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Risk Modeling Application Buyer's Guide

Catastrophe modeling is the backbone of the risk organization. It delivers the insights needed for your entire organization to manage risk aggregations, deploy capital, and price insurance coverage. Choosing the right application to run your models can be as important as the models themselves. When evaluating risk modeling solutions, it's important to ask questions about **modeling capabilities, business integration tools,** and **risk fundamentals** for each system.

QUESTIONS TO CONSIDER	QUESTIONS TO CONSIDER	COMMON PITFALLS
	MODELING CAPABILITIES	
1	**MODEL GRANULARITY** Does your application offer granular policy outputs for portfolio and individual location losses?	Some applications can only provide an aggregate view of the portfolio or individual locations, not both.
2	**MARGINAL ANALYSIS** Can your application provide insights into how new policies impact the overall book of business?	Some applications only give a static view of losses without the ability to dig into what-if scenarios.
3	**WORKFLOW OPTIMIZATION** Can you run both primary and reinsurance workflows within your modeling application?	Vendor solutions may require you to run separate applications for insurance and reinsurance workflows.
4	**MODEL VERSIONING** Can you access multiple versions of your catastrophe models?	Some modeling applications only offer a single or a few versions of a peril catastrophe model.
5	**ACCESSIBILITY** Are newly licensed models instantly available upon their release?	Some applications require procuring new IT infrastructure to run new models, increasing IT spend.
6	**SPEED AND PERFORMANCE** How long does it take for you to analyze a portfolio of one million locations?	Some applications require days or even weeks to run a large portfolio.
7	**CUSTOMIZATION** Can you customize your view of risk by adjusting parameters such as event rates and losses or casualty rates without rerunning the model?	Some applications may require you to rerun your entire model to conduct a scenario analysis.
8	**THIRD-PARTY MODELING** Can your applications run your home-grown models or models from multiple vendors?	Most applications can only run their own proprietary models.

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	BUSINESS INTEGRATION TOOLS	
9	**FINANCIAL CONSISTENCY** Does your modeling application deliver similar loss results to your underwriting system?	Some applications do not share the same financial engine as their underwriting applications, reducing confidence In results.
10	**REAL-TIME DECISION SUPPORT** Does your application support near-real-time visualization and accumulation analytics?	During a catastrophe event, some applications struggle to ingest real-time event data and forecasting into the accumulation analysis.
11	**APPLICATION INTEGRATION** Does your modeling application seamlessly integrate with third-party systems, such as pricing or underwriting?	Some applications require custom code and do not use REST APIs for application integrations.
	RISK FUNDAMENTALS	
12	**DATA MANAGEMENT** Can you seamlessly import, export, and analyze multiple data formats?	Most applications can only analyze one type of data format, such as EDM, CEDE, or OED, leading to challenging manual transformations of data or limited analysis capabilities.
13	**EXPOSURE DATA CONSISTENCY** How do you ensure that exposure data is consistent between your modeling and exposure applications?	Vendors may require you to export the data and then transfer it to another application, leading to complex workflows with lots of manual steps.
14	**SOFTWARE MANAGEMENT** How does your platform manage software patches and security updates?	Software patches and updates may not be automatically installed to your application.
15	**ENVIRONMENT FLEXIBILITY** Can your modeling application access, analyze, and edit data stored in on-premises data centers or data stored in the cloud?	Vendor applications may require you to run your exposure data on-premises or in the cloud, not both.
16	**DATA SCHEMA** Can your applications ingest, store, and analyze multiple data schemas, such as CEDE and OED?	Most applications can only analyze a single data schema.