



EIS - Capping Requirements

System Requirements Specification

Document version: 0.7

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# Overview

## Purpose

The purpose of this document is to provide requirements specification and adequate detail to accommodate design and development of capping capabilities in EIS.

## Audience

The intended audiences for this document are the:

EIS Group Business Team;

EIS Group Technical Teams;

EIS Group Quality Assurance Teams;

## Assumptions

The following information may influence the scope and contents of this document:

1. Maintenance approach for Capping rules can be aligned with Rating or can use separate lifecycle.
2. The initial implementation of Capping capabilities will be based on **EIS 5.2 release**. Subsequent EIS product releases starting 6.2.1 will also support Capping as well.

## Out of Scope for Capping

1. Any specifics related to EIS products developed as part of customer projects.
2. Any additions to capping that are/will be implemented as part of customer projects.

## 1.5 Referenced Documents

1. EIS Suite 5.2 product documentation: [https://www.eisuniversity.com/](https://www.eisuniversity.com/#recover-0b4fed1d0fe082ddfbfd8527ec0b6615);
2. Technical Overview document for EIS Capping requirements (EIS Suite 5.2: <https://wiki.exigeninsurance.com/display/EISCCOE/Capping>.

## 1.6 Terms and Acronyms

| **Term/Acronym** | **Definition** |
| --- | --- |
| EIS | EIS Group |
| EIS Suite | EIS product suite that consists of several sub-products |
| EIS PAS | PolicyCore Policy Administration System, part of EIS Suite |
| Carrier | Current Carrier Code (not to be confused with 'Prior Carrier Code' |
| U/W Company | Underwriting Company Code |
| State/Province | Rating State/Province of the Policy |
| LOB | Line of Business Code (E.g. Auto, Property) |
| Product | Product Code (E.g. SS, Select, Choice) |
| Form Type | Homeowners Form Type (E.g. HO3, HO4, HO5, DP3, HO6 etc.) |
| Policy Term | Term of the Policy (E.g. 6 months, 12 months) |
| Capping Factor | Numeric Factor which is multiplied by calculated Premium to calculate the Capped premium. |
| Ceiling Cap | Table driven factor used to decide the upper limit of Capping %. |
| Floor Cap | Table driven factor used to decide the lower limit of Capping %. |

# EIS Capping Requirements

## Capping Overview

Capping insures premium variance stays within predefined limits for the policy during its renewal or conversion. Each carrier will have its unique configuration for determining capping percentage and rules for its application. Capping rules are driven by multiple parameters and can contain complex logic.

Capping rules allow the system to calculate capped premium at different levels including coverage/endorsement, location and policy levels. The capping factor will be usually calculated based on the floor/ceiling percentage determined based on the capping configuration factors or for calculating the capped premiums the manually overridden capping factor defined by the user with proper privilege can be used.

Capping will result in the modification of the total premium which has been calculated for the quote.

## Capping Requirements List

The table below contains a list of the required features/functions for the Premium Capping process.

**Note:** it is expected that Product Development will determine the best solution to implement the requirements for this functionality.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ID** | **Feature Description** | **Considerations/Comments** | **Priority** | **Phase** |
| 1 | Capping functionality could be applicable for all products and rating algorithms defined in EIS (including converted policies and Book Roll) |  | High | Delivery |
| 2 | Capability to configure Capping calculation depending on carrier specific requirements.  Capping calculation can include multiple steps and depend on a number of parameters | It is expected that OpenL rules can be used for Capping configuration and calculation logic. | High | Base |
| 3 | Configuration of Capping floor/ceiling % based on a configurable set of factors like the ones listed below and identifying capping eligibility for a block of business policies (policies that will match the set of configuration parameters).  Here are some Capping floor/ceiling % configuration parameters:  - Carrier  - U/W Company  - State  - LOB  - Brand  - Product  - Form Type (for Property)  - Policy Term  - Effective Date  - Expiry Date |  | High | Delivery |
| 4 | Admin UI to manage and maintain capping configuration for a product. Users should have the proper privilege to access this configuration. This will include the ability for the user with proper privilege to turn on/off capping for a block of business policies. | OpenL WebStudio will be used as Admin UI for capping configuration.  Requirements to turn on/off capping at policy level will be carrier project specific except the manual capping factor override functionality which will be included in the base product enhancement. | High | Base |
| 5 | Ability to manually override the capping factor with privilege | Two new privileges for viewing Capping Details and manually overriding the Capping Factor will be added in EIS. | High | Base |
| 6 | Ability to configure a list of reasons for manual capping factor override | A carrier should be able to configure a list of reasons for capping percentage override. | High | Base |
| 7 | Ability to allow a user to select from a predefined list of reasons for manual capping factor override. | The list of reasons will include an “Other” option which when selected, should render a text box to capture the appropriate reason. | High | Base |
| 8 | Ability to use the capping calculation as part of rating including determination when capping factor should be recalculated. | Capping Factor and its applicability is created as OpenL calculation and can be used as is in Rating Algorithm. | High | Base |
| 9 | Ability to use different versioning schedule for capping rules | OpenL rules allow to have different effective date and other versioning properties for capping than for Rating  To achieve this, Capping rules will be placed into a separate file with different dates, & properties if necessary | High | Base |
| 10 | Apply Capping at rating for automated or manual renewals  Use a capping factor calculated at rating based on applicable rules to calculate/generate revised coverage premiums. | **Rating algorithms need to be adjusted to include capped premiums.** | High | Delivery |
| 11 | Define rules for when capping should be applied. For example:   * Midterm endorsements * Reinstatements * Rewrites * New risk item is added * New coverage is added |  | High | Delivery |
| 12 | Ability to send capping related information to data warehouse. For example:  - Capped Premium  - Uncapped Premium  - Ceiling Cap % or Floor Cap % used  - Capping Factor  - |  | High | Delivery |
| 13 | Viewing of Capping information is privilege based. |  | High | Delivery |

# 

# Capping Configuration and Capping Factor calculation

## Capping Configuration



Adding Capping flow includes the following steps:

1. Check if capping rules are effective from new date or for new state and add new module if Yes

2. Open Rules for editing in WebStudio or Excel

3. Change Capping applicability rules, capping percentage rules, premium adjustment formulas, etc

4. Update tests

5. Check that all Capping rule tests passed

6. Save Rules project

7. Check if new data is required and if Yes configure the Rule Call with the new attributes in UI

8. Redeploy Rules Project to staging

9. Check that everything works on staging

8. Promote change to production

**Note:** removing/renaming attributes required for rule calculation or changing the output of the rule evaluation is not allowed. This limitation should be forced as part of the methodology.

**Note:** It will require development effort to add new UI attributes or pass existing policy attribute not used before in Capping calculation.

## Capping Factor calculation

**Note:** the call to check for appropriate capping configuration and rules for applying capping will occur at rating. Manual capping override occurs using the View Capping Details/Manual Capping Factor Override screen available for user with the proper privilege.

**Note:** the flow indicated below may differ as a result of the final design.



## 3.3 BAM activity for Manual Capping Factor override

A new BAM activity will be created for the manual capping factor override activity performed by a user with proper privilege. This activity can be configured to display based on customer requirements, implementation.

## 3.4 Support for Adding, Removing or Updating Capping configuration

OpenL WebStudio will provide admin capability to define capping configuration/percentages (Floor, Ceiling) for a product and block of business based on a set of parameters like:

- Carrier

- U/W Company

- State

- LOB

- Brand

- Product

- Form Type (for Property)

- Policy Term

- Effective Date

- Expiration Date

It allows changing capping related rules and formulas, managing the versions and promoting changes into UAT and Production (if desired).

## 3.5 View Capping Details and Manual Capping Factor Override screen

* A new screen will be designed as part of base product enhancement to allow users with proper privilege to view the capping details and/or manually override the capping factor to be used for calculating the capped premiums.
* A View Capping Details link will be added. Selecting the View Capping Details link will open the Capping screen.
* View Capping Details link will not be displayed for a policy that was not subject to capping.
* The View Capping Details link on the P&C screen will be enabled only after capped premiums were calculated as part of rating and only for a user having the proper View Capping Details privilege. View Capping Details link should not be displayed to unauthorized users.

Users with proper privilege can view the Capping Details page when they click the View Capping Details link. Users having also the Update Capping Factor privilege can change the Applied Capping Factor by entering a new percentage value in the Manual Capping Factor field.

* Capping Detail page to provide control for removing of capping factor for users with authority to update capping factor.
* If needed the View Capping Details screen will provide the option for collapsible sections to display information at lower levels (e.g. coverage level, risk item).

View Capping Details screen to display information such as:

* Renewal Term Premium
* % Change in Policy Premium
* Prior Term Capping Factor
* Ceiling Cap %
* Floor Cap %
* System Calculated Capping Factor
* Applied Capping Factor
* Calculated Term Premium
* Capped Term Premium

**Note: “System Calculated Capping Factor” and “Manual Capping Factor” fields will be displaying the Capping factor value in Percentage (e.g. 85.92 %). Manual Capping Factor value will be entered by the user having the proper Update Capping Factor privilege as a percentage (e.g. 85.92 %).**

* On the View Capping Details screen there will be a section for entering the Manual Capping Factor override value. This section will be visible only for the users having the “Update Capping Factor” privilege. Override information should be displayed for the authorized user:
  + Manual Capping Factor
  + Reason (lookup list from where user will select the reason for manual capping factor override). A list of reasons for the manual capping factor override will be defined as a lookup list in EIS. The client will configure the list of reasons to be used for the manual capping factor override.
  + Lookup list of reasons will include an “Other” option which when selected, should render a text box to capture the appropriate reason.
  + The user performing the override should be stored with the override record for reporting
  + UI control should be provided to remove existing capping factor

When Manual Capping Override section is displayed and a value entered in the Manual Capping Factor field, UI controls are made available to Cancel and Calculate Premium.

Once capped premium recalculation is completed, the Applied Cap­ping Factor value, the Capped Term Premium value and all values under the Capped Term Premium table, shall display the new calculated capped values on the screen.

## 3.6 New Policy level attributes to support capping

New Policy level attributes will be added to support Manual Capping Factor Override:

* Capping Factor Indicator - this field will indicate if capping factor was system calculated or manually overridden by an user with proper “Update Capping Factor” privilege
* Manual Capping Factor – will contain the capping factor value entered by the user. If Capping Factor Indicator is “System Calculated” this field will be left blank.
* Date capping factor was overridden – will contain the date and time when Manual Capping Factor value was entered. If Capping Factor Indicator is “System Calculated” this field will be left blank.
* Reason for manual capping factor override. This field will contain the reason user selected for the manual capping factor override. If Capping Factor Indicator is “System Calculated” this field will be left blank.
* User who performed the override . This is the authorized user who performed the capping override or removed capping.

## 3.7 Adding privileges for viewing Capping Details/Manual Capping Factor Override screen

Two new privileges will be added in the system:

* View Capping Details – when user has this privilege he/she will be allowed to see the Capping Details.
* Update Capping Factor - when user has this privilege he/she will be allowed to view capping details, override the capping factor and select the reason for override.

# Capping Reports

A Capping Override report will be generated as part of Operational Reports.

# Appendix

## 5.1 Project Specific - Extensions of Capping

1. Uniquely identify a Program Factor for a block of business policies using the same set of factors used for Capping. Program Factor defined will be part of the rating algorithm to generate revised premiums. This factor provides an ability to manage the premium of converted & capped policies even after capping has ended.
2. Any request to turn on/off Capping except the ability to override capping factor which will be included in the base product enhancement.
3. System should provide the ability to store additional attributes for the import from Legacy required to support capping for manual conversion (renewal quotes) and Book Roll.
4. System should provide the ability to store additional premium attributes for the import from Legacy required to support capping for conversion/imported policies (automatic conversion/CF, manual conversion/renewal quotes and Book Roll).

This will be a project specific task and the assumption is that two versions of the policy will be created for imported policies/quotes during Import process where 1st version will store imported legacy Premium values and 2nd version will have Premium values calculated in EIS PAS.

AAA has requirements on two version creation during Automatic Conversion (CL & CA Auto, CA Property) and keep version 2 as not-editable.

For the new Manual Conversion Support Import process at the moment there is no requirement yet for multiple version creation but this can be added as we already have it in Conversion Factory (CF).

1. Any future, additional specific requirements for capping and capping reporting.
2. Adjust Premium Compare functionality to use capped Premium if it gets calculated for imported policy.
3. Overriding all premium variance levels (low, medium, high) if capped Premium is used.

## 5.2 AAA Initial Requirements

1. The initial implementation of Capping capabilities for AAA will be based on **EIS 5.2 release**. Subsequent EIS product releases will support Capping as well;

Base Requirement: *Assumption 2*

1. Capping is not specific to one policy product or rating algorithm, capping factor/capped premiums calculations will be independent calculation, can be included as part of rating algorithm and it should be available for all policy products defined in EIS PAS, converted policies and Book roll;

Base Requirement: *Requirement 1*

1. System should have the ability to uniquely configure Capping % and identify eligibility for a block of business based on parameters

Base Requirement: *Requirement 3*

1. System should provide the capability to manage the Capping % changes for users with proper privilege;

Base Requirement: *Requirement 4, 5, 6*

1. System should provide the ability to calculate as part of rating subsequent Renewal Capping factor based on capping configuration. Capping configuration should be defined based on a set/list of parameters/factors defined by the client and will include the mandatory effective date, expiration date for capping applicability based on Policy effective date;

Base Requirement: *Requirement 2, 3*

1. System should have the ability to uniquely identify a Program Factor for a block of business using the same set of features/parameters used for Capping as identified above. Applying the Program Factor to the calculated premiums will be part of the rating algorithm. This factor provides an ability to manage the premium of converted & capped policies even after capping has ended.

Project Specific - Extensions of Capping:  *Project Specific item 1*

1. System should provide the ability to turn capping on/off for a block of business policies based on the combination of parameters mentioned above. Turning the capping off will be achieved by setting an expiration date for the capping configuration that is required to be turned off. Turning the capping back on will be achieved by adding a new capping configuration for the block of business policies.

Base Requirement: *Requirement 4*

1. System should have the ability to store & retrieve the following information at policy level :

- Capping percentage and type used for capping factor calculation for each policy term (type will be floor, ceiling or manual capping factor override.

- System should have the ability to identify if the capping factor was calculated by the system based on floor/ceiling capping percentage or the capping factor was manually overridden by an user with proper privilege)

- Capping factor for each policy term

- Date when the capping factor was calculated

- Capped premium for each vehicle/unit and coverage/premium bearing endorsement.

Base Requirement: *Requirement 2, 3, 12, 13*

1. System should support capping for manual conversion and book rolls by enabling data capture of the following attributes as part of the conversion process:

- Future term/Expiring full Term Premium

- Premiums at coverage/Vehicle(unit) and endorsement level

- All Block of Business features/parameters mentioned for Capping configuration

Project Specific - Extensions of Capping:  *Project Specific item 4*

1. System should provide the ability to store additional attributes for the import from Legacy required to support capping during Policy Import process.

- Renewal full term premium in total and by coverage/vehicle (unit)/policy

- Expiring Term Premium in total and by coverage/vehicle (unit)/policy

- All Block of Business parameters used for configuration mentioned above.

Project Specific - Extensions of Capping:  *Project Specific item 4*

1. System should have the ability to provide the following information to BDW. These data would be used for Dislocation Analysis from BDW.

- Capped Premium

- Uncapped Premium

- Ceiling Cap %, Floor Cap % or Manual Capping Factor Override used

- Capping Factor (system calculated and applied capping factors)

- Renewal full term premium from Legacy in Total and at coverage/endorsement level

- All Block of Business parameters used for configuration mentioned above.

Base Requirement: *Requirement 12*

1. System should NOT display Capping percentages, Capping factor, Program Factor in any agent/customer facing applications and documents (E.g. Comp Raters, Quick Quote, Self Service Portals etc.). It should be available only for the authorized users.

Base Requirement: *Requirement 13*

1. Automated Capping for Conversion

* During CF Automated Policy Import process the system will calculate and apply Capping after 1st Premium calculation if it is applicable for imported policy based on existing configuration;

Base Requirement: *Requirement 10*

* During CF Automated Policy Import process the system will adjust Premium Compare functionality to use capped Premium if it gets calculated for imported policy;

Project Specific - Extensions of Capping:  *Project Specific item 6*

* During CF Automated Policy Import process the system will override all premium variance levels(low, medium, high) if capped Premium is used.

Project Specific - Extensions of Capping:  *Project Specific item 7*

# History of Revisions

Table 1: History of revisions

| History of revisions | | | | |
| --- | --- | --- | --- | --- |
| Revision date | Version | Author | Description | Chapter Changed |
| 17-Mar-2015 | Draft | George Cosoveanu | High level requirements for Capping ready for internal Exigen Review |  |
| 19-Mar-2015 | 0.1 | Sergey Zyrianov | Updated requirements to include rules usage | all |
| 19-Mar-2015 | 0.2 | George Cosoveanu | Updated requirements to include the View Capping Details/Manual Capping Factor Override | all |
| 20-Mar-2015 | 0.3 | George Cosoveanu | Updated requirements based on the internal Exigen review meeting held on Mar-19-2015 | all |
| 20-Mar-2015 | 0.4 | George Cosoveanu | Updated requirements based on a late requirements update from the client saying that Manual Capping Factor should be entered as a percentage and both Manual Capping and System calculated capping factors should be displayed as a percentage on the View Capping Details screen | 3.5 |
| 23-Mar-2015 | 0.5 | Sergey Zyrianov | Updated requirements list to include capping rules independent from rating versioning, added tracing to appendix | 2, 4 |
| 23-Mar-2015 | 0.6 | George Cosoveanu | Updated requirements adding Automated Capping for Conversion in AAA Initial Requirements and Project Specific - Extensions of Capping chapters | 4.1; 4.2 |
| 23-Mar-2015 | 0.7 | George Cosoveanu | Updated requirements based on the internal Exigen review meeting held on Mar-23-2015 | all |