MORTECH®

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Mortech API 3rd Party Integration Guide

This Marksman 3rd Party Integration Guide is intended for 3rd party developers who wish to integrate Marksman's pricing and eligibility features into their product.

Endpoint

https://thirdparty.mortech-inc.com/mpg/servlet/mpgThirdPartyServlet

Support

apisupport@mortech-inc.com, support@mortech-inc.com, or call 402-441-4647.

We suggest you download the application "Postman" to easily manipulate and test API requests.

Request Limits:

Up to 5,000 requests per hour at a max rate of 1.5 requests per second

JWT Authentication

Mortech uses JSON Web Token (JWT) authentication for API services. This document assumes you have successfully accessed Mortech's Authentication API service. Please review Mortech's JWT API Authentication documentation for information on how to authenticate with our APIs. More information on JWT technology can be found at https://jwt.io/introduction/. The general steps are as follows:

1. The partner generates a signed JWT

2. The partner calls Mortech's Auth API with the JWT as a Bearer token of the `authorizationtoken` header

3. The Auth API responds with a new `authorizationtoken`

4. The partner can then make multiple requests to various Mortech API endpoints using the token for a period of time until the token expires.

5. When the `authorizationtoken` expires, the partner will get a 401-response code with an "Unauthorized" message at which time they need to create a new JWT and request a new access token

Parameter name accuracy is critical and field names are case sensitive.

Header Parameters

Header Parameter	Description	Required
`authorizationtoken`	Temporary `authorizationtoken` obtained from Mortech JWT Auth API	Y
`x-api-key`	Partner API key provided by Mortech	Y

Request Parameters

Parameter	Description	Required
`request_id`	Identifier for the type of request 1 = Best Offer Strategy request, product reprice request 2 = Investor query (returns all investors available for view in account) 3 = Product query (coupled with `parent_id`, returns available products for that investor) 7 = Rates page	Y
`customerId`	Marksman `customerId` provided by Mortech.	Y
`thirdPartyName`	`thirdPartyName` is required to access the Mortech 3rd Party interface. This will be issued by Mortech.	Y
`emailAddress`	Email address of the user account performing the query. Used to associate a user account to the request for user specific pricing options and loan scenario defaults.	Y
`loan_amount`	Loan amount.	Y

Parameter	Description	Required
`defaultBranch`	-1 = Corporate only Any others work with your Customer Success Manager to gather the appropriate IDs for your branches.	N
`lo_pwd`	Password for the Marksmen user associated with the given `emailAddress`. (optional field)	N
`exportURL`	URL location for 3rd party XML export (only applicable for screen pop).	N
`exportType`	Expected behavior for export: (only applicable for screen pop) 0 = XML exported to `exportURL` 1 = XML displayed in pop up confirmation box 2 = XML sent back to Encompass LOS System	N
`showAllLockPeriods`	Flag to show `ratesheet_price` for all lock periods. 0 = No (default) 1 = Yes	N

HTTP Post Request – Best Offer Strategy:

Below is a list of required parameters for the Best Offer Strategy (BOS) request. This request will return a set of products defined by the lender's BOS.

The lender's BOS is defined by associating up to five products to one of the `loanProducts` listed below.

Parameter	Description	Required

`loanProduct1`
`loanProduct2`
`loanProduct3`
`loanProduct4`
`loanProduct5`
	One of the following products:
	
	• 10 year fixed
	• 15 year fixed
	• 20 year fixed
	• 25 year fixed
	• 30 year fixed
	• 40 year fixed
	• 6 mo. ARM/30 yrs
	• 1 year ARM/30 yrs
	• 2 year ARM/30 yrs
	• 3 year ARM/30 yrs
	• 5 year ARM/30 yrs
	• 7 year ARM/30 yrs
	• 10 year ARM/30 yrs
	• 5 year balloon/30 years
	• 7 year balloon/30 years
	• 10 year balloon/30 years
	• Other products
	
	Request multiple products in a single request by using `loanProduct1`, `loanProduct2`, and `loanProduct3`.
		Y

HTTP Post Request - Product Reprice:

Below is a list of required parameters for the product reprice request. This request returns pricing for a product or set of products as defined by the `productList` parameter.

Parameter	Description	Required
`productList`	Comma-delimited list of product ID's. This parameter can be used in conjunction with the `loanProduct` parameters listed above. Available product ID's can be found by performing a `request_id=3` call.	Y

HTTP Post Request - Optional Parameters

Parameter	Description	Priority	Required
`ltv`	Loan to value (decimal value). This value is ignored if the `appraisedvalue` parameter is passed.	1	N
`cltv`	Combined loan to value (decimal Value).	2	N
`appraisedvalue`	Appraised value of subject property. If passed, the `appraisedvalue` parameter is used to calculate LTV.	2	N
`downPayment`	Amount of down payment.	2	N
`fico`	FICO score For non-traditional credit, enter 0	1	N
`annualIncome`	Borrower's annual income	3	N
`selfEmployed`	Indicator that borrower is self employed	3	N

Parameter	Description	Priority	Required
`loanpurpose`	0 = Purchase (default) 1 = Rate/term refinance 2 = Cash-out refinance 6 = Streamline without credit without appraisal 7 = IRRRL without credit without appraisal 12 = Streamline with credit with appraisal 13 = IRRRL with credit with appraisal 14 = Purchase – HUD REO 15 = Streamline with credit without appraisal 16 = Streamline without credit with appraisal 17 = IRRRL with credit without appraisal 18 = IRRRL without credit with appraisal	1	N
`cashOutReason`	Only applies when `loanpurpose` = 2 (cash-out refinance) 0 = Other (default) 1 = Student loan repayment	3	N
`propertyCountyFips`	5-digit code representing the State and County. Valid FIPS codes can be found on the [FHFA Conforming Loan Limits Website](#). When `propertyCountyFips` is included as a parameter in the request, any values sent in the `propertyState` or `propertyCounty` fields will be ignored and overwritten. If an invalid FIPS code is sent, then the API will return an error. If no value is sent for `propertyCountyFips`, then the API will return an error.	1	N
`propertyState`	Property state abbreviation. If blank, will defer to user's default state in User Setup.	2	N

Parameter	Description	Priority	Required
`propertyZip`	Zip code of which the property resides.	2	N
`propertyCounty`	County in which the property resides.	3	N
`DTIPercent`	Debt to income ratio percent value. Example: 30 = 30% DTI	2	N
`occupancy`	0 = Owner occupied (default) 1 = Non-owner occupied 2 = Second home	2	N
`taxes`	Estimated monthly taxes.	4	N
`insurance`	Estimated monthly hazard insurance premium.	4	N
`closingDate`	Proposed closing date, yyyy-MM-dd format. Used to calculate annual taxes and insurance and provide in `fee_list`. Must be provided for this feature to be included.	4	N
`firstPaymentDate`	Proposed first payment date, yyyy-MM-dd format. This will be the 1st of X month, this can never be anything other than the 1st. Used to calculate annual taxes and insurance and provide in `fee_list`. If refiance loan purpose – If tax payment is due between `closingDate` and `firstPaymentDate` or Taxes are due same month as `firstPaymentDate` `annualTaxes` / payments per year is added as line item in prepaid costs. Must be provided for this feature to be included.	4	N

Parameter	Description	Priority	Required
`HOIDueDate`	Homeowner's insurance payment due date, yyyy-MM-dd format. Used to calculate annual taxes and insurance and provide in `fee_list`. If purchase loan purpose - HOI Yearly amount add as line item in prepaid costs. If refiance loan purpose – If `HOIDueDate` is within 60 days of closing date, add `HOIYearlyAmount` (annualInsurance) * 1.25 as a line item in prepaid costs. Must be provided for this feature to be included.	4	N
`proptype`	0 = 1 unit 1 = 2 unit 2 = 3 unit 3 = 4 unit 4 = Co-op 5 = Manufactured home 6 = Warrantable condo < 5 stories 7 = Warrantable condo 5-8 stories 8 = Warrantable condo > 8 stories 9 = Non-warrantable condo < 5 stories 10 = Non-warrantable condo 5-8 stories 11 = Non-warrantable condo > 8 stories 12 = Condotel condo < 5 stories 13 = Condotel condo 5-8 stories 14 = Condotel condo > 8 stories 15 = Townhome 20 = Detached condo	2	N

Parameter	Description	Priority	Required
`parent_id`	Comma-delimited list of investors to consider. If this value is not sent, then all investors configured in an account are used.	4	N
`view`	Number of investors to display per rate. Default is single best investor. If more than a single result is desired for each rate result, pass 2, 3, 4, or 5. This functions in the same way as the `view` field in Marksman.	4	N
`pmiCompany`	-999 = Best execution 2 = Genworth 8 = MGIC 9 = UG 10 = Radian Standard 12 = Arch MI Credit Union 15 = MGIC C.U. 17 = Essent 18 = MGIC Live Pricing 19 = MGIC C.U. Live Pricing 20 = UG Live 19627 = National MI Live 19629 = Arch MI Live 20448 = Essent C.U.	3	N
`noMI`	No mortgage insurance option. -1 = N/A 0 = Standard 2 = LPMI 35, 30, 25, 22, 20, 18, 17, 16, 12, 6 (%)	3	N
`financeMI`	0 = Do not finance MI in loan amount 1 = Finance MI in loan amount	3	N

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October 8 2024

Parameter	Description	Priority	Required
`includeUpfrontFee`	Flase = (default) Do not include single premium MI, FHA MIP, or VA funding fee in `fee_list`. True = Include single premium MI, FHA MIP, or VA funding fee in `fee_list`.	4	N
`coverageType`	1 = Monthly premium 16 = Single premium 19622 = Single refundable	3	N
`filterId`	Filter identifier provided by the lead source or created within Marksman.	3	N
`leadSource`	One of the lead source identifiers listed below: 0 = Marksman (default) 1 = LendingTree For additional lead source IDs, please contact your Mortech Customer Success Manager.	3	N
`noclosingcost`	Check box to only display no closing cost loans. 0 = No (default) 1 = Yes	4	N
`rebateAmount`	Rebate amount to be given to the borrower in dollars.	4	N
`targetPrice`	If provided, the query will return only the rate this target price (par = 0pts, 1 = 1pt discount, -1 = 1pt premium). Default value is par. -999 will return all available rates.	3	N
`minrate`	Minimum rate returned in the results set.	5	N
`maxrate`	Maximum rate returned in the results set.	5	N
`interestOnly`	If provided, the query will return products that offer payments only to the interest for a short period. (0 = No (default) , 1 = Yes)	5	N

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Parameter	Description	Priority	Required
`firstTimeHomeBuyer`	0 = No 1 = Yes	3	N
`amiLlpaWaiver`	0 = No 1 = Yes	3	N
`deliveryType`	0 = Best efforts 1 = Mandatory (if enabled in Marksman) -1 = Best efforts and mandatory	4	N
`lienPosition`	1 = 1st lien 2 = 2nd lien	4	N
`lockindays`	15 = 15 day lock 30 = 30 day lock 45 = 45 day lock 60 = 60 day lock 75 = 75 day lock 90 = 90 day lock 120 = 120 day lock 150 = 150 day lock 180 = 180 day lock 270 = 270 day lock 360 = 360 day lock	3	N
`waiveescrow`	Waive escrow 0 = No (default) 1 = Yes	3	N
`vaType`	0 = Regular military 1 = National Guard/Reserves 2 = Exempt	3	N
`subsequentUse`	0 = First time use 1 = Subsequent use	3	N

Parameter	Description	Priority	Required
`program`	Subordinate financing 0 = None 1 = Subordinate financing 2 = Sub Fin/community second	3	N
`profitTable`	Profit table to be applied to this query, overriding the default profit table defined for the product and investor.	5	N
`includeCompliance`	Adds compliance checks for each quote in the results. 1 = Yes 0 = No	5	N
`lenderPaidYSP`	1 = Yes 0 = No	5	N
`ignoreProductMapping`	Ignores product mapping for Freddie/Fannie products (ex. `productId = 4` only returns Fannie products). Marksman user needs to have product grouping disabled in Marksman settings for this to be available. 1 = Yes 0 = No	5	N
`strictEligibility`	True (default) = loan criteria, wholesale rates, and settings description displayed when product and pricing is unavailable. False = loan criteria, wholesale rates, and settings description removed when product and pricing unavailable.	5	N

XML Response:

Tag	Attribute	Description
`errorNum`		Error number, possible values are listed below: 0 = Success -1 = Unauthorized 3rd party -2 = Missing required parameter -3 = Marksman user not found -999 = System error
`errorDesc`		Description of the error as defined above.
`results`	`index`	Results tag index.
	`product_group_id`	Product group id showing the product group used when inquiring for rates.
	`product_id`	Numeric identifier of the loan product.
	`size`	Number of results within the results tag.
	`product_name`	Name of the loan product.
	`lockTerm`	Lock-In period of the quote, measured in days.
	`termType`	Product term type. Fixed or Variable.

Tag	Attribute	Description
`quote`	`parent_id`	Numeric identifier of the investor.
	`product_id`	Unique ID of the specific product returned.
	`vendor_name`	Name of investor.
	`vendor_product_name`	Name of the product as defined by the investor.
	`vendor_product_code`	Investor specific product code defined for the loan product.
	`docType`	Documentation type for the product.
	`creditGrade`	Credit grade for the product as defined by the investor.
	`productDesc`	Description of the loan product.
	`productTerm`	Term of the product, measured in years.
	`initialArmTerm`	Initial ARM term, measured in months.
	`pricingStatus`	Description for investor pricing status. Marksman includes options to disable pricing for "Update in progress" and "Expired pricing".
	`IntOnlyMonths`	Number of months interest only.
	`ARMIndex`	ARM Index (UST, LIBOR)
	`lastUpdate`	Date and time that the rate was last updated for the quoted vendor and product.

Tag	Attribute	Description
`quote_detail`	`rate`	Quote rate.
	`price`	Quote price/points.
	`apr`	Quote APR.
	`prepayType`	Type of prepay.
	`margin`	Quote margin.
	`piti`	Total payment for the quote, including principle, interest, taxes, and insurance.
	`lockURL`	URL used to lock the rate quoted with Mortech's Lock-In Pro product.
	`originationFee`	Origination fee included in the quote.
	`downPayment`	Down payment required.
	`loanAmount`	Total loan amount for quote.
	`cap1`	Initial ARM cap.
	`cap2`	Yearly ARM cap.
	`cap3`	Lifetime ARM cap.
	`upfrontFee`	FHA/VA upfront fee.
	`monthlyPremium`	FHA/MI monthly premium.
`ratesheet_price`		Base price listed on the investor's rate sheet prior to any adjustments.
`adjusted_ratesheet_price`		Adjusted rate sheet price visible to the loan officer.
`srp`		Service release premium as define by the investor for the quoted product.
`intra_day_adjustment`		Adjustment applied administratively by the Marksman account administrator.

Tag	Attribute	Description
`adjustments`	`total_price_adj`	Total amount of all adjustments applied to the price.
	`total_rate_adj`	Total amount of all adjustments applied to the rate.
`adjustment_detail`	`desc`	Description of the adjustment.
	`price_adj`	Adjustment applied to the price.
	`rate_adj`	Adjustment applied to the rate.
`special_bonuses`	`total_special_bonus_adj`	Total amount of all special bonuses applied to the quote.
`special_bonus_detail`	`desc`	Description of the special bonus applied to the price.
	`price_adj`	Value of special bonus adjustment applied to the price.
`cost_and_profit`	`profit_table`	Name of profit table applied to the quote.
	`total_cost_profit_dollar`	Total costs and profit defined in the applied profit table, displayed as dollar value.
	`total_cost_profit_percent`	Total costs and profit defined in the applied profit table, displayed as a percentage of the loan amount.

Tag	Attribute	Description
`profit_detail`	`total_profit_percent`	Total profit defined in the applied profit table, displayed as a percentage of the loan amount.
	`total_profit_dollar`	Total profit defined in the applied profit table, displayed as a dollar value.
`planned_profit`	`profit_percent`	Base profit defined in the applied profit table, displayed as a percentage of the loan amount.
	`profit_dollar`	Base profit defined in the applied profit table, displayed as a dollar value.
`profit_adjustment`	`percent_adj`	Profit adjustment applied, displayed as a percentage of the loan amount.
	`dollar_adj`	Profit adjustment applied, displayed as a dollar value.
`rounding_profit`	`profit_percent`	Additional profit due to rounding, displayed as a percentage of the loan amount.
	`profit_dollar`	Additional profit due to rounding, displayed as a dollar value.
`costs_detail`	`total_costs_percent`	Total costs defined in the applied profit table, displayed as a percentage of the loan amount.
	`total_costs_dollar`	Total costs defined in the applied profit table, displayed as a dollar value.

Tag	Attribute	Description
`planned_costs`	`costs_percent`	Base costs defined in the applied profit table, displayed as a percentage of the loan amount.
	`costs_dollar`	Base costs defined in the applied profit table, displayed as a dollar value.
`costs_adjustment`	`percent_adj`	Costs adjustment applied, displayed as a percentage of the loan amount.
	`dollar_adj`	Costs adjustment applied, displayed as a dollar value.
`fee_list`	"Origination Fee"	Fee defined by the Lender.
	"Underwriting Fee"	Fee defined by the Lender.
	"Appraisal Fee"	Fee defined by the Lender.
	"Credit Report"	Fee defined by the Lender.
	"Flood Certification"	Fee defined by the Lender.
	"Title – Settlement Agent Fee"	Fee defined by the Lender.
	"Title – Insurance Binder"	Fee defined by the Lender.
	"Title – Lenders Title Insurance"	Fee defined by the Lender.
	"Title – Title Search"	Fee defined by the Lender.
	"Prepaid Interest"	Fee defined by the Lender.
	"Recording Fees"	Fee defined by the Lender.
	"Transfer Tax"	Fee defined by the Lender.
	"Title – Owners Title Insurance"	Fee defined by the Lender.
		Additional fields available as defined by the lender.

`mi_detail`	"company_name"	MI company name
	"quote_id"	Quote ID from the MI company
	"upfrontFee"	MI upfront fee
	"upfrontFeePercent"	MI upfront fee percentage
	"monthlyPremium"	MI monthly premium
	"monthlyPremiumPercent"	MI monthly premium percentage
	"monthlyPremiumRenewalPercent"	MI monthly premium renewal percentage
	"monthlyPremiumPeriod"	MI monthly premium period
	"monthlyPremiumRenewalPeriod"	MI monthly premium renewal period
	"monthlyPremiumTermination"	MI monthly premium termination
`comments`		Contains warnings discovered while verifying eligibility.

Tag	Attribute	Description
`eligibilityCheck`		Pass/fail value indicating whether or not the quote passed DNA eligibility checks.
`productSummaryLink`		URL to view eligibility summary for the quote. This field posts a blank response.
`productGuidelineLink`		URL to view investor guidelines for the quote.
`exception`		If Marksman is unable to produce a quote for a requested product, the exception tag will appear detailing why Marksman was unable to produce a quote.
	`parent_id`	Numeric identifier for the investor.

Error Codes:

Error Code	Description	Reason
0	Success	
-1	Unauthorized 3rd party	3rd party credentials passed in the web call are incorrect.
-2	Missing required parameter	One or more required parameters are missing from the web call. Please refer to the top of the document for a list of required parameters.
-3	Marksman user not found	`emailAddress` parameter passed does not map to a valid Marksman user account.
-999	System error	An unexpected error has occurred, or the service is temporarily unavailable.

Examples:

Request:

Only the required parameters are passed. In this scenario, the request is for a 30 year fixed program. The Best Offer Strategy defined within Marksman produces quotes for a 30 Year Fixed, 15 Year Fixed, and 5 Year ARM. This scenario would most likely be used to price internet lead sources such as LendingTree:

```
curl -i -X GET \-H "authorizationtoken:bc66d0bf6f9...7f87375159a" \-H
"x-api-key:klh2asdf...84h38" \'https://thirdparty.mortech-inc.com/mpg/
servlet/mpgThirdPartyServlet?request_id=1&customerId={{customerId}}&
thirdPartyName={{thirdPartyName}}&emailAddress={{emailAddress}}&
loan_amount=500000&propertyState=CA&loanProduct1=30 year fixed&
loanProduct2=15 year fixed&loanProduct3=5 year ARM/30 yrs'
```

Response:

```
<?xml version="1.0" ?>
<mortech>
    <header>
        <errorNum>0</errorNum>
        <errorDesc>Success</errorDesc>
    </header>
    <results index="1" product_group_id="4" product_id="4" size="1"
product_name="Conf 30 Yr  Fixed " lockTerm="45" termType="Fixed">
        <quote  parent_id="2616" product_id="1353"
vendor_name="PennyMac(2616)" vendor_product_name="FHLMC 30 Yr Fixed"
vendor_product_code="" docType="N/A" creditGrade="" productDesc="FHLMC 30
Yr  Fixed " productTerm="30 " initialArmTerm="" intOnlyMonths="0"
ARMIndex="" pricingStatus="Update in progress" lastUpdate="2023-07-26
16:09:20.0">
            <quote_detail rate="6.875" price="0.000" originationFee="0"
apr="6.875" prepayType="No prepay penalty" indexValue="-1.000"
margin="0.000" cap1="2" cap2="2" cap3="5" piti="3284.64" lockURL=""
downPayment="125000" loanAmount="500000" upfrontFee="0.00"
monthlyPremium="0.00">
                <ratesheet_price>100.091</ratesheet_price>
                <srp>1.954</srp>
                <intra_day_adjustment>0.000</intra_day_adjustment>
                <adjustments total_price_adj="-0.345"
total_rate_adj="0.000" total_margin_adj="0.000">
```

```
                    <adjustment_detail desc="LTV &gt; 75 to 80% Price Cap
Excluded FICO 780 to FICO 799  $1 and greater" price_adj="0.030"
rate_adj="0.000" margin_adj="0.000" applied="true"/>
                    <adjustment_detail desc="FHLMC Purchase &gt; 75 to 80%
FICO 780 and greater " price_adj="-0.375" rate_adj="0.000"
margin_adj="0.000" applied="true"/>
                </adjustments>
                <special_bonuses total_special_bonus_adj="0.000">
        </special_bonuses>
                <costs_and_profit profit_table="Company Profit"
total_cost_profit_dollar="8500.00" total_cost_profit_percent="1.700">
                    <profit_detail total_profit_percent="1.700"
total_profit_dollar="8500.00">
                        <planned_profit profit_percent="1.375"
profit_dollar="6875.00"/>
                        <corporate_profit profit_table="Company Profit"
profit_percent="1.375" profit_dollar="0.00"/>
                        <profit_adjustment percent_adj="0.000"
dollar_adj="0.00"/>
                        <rounding_profit profit_percent="0.000"
profit_dollar="0.00"/>
                        <user_profit profit_percent="0.000"
profit_dollar="0.00"/>
                        <loan_officer_compensation profit_percent="0.000"
profit_dollar="0.00"/>
                        <lender_paid_ysp profit_percent="0.000"
profit_dollar="0.00"/>
                        <over_par_addl_profit profit_percent="0.000"
profit_dollar="0.00"/>
                        <over_par_profit profit_percent="0.325"
profit_dollar="1625.00"/>
                        <over_max_price_addl_profit profit_percent="0.000"
profit_dollar="0.00"/>
                        <addl_over_par_borrower_rebate
profit_percent="0.000" profit_dollar="0.00"/>
                        <amt_from_borrower profit_percent="0.000"
profit_dollar="0.00"/>
                        <loan_officer_profit profit_percent="0.000"
profit_dollar="0.00"/>
                        <company_profit profit_percent="1.700"
profit_dollar="8500.00"/>
                    </profit_detail>
                    <costs_detail total_costs_percent="0.000"
total_costs_dollar="0.00">
                        <planned_costs costs_percent="0.000"
costs_dollar="0.00"/>
                        <costs_adjustment percent_adj="0.000"
```

```
dollar_adj="0.00"/>
                    </costs_detail>
                </costs_and_profit>
                <fees>
                    <fee_list>
            </fee_list>
                </fees>
                <mi_detail>
                    <company_name>N/A</company_name>
                    <quote_id>N/A</quote_id>
                    <upfrontFee>0.00</upfrontFee>
                    <upfrontFeePercent>0.00</upfrontFeePercent>
                    <monthlyPremium>0.00</monthlyPremium>
                    <monthlyPremiumPercent>0.00</monthlyPremiumPercent>

<monthlyPremiumRenewalPercent>0.00</monthlyPremiumRenewalPercent>
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<monthlyPremiumRenewalPeriod>0</monthlyPremiumRenewalPeriod>

<monthlyPremiumTermination>N/A</monthlyPremiumTermination>
                </mi_detail>
            </quote_detail>
        </quote>
        <eligibility>
            <eligibilityCheck>Pass</eligibilityCheck>
            <comments></comments>
            <productSummaryLink></productSummaryLink>
            <productGuidelineLink></productGuidelineLink>
        </eligibility>
    </results>
    <results index="2" product_group_id="2" product_id="2" size="1"
product_name="Conf 15 Yr  Fixed " lockTerm="45" termType="Fixed">
        <quote  parent_id="2616" product_id="1350"
vendor_name="PennyMac(2616)" vendor_product_name="FHLMC 15 Yr Fixed"
vendor_product_code="" docType="N/A" creditGrade="" productDesc="FHLMC 15
Yr  Fixed " productTerm="15 " initialArmTerm="" intOnlyMonths="0"
ARMIndex="" pricingStatus="Update in progress" lastUpdate="2023-07-26
16:09:20.0">
            <quote_detail rate="5.990" price="0.000" originationFee="0"
apr="5.990" prepayType="No prepay penalty" indexValue="-1.000"
margin="0.000" cap1="2" cap2="2" cap3="5" piti="4216.58" lockURL=""
downPayment="125000" loanAmount="500000" upfrontFee="0.00"
monthlyPremium="0.00">
                <ratesheet_price>100.278</ratesheet_price>
                <srp>1.254</srp>
                <intra_day_adjustment>0.000</intra_day_adjustment>
```

```xml
                <adjustments total_price_adj="0.030" total_rate_adj="0.000"
total_margin_adj="0.000">
                    <adjustment_detail desc="LTV &gt; 75 to 80% Price Cap
Excluded FICO 780 to FICO 799  $1 and greater" price_adj="0.030"
rate_adj="0.000" margin_adj="0.000" applied="true"/>
                </adjustments>
                <special_bonuses total_special_bonus_adj="0.000">
        </special_bonuses>
                <costs_and_profit profit_table="Company Profit"
total_cost_profit_dollar="7810.00" total_cost_profit_percent="1.562">
                    <profit_detail total_profit_percent="1.562"
total_profit_dollar="7810.00">
                        <planned_profit profit_percent="1.375"
profit_dollar="6875.00"/>
                        <corporate_profit profit_table="Company Profit"
profit_percent="1.375" profit_dollar="0.00"/>
                        <profit_adjustment percent_adj="0.000"
dollar_adj="0.00"/>
                        <rounding_profit profit_percent="0.000"
profit_dollar="0.00"/>
                        <user_profit profit_percent="0.000"
profit_dollar="0.00"/>
                        <loan_officer_compensation profit_percent="0.000"
profit_dollar="0.00"/>
                        <lender_paid_ysp profit_percent="0.000"
profit_dollar="0.00"/>
                        <over_par_addl_profit profit_percent="0.000"
profit_dollar="0.00"/>
                        <over_par_profit profit_percent="0.187"
profit_dollar="935.00"/>
                        <over_max_price_addl_profit profit_percent="0.000"
profit_dollar="0.00"/>
                        <addl_over_par_borrower_rebate
profit_percent="0.000" profit_dollar="0.00"/>
                        <amt_from_borrower profit_percent="0.000"
profit_dollar="0.00"/>
                        <loan_officer_profit profit_percent="0.000"
profit_dollar="0.00"/>
                        <company_profit profit_percent="1.562"
profit_dollar="7810.00"/>
                    </profit_detail>
                    <costs_detail total_costs_percent="0.000"
total_costs_dollar="0.00">
                        <planned_costs costs_percent="0.000"
costs_dollar="0.00"/>
                        <costs_adjustment percent_adj="0.000"
dollar_adj="0.00"/>
```

```xml
                    </costs_detail>
                </costs_and_profit>
                <fees>
                    <fee_list>
            </fee_list>
                </fees>
                <mi_detail>
                    <company_name>N/A</company_name>
                    <quote_id>N/A</quote_id>
                    <upfrontFee>0.00</upfrontFee>
                    <upfrontFeePercent>0.00</upfrontFeePercent>
                    <monthlyPremium>0.00</monthlyPremium>
                    <monthlyPremiumPercent>0.00</monthlyPremiumPercent>

<monthlyPremiumRenewalPercent>0.00</monthlyPremiumRenewalPercent>
                    <monthlyPremiumPeriod>0</monthlyPremiumPeriod>

<monthlyPremiumRenewalPeriod>0</monthlyPremiumRenewalPeriod>

<monthlyPremiumTermination>N/A</monthlyPremiumTermination>
                </mi_detail>
            </quote_detail>
        </quote>
        <eligibility>
            <eligibilityCheck>Pass</eligibilityCheck>
            <comments></comments>
            <productSummaryLink></productSummaryLink>
            <productGuidelineLink></productGuidelineLink>
        </eligibility>
        <quote  parent_id="2616" product_id="2653"
vendor_name="PennyMac(2616)" vendor_product_name="FNMA 5/6 SOFR ARM 2-1-5"
vendor_product_code="" docType="N/A" creditGrade="" productDesc="Conf 30 Yr
SOFR ARM 5 Yr Fixed/6 Mo" productTerm="30 " initialArmTerm="60"
intOnlyMonths="0" ARMIndex="SOFR" pricingStatus="Update in progress"
lastUpdate="2023-07-26 16:09:20.0">
            <quote_detail rate="6.750" price="0.000" originationFee="0"
apr="7.411" prepayType="No prepay penalty" indexValue="5.070"
margin="2.750" cap1="2" cap2="1" cap3="5" piti="3242.99" lockURL=""
downPayment="125000" loanAmount="500000" upfrontFee="0.00"
monthlyPremium="0.00">
                <ratesheet_price>99.054</ratesheet_price>
                <srp>1.221</srp>
                <intra_day_adjustment>0.000</intra_day_adjustment>
                <adjustments total_price_adj="-0.375"
```

```
total_rate_adj="0.000" total_margin_adj="0.000">
                    <adjustment_detail desc="FNMA Purchase &gt; 75 to 80%
FICO 780 and greater " price_adj="-0.375" rate_adj="0.000"
margin_adj="0.000" applied="true"/>
                </adjustments>
                <special_bonuses total_special_bonus_adj="0.000">
        </special_bonuses>
                <costs_and_profit profit_table="Company Profit"
total_cost_profit_dollar="6875.00" total_cost_profit_percent="1.375">
                    <profit_detail total_profit_percent="1.375"
total_profit_dollar="6875.00">
                        <planned_profit profit_percent="1.375"
profit_dollar="6875.00"/>
                        <corporate_profit profit_table="Company Profit"
profit_percent="1.375" profit_dollar="0.00"/>
                        <profit_adjustment percent_adj="0.000"
dollar_adj="0.00"/>
                        <rounding_profit profit_percent="0.000"
profit_dollar="0.00"/>
                        <user_profit profit_percent="0.000"
profit_dollar="0.00"/>
                        <loan_officer_compensation profit_percent="0.000"
profit_dollar="0.00"/>
                        <lender_paid_ysp profit_percent="0.000"
profit_dollar="0.00"/>
                        <over_par_addl_profit profit_percent="0.000"
profit_dollar="0.00"/>
                        <over_par_profit profit_percent="0.000"
profit_dollar="0.00"/>
                        <over_max_price_addl_profit profit_percent="0.000"
profit_dollar="0.00"/>
                        <addl_over_par_borrower_rebate
profit_percent="0.000" profit_dollar="0.00"/>
                        <amt_from_borrower profit_percent="1.475"
profit_dollar="7375.00"/>
                        <loan_officer_profit profit_percent="0.000"
profit_dollar="0.00"/>
                        <company_profit profit_percent="1.375"
profit_dollar="6875.00"/>
                    </profit_detail>
                    <costs_detail total_costs_percent="0.000"
total_costs_dollar="0.00">
                        <planned_costs costs_percent="0.000"
costs_dollar="0.00"/>
                        <costs_adjustment percent_adj="0.000"
dollar_adj="0.00"/>
                    </costs_detail>
```

```xml
                    </costs_and_profit>
                    <fees>
                        <fee_list>
                </fee_list>
                    </fees>
                    <mi_detail>
                        <company_name>N/A</company_name>
                        <quote_id>N/A</quote_id>
                        <upfrontFee>0.00</upfrontFee>
                        <upfrontFeePercent>0.00</upfrontFeePercent>
                        <monthlyPremium>0.00</monthlyPremium>
                        <monthlyPremiumPercent>0.00</monthlyPremiumPercent>

<monthlyPremiumRenewalPercent>0.00</monthlyPremiumRenewalPercent>
                        <monthlyPremiumPeriod>0</monthlyPremiumPeriod>

<monthlyPremiumRenewalPeriod>0</monthlyPremiumRenewalPeriod>

<monthlyPremiumTermination>N/A</monthlyPremiumTermination>
                    </mi_detail>
                </quote_detail>
            </quote>
            <eligibility>
                <eligibilityCheck>Pass</eligibilityCheck>
                <comments></comments>
                <productSummaryLink></productSummaryLink>
                <productGuidelineLink></productGuidelineLink>
            </eligibility>
        </results>
        </mortech>
```

Request:

How you can re-price a product by simply passing the `product_id` values returned from the first example.

```
curl -i -X GET \-H "authorizationtoken:bc66d0bf6f9...7f87375159a" \-H
"x-api-key:klh2asdf...84h38" \'https://thirdparty.mortech-inc.com/mpg/
servlet/mpgThirdPartyServlet?request_id=1&customerId={{customerId}}&
thirdPartyName={{thirdPartyName}}&emailAddress={{emailAddress}}&
loan_amount=500000&propertyState=CA&productList=4,2'
```

Response:

```
<?xml version="1.0" ?>
<mortech>
    <header>
        <errorNum>0</errorNum>
        <errorDesc>Success</errorDesc>
    </header>
    <results index="1" product_group_id="4" product_id="4" size="1"
product_name="Conf 30 Yr  Fixed " lockTerm="45" termType="Fixed">
        <quote  parent_id="2616" product_id="1353"
vendor_name="PennyMac(2616)" vendor_product_name="FHLMC 30 Yr Fixed"
vendor_product_code="" docType="N/A" creditGrade="" productDesc="FHLMC 30
Yr  Fixed " productTerm="30 " initialArmTerm="" intOnlyMonths="0"
ARMIndex="" pricingStatus="Active" lastUpdate="2023-07-28 09:00:22.0">
            <quote_detail rate="6.875" price="-0.027" originationFee="0"
apr="6.875" prepayType="No prepay penalty" indexValue="-1.000"
margin="0.000" cap1="2" cap2="2" cap3="5" piti="3284.64" lockURL=""
downPayment="125000" loanAmount="500000" upfrontFee="0.00"
monthlyPremium="0.00">
                <ratesheet_price>99.793</ratesheet_price>
                <srp>1.954</srp>
                <intra_day_adjustment>0.000</intra_day_adjustment>
                <adjustments total_price_adj="-0.345"
total_rate_adj="0.000" total_margin_adj="0.000">
                    <adjustment_detail desc="LTV &gt; 75 to 80% Price Cap
Excluded FICO 780 to FICO 799  $1 and greater" price_adj="0.030"
rate_adj="0.000" margin_adj="0.000" applied="true"/>
                    <adjustment_detail desc="FHLMC Purchase &gt; 75 to 80%
FICO 780 and greater " price_adj="-0.375" rate_adj="0.000"
margin_adj="0.000" applied="true"/>
                </adjustments>
                <special_bonuses total_special_bonus_adj="0.000">
```

```xml
        </special_bonuses>
                <costs_and_profit profit_table="Company Profit"
total_cost_profit_dollar="7010.00" total_cost_profit_percent="1.402">
                <profit_detail total_profit_percent="1.402"
total_profit_dollar="7010.00">
                    <planned_profit profit_percent="1.375"
profit_dollar="6875.00"/>
                    <corporate_profit profit_table="Company Profit"
profit_percent="1.375" profit_dollar="0.00"/>
                    <profit_adjustment percent_adj="0.000"
dollar_adj="0.00"/>
                    <rounding_profit profit_percent="0.000"
profit_dollar="0.00"/>
                    <user_profit profit_percent="0.000"
profit_dollar="0.00"/>
                    <loan_officer_compensation profit_percent="0.000"
profit_dollar="0.00"/>
                    <lender_paid_ysp profit_percent="0.000"
profit_dollar="0.00"/>
                    <over_par_addl_profit profit_percent="0.000"
profit_dollar="0.00"/>
                    <over_par_profit profit_percent="0.027"
profit_dollar="135.00"/>
                    <over_max_price_addl_profit profit_percent="0.000"
profit_dollar="0.00"/>
                    <addl_over_par_borrower_rebate
profit_percent="0.000" profit_dollar="0.00"/>
                    <amt_from_borrower profit_percent="0.000"
profit_dollar="0.00"/>
                    <loan_officer_profit profit_percent="0.000"
profit_dollar="0.00"/>
                    <company_profit profit_percent="1.402"
profit_dollar="7010.00"/>
                </profit_detail>
                <costs_detail total_costs_percent="0.000"
total_costs_dollar="0.00">
                    <planned_costs costs_percent="0.000"
costs_dollar="0.00"/>
                    <costs_adjustment percent_adj="0.000"
dollar_adj="0.00"/>
                </costs_detail>
            </costs_and_profit>
            <fees>
                <fee_list>
        </fee_list>
            </fees>
```

```
                        <mi_detail>
                            <company_name>N/A</company_name>
                            <quote_id>N/A</quote_id>
                            <upfrontFee>0.00</upfrontFee>
                            <upfrontFeePercent>0.00</upfrontFeePercent>
                            <monthlyPremium>0.00</monthlyPremium>
                            <monthlyPremiumPercent>0.00</monthlyPremiumPercent>

<monthlyPremiumRenewalPercent>0.00</monthlyPremiumRenewalPercent>
                            <monthlyPremiumPeriod>0</monthlyPremiumPeriod>

<monthlyPremiumRenewalPeriod>0</monthlyPremiumRenewalPeriod>

<monthlyPremiumTermination>N/A</monthlyPremiumTermination>
                        </mi_detail>
                    </quote_detail>
                </quote>
                <eligibility>
                    <eligibilityCheck>Pass</eligibilityCheck>
                    <comments></comments>
                    <productSummaryLink></productSummaryLink>
                    <productGuidelineLink></productGuidelineLink>
                </eligibility>
            </results>
            <results index="2" product_group_id="2" product_id="2" size="1"
product_name="Conf 15 Yr  Fixed " lockTerm="45" termType="Fixed">
                <quote  parent_id="2616" product_id="1350"
vendor_name="PennyMac(2616)" vendor_product_name="FHLMC 15 Yr Fixed"
vendor_product_code="" docType="N/A" creditGrade="" productDesc="FHLMC 15
Yr  Fixed " productTerm="15 " initialArmTerm="" intOnlyMonths="0"
ARMIndex="" pricingStatus="Active" lastUpdate="2023-07-28 09:00:22.0">
                    <quote_detail rate="6.375" price="-0.226" originationFee="0"
apr="6.375" prepayType="No prepay penalty" indexValue="-1.000"
margin="0.000" cap1="2" cap2="2" cap3="5" piti="4321.25" lockURL=""
downPayment="125000" loanAmount="500000" upfrontFee="0.00"
monthlyPremium="0.00">
                        <ratesheet_price>100.317</ratesheet_price>
                        <srp>1.254</srp>
                        <intra_day_adjustment>0.000</intra_day_adjustment>
                        <adjustments total_price_adj="0.030"
total_rate_adj="0.000" total_margin_adj="0.000">
                            <adjustment_detail desc="LTV &gt; 75 to 80% Price Cap
Excluded FICO 780 to FICO 799  $1 and greater" price_adj="0.030"
rate_adj="0.000" margin_adj="0.000" applied="true"/>
                        </adjustments>
                        <special_bonuses total_special_bonus_adj="0.000">
```

```xml
            </special_bonuses>
                <costs_and_profit profit_table="Company Profit"
total_cost_profit_dollar="8005.00" total_cost_profit_percent="1.601">
                    <profit_detail total_profit_percent="1.601"
total_profit_dollar="8005.00">
                        <planned_profit profit_percent="1.375"
profit_dollar="6875.00"/>
                        <corporate_profit profit_table="Company Profit"
profit_percent="1.375" profit_dollar="0.00"/>
                        <profit_adjustment percent_adj="0.000"
dollar_adj="0.00"/>
                        <rounding_profit profit_percent="0.000"
profit_dollar="0.00"/>
                        <user_profit profit_percent="0.000"
profit_dollar="0.00"/>
                        <loan_officer_compensation profit_percent="0.000"
profit_dollar="0.00"/>
                        <lender_paid_ysp profit_percent="0.000"
profit_dollar="0.00"/>
                        <over_par_addl_profit profit_percent="0.000"
profit_dollar="0.00"/>
                        <over_par_profit profit_percent="0.226"
profit_dollar="1130.00"/>
                        <over_max_price_addl_profit profit_percent="0.000"
profit_dollar="0.00"/>
                        <addl_over_par_borrower_rebate
profit_percent="0.000" profit_dollar="0.00"/>
                        <amt_from_borrower profit_percent="0.000"
profit_dollar="0.00"/>
                        <loan_officer_profit profit_percent="0.000"
profit_dollar="0.00"/>
                        <company_profit profit_percent="1.601"
profit_dollar="8005.00"/>
                    </profit_detail>
                    <costs_detail total_costs_percent="0.000"
total_costs_dollar="0.00">
                        <planned_costs costs_percent="0.000"
costs_dollar="0.00"/>
                        <costs_adjustment percent_adj="0.000"
dollar_adj="0.00"/>
                    </costs_detail>
                </costs_and_profit>
                <fees>
                    <fee_list>
            </fee_list>
                </fees>
```

```xml
                <mi_detail>
                    <company_name>N/A</company_name>
                    <quote_id>N/A</quote_id>
                    <upfrontFee>0.00</upfrontFee>
                    <upfrontFeePercent>0.00</upfrontFeePercent>
                    <monthlyPremium>0.00</monthlyPremium>
                    <monthlyPremiumPercent>0.00</monthlyPremiumPercent>

<monthlyPremiumRenewalPercent>0.00</monthlyPremiumRenewalPercent>
                    <monthlyPremiumPeriod>0</monthlyPremiumPeriod>

<monthlyPremiumRenewalPeriod>0</monthlyPremiumRenewalPeriod>

<monthlyPremiumTermination>N/A</monthlyPremiumTermination>
                </mi_detail>
            </quote_detail>
        </quote>
        <eligibility>
            <eligibilityCheck>Pass</eligibilityCheck>
            <comments></comments>
            <productSummaryLink></productSummaryLink>
            <productGuidelineLink></productGuidelineLink>
        </eligibility>
</mortech>
```

Request:

How to query for pricing for a specific product and Investor. In this example, we query for the 30 Year Fixed and 15 Year Fixed from PennyMac.

```
curl -i -X GET \-H "authorizationtoken:bc66d0bf6f9...7f87375159a" \-H
"x-api-key:klh2asdf...84h38" \'https://thirdparty.mortech-inc.com/mpg/
servlet/mpgThirdPartyServlet?request_id=1&customerId={{customerId}}&
thirdPartyName={{thirdPartyName}}&emailAddress={{emailAddress}}&
loan_amount=500000&propertyState=CA&productList=4,2&parent_id=2616'
```

Response:

```xml
<?xml version="1.0" ?>
<mortech>
    <header>
        <errorNum>0</errorNum>
        <errorDesc>Success</errorDesc>
    </header>
    <results index="1" product_group_id="4" product_id="4" size="1"
product_name="Conf 30 Yr  Fixed " lockTerm="45" termType="Fixed">
        <quote  parent_id="2616" product_id="1353"
vendor_name="PennyMac(2616)" vendor_product_name="FHLMC 30 Yr Fixed"
vendor_product_code="" docType="N/A" creditGrade="" productDesc="FHLMC 30
Yr  Fixed " productTerm="30 " initialArmTerm="" intOnlyMonths="0"
ARMIndex="" pricingStatus="Update in progress" lastUpdate="2023-07-28
09:00:22.0">
            <quote_detail rate="6.875" price="-0.027" originationFee="0"
apr="6.875" prepayType="No prepay penalty" indexValue="-1.000"
margin="0.000" cap1="2" cap2="2" cap3="5" piti="3284.64" lockURL=""
downPayment="125000" loanAmount="500000" upfrontFee="0.00"
monthlyPremium="0.00">
                <ratesheet_price>99.793</ratesheet_price>
                <srp>1.954</srp>
                <intra_day_adjustment>0.000</intra_day_adjustment>
                <adjustments total_price_adj="-0.345"
total_rate_adj="0.000" total_margin_adj="0.000">
                    <adjustment_detail desc="LTV &gt; 75 to 80% Price Cap
Excluded FICO 780 to FICO 799  $1 and greater" price_adj="0.030"
rate_adj="0.000" margin_adj="0.000" applied="true"/>
                    <adjustment_detail desc="FHLMC Purchase &gt; 75 to 80%
FICO 780 and greater " price_adj="-0.375" rate_adj="0.000"
```

```
margin_adj="0.000" applied="true"/>
                </adjustments>
                <special_bonuses total_special_bonus_adj="0.000">
        </special_bonuses>
                <costs_and_profit profit_table="Company Profit"
total_cost_profit_dollar="7010.00" total_cost_profit_percent="1.402">
                <profit_detail total_profit_percent="1.402"
total_profit_dollar="7010.00">
                    <planned_profit profit_percent="1.375"
profit_dollar="6875.00"/>
                    <corporate_profit profit_table="Company Profit"
profit_percent="1.375" profit_dollar="0.00"/>
                    <profit_adjustment percent_adj="0.000"
dollar_adj="0.00"/>
                    <rounding_profit profit_percent="0.000"
profit_dollar="0.00"/>
                    <user_profit profit_percent="0.000"
profit_dollar="0.00"/>
                    <loan_officer_compensation profit_percent="0.000"
profit_dollar="0.00"/>
                    <lender_paid_ysp profit_percent="0.000"
profit_dollar="0.00"/>
                    <over_par_addl_profit profit_percent="0.000"
profit_dollar="0.00"/>
                    <over_par_profit profit_percent="0.027"
profit_dollar="135.00"/>
                    <over_max_price_addl_profit profit_percent="0.000"
profit_dollar="0.00"/>
                    <addl_over_par_borrower_rebate
profit_percent="0.000" profit_dollar="0.00"/>
                    <amt_from_borrower profit_percent="0.000"
profit_dollar="0.00"/>
                    <loan_officer_profit profit_percent="0.000"
profit_dollar="0.00"/>
                    <company_profit profit_percent="1.402"
profit_dollar="7010.00"/>
                </profit_detail>
                <costs_detail total_costs_percent="0.000"
total_costs_dollar="0.00">
                    <planned_costs costs_percent="0.000"
costs_dollar="0.00"/>
                    <costs_adjustment percent_adj="0.000"
dollar_adj="0.00"/>
                </costs_detail>
            </costs_and_profit>
            <fees>
```

```xml
                    <fee_list>
            </fee_list>
                </fees>
                <mi_detail>
                    <company_name>N/A</company_name>
                    <quote_id>N/A</quote_id>
                    <upfrontFee>0.00</upfrontFee>
                    <upfrontFeePercent>0.00</upfrontFeePercent>
                    <monthlyPremium>0.00</monthlyPremium>
                    <monthlyPremiumPercent>0.00</monthlyPremiumPercent>

<monthlyPremiumRenewalPercent>0.00</monthlyPremiumRenewalPercent>
                    <monthlyPremiumPeriod>0</monthlyPremiumPeriod>

<monthlyPremiumRenewalPeriod>0</monthlyPremiumRenewalPeriod>

<monthlyPremiumTermination>N/A</monthlyPremiumTermination>
                </mi_detail>
            </quote_detail>
        </quote>
        <eligibility>
            <eligibilityCheck>Pass</eligibilityCheck>
            <comments></comments>
            <productSummaryLink></productSummaryLink>
            <productGuidelineLink></productGuidelineLink>
        </eligibility>
        <quote  parent_id="2616" product_id="1350"
vendor_name="PennyMac(2616)" vendor_product_name="FHLMC 15 Yr Fixed"
vendor_product_code="" docType="N/A" creditGrade="" productDesc="FHLMC 15
Yr  Fixed " productTerm="15 " initialArmTerm="" intOnlyMonths="0"
ARMIndex="" pricingStatus="Update in progress" lastUpdate="2023-07-28
09:00:22.0">
            <quote_detail rate="6.375" price="-0.226" originationFee="0"
apr="6.375" prepayType="No prepay penalty" indexValue="-1.000"
margin="0.000" cap1="2" cap2="2" cap3="5" piti="4321.25" lockURL=""
downPayment="125000" loanAmount="500000" upfrontFee="0.00"
monthlyPremium="0.00">
                <ratesheet_price>100.317</ratesheet_price>
                <srp>1.254</srp>
                <intra_day_adjustment>0.000</intra_day_adjustment>
                <adjustments total_price_adj="0.030"
total_rate_adj="0.000" total_margin_adj="0.000">
                    <adjustment_detail desc="LTV &gt; 75 to 80% Price Cap
```

```
Excluded FICO 780 to FICO 799  $1 and greater" price_adj="0.030"
rate_adj="0.000" margin_adj="0.000" applied="true"/>
                </adjustments>
                <special_bonuses total_special_bonus_adj="0.000">
        </special_bonuses>
                <costs_and_profit profit_table="Company Profit"
total_cost_profit_dollar="8005.00" total_cost_profit_percent="1.601">
                    <profit_detail total_profit_percent="1.601"
total_profit_dollar="8005.00">
                        <planned_profit profit_percent="1.375"
profit_dollar="6875.00"/>
                        <corporate_profit profit_table="Company Profit"
profit_percent="1.375" profit_dollar="0.00"/>
                        <profit_adjustment percent_adj="0.000"
dollar_adj="0.00"/>
                        <rounding_profit profit_percent="0.000"
profit_dollar="0.00"/>
                        <user_profit profit_percent="0.000"
profit_dollar="0.00"/>
                        <loan_officer_compensation profit_percent="0.000"
profit_dollar="0.00"/>
                        <lender_paid_ysp profit_percent="0.000"
profit_dollar="0.00"/>
                        <over_par_addl_profit profit_percent="0.000"
profit_dollar="0.00"/>
                        <over_par_profit profit_percent="0.226"
profit_dollar="1130.00"/>
                        <over_max_price_addl_profit profit_percent="0.000"
profit_dollar="0.00"/>
                        <addl_over_par_borrower_rebate
profit_percent="0.000" profit_dollar="0.00"/>
                        <amt_from_borrower profit_percent="0.000"
profit_dollar="0.00"/>
                        <loan_officer_profit profit_percent="0.000"
profit_dollar="0.00"/>
                        <company_profit profit_percent="1.601"
profit_dollar="8005.00"/>
                    </profit_detail>
                    <costs_detail total_costs_percent="0.000"
total_costs_dollar="0.00">
                        <planned_costs costs_percent="0.000"
costs_dollar="0.00"/>
                        <costs_adjustment percent_adj="0.000"
dollar_adj="0.00"/>
                    </costs_detail>
                </costs_and_profit>
```

```xml
                    <fees>
                        <fee_list>
                </fee_list>
                    </fees>
                    <mi_detail>
                        <company_name>N/A</company_name>
                        <quote_id>N/A</quote_id>
                        <upfrontFee>0.00</upfrontFee>
                        <upfrontFeePercent>0.00</upfrontFeePercent>
                        <monthlyPremium>0.00</monthlyPremium>
                        <monthlyPremiumPercent>0.00</monthlyPremiumPercent>
<monthlyPremiumRenewalPercent>0.00</monthlyPremiumRenewalPercent>
                        <monthlyPremiumPeriod>0</monthlyPremiumPeriod>
<monthlyPremiumRenewalPeriod>0</monthlyPremiumRenewalPeriod>
<monthlyPremiumTermination>N/A</monthlyPremiumTermination>
                    </mi_detail>
                </quote_detail>
            </quote>
            <eligibility>
                <eligibilityCheck>Pass</eligibilityCheck>
                <comments></comments>
                <productSummaryLink></productSummaryLink>
                <productGuidelineLink></productGuidelineLink>
            </eligibility>
        </results>
</mortech>
```

Request:

Pricing request for 30 year fixed product with compliance check and MI details information.

```
curl -i -X GET \-H "authorizationtoken:bc66d0bf6f9...7f87375159a" \-H
"x-api-key:klh2asdf...84h38"\'https://thirdparty.mortech-inc.com/mpg/
servlet/mpgThirdPartyServlet?request_id=1&customerId={{customerId}}&
thirdPartyName={{thirdPartyName}}&emailAddress{{emailAddress}}&
loan_amount=500000&ltv=.85&propertyState=CA&productList=4&includeComplianc
e=1&noMI=0
```

Response:

```
<?xml version="1.0" ?>
<mortech>
    <header>
        <errorNum>0</errorNum>
        <errorDesc>Success</errorDesc>
    </header>
    <results index="1" product_group_id="4" product_id="4" size="1"
product_name="Conf 30 Yr  Fixed " lockTerm="45" termType="Fixed">
        <quote  parent_id="2616" product_id="1353"
vendor_name="PennyMac(2616)" vendor_product_name="FHLMC 30 Yr Fixed"
vendor_product_code="" docType="N/A" creditGrade="" productDesc="FHLMC 30
Yr  Fixed " productTerm="30 " initialArmTerm="" intOnlyMonths="0"
ARMIndex="" pricingStatus="Active" lastUpdate="2023-07-26 16:09:20.0">
            <quote_detail rate="6.875" price="-0.315" originationFee="0"
apr="6.974" prepayType="No prepay penalty" indexValue="-1.000"
margin="0.000" cap1="2" cap2="2" cap3="5" piti="3363.81" lockURL=""
downPayment="88236" loanAmount="500000" upfrontFee="0.00"
monthlyPremium="79.17">
                <ratesheet_price>100.091</ratesheet_price>
                <srp>1.954</srp>
                <intra_day_adjustment>0.000</intra_day_adjustment>
                <adjustments total_price_adj="-0.355"
total_rate_adj="0.000" total_margin_adj="0.000">
                    <adjustment_detail desc="FHLMC Purchase &gt; 80 to 85%
FICO 780 and greater " price_adj="-0.375" rate_adj="0.000"
margin_adj="0.000" applied="true"/>
                    <adjustment_detail desc="LTV &gt; 80 to 85% Price Cap
Excluded FICO 780 to FICO 799  $1 and greater" price_adj="0.020"
rate_adj="0.000" margin_adj="0.000" applied="true"/>
                </adjustments>
                <special_bonuses total_special_bonus_adj="0.000">
        </special_bonuses>
```

```
                       <costs_and_profit profit_table="Company Profit"
total_cost_profit_dollar="8450.00" total_cost_profit_percent="1.690">
                           <profit_detail total_profit_percent="1.690"
total_profit_dollar="8450.00">
                               <planned_profit profit_percent="1.375"
profit_dollar="6875.00"/>
                               <corporate_profit profit_table="Company Profit"
profit_percent="1.375" profit_dollar="0.00"/>
                               <profit_adjustment percent_adj="0.000"
dollar_adj="0.00"/>
                               <rounding_profit profit_percent="0.000"
profit_dollar="0.00"/>
                               <user_profit profit_percent="0.000"
profit_dollar="0.00"/>
                               <loan_officer_compensation profit_percent="0.000"
profit_dollar="0.00"/>
                               <lender_paid_ysp profit_percent="0.000"
profit_dollar="0.00"/>
                               <over_par_addl_profit profit_percent="0.000"
profit_dollar="0.00"/>
                               <over_par_profit profit_percent="0.315"
profit_dollar="1575.00"/>
                               <over_max_price_addl_profit profit_percent="0.000"
profit_dollar="0.00"/>
                               <addl_over_par_borrower_rebate
profit_percent="0.000" profit_dollar="0.00"/>
                               <amt_from_borrower profit_percent="0.000"
profit_dollar="0.00"/>
                               <loan_officer_profit profit_percent="0.000"
profit_dollar="0.00"/>
                               <company_profit profit_percent="1.690"
profit_dollar="8450.00"/>
                           </profit_detail>
                           <costs_detail total_costs_percent="0.000"
total_costs_dollar="0.00">
                               <planned_costs costs_percent="0.000"
costs_dollar="0.00"/>
                               <costs_adjustment percent_adj="0.000"
dollar_adj="0.00"/>
                           </costs_detail>
                       </costs_and_profit>
                       <fees>
                           <fee_list>
                   </fee_list>
                       </fees>
                       <mi_detail>
                           <company_name>MGIC</company_name>
                           <quote_id></quote_id>
```

```xml
                    <upfrontFee>0.00</upfrontFee>
                    <upfrontFeePercent>0.00</upfrontFeePercent>
                    <monthlyPremium>79.17</monthlyPremium>
                    <monthlyPremiumPercent>0.19</monthlyPremiumPercent>

<monthlyPremiumRenewalPercent>0.19</monthlyPremiumRenewalPercent>
                    <monthlyPremiumPeriod>120</monthlyPremiumPeriod>

<monthlyPremiumRenewalPeriod>240</monthlyPremiumRenewalPeriod>

<monthlyPremiumTermination>78%/Midpoint</monthlyPremiumTermination>
                </mi_detail>
                <complianceDetails>
                    <section name="Base" status="Success">
                        <tests>
                            <test>
                                <testName>Investor Eligibility</testName>
                                <helpText>This loan criterion is run
through investor guidelines for approval from the selected
Investor.</helpText>
                                <description1>PennyMac</description1>
                                <description2></description2>
                                <testResult>Pass</testResult>
                            </test>
                            <test>
                                <testName>PMI</testName>
                                <helpText></helpText>
                                <description1>MGIC / Monthly
Premium</description1>
                                <description2></description2>
                                <testResult>Pass</testResult>
                            </test>
                            <test>
                                <testName>HPML</testName>
                                <helpText>HPMLs are determined by
comparing a borrower's APR(Annual Percentage Rate) on his proposed new
home mortgage loan to the new index published by the Federal Reserve Board
called the Average Prime Offer Rate (APOR). The proposed mortgage loan is
considered a HPML if the APR exceeds the index by 1.50% on a conforming
first lien, 2.5% on a Jumbo lien, and 3.5% on a junior lien.</helpText>
                                <description1>6.974% &lt;
8.220%</description1>
                                <description2>APR &lt; 1.5% Conforming
Margin + 6.720% (APOR Index)</description2>
                                <testResult>Non-HPML</testResult>
                            </test>
                        </tests>
```

```
            </section>
            <section name="QM" status="Success">
                <tests>
                    <test>
                        <testName>High Risk Attributes</testName>
                        <helpText>Identifies if the loan has the
following attributes that would make it a Non-QM loan - negative
amortization, interest-only loan, balloon loan, or a loan that has a term
exceeding 30 years.</helpText>
                        <description1>None</description1>
                        <description2></description2>
                        <testResult>Pass</testResult>
                    </test>
                    <test>
                        <testName>DTI</testName>
                        <helpText>Identifies that the DTI does not
exceed the maximum 43% limit set for QM loans. This rule is exempt from
loans that are approved through the following agencies: FHA, VA, RD
(USDA), Fannie Mae, Freddie Mac.</helpText>
                        <description1>0% &lt;= 43%</description1>
                        <description2></description2>
                        <testResult>Pass</testResult>
                    </test>
                    <test>
                        <testName>3% Fees</testName>
                        <helpText>Used to determine if loan
criterion is within the limits specified of the QM's "points and fees"
test. The limit for loans &gt; $100,000 is 3% of the Amount financed, with
different limits for lesser loan amounts. This shows the amount of closing
costs attributed to this loan to the maximum amount allowed under the QM
test.</helpText>
                        <description1>$0.00 + $1,575.00 &lt;=
$15,000.00</description1>
                        <description2>Total QM Fee + Over PAR
Profit &lt;= 3.0% x $500,000.00 (Amount Financed)</description2>
                        <testResult>Pass</testResult>
                    </test>
                    <test>
                        <testName>Rate/APOR</testName>
                        <helpText>This check takes the Base Rate
(par rate, or if no par rate exists, it will take the rate closest to the
par rate) and compare it to the APOR index to determine if any discount
points charged can be exempted from the points and fees test above. If the
base rate is within 1% of the APOR, up to 2 discount points can be
exempted, if the base rate is within 2% of the APOR, up to 1% discount
point can be exempted.</helpText>
                        <description1>6.875% - 6.720% =
0.155%</description1>
```

```
                                    <description2>Par Rate - APOR
Index</description2>
                                    <testResult>2 Point(s)</testResult>
                            </test>
                            <test>
                                    <testName>APR/APOR</testName>
                                    <helpText>Used to check the borrowers' APR
against the APOR index and the appropriate margin to determine if the loan
would be classified as a safe harbor QM or rebuttable presumption QM if
all other QM tests are passed.</helpText>
                                    <description1>6.974% &lt;=
8.220%</description1>
                                    <description2>APR &lt;= 1.5% Non-FHA 1st
Lien Margin + 6.720% (APOR Index)</description2>
                                    <testResult>Pass</testResult>
                            </test>
                            <test>
                                    <testName>QM Type</testName>
                                    <helpText>This gives the final results of
the above tests to determine the QM status.</helpText>
                                    <description1>Safe Harbor
QM</description1>
                                    <description2></description2>
                                    <testResult></testResult>
                            </test>
                    </tests>
                </section>
                <section name="HOEPA" status="Success">
                    <tests>
                        <test>
                                    <testName>5% Fees</testName>
                                    <helpText>As with the QM, loans must pass
a points and fees test. If the loan's points and fees exceed 5% of the
total transaction amount, or, for loans of under $20,000, exceeds the
lesser of 8.0% or $1,000, the loan is classified as a HOEPA loan. This
shows the closing fees attributed to the transaction along with the
maximum limit allowed under HOEPA.</helpText>
                                    <description1>$0.00 + $1,575.00 &lt;=
$25,000.00</description1>
                                    <description2>Total QM Fee + Over PAR
Profit &lt;= 5.0% x $500,000.00 (Amount Financed)</description2>
                                    <testResult>Pass</testResult>
                            </test>
                            <test>
                                    <testName>APR/APOR</testName>
                                    <helpText>Used to check the borrower's APR
against the APOR index with the appropriate margin. If the loan's annual
```

```
percentage rate (APR) exceeds the average prime offer rate by 6.5% for
most first-lien loans or by 8.5% for subordinate lien loans, the loan is
classified as a HOEPA loan.</helpText>
                              <description1>6.974% &lt;=
13.220%</description1>
                              <description2>APR &lt;= 6.5% 1st Lien
Margin + 6.720% (APOR Index)</description2>
                              <testResult>Pass</testResult>
                          </test>
                      </tests>
                  </section>
              </complianceDetails>
          </quote_detail>
      </quote>
      <eligibility>
          <eligibilityCheck>Pass</eligibilityCheck>
          <comments></comments>
          <productSummaryLink></productSummaryLink>
          <productGuidelineLink></productGuidelineLink>
      </eligibility>
      <compliance APR="6.974" RATE="6.875" PARRATE="6.875" APOR="6.720"
DTI="0.000" dtiException="N/A" loanAmount="500000" totalQMFees="0.00">
          <QM testResult="Safe Harbor QM">
              <aprApor testResult="PASS">
                  <margin>1.500</margin>
                  <type>Non-FHA 1st Lien Margin</type>
              </aprApor>
              <DTI testResult="PASS">0.000</DTI>
              <pointsFees testResult="PASS">
                  <pmiPct>0.000</pmiPct>
                  <pmiDollar>0.00</pmiDollar>
                  <discountPts>2</discountPts>
                  <threshold>15000.00</threshold>
                  <feeOverage>0.00</feeOverage>
              </pointsFees>
              <rateApor>
                  <discountPts>2</discountPts>
              </rateApor>
              <highrisk testResult="PASS">
                  <ballon>Pass</ballon>
                  <interestOnly>Pass</interestOnly>
                  <negativeAm>Pass</negativeAm>
              </highrisk>
          </QM>
          <HPML testResult="PASS">
              <margin>1.500</margin>
              <type>Conforming Margin</type>
```

```
            </HPML>
            <HOEPA testResult="PASS">
                <aprApor testResult="PASS">
                    <margin>6.500</margin>
                </aprApor>
                <pointsFees testResult="PASS">
                    <threshold>25000.00</threshold>
                    <feeOverage>0.00</feeOverage>
                </pointsFees>
            </HOEPA>
        </compliance>
    </results>
</mortech>
```

Investor Query:

The investor query service is available to query for a listing of all investors supported by a specific Marksman account.

```
curl -i -X GET \-H "authorizationtoken:bc66d0bf6f9...7f87375159a" \-H
"x-api-key:klh2asdf...84h38" \'https://thirdparty.mortech-inc.com/mpg/
servlet/mpgThirdPartyServlet?request_id=2&customerId={{customerId}}&
thirdPartyName={{thirdPartyName}}&emailAddress={{emailAddress}}'
```

Parameter	Description	Required
`customerId`	Marksman `customerId` defined by Mortech.	Y
`thirdPartyName`	`thirdPartyName` required to access the Mortech 3rd party interface.	Y
`emailAddress`	Email address of the user account performing the query. Used to associate a user account to the request for user specific pricing options and loan scenario defaults.	Y
`request_id`	Send a value of `2` to receive a list of investors supported by a Marksman account.	Y

Response:

```xml
<?xml version="1.0" ?>
<mortech>
    <header>
        <errorNum>0</errorNum>
        <errorDesc>Success</errorDesc>
    </header>
    <investors count="8">
        <investor parent_id="273">Chase</investor>
        <investor parent_id="7816">Demo Home Loans</investor>
        <investor parent_id="627">Flagstar</investor>
        <investor parent_id="373">Franklin American</investor>
        <investor parent_id="2616">PennyMac</investor>
        <investor parent_id="3016">Plaza Home Correspondent</investor>
        <investor parent_id="16">Truist</investor>
        <investor parent_id="308">US Bank</investor>
    </investors>
</mortech>
```

Tag	Attribute	Description
`errorNum`		Error number, possible values are listed below: 0 = Success -1 = Unauthorized 3rd party -2 = Missing required parameter -3 = Marksman user not found -999 = System error
`errorDesc`		Description of the error as defined above.
`investors`	`count`	Number of records returned in the query.
`investor`		Name of the investor.
	`parent_id`	Numeric identifier for the investor.

Product Query:

The product query service is available to query for a listing of all products supported by an investor in a specific Marksman account.

```
curl -i -X GET \-H "authorizationtoken:bc66d0bf6f9...7f87375159a" \-H
"x-api-key:klh2asdf...84h38" \'https://thirdparty.mortech-inc.com/mpg/
servlet/mpgThirdPartyServlet?request_id=3&customerId={{customerId}}&
thirdPartyName={{thirdPartyName}}&emailAddress={{emailAddress}}&
parent_id={{parentId}}'
```

Parameter	Description	Required
`customerId`	Marksman `customerId` defined by Mortech.	Y
`thirdPartyName`	`thirdPartyName` required to access the Mortech 3rd party interface.	Y
`emailAddress`	Email address of the user account performing the query. Used to associate a user account to the request for user specific pricing options and loan scenario defaults.	Y
`request_id`	Send a value of `3` to receive a list of products supported by an investor in a Marksman account.	Y
`parent_id`	Numeric identifier for the investor.	Y

Response:

```xml
<?xml version="1.0" ?>
<mortech>
    <header>
        <errorNum>0</errorNum>
        <errorDesc>Success</errorDesc>
    </header>
    <products count="24">
        <product parent_id ="7816" product_id="2"
vendor_product_code="">Conf 15 Yr  Fixed  </product>
        <product parent_id ="7816" product_id="4"
vendor_product_code="">Conf 30 Yr  Fixed  </product>
        <product parent_id ="7816" product_id="13"
vendor_product_code="">Non Conf 15 Yr  Fixed  </product>
        <product parent_id ="7816" product_id="15"
vendor_product_code="">Jumbo 30 Yr Fixed</product>
        <product parent_id ="7816" product_id="22"
```

```
 vendor_product_code="">Govt FHA 15 Yr  Fixed  </product>
        <product parent_id ="7816" product_id="23"
 vendor_product_code="">Govt FHA 30 Yr  Fixed  </product>
        <product parent_id ="7816" product_id="25"
 vendor_product_code="">Govt VA 15 Yr  Fixed  </product>
        <product parent_id ="7816" product_id="26"
 vendor_product_code="">Govt VA 30 Yr  Fixed  </product>
        <product parent_id ="7816" product_id="28"
 vendor_product_code="">Govt RD (FmHA) 30 Yr  Fixed  </product>
        <product parent_id ="7816" product_id="38"
 vendor_product_code="">Govt FHA Jumbo 30 Yr  Fixed </product>
        <product parent_id ="7816" product_id="226"
 vendor_product_code="">Govt FHA Jumbo 15 Yr  Fixed  </product>
        <product parent_id ="7816" product_id="1307"
 vendor_product_code="">Agency FNMA Jumbo 30 Yr  Fixed  </product>
        <product parent_id ="7816" product_id="1308"
 vendor_product_code="">Agency FNMA Jumbo 15 Yr  Fixed  </product>
        <product parent_id ="7816" product_id="1338"
 vendor_product_code="">Govt VA Jumbo 30 Yr  Fixed  </product>
        <product parent_id ="7816" product_id="1339"
 vendor_product_code="">Govt VA Jumbo 15 Yr  Fixed  </product>
        <product parent_id ="7816" product_id="1734"
 vendor_product_code="">Second 20 Yr  Fixed  </product>
        <product parent_id ="7816" product_id="2405"
 vendor_product_code="">Second HELOC 20 Yr   </product>
        <product parent_id ="7816" product_id="2409"
 vendor_product_code="">Second 1st Lien HELOC 20 Yr   </product>
        <product parent_id ="7816" product_id="2653"
 vendor_product_code="">Conf 30 Yr SOFR ARM 5 Yr Fixed/6 Mo </product>
        <product parent_id ="7816" product_id="2657"
 vendor_product_code="">Non Conf 30 Yr SOFR ARM 7 Yr Fixed/6 Mo </product>
        <product parent_id ="7816" product_id="2846"
 vendor_product_code="">Second HELOC 10 Yr   </product>
        <product parent_id ="7816" product_id="10049"
</mortech></mortech>
```

Tag	Attribute	Description
`errorNum`		Error number, possible values are listed below: 0 = Success -1 = Unauthorized 3rd party -2 = Missing required parameter -3 = Marksman user not found -999 = System error
`errorDesc`		0 = Success
`products`	`count`	-1 = Unauthorized 3rd party
`product`		-2 = Missing required parameter
	`parent_id`	-3 = Marksman user not found
	`product_id`	-999 = System error
	`vendor_product_code`	Investor and product specific product code.