structure, customer service representatives, licensed brokers, and Health coverage guides, this enterprise helps people find the profitable plan for health insurance.

Obamacare

Obamacare (Patient Protection and Affordable Care Act of 2014) is a government healthcare body that helps US citizens access the affordable health insurance plans. Officially, it was enforced in 2010 with an aim to improve the quality of healthcare and health insurance along with reducing the health cost. It was specifically set up to cover pan America with all-inclusive benefits of healthcare insurance policy in USA. Its core and whole-sole objective was to enhance overall healthcare along with lowering the health cost.

Connect for Health Colorado had won responsibilities to develop some partial system/subsystem of this giant public healthcare reform scheme in USA. Pericent Technologies ordinated with Connect for Health Colorado to developed this NEEDS as a part of the system.

…Introduction

NEEDS (NEED Eligibility Determination System)

NEEDS or NEED Eligibility Determination System is an efficient solution for Healthcare Exchange Operational Program comprising with MEDICAID, APTC, and CHP eligibility services. It is an enterprise model to evaluate the eligibility criteria of an American- whether he/she can acquire the benefits of Obamacare.

Case Scenario

Requirement

Obamacare was mega public health insurance scheme where certain US citizens get affordable healthcare through government subsidy. It is significant to find out the right criteria eligibility for Obamacare scheme so that needy people get most benefit out of it. And, this is for what NEEDS software has come into being with a target to simplify the eligibility criteria evaluation.

It's objective is to determine the Tax Credit Eligibility for household in USA in accordance with Affordable Care Act 2014. And, along with families, financial and non-financial institutions are also included.

Challenges

USA has a standardized structure of healthcare insurance plans. And, Obamacare is a legacy to the wellness program of the nation. However, it is pretty challenging to manage/handle all those complex sets criteria or conditions to check the eligibility for the scheme. **It is the compound network of approximately 400 rules that should be evaluated all together to pass the eligibility criteria.** Varying from the household/blood relationships to financial tie-ups to non-financial bonds- everything should be established.

Obamacare is a trusted assistant program to pan America. So, it is critical to overcome each of the challenges fairly.
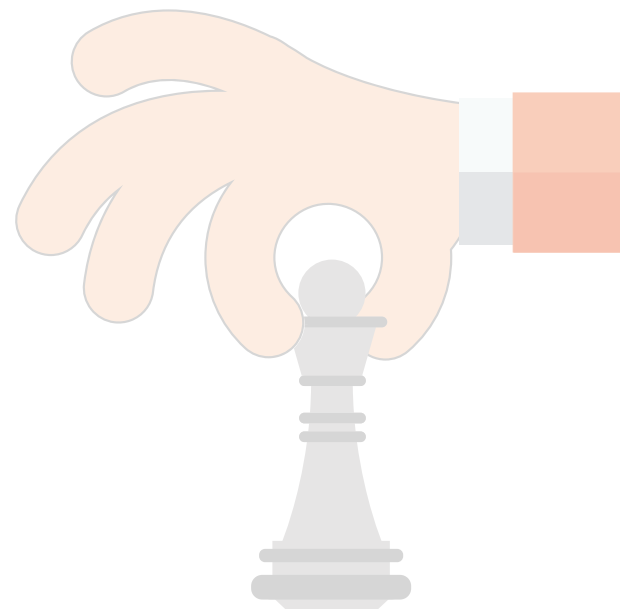
Approach

Obamacare is a mega and complex structured government programme. To manage all rules, NEEDS has developed with **Business Rules Management System** using Drools framework.

NEEDS and the entire Healthcare Exchange Operational Program divided in three different components Controller (To manage request and response queue) another one is Medicaid and CHP (Child Health Insurance Plan) third one is ATPC (Advance Premium Tax Credits) and CSR (Cost Sharing Reductions) based on there category of the department or administration. This act mandates that on 1 January, 2014, all US states and counties must possess Health Insurance exchange operational programs or should use the exchange, proposed by the government.

A holistic approach with a compound set of business rules to cover up any kind of household structure is been chosen by the team. Complete solution package integrated with process automation concept to minimize risk module with maximizing efficiency. And, Pericent Technologies made this project successfully aligned with the approach of **Business Rules Management System (BRMS)** streamline the entire workflow.
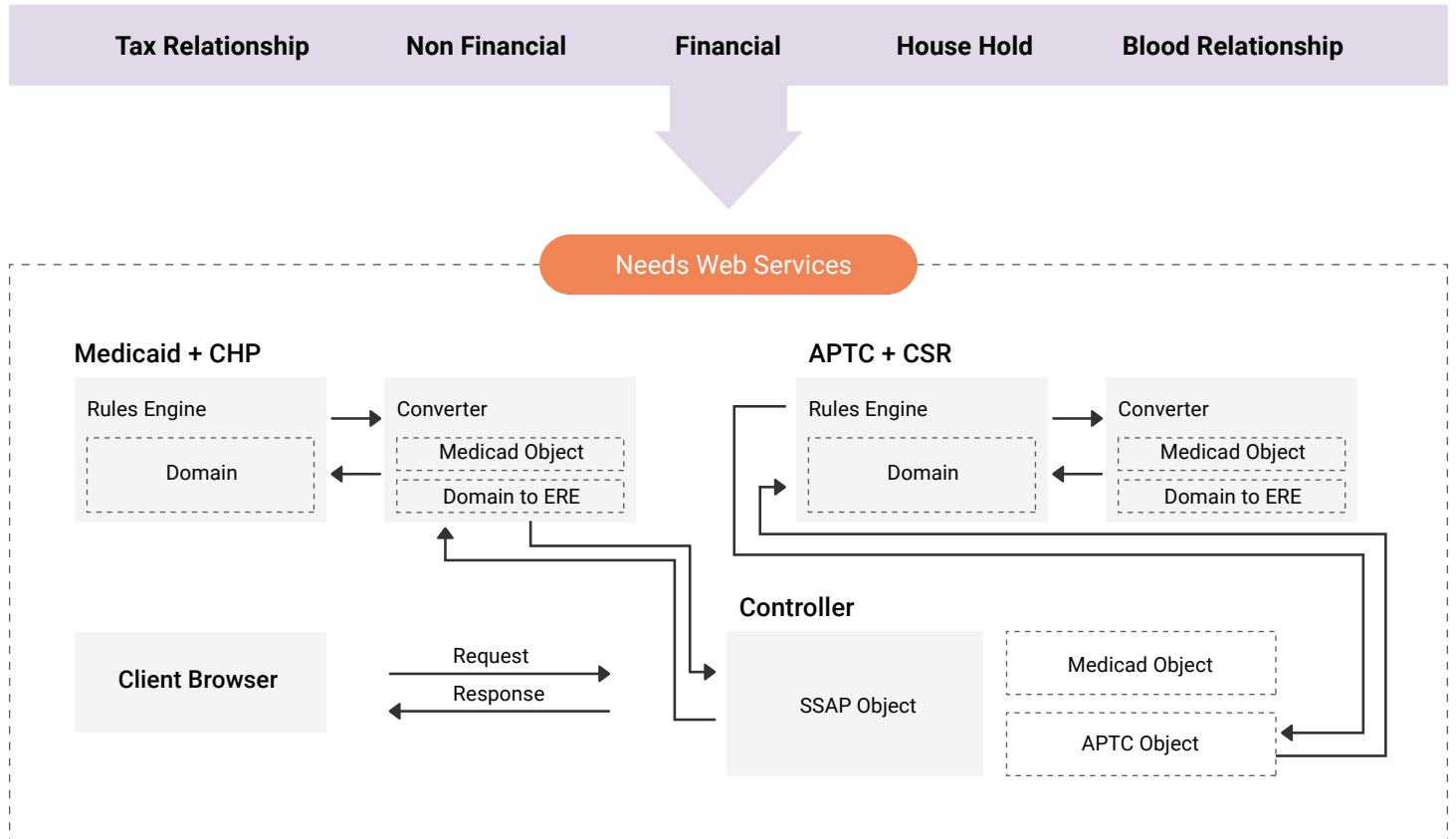
Process and Workflow

Architecture

All the eligibility rules divided in categories as Financial or Household or Blood Relationship. And **NEEDS** web services has three components Controller, Medicaid+CHP and APTC+CSR as to determine the eligibility criteria for Obamacare scheme. Basically, it is framed in a request-response design to make the eligibility determination system accomplished successfully.

…Process and Workflow

The architecture comprises three segments:

1 Input

The client can quote a request to the NEEDS by inputting the information, viz. Household information, non-financial data (residence address, citizenship details, etc.), financial information (related to Household Income), blood relationship, and tax relationship. All the information is inputted to NEEDS Web Services.
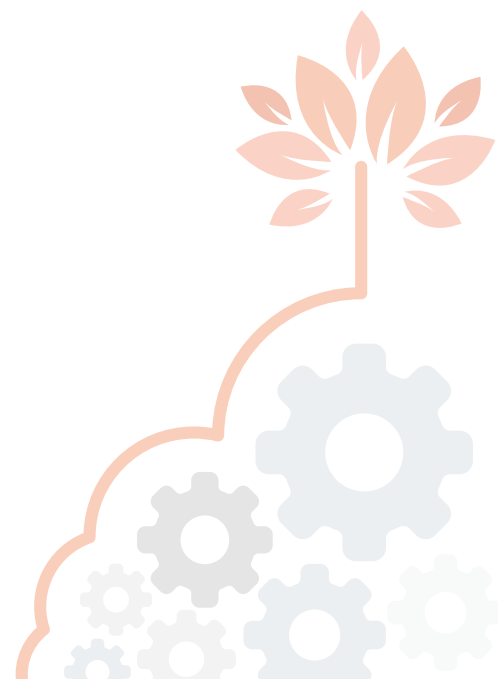
2 Process

At this end, the details are transferred to Controller (A Servlet Class). And, it designs an SSAP (Single Streamlined Application Project) object, which consists of MEDICAID object and ATPC (Advanced Premium Tax Credits) object.

- The MEDICAID object is transferred to a Web Service, which figures out the right eligibility criteria towards MEDICAID and CHP (Child Health Insurance Plan) using the Rule Engine.

- The APTC object is transferred to the other Web Service that also finds out the correct eligibility criteria towards APTC and CSR (Cost Sharing Reductions) employing the Rule Engine.

3 Output

The results from both the servers are passed on to the Controllers that will display the eligibility result to the applicants.
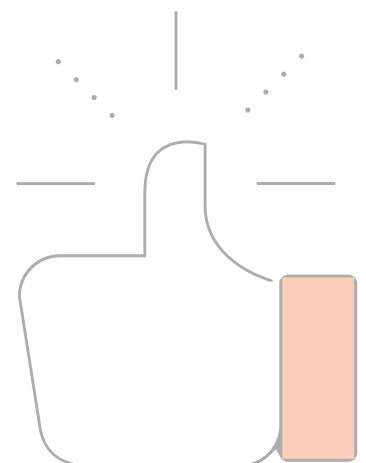
...Process and Workflow

Merits

NEEDS makes the entire process systematic and helps to capture the Household Structure of any size. It covers all blood relationships chart that needs to evaluate in the process. The business process automation ecosystem makes every step easy. Here are some benefits of NEEDS that make the system easy and find out the result in accordance with the integrated business rules.

- **Adaptable process for testing eligibility for medicaid, APTC, SNAP, CSR, and CHP.** It evaluates each of them to find out the desired product. It covers all programs- Medicaid, APTC, CSR, CHP, and SNAP. The business rules management system addresses the entire process and simulates each step properly as per client's requirements. Also, it can be integrated with other system or technology.

- **Saves manual efforts and time.** NEEDS implementation with rules automation reduces the efforts and time drastically. A vast system with multiple eligibility services needs hundreds of man hours to implement through typical implementation. The engineered rule automation system makes it easy, simpler, and effective.

...Process and Workflow

- **Faster turnaround time.** The automation manages all data and information flow to meet the objective of the project successfully. NEEDS is all about to figure out the eligibility criteria of an applicant- whether he/she is eligible for scheme. And, the BRMS has supported NEEDS to calculate and find out the result in less time and budget.

Business Rules Automation

BRA could save lot of times and cost as its not typical hard-coded implementation all the workflow and rules could easily be written through Drool language.

Considering the scale of scheme it was critical that implementation has to be accurate that could save lot of resources and leakage of the scheme and this scheme reaches to deserved US citizens. Here are some of the objectives of overall Pericent team efforts:

- Reduce manual efforts to calculate the correct eligibility criteria

- Build an application to meet client specific and state specific requirements

- Evaluation of such complex household structure (including, blood relationship, tax relationship, etc.)

- Also, consider FPL size, FPL amount, and FPL percent calculation
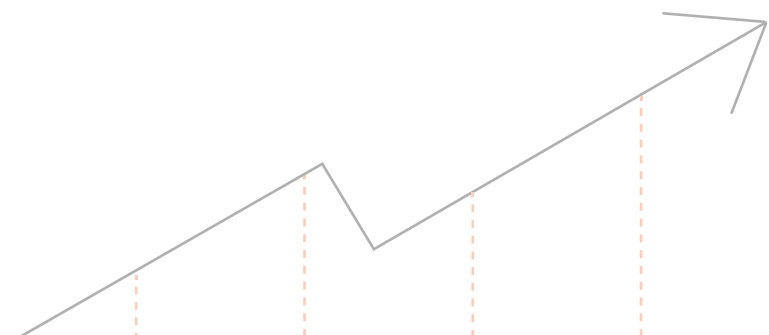
...Process and Workflow

- Meet compliance with different USA Eligibility Services-Medicaid, APTC, CSR, CHP, and SNAP.

- Matching all defined business rules marked for each eligibility

- Make it integration-enabled for other systems

- Successfully working to meet/exceed deadlines with faster execution time

Process and Rules Automation Effects on Business Case

Business rule automation made the entire process streamlined, integrated, and customizable. It helped Obamacare to become more efficient and effective scheme to implement on ground.

The result of NEEDS is shown on basis of FPL% and the eligibility will be displayed for Medicaid, APTC, CSR, CHP, and SNAP. And, automated NEEDS maximizes the efficiency of the legacy systems of entire architecture. Hence, it affected greatly and gained the access from the customers and other businesses/verticals.

In the whole, this BRMS implementation was able to evaluate the applicant's eligibility criteria more precisely with NEEDS to deliver the correct output.

Conclusion

Pericent Technologies designed and deployed **NEEDS** model to determine the eligibility criteria of Obamacare scheme for *'Connect for Health Colorado'* using BRMS implementation. It incorporates the 'automation' concept to simplify the flow of information and rule implementation across the entire architecture. Covering all the household structure of Americans, the project is designed to manage complex set of approximately **400 rules** to check eligibility.

Although there were complexity in terms of magnitude of the scheme and eligibility criteria based on various different parameters, BRMS approach really made things simpler and effective implementation of the case. Pericent team yet another time delivered successful solution which was hyper effective and greater agile.

Need process automation consultancy?
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About

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