Lender Desk Rules & Fees

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DOCUMENT OVERVIEW

Recognizing that you may be new to the Developer Portal, this guide provides step-by-step instructions on how to make requests using the "Test Client" within the Portal.

The operation sections provide details about the request and response attributes for the Lender Desk Rules and Fees operation **/rulesAndFees/{lenderId}**

The final section directs you to where you can get more integration information once you are ready to start developing your own application.

CONTACTING CLIENT SUPPORT

Client Support is available by phone toll-free at (800) 613-2224, Monday through Friday, from 5:00 a.m. to 9:00 p.m. Pacific Time. Saturday and Sunday from 5:00 a.m. to 5:00 p.m. Pacific Time, or you can reach Client Support by email at <u>lenderdesksupport@chromedata.com</u>.

USING THE DEVELOPER PORTAL TO MAKE REQUESTS

You access and use the Lender Desk Rules and Fees API using ChromeData's Customer API Portal <u>Customer API Portal (jdpower.com)</u> There are two ways to make requests using the Portal.

1. You can access and download the OAS (Open API Spec) version and make a request via Postman. This approach allows you to save and organize your webservice calls.

a. To locate the OAS version from the portal homepage, start typing the API name into the search bar or scroll down the page to locate the API (image below).

J.D. POWER CHROMEDATA	APIs	Hello, Lender Desk Client \vee	(i)	J.D. POWER AUTODATA SOLUTIONS
APIs				

LenderDesk Service		
Name	Description	Details
LenderDesk	Provides all incentives and rebates for research, shopping, listings and transacting at point of sale for all ICE	٥
Service	and EV vehicles.	

b. Click on the API name, LenderDesk Service in this case (image above) and then click on "Technical Docs" (image below). On the far right you will see the OAS Versions along with the WSDL.

J.D. POWER Chromedata	AP	Pls Hello, Lender Desk C	lient ~ (i)	J.D. POWER AUTODATA SOLUTIONS
API : LenderDes	k Service			
	Technical D	ocs		OAS 3.0 OAS 2.0 OAS 1.2 WSDL
Marketing Info Technical Docs >	Select API Version	v4.7.premium	~	
What's New Test Client	Security Guide Integration Guide	de		
Access	Release Notes			
Analytics V				

c. Click on the OAS Version you wish to download.

d. Alternatively, you can access the most recent OAS Version by clicking on "Test Client" and then clicking on the URL provided under the API service name (image below).



2. You can make a request using "Test Client" (information below). There are 3 types of requests within the Lender Desk API: **GET, POST & DELETE.** This section describes how to make a Post Rules and Fees request using the Test Client.

Executing a POST Request

The following provides step-by-step instructions on how to make a POST request to the Rules and Fees endpoint.

To execute a POST Request

1. On the Customer API Portal Homepage <u>Customer API Portal (jdpower.com)</u> click "APIs" or navigate to the search bar (screenshot below) and start typing the name of the service you wish to test.

HROME DATA	APIs Hello, Lender Desk Client V (i) J.D. POWER	LUTION
Pls		
LenderDesk Serv	ice	
LenderDesk Serv	Description	Details
		Details

- 2. On the Search Results page, click the hyperlink name for the Lender Desk API (shown in image above)
- 3. On the web service page, in the left navigation menu, click **Test Client**.

Test Client ▷	LenderDesk Service V4.7. premium OAS3
Access	https://portal.jdpower.com/wp-content/uploads/apidefs/69e2fae2-8007-4e01-9e95-2b120a78a97c.autodata_v4.7.premium.json
Analytics v	LenderDesk Service

4. On the Test Client page, scroll down to the rules-and-fees-controller, click the expand operation, and then click on the box (image below)



5. Click "Try it out", enter the *required parameters and then scroll down and click "Execute".

Note: The curl and request URL gets built based on the operation selected and the parameters required to support the endpoint.

POST /rules	sAndFees/{lenderId} Returns a list of rules and fees for a given lenderId	^ ∎
Parameters		Try it out
Name	Description	
expression string (query)	Identify the variation logic expression type <i>Example</i> : jsonLogic jsonLogic	
profileKey string (query)	profileKey	
type string (query)	Identify the type of data you want in the response <i>Example</i> : Rule	
	Rule	
lenderld * ^{required} string	Identifies the lender for which you want rules and fees returned.	

RULES AND FEES CONTROLLER

The **/rulesAndFees**/{lenderId} returns a list of rules and fees for a given lenderId.

Request

The /rulesAndFees/{lenderId} operation accepts the following request attributes.

Attribute	Description
lenderId	Identifies the lender for which you want rules and fees returned.

All content in this document is confidential information of ChromeData.

Response

The following table provides the attributes returned in the response for /rulesAndFees/{lenderId} operation.

Attribute	Description
Fees	List of fees to be applied to the deal being constructed
deliveryTypes	Array data type where the values are "Subvented Lease", "Non-subvented Lease", "Subvented Retail Finance", "Non-subvented Retail Finance"
lenderDetail	Contains an array of conditions (called "variations" to be evaluated in sequence (by variationOrder). Once a variation has been evaluated to be true, evaluation of further variations is not performed.
isElse	A boolean value that signifies that the jsonLogicExpression should be considered to be "true". It will likely be empty. No further evaluation is necessary. Vehicle and Region conditions must still be evaluated.
jsonLogicExpression	Variation conditions in jsonLogic format
mongoExpression	Variation conditions in mongo format
name	Name of the variation
note	String with additional information about the variation
regionName	Name given to the region value
regionValue	the FGD string that describes the region the variation covers
returnValue	Contains the return value based on the fees calculation
dataType	Contains data type of the return value.
expression	The expression that evaluates to the return value.
type	This can be Formula or Simple. If it is Formula, the return value must be evaluated at runtime. If it is Simple, the value will be a value of the specified data type.
unitOfMeasure	The unit of the return value.
spelExpression	Variation conditions in spel format
sqlExpression	Variation conditions in sql format
variationOrder	The order that the variations will be evaluated in
vehicleName	Name given to the vehicle value.
vehicleValue	The FVD string that describes the vehicles the variation covers.

All content in this document is confidential information of ChromeData.

Attribute	Description
lenderDetailld	Contains the Lender detail id.
lenderld	Contains the Lender Id for which rules and Fees returned.
name	Contains lender name of the rule or fee.
type	Contains the type of lender details. e.g., rule, fee
vehicleStatuses	Status of the vehicles where Rule or Fees is applied. e.g., New, Used, CPOV
Rules	List of Rules which includes details like lenderDetails, vehicleStatuses, etc.

RULES AND FEES OBJECT MODEL

Purchase

- > Info
 - DeliveryType: Possible values for this one can be Subvented Lease, Subvented Loan, Non-subvented Lease, Non-subvented Loan.
 - VehicleStatus: This defines the status of the vehicles where Rule or Fees is applied.
 e.g., New, Used, CPOV.
 - SellingPrice: This defines the selling price of the vehicle. Values will be of Integer or float data type and will be defined in dollars (\$).
 - PurchaseDate: This indicates the purchase date of the vehicle.
 - PurchaseType: This defines the type of the purchase of the vehicle. Possible values for this can be Loan, Lease.
 - Odometer: It indicates the number of miles a vehicle has traveled. Values will be in mi or km.

> LoanInfo

- LoanAmount: This indicates the total loan amount for the vehicle. Values will be of Integer or float data type and will be defined in dollars (\$).
- LoanAmountPct: Indicates the loan amount as a percentage of the selling price.
- MonthlyPayment: This indicates the amount which a customer will pay monthly for the Loan. Values will be of Integer or float data type and can be defined in dollars (\$).
- Term: This defines the term of the Loan. It will be defined in months.
- Markup: This is the percent markup applied by the dealer to the loan rate.
- LeaseInfo
 - CapCost: The amount of the purchase that is being capitalized in the lease calculation.
 Equal to the negotiated price, less incentives and down payment.

- Residual: Residual value is a predetermined estimate of what your vehicle will be worth when your lease is up.
- MontlyPayment: This indicates the amount which customer will pay monthly for the Lease. Values will be of Integer or float data type and can be defined in dollars (\$).
- Term: This defines the term of the Lease. It will be defined in months.
- Markup: Allowable Rate increase for lease contract by the dealer.

Consumer

- > Info
 - CreditScore: This defines the credit score of the consumer.
 - GroupAffiliations: Identifies the list of special groups that the consumer may be a member of. These groups sometimes have special discounts or fees waived. For example, military, student, first responder.

TYPES OF RULES AND FEES

Rules

Туре	Description
Amount Financed - Minimum and Maximum	The actual amount of approved credit extended to a borrower in a loan from a lender, and if accepted, requires repayment by the borrower. Can be represented a minimum/maximum amount to finance. These values should be used as guard rails.
Acquisition Fee - Waiver	Allowing the customer to waive the acquisition fee. Can come with a mark up to cover the fee.
Dealer Reserve	Reserve is when a financing company pays the dealer, either a percentage of the total amount a customer finances through them on a deal, or a flat amount.
Dealer Reserve Max	This is called a finance reserve and although most lenders cap the markup to a maximum of 2.5%, there are some that allow dealers to add much more than that
Dealer Reserve Split	Reserve split is a rate markup split (i.e 80/20; 50/50) with a maximum mark-up example of 2%
Excess Mileage at Termination	If a lessee exceeds his/her allotted mileage, then at the end of the lease he/she will have to pay an excess mileage fee. This fee is usually between \$0.10 and \$0.30 for every mile a lessee drives over the limit.
FICO	Score used to assess credit risk, assign a borrower's APR rate finance fee, and determine whether to extend credit.
Flat Reserve	Dealers make their commission through what is known as a finance reserve. This is an extra percentage added to your interest rate - usually 1 to 3%. A flat reserve is a flat percentage or dollar amount paid to the dealer for an indirect loan.
Max Advance	If the LTV Ratio is equal to or greater than the Maximum Advance Rate (a "Collateral Shortfall"), the Borrower shall have one (1) Business Day to cause the LTV Ratio to be less than or equal to the Minimum Advance Rate, or for so long as Borrower elects to pay the Mid-Point Advance Rate.

Туре	Description
Max Cap	Some states have laws that limit the interest rate that can be charged on car loans. However, some car loan markups violate state rate caps
Max LTV	It depends on the lender, but across the auto industry the most common LTV max is 125% to 130% of a vehicle's retail value — which is the car's "for sale" value. In other words, if your car's retail value is \$10,000, you could still potentially get approved for a \$13,000 refinance loan (LTV of 130%)
Minimum and Maximum Security Deposits	Several Lenders provide the ability to take multiple deposits helping to lower the cost of the lease.
Maximum Security Deposit Waived	The total number of security deposit allowed by the lender to be waived.
Rate Markup	Dealers make a commission known as the "dealer reserve" or "finance reserve" for arranging an auto loan for a car buyer. The dealer adds 1-2% to the bank's interest rate, which can cost hundreds or even thousands of dollars. Dealers have no obligation to tell you how much they're marking your loan up by
Rate Markup Increment	
Reserve	This is called a finance reserve and although most lenders cap the markup to a maximum of 2.5%, there are some that allow dealers to add much more than that
Reserve Split	Reserve split is a rate markup split (i.e $80/20$; $50/50$) with a maximum mark-up example of 2%
Miles at inception	At lease inception, additional mileage can be purchased at a reduced rate of 0.20¢ per mile and rolled into your monthly payment.

*We strive to keep rules as static as possible but please note this list is subject to change.

Fees

Туре	Description
Acquisition Fee	A charge from a lender or lessor to cover the expenses incurred for arranging a loan or lease agreement
Dealer Participation	Dealer participation involves dealers setting the finance charge above the rate at which a bank or finance company has indicated it might be willing to buy a contract; the dealer keeps a portion or all the difference.
Disposition Fee	A fee charged by some dealers and lessors at the end X of a car lease. The disposition fee charges consumers for returning vehicles, and the fees paid go towards the cost of making sure the vehicle is road worthy before reselling it
Flat Fee	This involves moving from a rate markup point percentage replacement with switching from a rate markup to a flat fee in part because of recommendations from the Consumer Financial Protection Bureau
Excess Mileage	Fees you will pay to the finance provider if you go over your pre-agreed mileage allowance. The excess mileage charge is in dollars per mile. Put simply, the more you go over your pre-agreed mileage, the more it will cost you in excess mileage charges.

Туре	Description
Max Advance Add Ons	Add-on products that consumers can purchase when they purchase and finance a vehicle. These add-ons need to qualify based on the LTV max advance rate and credit tier qualification rules. For example, guaranteed asset protection (GAP) products offer to help pay off an auto loan if the car is totaled or stolen and the consumer owes more than the car's depreciated value.
Max Back End	Back-end DTI (debt-to-income), sometimes called the back-end ratio, calculates the percentage of gross income going toward additional debt for vehicle loans.
Purchase Option Fee	Purchase option/buyout/disposition fee
Security Deposit	Amount paid by the Customer on pick up of the Vehicle to cover any Liability or other amounts owed by the Customer under this Agreement.
Termination Fee	An auto lender can charge you up to 2% of the remaining loan balance as a prepayment penalty. That means if you still owe \$10,000 on your loan when you decide to close it, you will have to pay \$200 as an early payment penalty.

INTEGRATING WITH THE SERVICE

Once you are ready to start developing your application, you must properly secure your usage of services by integrating a security token protocol into the Authorization header of the request to the service. The Shared Secret Security Protocol guide describes how to do this.

To access the Shared Secret Security Protocol guide:

- 1. Once you have registered, sign into the portal Customer API Portal (jdpower.com)
- 2. On the portal homepage, scroll down and click the hyperlink name for an API.
- 3. On the web service page, in the left navigation menu, click "Technical Docs"
- 4. Click on "Rules and Fees" to open the integration guide.

API : LenderDesk Service

