LexisNexis Enhancements 2.19 December

FIRELIGHT BASE

Platform

LEXISNEXIS ENHANCEMENTS 2.19 DECEMBER

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Design Approach iConnect 226630 - LexisNexis Risk Classifier 2.0 Enhancement

Within this enhancement, a client would like to have the ability to call into LexisNexis to access their Risk Classifier Functionality. In order to accomplish this task, FireLight will need to add an additional Custom action call for this service that can be used prior to the app reaching 100% completion.

Upon selecting this button, the custom action call will be sending back scores, descriptions, and general information from the Motor Vehicle Department, Credit bureaus on the user that can be used by the company's underwriting department to return back a faster approval/rejection rating than what occurs today.

These scores and general information will also be available within the application's audit history and report, which can be referenced until the application's purge from FireLight.

Impacts:

Custom Action Parameter - the client will need to add in "LexisNexisRisk" in order to utilize functionality

Third Party Configuration - Adding in a new Service type

Data Group Properties - Addition of new properties

LexisNexis Usage Report - Adding in the action parameter to specify from InstantID

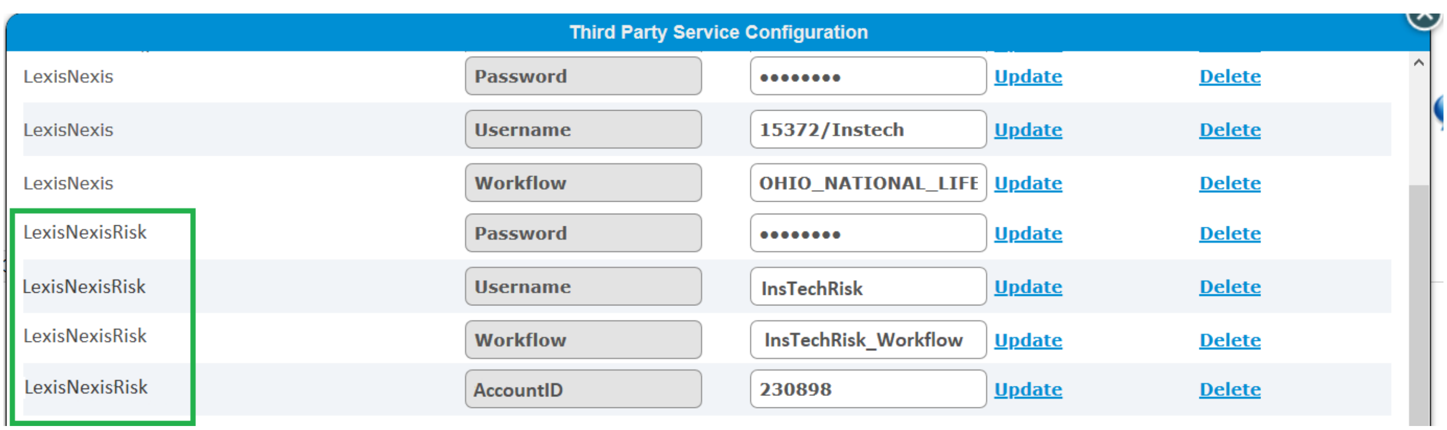
Audits - Addition of new codes needed for Risk Classifier

Provider - accessing the service request table from the provider

1.1 Add new service type for LexisNexis Risk Classifier in Third Party Configuration Table

The LexisNexis Risk Classifier will be a completely different call and will also supply each client with credentials separate from the RDP Platform and Instant ID. To accommodate this change, Firelight needs to add in a new service type into the Third Party Configuration Table.

This service type will be named "LexisNexisRisk" and will be available for all configurations and configuration values, however, the client should only need the Account ID and Client ID within this section.

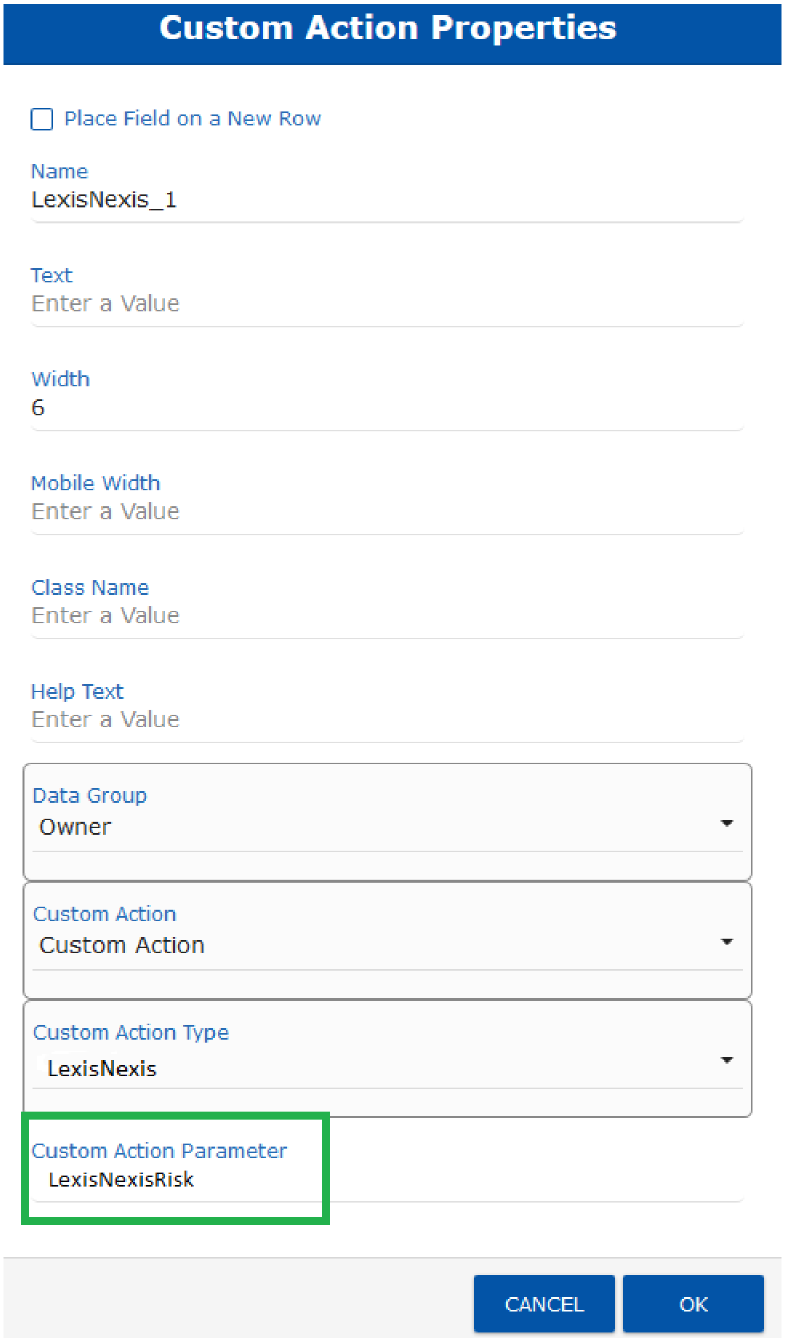


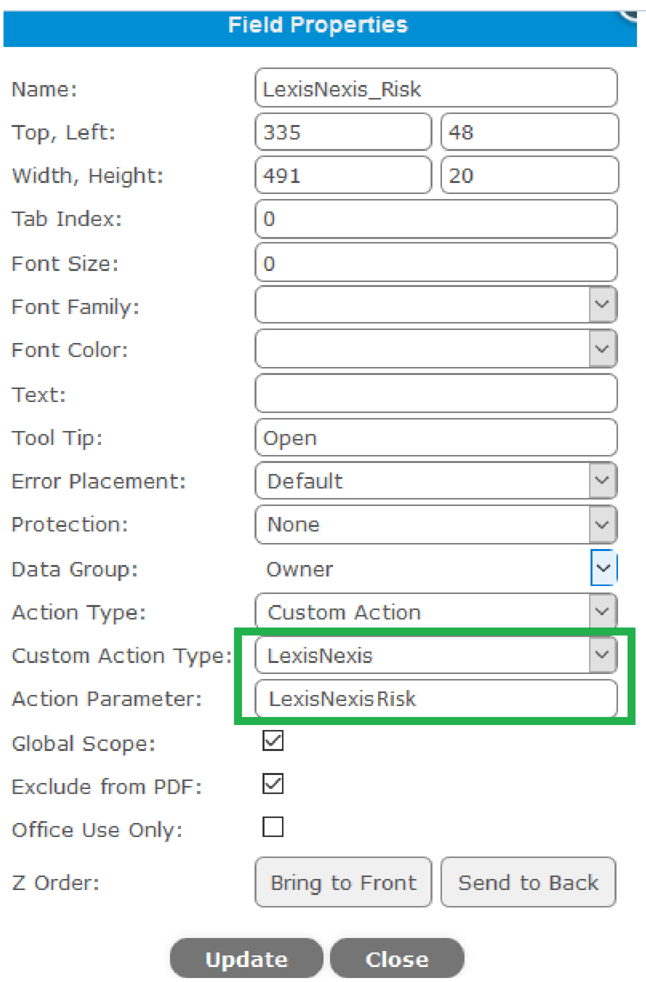
Acceptance Criteria

- "LexisNexisRisk" will be listed under the Service Type dropdown in the Third Party Configuration Table
- The "LexisNexisRisk" will be available for all configurations and configuration values
- "LexisNexisRisk" service type will not override the "LexisNexis" service type
- "LexisNexis" service type will not override the "LexisNexisRisk" service type
- AccountID and ClientID will be needed in this section from the clients.

1.2 Create a new Action Parameter for LexisNexis Risk Classifier

We will need to add "LexisNexisRisk" to the Action Parameter when a Custom Action is added onto a button function or a rule node through the form and wizard designer. The custom action type will still display as "LexisNexis", but the Action Parameter will allow the user to type in "LexisNexisRisk" into the textbox.


Custom Action Properties
Place Field on a New Row
Name
LexisNexis_1
Text
Enter a Value
Width
6
Mobile Width
Enter a Value
Class Name
Enter a Value
Help Text
Enter a Value
Data Group
Owner
Custom Action
Custom Action
Custom Action Type
LexisNexis
Custom Action Parameter
LexisNexisRisk
CANCEL
OK



Acceptance Criteria

- "LexisNexisRisk" will be allowed to be filled into the Action Parameter textbox when Custom Action is chosen in the Custom Action Dropdown
- The "LexisNexisRisk" will be added in the Action Parameter within the Forms View and the Wizard designer

1.3 Verify that Data Groups and Data Group Properties are set when LexisNexisRisk is chosen

When selecting LexisNexisRisk on the Data Group, the data group properties that are required to run the risk classifier are preselected so the property list needed are available:

-First Name
-Last Name
-Street Address
-City
-State
-Zip
-DOB
-Gender
-Age

-Policy State of Issuance

-Policy Face Amount

-Driver License state

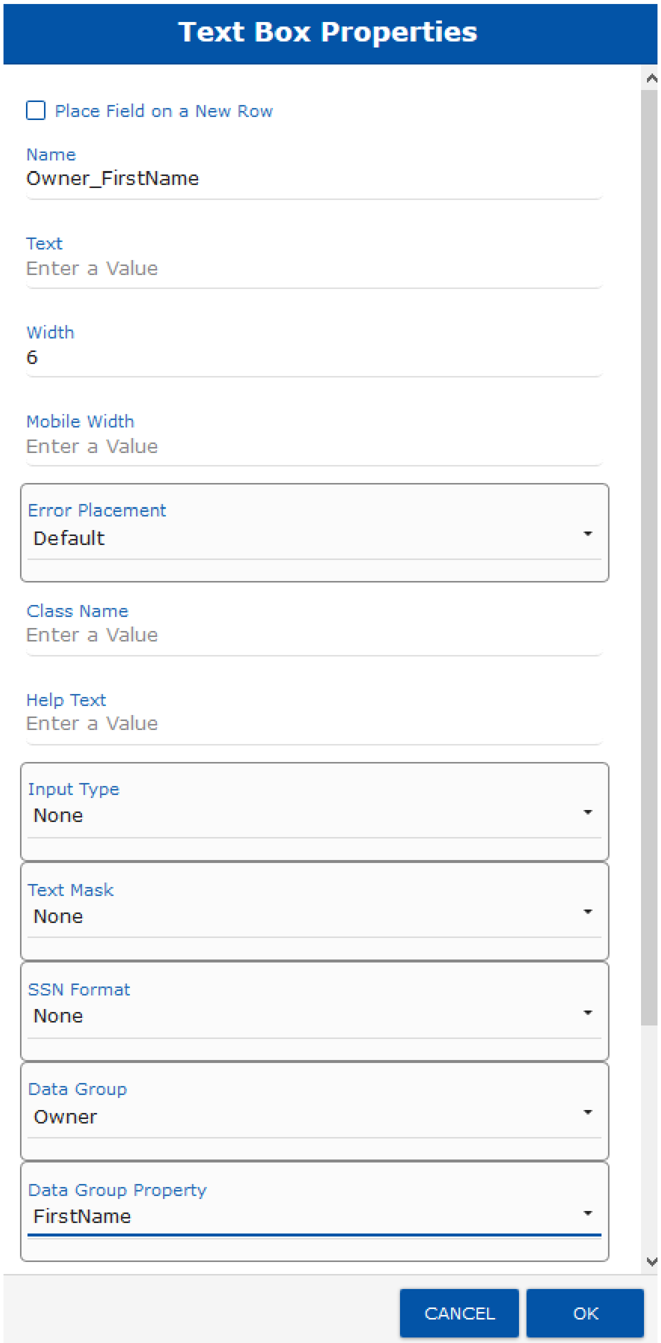
The following Data group properties are recommended to be added:

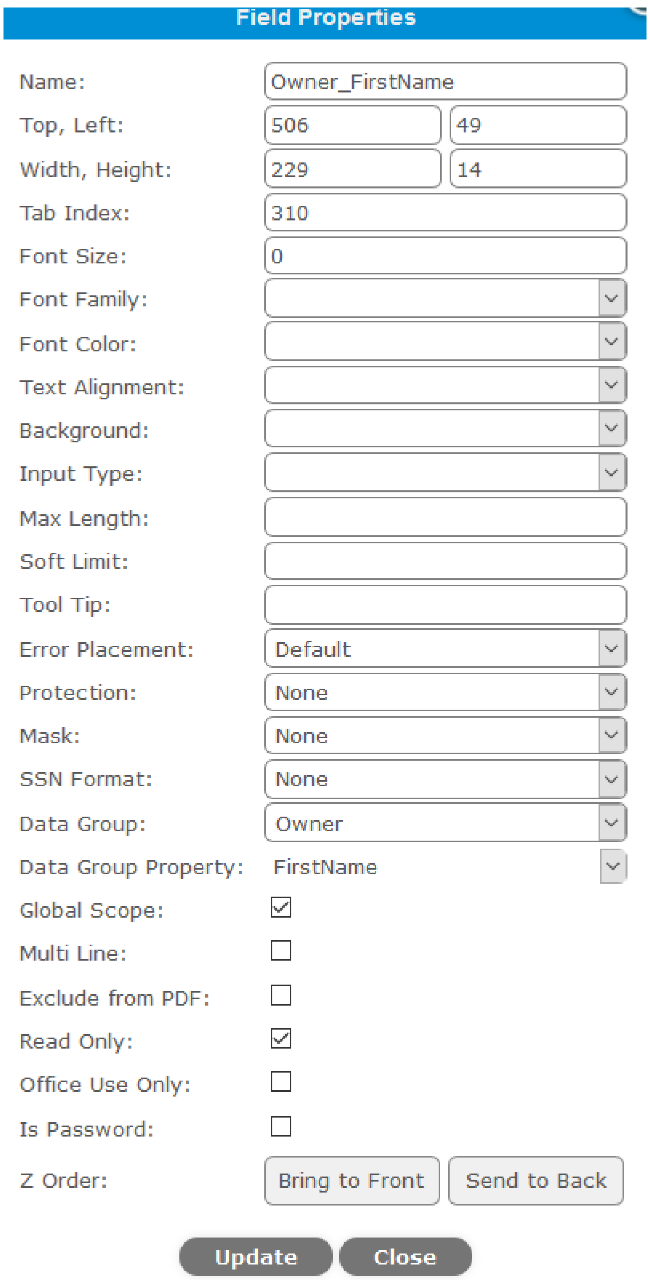
-SSN

-Driver License number

Policy State of Issuance, Policy Face Amount, Driver License State, and Driver License Number are all new for Data Group Properties, and will be added to accommodate Risk Classifier

This would be based on all signer types (excluding the Agent) that the client chooses through LexisNexisRisk. This could include but are not limited to Owner, Joint Owner, Annuitant, Joint Annuitant, and Payor.


Text Box Properties
Place Field on a New Row
Name
Owner_FirstName
Text
Enter a Value
Width
6
Mobile Width
Enter a Value
Error Placement
Default
Class Name
Enter a Value
Help Text
Enter a Value
Input Type
None
Text Mask
None
SSN Format
None
Data Group
Owner
Data Group Property
FirstName
CANCEL
OK



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Acceptance Criteria

- When Signer Type is chosen through the Data Group, the data group properties that are required are First Name, Last Name, Street Address, City, State, Zip code, DOB, Gender, Age, Policy State of Issuance, Policy Face Amount, and Driver License state

- The following Data group Properties are recommended: SSN, and Driver License number
- If Data groups and Data group properties are going to be used to identify LexisNexis values, they must have the Data groups and Data group properties set in the forms regardless of having it in the wizards.
- This functionality will work the same as the LexisNexisID functionality put in 2.17
- This functionality will work the same within the Forms and Wizard Designer

1.4 Create new Data Group Properties to use with LexisNexisRisk

LexisNexis will send the following data group properties to FireLight:

-Result Code

-Result Message (if applicable, this will apply to an error being sent back. If successful, this will be blank)
-Score
-Reason Code
-Description

-Policy State of Issuance

-Policy Face Amount

-Driver License Number

-Driver License State

These values need to be listed as the following within the data group properties:

LexisNexisRisk_Score

LexisNexisRisk_ReasonCode1

LexisNexisRisk_ReasonCode2

LexisNexisRisk_ReasonCode3

LexisNexisRisk_ReasonCode4

LexisNexisRisk_Description1

LexisNexisRisk_Description2

LexisNexisRisk_Description3

LexisNexisRisk_Description4

LexisNexisRisk_ResultCode

LexisNexisRisk_ResultMessage

LexisNexisRisk_OrderNumber

Policy_Issuance_State

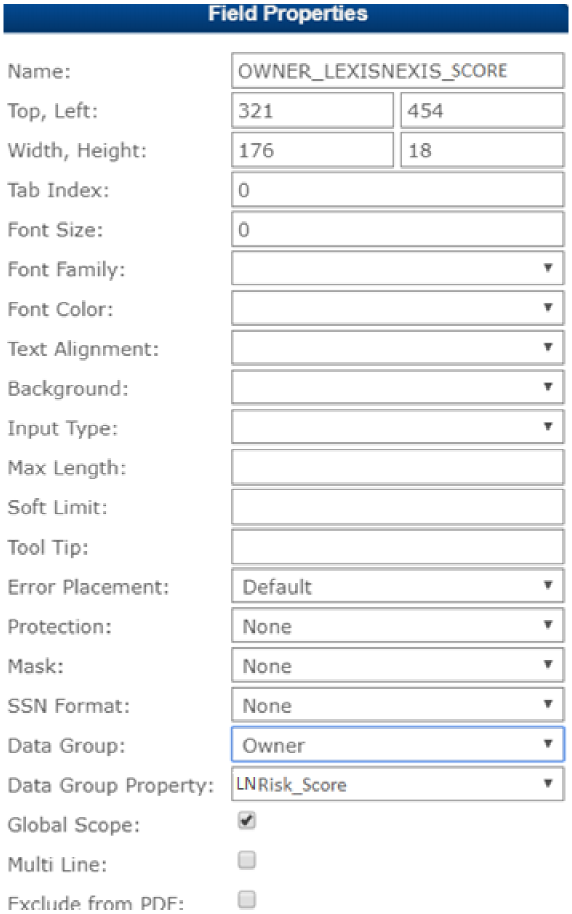
Policy_Face_Amount

DriverLicense_Number

DriverLicense_State

When the data is returned from LexisNexis, it'll be associated with the data group properties and data group.

Example: Data Group is set to Owner, the Data Group Property is set to LNRisk_Score. FireLight will populate that field with the value associated with the Owner's Score from the Risk Classifier. Client Defined dataitems can be used to create rules.



Field Properties		
Name:	OWNER_LEXISNEXIS_SCORE	
Top, Left:	321	454
Width, Height:	176	18
Tab Index:	0	
Font Size:	0	
Font Family:		
Font Color:		
Text Alignment:		
Background:		
Input Type:		
Max Length:		
Soft Limit:		
Tool Tip:		
Error Placement:	Default	
Protection:	None	
Mask:	None	
SSN Format:	None	
Data Group:	Owner	
Data Group Property:	LNRisk_Score	
Global Scope:	☑	
Multi Line:	☐	
Exclude from PDF:	☐	

Acceptance Criteria

- The custom action button has to be associated with the data group, and set to LexisNexis.
- Associate the Owner Risk Score with the Owner Data Group and the data group property of LexisNexisRisk_Score. Same for Annuitant, Insured, and Payor. This will apply to any data group that is associated with the data group property and matches the custom action button for the data group.
- Associate the Owner Reason Code with the Owner Data Group and the data group property of LexisNexisRisk_ReasonCode. There will be a total of 4 of these: LexisNexisRisk_ReasonCode1, LexisNexisRisk_ReasonCode2, LexisNexisRisk_ReasonCode3, and LexisNexisRisk_ReasonCode4. Same for Annuitant, Insured, and Payor. This will apply to

any data group that is associated with the data group property and matches the custom action button for the data group.

- Associate the Owner Risk Description with the Owner Data Group and the data group property of LexisNexisRisk_Description. There will be a total of 4 of these: LexisNexisRisk_Description1, LexisNexisRisk_Description2, LexisNexisRisk_Description3, and LexisNexisRisk_Description4. Same for Annuitant, Insured, and Payor. This will apply to any data group that is associated with the data group property and matches the custom action button for the data group.
- Associate the Owner Risk Description with the Owner Data Group and the data group property of LexisNexisRisk_ResultCode. Same for Annuitant, Insured, and Payor. This will apply to any data group that is associated with the data group property and matches the custom action button for the data group. This field will show an order number if the case was successful.
- Associate the Owner Risk Description with the Owner Data Group and the data group property of LexisNexisRisk_ResultMessage. Same for Annuitant, Insured, and Payor. This will apply to any data group that is associated with the data group property and matches the custom action button for the data group. This field will show any error messages (if applicable).
- Associate the Owner Risk Description with the Owner Data Group and the data group property of LexisNexisRisk_OrderNumber. Same for Annuitant, Insured, and Payor. This will apply to any data group that is associated with the data group property and matches the custom action button for the data group.
- Associate the Owner Risk Description with the Owner Data Group and the data group property of Policy_Issuance_State. Same for Annuitant, Insured, and Payor. This will apply to any data group that is associated with the data group property and matches the custom action button for the data group.
- Associate the Owner Risk Description with the Owner Data Group and the data group property of Policy_Face_Amount. Same for Annuitant, Insured, and Payor. This will apply to any data group that is associated with the data group property and matches the custom action button for the data group.
- Associate the Owner Risk Description with the Owner Data Group and the data group property of DriverLicense_Number. Same for Annuitant, Insured, and Payor. This will apply to any data group that is associated with the data group property and matches the custom action button for the data group.
- Associate the Owner Risk Description with the Owner Data Group and the data group property of DriverLicense_State. Same for Annuitant, Insured, and Payor. This will apply to any data group that is associated with the data group property and matches the custom action button for the data group.
- FireLight will associate form rules with client defined dataitems through data groups and data group properties

- This functionality will work the same within the Forms and Wizard view.

1.5 Add Provider Hook into Service Request Table

We will need to create a hook from the provider into the base system of the service request table in order to be able to send the Name/Value pair XML to the client. We will want to make sure that this hook could be limited in the information that it is pulling back, as we don't want to pull ALL of the information listed within this table. In doing this, we will not be creating any memory issues, or size limitations on what is sent to the client.

Acceptance Criteria

- A hook from the provider into the service request table will need to be created.
- With this hook, we'll want to make sure to be able to send only certain pieces of information, instead of all of the information listed

1.6 Using the Risk Classifier through LexisNexis

Firelight will be receiving back the Score, Reason Code, and Description from LexisNexis when it makes a web service call to LexisNexis. In order to capture this information, Firelight will need to do the following:

-The User will be able to utilize the score within the rules, and can use the data in a dataitem. These values can be used to prefill into an activity and trigger rules. As an example, the client can use the Score in the “background” to determine an underwriting decision.

-FireLight will utilize values sent back from LexisNexis to trigger error messages. If an error is sent back to Firelight, the response will state in the high level message what the error is related to. The client can take this information, and code within the form rules a message to return to the user on the error and what the next steps are to take.

Life Risk Classifier Model

Order Date: 08/06/2019
Complete Date: 08/06/2019

Report for MARK MARSUPIAL

Case ID: smoketest_TC1_L519	**Quoteback:** smoketest_TC1_L519	**Account:** 123456
Account Name:	**Reference Number:** 725942U360778	**Processing Status:** Complete

Score and Messages

Score:	687
Model:	L519
Model Description:	Life Risk Classifier Model 2.0

Reason Code:	Description:
0187	# of Credit Union, S&L or Mortgage Accounts Established
0145	# of Bank Revolving Accounts Established
0325	# of Department Store Accts Currently Paid as Agreed
0137	# of Retail Accounts Established

Acceptance Criteria

- Scores, Reason Codes, and description will be sent from LexisNexis to FireLight through a web service call to present to the client
- Scores can be used in writing form rules to determine client's underwriting decision.
- If an error occurs, Firelight will display the error and a high level description of that error. The client can then write form rules that will show the error message to the user, and the next steps they need to take.
- This functionality will work the same if being used through the forms or wizard view.

1.7 Save both Name/Value Pair XML and PDF to send Client

The Reason Code and Description will not be used in formulating the underwriting decision, however they need to be sent back to the client both in the name/value pair XML AND in a PDF format as part of the application package through the outbound process.

Add data to service request.

Store as encrypted.

Adding column to service request table.

Acceptance Criteria

- Scores, Reason Codes, and Descriptions will be sent to client via a name/value pair XML and a PDF image.

1.8 Audit: Verify Call and Receipt is displayed Audit history and Report

We will need to list out all of the actions taken with the LexisNexis Risk Classifier in the Audit history and report that is returned back to the client.

When the custom action button is selected to make a call to LexisNexis, a record will be captured stating, "FireLight made a web service call on behalf of {0} to LexisNexis Risk Classifier for the `{1}` for activity `{2}` and received {3} pdf reports {4}"

The {0} is the organization, {1} is the party information that needs to be represented, and the {2} is the activity name, the {3} would display the PDF name, and the {4} would be "with Order Number {5}". The {4} would only show when an order number has been received from LexisNexis.

Ex: FireLight made a web service call on behalf of Insurance Technologies to LexisNexis Risk Classifier for the `Annuitant` for activity `test riskclassifier - APM Test LN Service` and received score_result, national_credit_file, motor_vehicle_report pdf reports with Order Number G46541

If an error occurs, and no files are sent, a "no" will be added to show no reports were received.

Ex: FireLight made a web service call on behalf of Insurance Technologies to LexisNexis Risk Classifier for the `Annuitant` for activity `LN RC test - JB Forms Only` and received no pdf reports.

This message will display in both the audit history and the report.

Acceptance Criteria

- Within the Audit History, the record "FireLight made a web service call on behalf of {0} to LexisNexis Risk Classifier for the `{1}` for activity `{2}` and received {3} pdf reports {4}"
- Within the Audit Report, the record "FireLight made a web service call on behalf of {0} to LexisNexis Risk Classifier for the `{1}` for activity `{2}` and received {3} pdf reports {4}
- The {1} within the message represents the party information
- The {2} within the message represents the Activity Name
- The {0} within the message represents the organization
- The {3} within the message represents the PDF name that was received.

- The {4) says "with Order Number {5}" which {5} would be the Order number received from LexisNexis
- If No order number is received, {4} will not show in the message.
- If an error occurs, then "no" will be added in place of the {3} to show no PDFs were received.

1.9 Audit: List Actions of Risk Classifier Call in Audit Report

With the Risk Classifier call, we will be receiving back the LexisNexis information that includes - the Score, The Description, and the reasoning code; as well as the party information - Party Name and Party Type - and the time stamp that's associated with these values.

The score and the Reason codes will need to be displayed within the "Identity Verification Summary" within the Audit report for easy access. The description will be left off of the audit in order to protect the party's personal information.

Additionally, there could be 4 codes that are sent back with this information which will need to be displayed. If there is more than one, they will be separated by a comma.

Identity Verification Summary									
Timestamp (UTC)	Party Type	Party Name	LexID	CVI	NAP	NAS	Risk Reason Code	Risk Score	Status
7/15/2020 21:31	Annuitant	KAREN BOHEN	209485881 297				0187,0145,0325,0137	544	PENDING

Acceptance Criteria

- Risk Reason Code and Score will all display within the Identify Verification Summary section of the audit report
- The call can return back up to 4 codes which will all be captured within the report.
- If there are more than one code sent back in the Risk Reason Code section, they will be separated by a comma.

1.10 Report: Alter LexisNexis Usage Report

Instead of showing the "Status during time of call" on the LexisNexis Usage Report, we will need to change this header to "Service Type", possible values are "Quiz", "Instant ID" or "Risk Classifier". This information will now show the service that was called.

Additionally, we will also need to capture the QuoteBack that will be sent in the XML response from LexisNexis. This new column will be in between Conversation ID and Case Name, and will be called "Quoteback ID".

The Quoteback ID will need to be formatted by InsTech, and will be in the following order:

Application ID/Selling Org/Product Org/Application Name. This value will be up to 60 characters long.

Lexis Nexis Usage Report

Starting Date: Sat, 19 Sep 2020 23:59:59 GMT
Ending Date: Wed, 21 Oct 2020 23:59:58 GMT
Organization: Insurance Technologies

TransRefGuid	RefID	Date	Carrier	Distributor	DTI Number	Conversation ID	Quoteback ID	Case Name	Agent Name	User ID	Agent ID	Service Type	Submit Date
						Insurance Technologies							
3dfc9258-aa88-408c-b1da-8810f044d3cc	RH5QGF	10/21/2020 5:32:51 PM	3137	3137	Unknown	RH5QGF	3dfc9258-aa88-408c-b1da-8810f044d3cc/IT/12345678/For Jason	For Jason - APM Test LN Service - JET Case 1	it	97169529-c445-4f12-8b58-ddc6d2d7c3be	00000000-0000-0000-0000-000000000001		10/21/2020
8ccf8636-af0c-49dc-af32-57ff9a805ff9	RH5PCZ	10/21/2020 5:31:57 PM	3137	3137	Unknown	RH5PCZ	8ccf8636-af0c-49dc-af32-57ff9a805ff9/IT/12345678/For Jason	For Jason - APM Test LN Service	it	97169529-c445-4f12-8b58-ddc6d2d7c3be	00000000-0000-0000-0000-000000000001		N/A
8ccf8636-af0c-49dc-af32-57ff9a805ff9	RH5N0J	10/21/2020 5:29:56 PM	3137	3137	Unknown	RH5N0J	8ccf8636-af0c-49dc-af32-57ff9a805ff9/IT/12345678/New Applic	New Application - APM Test LN Service	it	97169529-c445-4f12-8b58-ddc6d2d7c3be	00000000-0000-0000-0000-000000000001		N/A
f0d11f3b-860a-45db-a4c8-e03f9abeb11b	RFVXPP	10/20/2020 9:15:47 PM	3137	3137	Unknown	RFVXPP	f0d11f3b-860a-45db-a4c8-e03f9abeb11b/IT/12345678/Service Ty	Service Type Test - APM Test LN Service	it	97169529-c445-4f12-8b58-ddc6d2d7c3be	00000000-0000-0000-0000-000000000001	Risk Classifier	N/A
f0d11f3b-860a-45db-a4c8-e03f9abeb11b	Unknown	10/20/2020 9:14:44 PM	3137	3137	Unknown			Service Type Test - APM Test LN Service	it	97169529-c445-4f12-8b58-ddc6d2d7c3be	00000000-0000-0000-0000-000000000001	Instant ID	N/A
381742bb-										97169529-	00000000-		

Acceptance Criteria

- "Service Type" will be listed in the LexisNexis Usage Report as a column between Agent ID and Submit Date
- The "Service Type" will list the service that was called, which can be "Quiz", "Instant ID" or "Risk Classifier"
- "Quoteback ID" will be listed between Conversation ID and Case Name
- Quoteback ID will list the following format: Application ID/Selling Org/Product Org/Application Name.
- Send a completed report to PO and Deb Cartwright

1.11 Additional Enhancements to the LexisNexis Risk Service Call

Additional enhancements that need to be made in order for the Risk Classifier calls to run more effectively:

1. Config change - FireLight will need to make a change to the Third Party Configuration for "ClientID" to add the organization specific value for the risk classifier endpoint which is provided by LexisNexis. As an example, if the client endpoint is https://t.decisioning.lexisnexis.com/instech_unitedlife/fmk, the ClientID value should be "instech_unitedlife".

2. SSN dashes - FireLight will need to parse out the dashes within the SSN formatting that are put in place on the application. This is needed as LexisNexis will count the dashes as a value, and will produce an error, as the SSN number will show as 11 digits instead of 9.

3. Parse zip code last 4 - LexisNexis is needing the last four digits of the zip code (which are optional to add) to be listed within an additional field. Since this value is usually connected with the zip code, FireLight will need to parse out the last 4 digits and add them to the "Zip4" field

Acceptance Criteria

- In the third party configuration table, the ClientID will also need to add the "instech_" added prior to the client name. Ex: instech_FireLight
- The SSN will be added to the FireLight forms, and if contain formatting, FireLight will strip the dashes out prior to the web service call to LexisNexis
- If the additional 4 digits for the zip code are added, they will be parsed out and added to a separate field called "zip4"

1.12 Risk Classifier Client Workflow - Implementation

Below is the workflow that is needed in order to complete the implementation process for clients:

LexisNexis functionality will be active based on the following dataitems: First Name, Last Name, Street Address, City, State, Zip code, DOB, Gender, Age, Policy State of Issuance, Policy Face Amount, and Driver License state. Clients will be able to associate these dataitems with the Risk Classifier, as well as write rules to customize this functionality (i.e. limit how many times the Risk Classifier service can be called, forcing the selection to run this service.)

The client can also be able to trigger the running of this service based on the use of the provider. This functionality is already hooked into the FSEB Provider class in the GetServiceResponse(), and can be accessed by an Integration developer. Along with any customized options through the provider, any information sent back from LexisNexis will need to be encrypted when sent through to the client through the outbound process. The PDFs will be embedded into the XML, but can be parsed out.

Ex: ////--- example on parsing out the formatted_report(pdf) from the LexisNexis RiskClassifier response ---

```
//System.Xml.XmlDocument doc = new System.Xml.XmlDocument();
//doc.LoadXml(response);
//Dictionary<string, string> pdfs = new Dictionary<string, string>();
```

```
////get all the formatted_report elements which contain the pdfs
//System.Xml.XmlNodeList elemList = doc.GetElementsByTagName("formatted_report");
//foreach (System.Xml.XmlNode node in elemList)
//{
//    pdfs.Add(node.ParentNode.Name, node.InnerText);
//}
```

The Underwriting Score will be sent back to FireLight, which can be utilized to push an activity to a review queue (if applicable).

Acceptance Criteria

- The Risk Classifier will be activated by specific dataitems, in which those dataitems can be used to write rules to customize a client's user experience.
- Client can use provider in order to trigger the Risk Classifier service
- Information passed back from LexisNexis (score, reasoning codes, descriptions) can also be used to send cases to the review queue, if applicable.
- All functionality will need to be built out the same for wizards and forms