



```
<a href="#" class="sidebar-toggle">
  <i class="fa fa-bars"></i>
</a>
</p>
</div>
<div class="navbar-collapse collapse">
  <ul class="nav navbar-nav">
    <li>
      <button class="navbar-btn">
        <div class="btn-alert fa fa-clock-o"></div>
        <div class="alert-top">20</div>
      </button>
    </li>
    <li class="dropdown">
      <button class="navbar-btn tab-cm-top" data-toggle="dropdown">
        
        <em class="cm-name-top">Nutik Varidha Kishan</em>
        <i class="fa fa-angle-down"></i>
      </button>
      <ul class="dropdown-menu">
        <li>
          <a href="patient-01-info-customer.html">
            <i class="fa fa-address-card"></i>
          </a>
        </li>
        <li>
          <a href="#">
            <i class="fa fa-sign-out"></i>
          </a>
        </li>
      </ul>
    </li>
  </ul>
</div>
```

Mortech API Implementation Guide

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Mortech API implementation guide for lender websites

Advertise your organization's mortgage rates on your website or other platforms using Mortech's 3rd party API and Best Offer Strategy.

Best practices

For indicative pricing, it is important to make the rate search experience simple for the borrower. Leaving the less common, lower effect on rate aspects of a loan scenario to discuss with the loan officer directly. The data displayed may not take into consideration the borrower's personal financial situation, verified credit score, income, existing debt, or other factors. A borrower's final quote, rates, fees, and monthly mortgage payment may vary. These non-binding quotes are not official loan estimates as contemplated by regulation Z.

Ask only 5-10 pieces of information*, and include the corresponding value in the API request:

- Property state/county/zip code
- Property value
- LTV/down payment/loan amount
- Credit score range
- Purchase or refinance
- Property type
- Occupancy
- Loan term
- Filter (VA, FHA for loan programs, or goals such as low down payment, short term housing, etc.)

*These are suggested/required inputs. You may include any parameter in the 3rd party API that you wish.

And display the following*:

- Rate
- APR
- Monthly payment
- Fees including points and rebate
- Product name/term

*These are suggested values to display. You may include any object from the response that you wish.

Technical - API request

Here is an example request with the suggested inputs:

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

- `request_id:1`
- `customerId:{{customerId}}`
- `thirdPartyName:{{thirdPartyName}}`
- `licenseKey:{{licenseKey}}`
- `emailAddress:{{emailAddress}}`
- `propertyState:{{stateAbbrev}}`
- `propertyZip:{{propertyZip}}`
- `appraisedvalue:{{appraisedValue}}`
- `loan_amount:{{loanAmount}}`
- `fico:{{fico}}`
- `loanpurpose:{{purpose}}`
- `proptype:{{proptype}}`
- `occupancy:{{occupancy}}`
- `loanProduct1:{{term}}`
- `filterId:{{filter}}`

Where:

- `request_id`: Identifier for type of request, which is Best Offer Strategy
- `customerId`: Lender organization identifier, Marksman Customer ID
- `thirdPartyName`: Lender or developer authentication identifier, produced by Mortech
- `licenseKey`: Lender or developer authentication key, produced by Mortech
- `emailAddress`: Email address associated with Marksman user account for pricing requested (configured by lender within Marksman)
- `propertyState`: State abbreviation inferred from user interface (provided by borrower)
- `propertyZip`: 5 digit county code inferred user interface (provided by borrower)
- `appraisedvalue`: Value entered/inferred from user interface (provided by borrower)
- `loan_amount`: Value entered/selected on the user interface (provided by borrower)
- `fico`: Value entered/selected on user interface (provided by borrower, if a range in the UI, send the lowest value in that range):
- `loanpurpose`: Value entered/selected on user interface (provided by borrower)
- `proptype`: Value entered/selected on user interface (provided by borrower)
- `occupancy`: Value entered/selected on user interface (provided by borrower)

- `loanProduct1`: Mortgage term such as 30 year, 15 year, 5 year ARM/30 yrs
- `filterId`: Value entered/selected on user interface (provided by lender and either an option on UI or preselected by lender)

Technical - API outputs

Here is an example body of the output produced by the 3rd party API:

```
<?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="30" termType="Fixed">
    <quote parent_id="1234" product_id="1353" vendor_
name="DemoHomeLoans(1234)" vendor_product_name="FHLMC 30 Yr
Fixed" vendor_product_code="30 Year Fixed" docType="N/A"
creditGrade="" productDesc="FHLMC 30 Yr Fixed " productTerm="30 "
initialArmTerm="" intOnlyMonths="0" ARMIndex="" pricingStatus="Active"
lastUpdate="2019-12-30 09:21:21.0">
      <quote_detail rate="3.750" price="0.000" originationFee="0"
apr="3.763" prepayType="No prepay penalty" indexValue="-1.000"
margin="0.000" cap1="2" cap2="2" cap3="5" piti="3635.46" lockURL=""
downPayment="196250" loanAmount="785000" upfrontFee="0.00"
monthlyPremium="0.00">
        <ratesheet_price>100.430</ratesheet_price>
        <srp>1.749</srp>
        <intra_day_adjustment>0.000</intra_day_adjustment>
        <adjustments total_price_adj="-1.500" total_rate_adj="0.000"
total_margin_adj="0.000">
          <adjustment_detail desc="LTV > 75 to 80% FHLMC FICO 740
and greater " price_adj="-0.500" rate_adj="0.000" margin_adj="0.000"
applied="true"/>
          <adjustment_detail desc="LTV > 75 to 80% 3 Units FHLMC "
price_adj="-1.000" rate_adj="0.000" margin_adj="0.000" applied="true"/>
        </adjustments>
    </quote>
  </results>
</mortech>
```

```
<special_bonuses total_special_bonus_adj="0.000">
</special_bonuses>
<costs_and_profit profit_table="Default" total_cost_profit_dollar="5330.15" total_cost_profit_percent="0.679">
    <profit_detail total_profit_percent="0.679" total_profit_dollar="5330.15">
        <planned_profit profit_percent="0.000" profit_dollar="0.00"/>
        <corporate_profit profit_table="Default" profit_percent="0.000" profit_dollar="0.00"/>
        <profit_adjustment percent_adj="0.000" dollar_adj="0.00"/>
        <rounding_profit profit_percent="0.054" profit_dollar="423.90"/>
        <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="0.625" profit_dollar="4906.25"/>
        <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="0.679" profit_dollar="5330.15"/>
    </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 hudline="" description="Origination Fee"
feeamount="800.0" section="Origination Charges" paymenttype="Borrower-
Paid At Closing" prepaid="true"/>
  </fee_list>
</fees>
</quote_detail>
</quote>
<eligibility>
  <eligibilityCheck>Pass</eligibilityCheck>
  <comments></comments>
  <productSummaryLink></productSummaryLink>
  <productGuidelineLink></productGuidelineLink>
</eligibility>
</results>
</mortech>

```

Where:

- **Rate:** `Mortech/results/quote/quote_detail/@rate` - The location of the interest rate
- **APR:** `Mortech/results/quote/quote_detail/@apr` - The location of the APR
- **Monthly payment:** `Mortech/results/quote/quote_detail/@piti` - The location of the monthly payment estimate*

*Only displays principle and interest. If you require mortgage insurance, tax or insurance estimate, see miscellaneous.
- **Fees:** `Mortech/results/quote/quote_detail/fees/fee_list/description[@fee]/feeAmount[@fee]` - The location of the fees configured by lender
- **Product name:** `Mortech/results/quote/quote_detail/@vendor_product_code` but if blank, `Mortech/results/quote/quote_detail/@productDesc`
 *Can configure custom name in Marksman investor and product manager, see miscellaneous.
- **Points:** `Mortech/results/quote/quote_detail/@price` - The location of the points configured in Best Offer Strategy (percentage value)
- **Rebate:** `Mortech/results/quote/quote_detail/special_bonuses/special_
 bonus_detail/@Borrower_Rebate` - The location of the borrower rebate if applicable (percentage value)

Technical - Best Offer Strategy

Best Offer Strategy gives you the flexibility to determine which products to offer and when without devoting development resources. Using the Best Offer Strategy interface, you can easily change your product offering for a filter/loan product combination. To utilize the Best Offer Strategy in the API, you just need the `filterId` and `loanProduct1` parameter in the API. You create a Best Offer Strategy package in Marksman and assign to one or many filter IDs.

In the Best Offer Strategy package, you may utilize any one of the default products such as 30 year fixed (which will determine if conforming, agency jumbo or non conforming are the eligible products), FHA or VA. In addition, you may also create custom products which is a great solution for Home Ready/Home Possible, portfolio or other loan programs.

Creating these packages allow you to customize the borrower's experience based on their inputs. Then tying them to a filter ID creates more focused mortgage offerings.

To create, from within Marksman, go to *Settings > Best Offer Strategy > Best Offer Strategy Packages*.

The screenshot shows the MORTECH software interface. At the top, there is a navigation bar with links for Home, Rates, Prospects, Products, Reports, and Help. On the right side of the header, there is a user profile for "Louie Smith, Senior Loan Officer" and links for Settings, Send Feedback, and Logout. There is also a search bar with fields for "ID", "Name", "Email", "Phone", and a "Enter Tracking ID" button with a magnifying glass icon.

The main content area is titled "Best Offer Strategy". It features three items listed in a grid:

- Custom Product Setup**: Create custom loan products based off of discount/origination points, LTV ranges and profit percentages.
- Best Offer Strategy Setup**: Determine which products will be offered depending on borrower requests. Attach customized filters to particular strategy packages.
- Best Offer Strategy Packages**: Define and package which custom products will be sent to a particular lead source for each loan product.

Name your package something identifiable, select what products you want available from the *Consumer Product* section, and the corresponding product offering for that selection in the *Company Product* column.

Consumer product column will correlate with the `loanProduct1` parameter, example:
`loanproduct1=30 year fixed`.


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 Louie Smith, Senior Loan Officer | Settings | Send Feedback | Logout

ID
Name
Email
Phone
Enter Tracking ID
🔍

Home
Rates
Prospects
Products
Reports
Help

Existing Packages

Search 
Select Package Name

← Back to Settings Manager   Go to Strategy Setup

Best Offer Strategy Packages

Package Name ?	CONV			
Offer Strategy ?	Lender Choice, Prospect Filler			
Consumer Product	10 year fixed	Lead Source Company Product 1 ?	None	⋮
	<input type="checkbox"/> Enabled ?	Lead Source Company Product 2	None	⋮
		Lead Source Company Product 3	None	⋮
Consumer Product	15 year fixed	Lead Source Company Product 1 ?	None	⋮
	<input type="checkbox"/> Enabled ?	Lead Source Company Product 2	None	⋮
		Lead Source Company Product 3	None	⋮
Consumer Product	20 year fixed	Lead Source Company Product 1 ?	None	⋮
	<input type="checkbox"/> Enabled ?	Lead Source Company Product 2	None	⋮
		Lead Source Company Product 3	None	⋮
Consumer Product	25 year fixed	Lead Source Company Product 1 ?	None	⋮
	<input type="checkbox"/> Enabled ?	Lead Source Company Product 2	None	⋮
		Lead Source Company Product 3	None	⋮
Consumer Product	30 year fixed	Lead Source Company Product 1 ?	Default 5 (30 Year Fixed)	⋮
	<input checked="" type="checkbox"/> Enabled ?	Lead Source Company Product 2	Custom 3 (conf 30 Year)	⋮
		Lead Source Company Product 3	None	⋮

Once you've saved the package, select *Go to Strategy Setup* to assign a filter ID. Select the package you just created and enter a value in the filter ID column. This will correlate with `filterId` parameter. For example: `filterId=CONV`.

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Louie Smith, Senior Loan Officer | Settings | Send Feedback | Logout

ID Name Email Phone
Enter Tracking ID

Home Rates Prospects Products Reports Help

[← Back to Settings Manager](#) [→ Go to Package Setup](#)

Best Offer Strategy Setup

Offer Strategy Package ?	CONV	Consumer Product ?	10 year Fixed
Filter ID ?	CONV	Offer Strategy ?	Lender Choice, Prospect Filler
First Time Home Buyer ?	N/A	Company Product 1 ?	Default 1 (10 Year Fixed)
Documentation Type ?	N/A	Company Product 2 ?	None
Over Par Rebate ?	<input checked="" type="checkbox"/>	Company Product 3 ?	None
Upfront MI Options ?	Borrower Paid, Financed		

[Save New](#)

Existing Best Offer Strategies

Select	Consumer Product	Company Product 1	Company Product 2	Company Product 3	Offer Strategy	Filter ID	FTHB	Doc. Type	Rebate
Select	Offer Strategy Package			Offer Strategy		Filter ID	FTHB	Doc. Type	Rebate
<input checked="" type="checkbox"/>	CONV			Lender Choice, Prospect Filler		CONV	N/A	N/A	No
<input checked="" type="checkbox"/>	Select All								

[Delete Selected](#)

You now may request that filter ID in the API directly, and let us do the work. Speak with your web developer on when specific strategies need to be requested. As an example, if you create a conventional, FHA, and VA filters, requesting conventional every time, but make radio buttons available on your site, and only request FHA and VA if those are chosen.

Best Offer Strategy allows your web developer to focus on the UI, and not the logic on when to request FHA or high balance, we'll do that for you!

Miscellaneous

Custom products:

If you require products that we do not have created as defaults, or point options we do not have pre-developed, you have the ability to create custom products. This is great for USDA, Home Ready/Home Possible, or non-whole point options. Simply go to *Settings > Best Offer Strategy > Custom Product Setup*.

Lead Source Product Name	System Product Name	Loan Min/Max	Product Name	Product Type	Term	LTV Min/Max	Unit	Points	Profit
Custom Product 1	Govt FHA 15 Yr Fixed	1 / 6000000	FHA 15	Fixed	15	0.0 / 1.1	0	-1.375	0.0

- Select a lead source product name (up to 50)
- Select the system product (any product you have available for view from Marksman admin)
- Name the product something easily identifiable (not visible in API response)
- If you only want this product to price for certain LTV, identify here
- If you want to add additional profit to this product, identify here

Mortgage insurance:

To have a monthly private mortgage insurance quote returned, complete the following:

- Add `pmiCompany=-999` to the API request. This will tell us to sort through all of your active MI companies and send back the best price.
- Add `noMI=0` to the API request. This will tell us you are searching for borrower paid mortgage insurance.

**Note: you may also request lender paid or single premium, see API documentation.*

Adding those parameters to all of your requests, will provide a mortgage insurance quote (if required, >80% LTV) that can be found in `mortech/quote/quote_detail/@monthlyPremium`.

Funding fee and upfront mortgage insurance:

For the VA funding fee, and FHA upfront MI, we will provide these in `mortech/quote/quote_detail/@upfrontFee` object of the response.

We calculate the appropriate amount based on your inputs, and default to regular military, first time use for VA. If you require other options, include `vaType` and `subsequentUse` in your API request. See API documentation.

These fees are **NOT** financed by default. If you would like these to be financed in the loan amount, you will need to include `financeMI=1` in the API request.

Creating user friendly product name in the API:

We will return the Marksman product name and the investor product name in the API for every request. However, this can sometimes be confusing to a borrower and you may want to add your own standardization.

To complete, access the *Investor Product Manager* within Marksman, and select *Product Alias*:

The screenshot shows the MORTECH Investor & Product Manager interface. At the top, there is a navigation bar with links for Home, Rates, Prospects, Products, Reports, and Help. The current user is Louie Smith, Senior Loan Officer. On the right side, there is a search bar with fields for ID, Name, Email, Phone, and Enter Tracking ID, along with a magnifying glass icon.

The main content area is titled "Investor & Product Manager". It features a sidebar with icons for "Investor Info", "Global Investor Info", "Lock-in Day Offsets", and "Product Alias". The "Product Alias" section is currently selected and expanded. It contains a brief description: "Rename an unfamiliar product name with a common in-house name or a name more recognizable by your loan officers to help them easily locate the product they are searching for." Below this description, there is a link labeled "Back to Settings".

From here, select the Marksman product you would like to rename in the product category dropdown. This will include all the available products within your Marksman account:

To have the name reflected in the API response, you must enter the new name in the master product code field. Any other field does not update in the API response:

```

<results index="1" product_group_id="4" product_id="4" size="1"
product_name="Conf 30 Yr Fixed" lockTerm="30" termType="Fixed">
    <quote parent_id="7816" product_id="4" vendor_name="Demo Home
Loans (7816)" vendor_product_name="Conf 30 Yr Fixed"
vendor_product_code="Conventional 30 Year" docType="N/A"
creditGrade="" productDesc="Conf 30 Yr Fixed" productTerm="30 "
initialArmTerm="" intOnlyMonths="0" ARMIndex="" pricingStatus="Active"
lastUpdate="2020-05-18 08:35:15.0">
```

The new name will show in `Mortech/results/quote/quote_detail/@**vendor_product_code**` as displayed above.

Points/credit:

If you would like to offer point or rebate offers on your site, no need to have your web developer change the API request. Knowing they are requesting specific filters at any given time, just make our default point option products in the package available for pricing. 1 point, 2 point, and no closing cost option are available and will automatically attempt pricing when the filter is passed.

Points are provided in the response as the `price` object. To convert to dollars, you will need to complete the following formula: `price / 100 x loanAmount`

Borrower rebate is provided in the response as special bonus objects. To convert to dollars, you will need to complete the following formula: `special_bonus_detail/@price_adj / 100 x loanAmount`