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Product Architecture

2016 CAS Ratemaking and Product Management Seminar

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Agenda

- What is Product Architecture?
- Developing a Product Architecture
- Considerations and Success Factors
- Open Q&A

The Nimble Insurer

P&C carriers are responding to pressure to become more “fleet footed” in an increasingly analytically-driven and efficient marketplace

Opportunity:

Carriers are making substantial investments to improve flexibility and speed as they go to market.

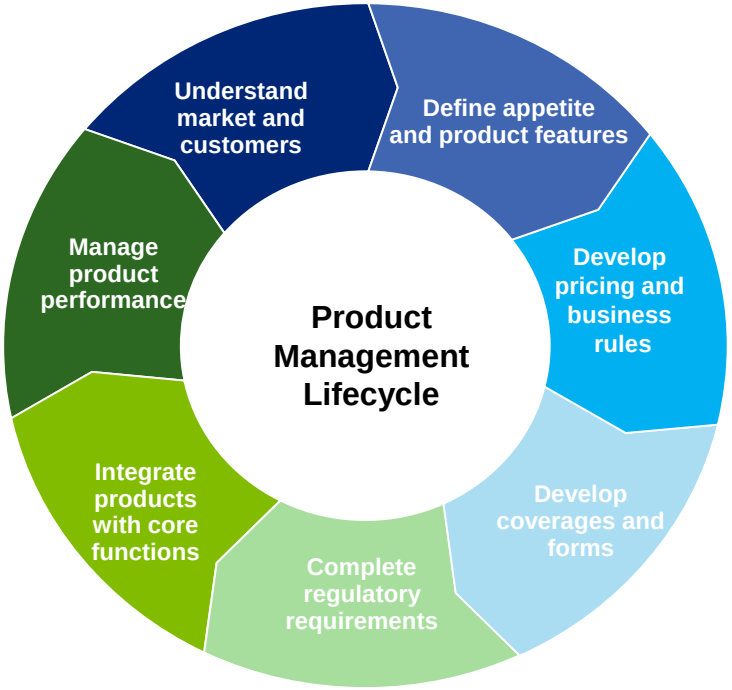
Challenge:

While speed-to-market is a common mantra across the industry, carriers struggle to achieve desired outcomes for a variety of reasons:

- Talent Shortages
- Operational Silos
- Cumbersome Processes
- Outdated Technology
- Data Limitations
- Challenges with implementation and change management

Agility in Product Management

Improve speed to market through better discipline in the design, deployment, and monitoring of products



Critical Success Factors

- Clearly articulated, broadly understood product strategy
- Culture of collaboration across functions
- Understanding of roles and accountability for all involved in the process
- Processes and technology that effectively support operational excellence
- Effective product monitoring processes

A modular product architecture provides a foundation for better agility in product management

What is Product Architecture?

What is a Product?

Central to the construction of the product architecture is alignment on the definition of a product

- Coverage Offerings
- Value Added Services

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- Underwriting Guidelines
- Forms & Endorsements
- Rate Plans
- Business Rules
- Data

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- Marketing Materials
- Broker Communications

- From the customer point of view, a product is a bundle of insurance coverage and related services, such as claims handling and risk management
- From an operational point of view, underwriting guidelines, forms, rate plans, rules, and data are used to define, underwrite, price, and manage the product
- Marketing materials and broker communications, such as appetite guides and proposals, manage messaging, branding, and delivery

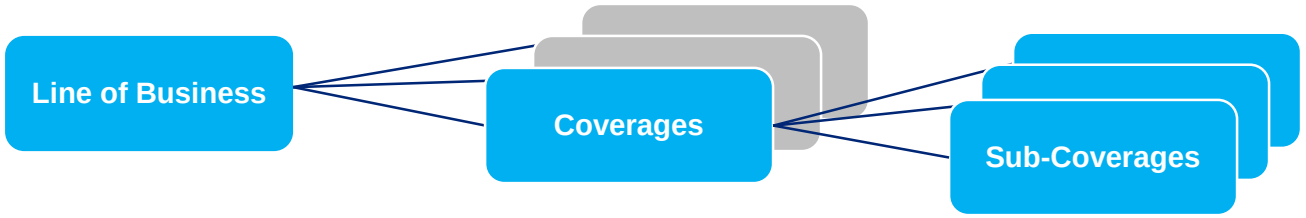
A modular product architecture provides an organized framework for product definition

Introduction to Product Architecture

A modular product architecture organizes product elements to support reusability for product updates and new market offerings

Components

Line of business and coverage components can be assembled to create products and market offerings



Introduction to Product Architecture

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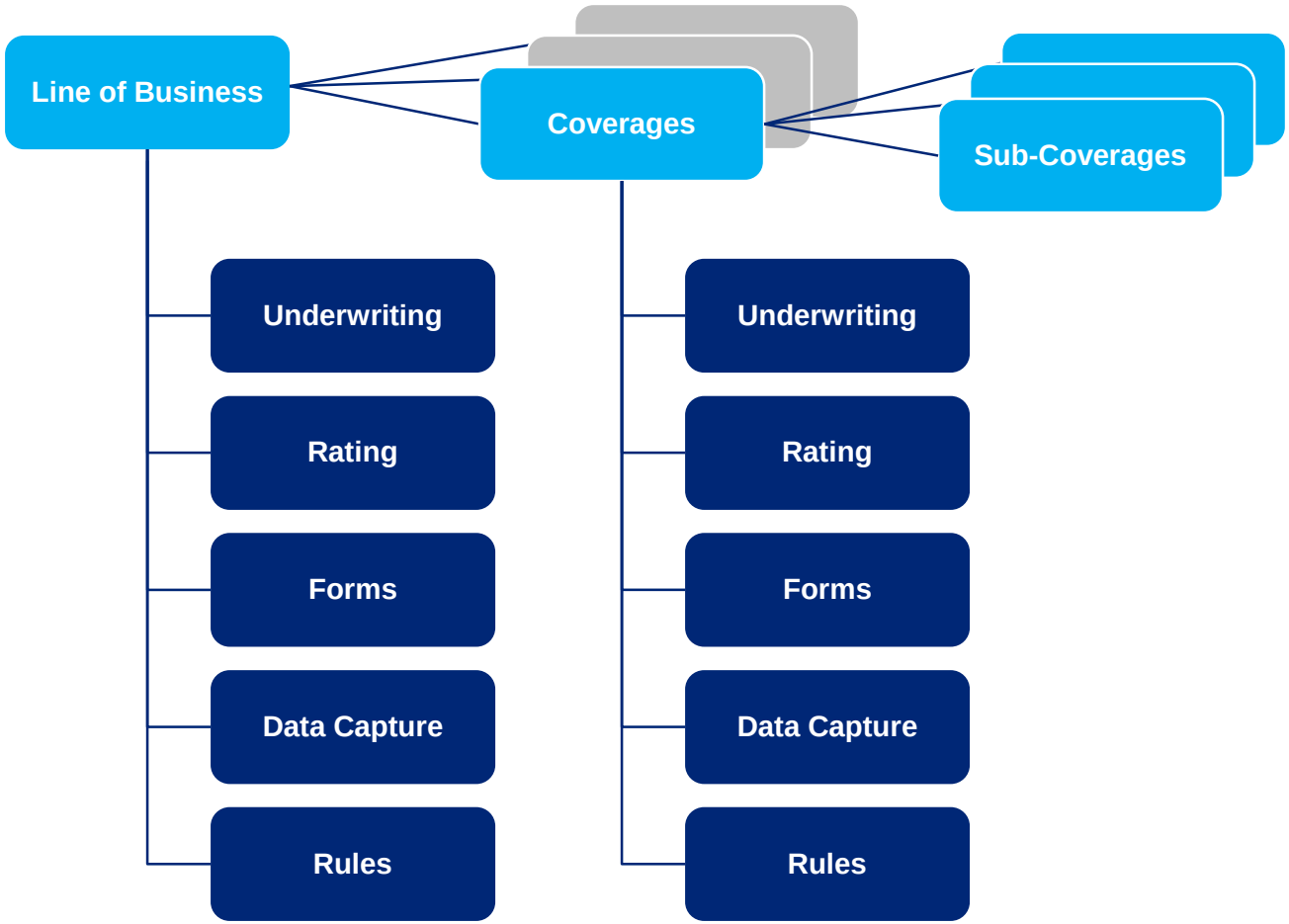
Line of business and coverage components can be assembled to create products and market offerings

Dimensions

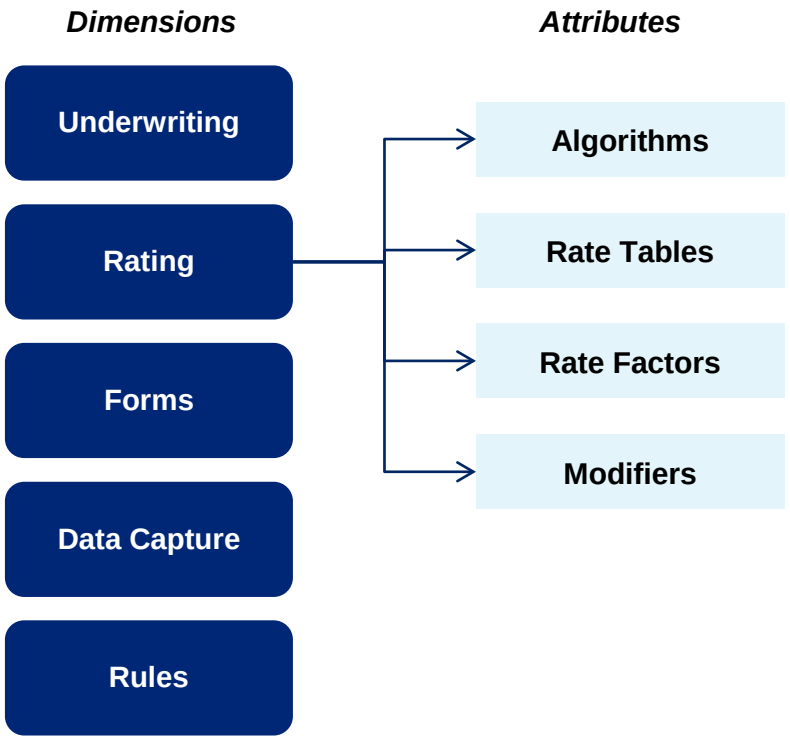
Dimensions are attributes mapped to a line of business or coverage component, which can be re-used and tailored when assembling products and market offerings



Introduction to Product Architecture

Dimensions are the detailed attributes that can be customized to create individual products

Dimensions and Attributes

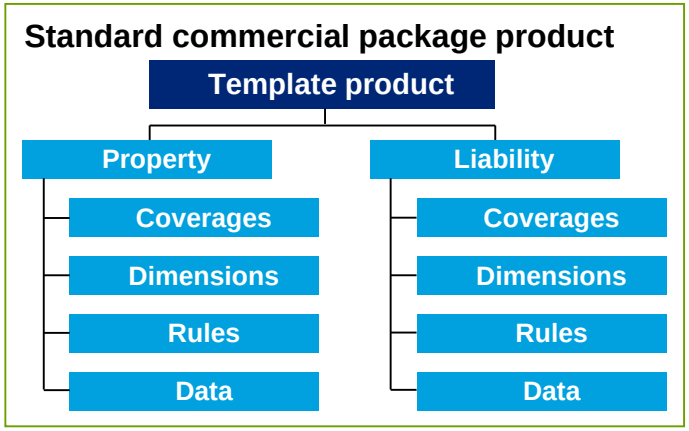


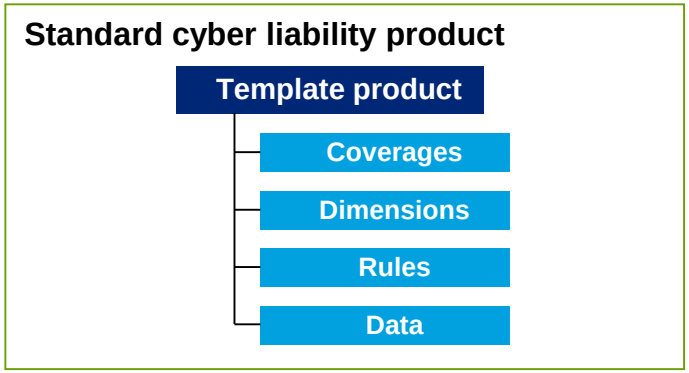
Examples

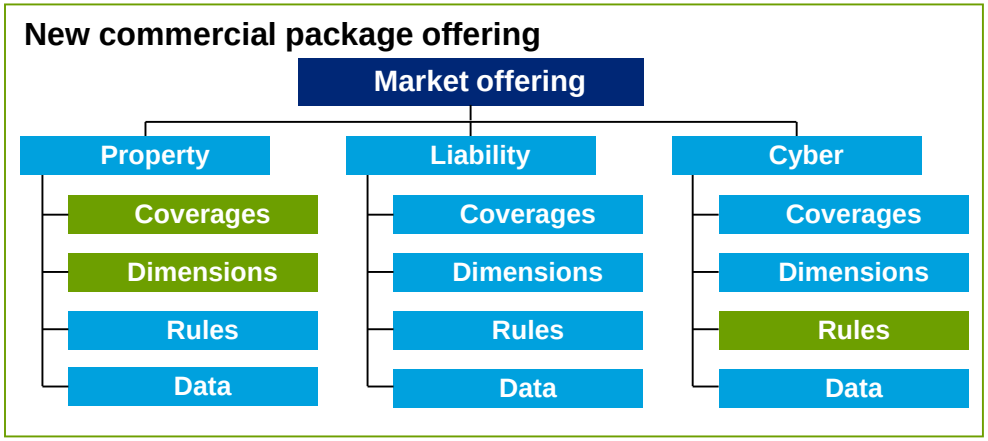
- Underwriting dimensions include limit options, deductible options, layer attachment points
- Rating dimensions include algorithms, base rate tables, rating factors, modifiers
- Rules dimensions includes coverage attachment rules, forms attachment rules, underwriting referral rules

Reuse in Product Development and Configuration

New market offerings can be created by reusing or modifying any of the components, dimensions, or rules for unique risk characteristics







- Reuse package product with less coverage for Property and restricted policy limits options
- Reuse cyber but modify rules to attach coverage only via endorsement
- Updates to elements of a template product, such as a rate factor table change, can be set to automatically update related market offerings

Benefits of a Modular Product Architecture

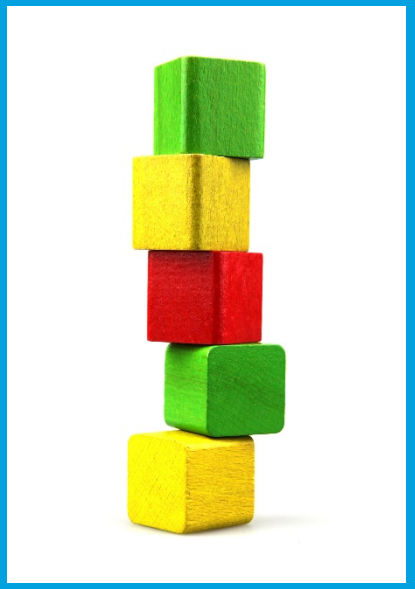
Business Benefits:

- Creates a clear view of the existing products, and their construct, to promote reuse across distinct businesses
- Eliminates redundant work in creating new products
- Reduces the workload associated with product maintenance and enhancements
- Enables a more streamlined process for ensuring compliance with product filings
- Creates a framework for defining business intelligence requirements early in the process – proactive, not reactive
- Serves a foundation for other product optimization initiatives, such a portfolio or forms rationalization

IT Benefits:

- Creates an organized structure and common language to communicate requirements to IT
- Serves as a tool to mine opportunities for reuse of existing IT assets, significantly reducing time to build new products, deliver product enhancements and maintain existing products

Developing a Product Architecture



Process to Develop a Product Architecture

Inventory Products

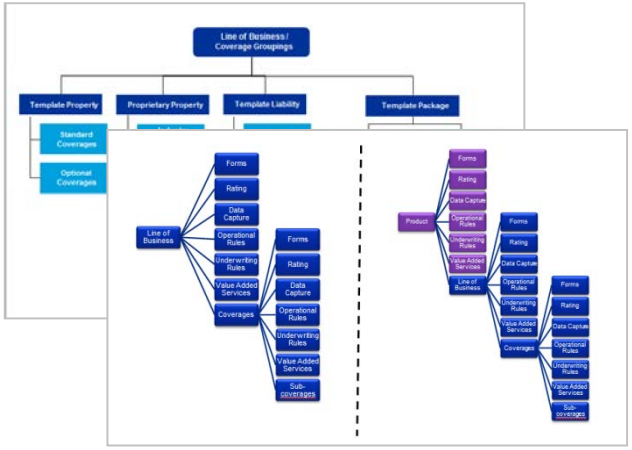
- Create an inventory of the current product portfolio
- Map the lines of business, coverages and subcoverages across products

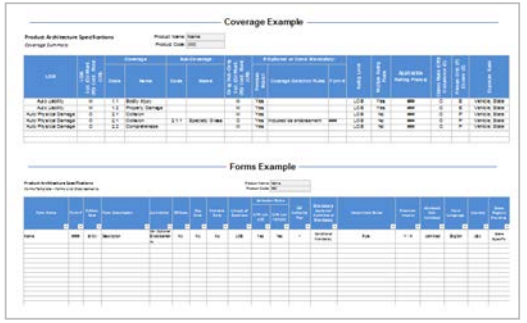
Define Product Architecture

- Evaluate the product inventory to identify commonality and opportunities for reuse
- Define the go-forward line of business, coverage, and subcoverage components

Implement in Operations

- Incorporate into management of product portfolio and product development processes
- Develop requirements to implement and maintain in core systems





Product Inventory

Decomposing individual products into coverage components provides visibility into commonalities and differences

Property Example

Product Name		Coverages									
		1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	1.10
		. Bldgs & Structures	Arson or Fraud	Personal Property	Boiler & Machinery	Building Glass	Debris Removal	Business Income	Earthquake	Computer Fraud	Valuable Papers
1	Product A	Y	O	Y	Y	Y	Y	Y	O	Y	O
2	Product B	Y	O		Y	Y	Y	Y			
3	Product C					Y					
4	Product D	Y		Y	Y		Y				
5	Product E			Y							O

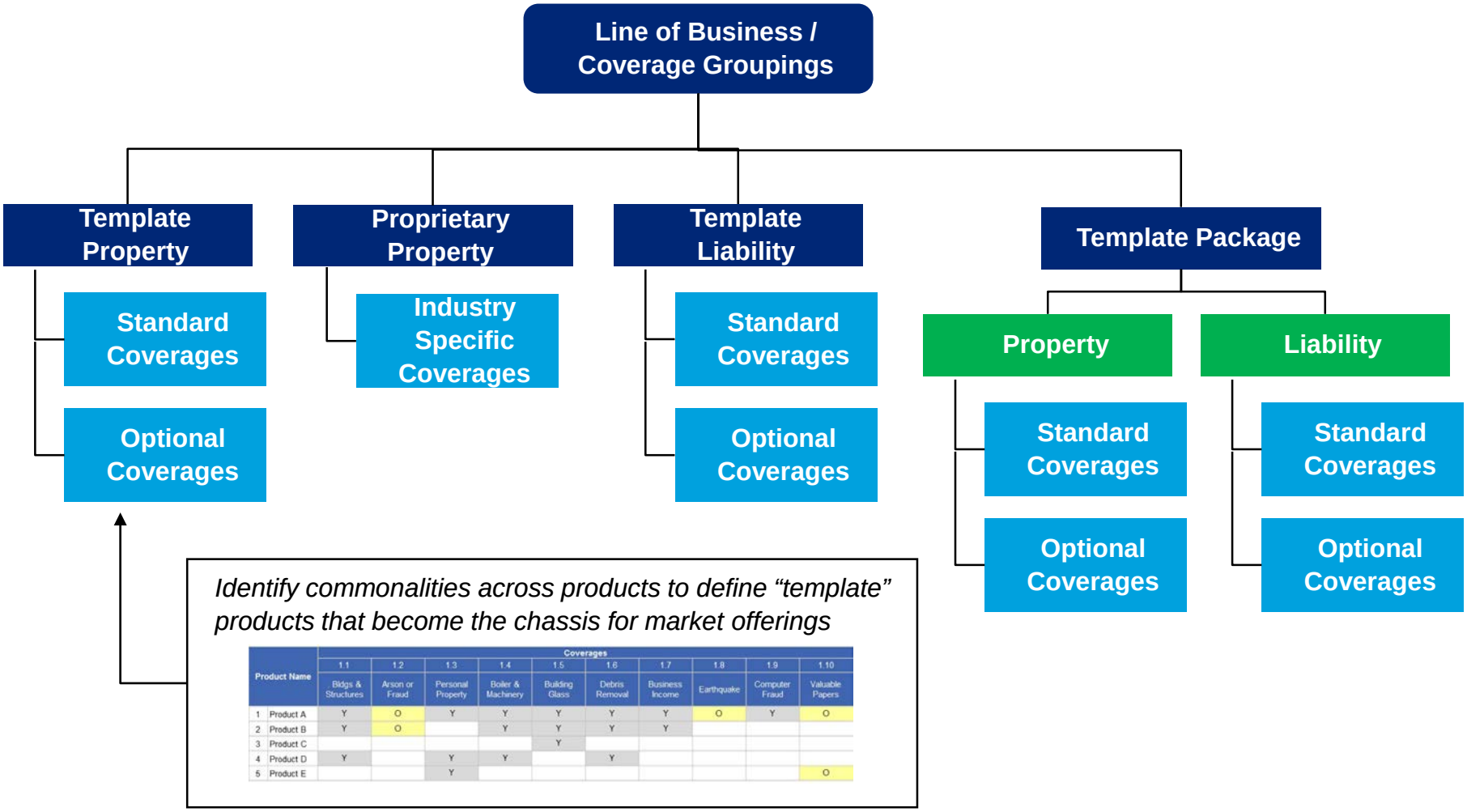
Liability Example

Product Name		Coverages									
		2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10
		Premises	Completed Products & Ops	Employment Practices	Personal & Advertising	Electronic Data Liab.	Punitive Damages	Damage to Rental	Medical Expenses	Add'l Insd – Class 1	Add'l Insd – Class 2
1	Product F		Y						Y	Y	Y
2	Product G				Y	Y	O	Y			
3	Product H	Y		Y	O			Y			O
4	Product I	Y	Y	Y	Y						
5	Product J	Y					Y	O	Y	Y	O

Key		
	Y	Included Coverage
	O	Optional Coverage

Defining a Product Architecture

The product inventory informs the definition of the go-forward line of business and coverage component framework



	Product Name	Coverages									
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1	Product A	Y	O	Y	Y	Y	Y	Y	O	Y	O
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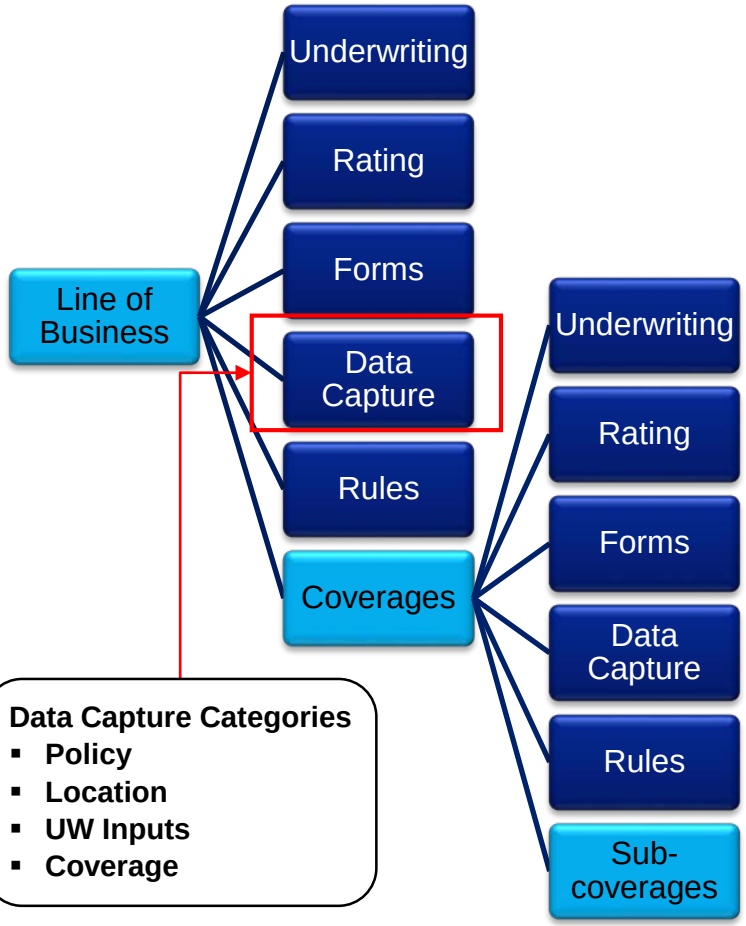
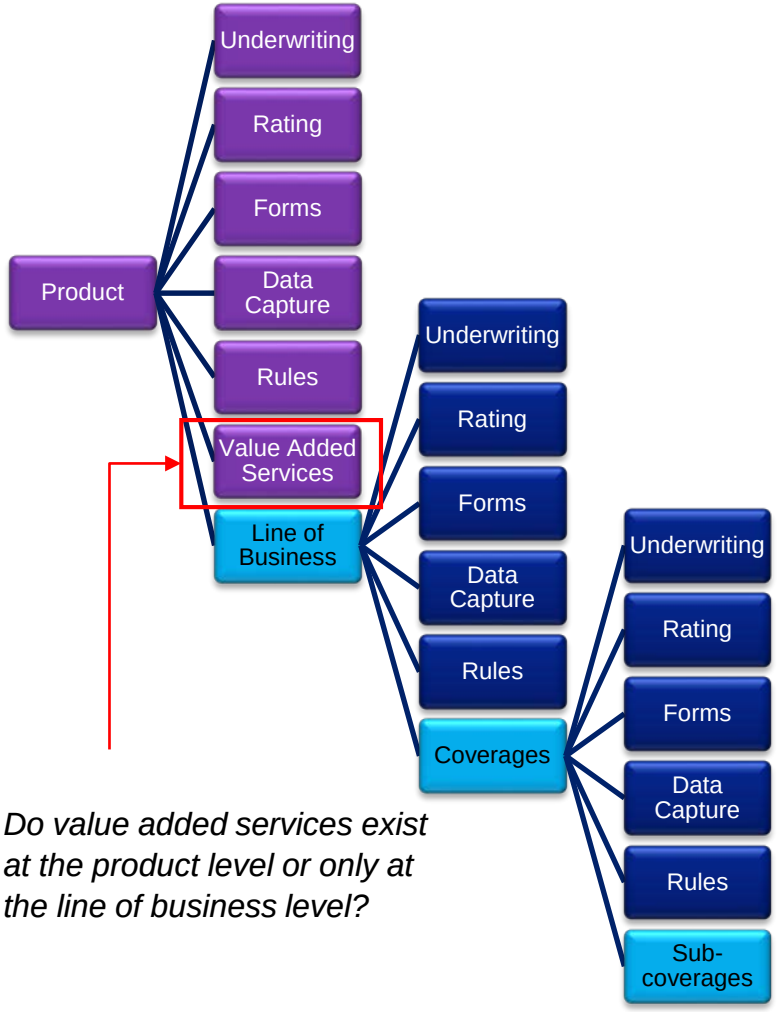
3	Product C					Y					
4	Product D	Y		Y	Y		Y				
5	Product E			Y							O

Defining a Product Architecture (cont.)

Once a component framework is established, then consider how dimensions are defined at different levels in the hierarchy



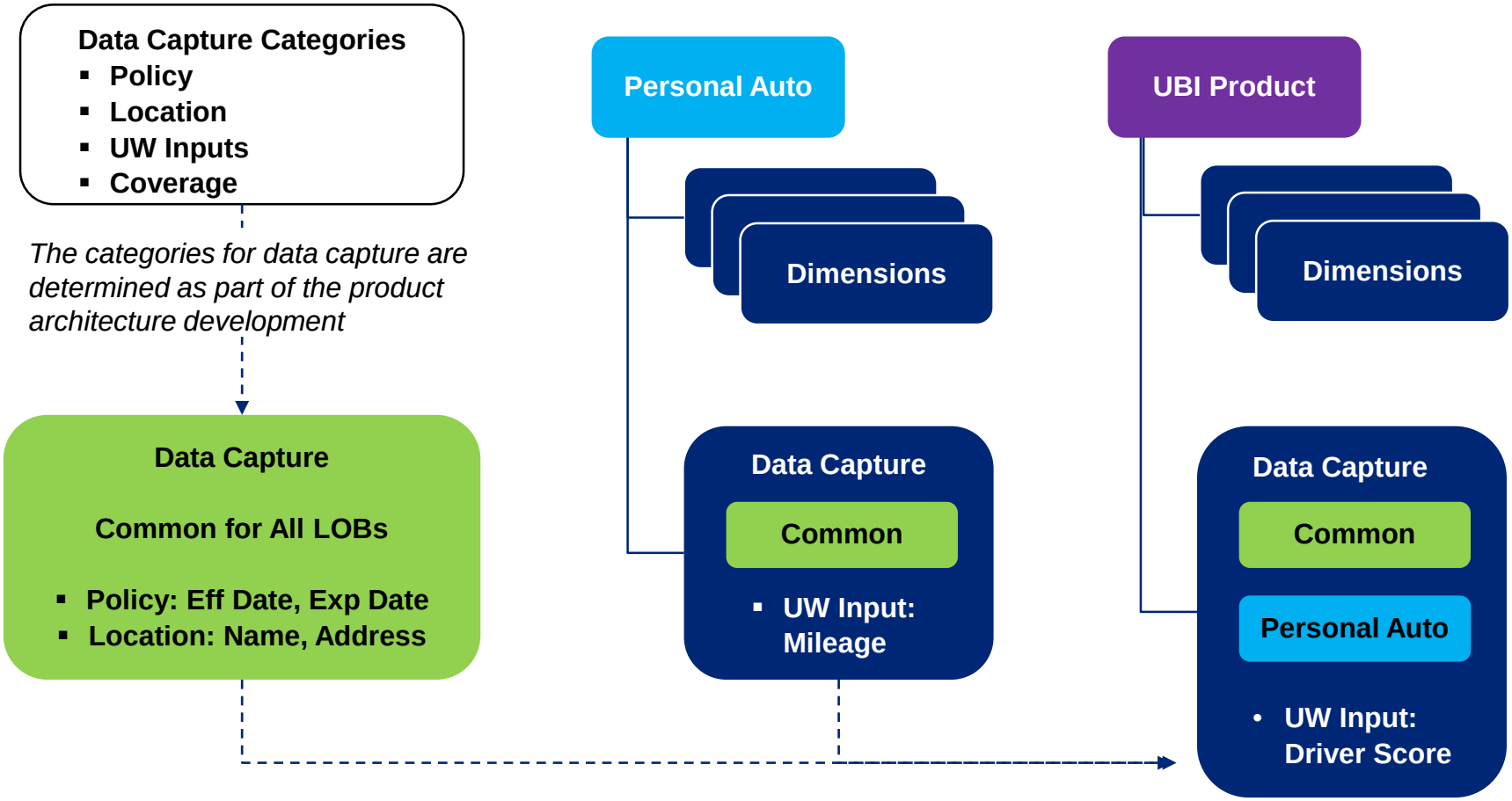
What categories of data are captured to support underwriting, analytics and reporting?



Do value added services exist at the product level or only at the line of business level?

Linking to Operations

System requirements can then be organized and communicated in the context of the product architecture

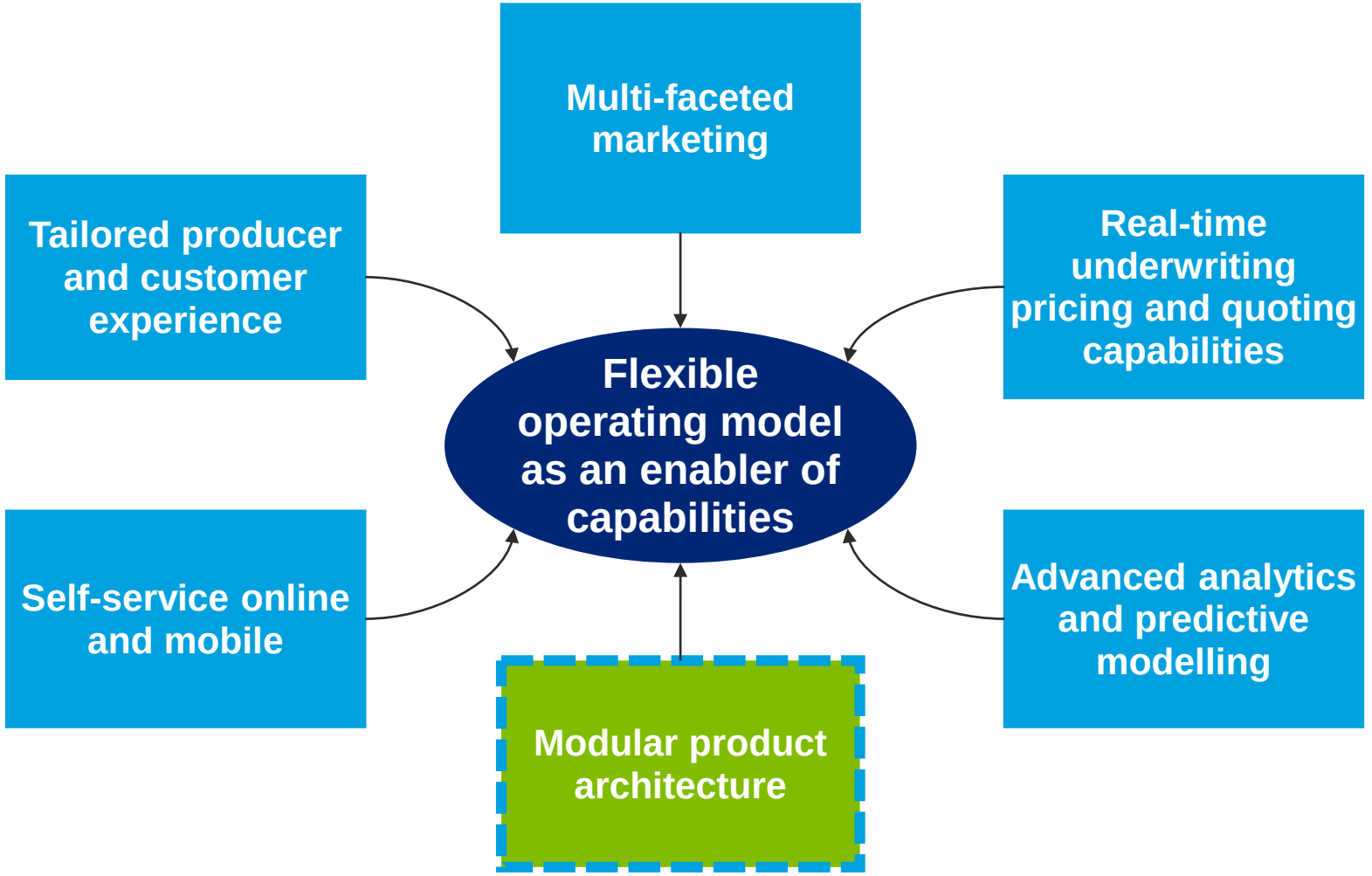


Data capture specifications can be documented once and then referenced or reused when documenting specifications at lower levels within the architecture. This mirrors how products will be assembled in core systems.

Considerations and Success Factors

Profile of a Nimble Insurer

The insurance industry is evolving capabilities at an unprecedented pace, as carriers respond to rapidly changing customer and producer demands



Success Factors

The following factors are critical in order to fully mine the potential value from major investments in business transformation

Leadership	▪ A well-defined strategic vision from the top, echoed consistently through communications and actions ▪ Operational priorities that clearly support the strategy
Discipline	▪ A focus on consistent, repeatable processes with proactive monitoring and measurement of outcomes (“test and learn”) ▪ Management decisions based on a transparent fact base, aligned with the strategy communicated by leadership
Collaboration	▪ Right people doing the right things at the right time ▪ Connectivity between field, business, and IT personnel, with a clear delineation of ownership and responsibilities
Adoption	▪ Comprehensive business implementation programs for new tools and technology ▪ Continual focus on change management and education

Considerations for Product Architecture

A modular product architecture evolves with the business, requiring monitoring and maintenance over time to realize ongoing benefits

Optimize benefits by **aligning product development and operational approaches** under a common product architecture

Create **mechanisms to measure tangible outcomes** in line with business objectives (e.g. time to launch enhancements, number of new form requests)

Establish a **governance structure** to monitor adherence to the product architecture and evaluate potential changes to the product architecture over time

Educate stakeholders about the product architecture and **embed the common language in ongoing dialogue** between parties

Question and Answer