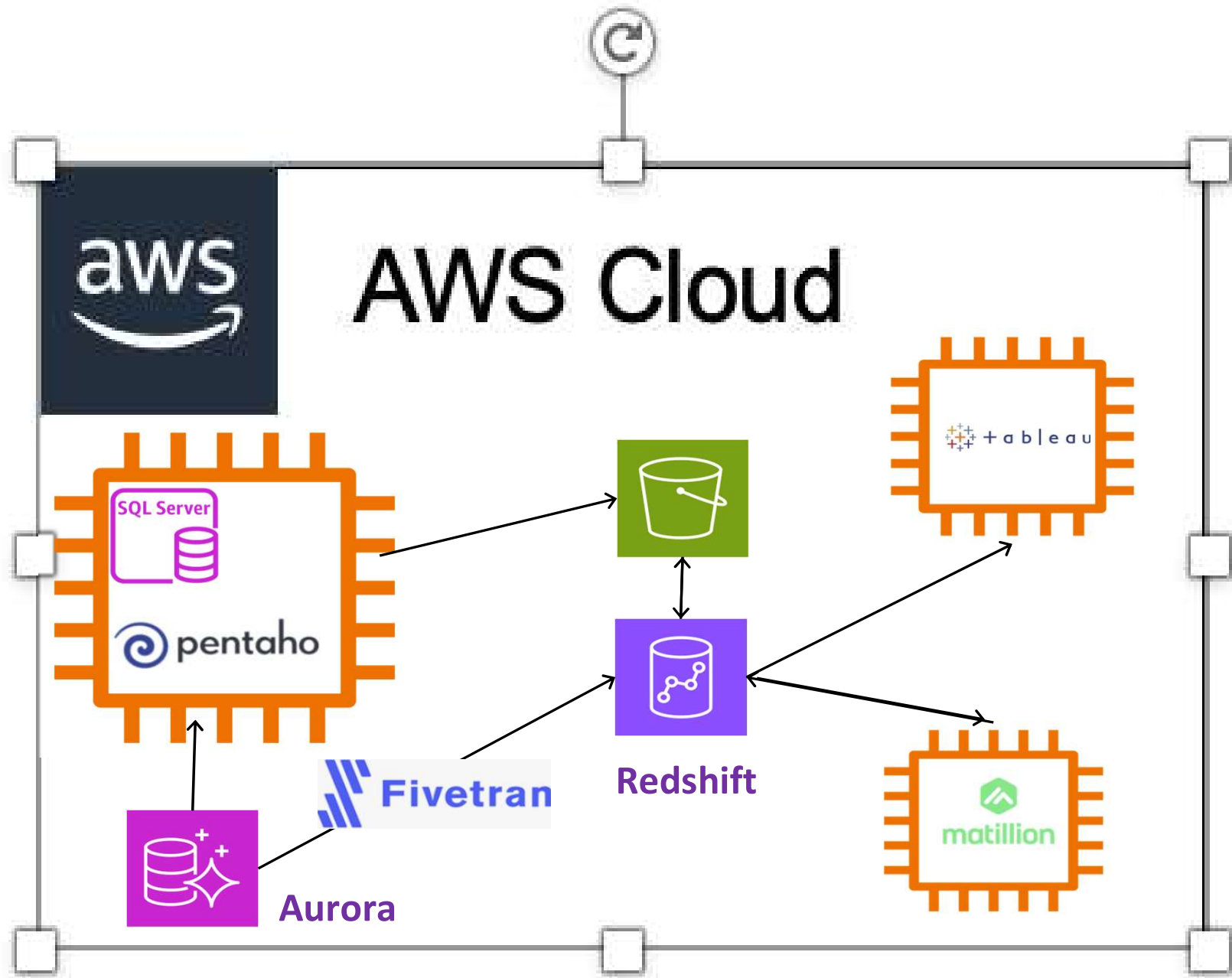


<b>History</b>
The original data warehouse structure and ETL processes were created by 4Sight (a third-party vendor).
It appears that it was initially designed for a tiny insurance company and later adapted to be more generalized for any insurance company.
I did not receive any support or assistance from the vendor.
The basic solution was substantially enhanced and tailored to meet the specific requirements of CSE.



#	DW Projects	Comment
1	DATE_ID and MONTH_ID in DIM_TIME and DIM_MONTH dimensions were changed to YYYYMMDD and YYYYMM format.	<i>Tiny change but how much time and efforts it saved!!! All our queries include a report period: month_id=YYYYMM or TransactionDt_Id&gt;YYYYMMDD</i>
2	Redshift tables structures were re-done according best practises.	<i>Redshift queries performance improved</i>
3	Cleaned up unused measures.	<i>The data structure became more clear and time of the load from Ms SQL improved.</i>
4	Removed history from few vanilla dimensions designed as SCD type 2 because the information is static in our business model.	<i>The data have more sense without unneeded "wrong" historical records.</i>
5	Added new SCD type 2 dimensions where history is important for CSE.	<i>Risk attributes history allowed to estimate companies portfolios and model rates.</i>
6	Added several new measures and the whole custom areas with new fact tables and dimensions.	<i>Based on the new data we built important data feeds like enterprise rate system, modeling data, regulatory data calls and Tableau dashboards (Product performance dashboards, Book of Business, etc)</i>
7	Pentaho Data Integration ETL (Ms SQL) was gradually being replaced by Redshift based ELT in Matillion and Redshift stored procedures.	<i>The new architecture reduces the processing time and eliminate the most long process - load data from Ms SQL to Redshift.</i>
8	Few more similar DW solutions were built for other companies.	<i>CSE provides reinsurance for these companies and need analyze their data</i>
9	Configured Redshift Spectrum Data Lake for text files we receive from vendors.	<i>Ability to query data from text files significantly reduced time to analyze new information and add it in DW tables.</i>
10	Configured Redshift Federated Queries to read Aurora transactional data in DW if needed	<i>With federated queries we were able to validate DW quality directly compare data to transactional system or add something in the reports and data feeds if it is not already in DW</i>





## Tables

DW Table	Schema in Redshift	Source (In most cases these are tables PRODCSE_DW in Aurora)	DW Table type	Comment
adjusterlookup	FSBI_DW_SPINN		Reporting table	
agency_reports	FSBI_DW_SPINN		Reporting table	Agency dashboard
bob_auto	FSBI_DW_SPINN		Reporting table	Book of Business dashboard
bob_building	FSBI_DW_SPINN		Reporting table	Book of Business dashboard
claimhistoricaldetails	FSBI_DW_SPINN		Historical data	See more details in <a href="https://cseinsurance.sharepoint.com/sites/BI/BI%20Wiki/ClaimHistoricalDetails.aspx">https://cseinsurance.sharepoint.com/sites/BI/BI%20Wiki/ClaimHistoricalDetails.aspx</a>
dim_address	FSBI_DW_SPINN	Addr	Dimension Type 1 (Dictionary)	Dictionary table. All available risk addresses in the system. The same data as address data in DIM_VEHICLE or DIM_BUILDING. Garage or Insured Lookup address for vehicles, Risk address for Homeowners and LandLords, Location address for commercial. The same approach as in PolicyStats.
dim_adjuster	FSBI_DW_SPINN	AllContacts, Provider, UserInfo	Dimension Type 1 (Dictionary)	Adjuster info including email
dim_app_building	FSBI_DW_SPINN		Dimension Type 1	Source: Building, Addr DW Table type: Dimension Type 1 Table description: Quotes and Applications Property and related policy attributes(rating variables and coverage limits or deductibles)
dim_app_driver	FSBI_DW_SPINN		Dimension Type 1	Source: DriverInfo, DriverPoints, PartyInfo, PersonInfo DW Table type: Dimension Type 1 Table description: Quotes and Application Drivers attributes

## Tables

dim_app_insured	FSBI_DW_SPINN		Dimension Type 1	Source:Insured, ParttyInfo, NameInfo, PersonInfo, Addr, AllContacts, InsuranceScore DW Table type: Dimension Type 1 Table description: Quotes and Applications Insured info including mailing address and scores
dim_app_vehicle	FSBI_DW_SPINN		Dimension Type 1	Source: Vehicle, Addr DW Table type: Dimension Type 1 Table description:Quotes and Application Vehicle and related policy attributes(rating variables and coverage limits or deductibles)
dim_application	FSBI_DW_SPINN		Dimension Type 1	Source:Appliaction, QuoteInfo, BasicPolicy,Task,Line, BasicPolicy, Building,Risk DW Table type: Dimension Type 1 Table description: Quotes and Applications base info
dim_building	FSBI_DW_SPINN	Building, Addr, Coverage	Slowly Changing Dimension Type 2	Homeowners, LandLords and Commercial buildings details at the level of mid-term changes. ValidFrom - ValidTo are based on transaction effective dates
dim_buildingrisk	FSBI_DW_SPINN	Building, RiskGroup	Slowly Changing Dimension Type 2	It's a very special case of one to many join from a Fact table to this dimension. Use DIM_GROUP_BRIDGE and DIM_COVEREDRISKEXTENSION to join to Fact tables vis PRIMARYRISKEXTENSION_ID
dim_catastrophe	Public	Catastrophe,	Dimension Type 1 (Dictionary)	Catastrophe list from SPINN, WINS
dim_claim	FSBI_DW_SPINN	ClaimStats	Dimension Type 1	Claimnumber, date of loss, reported date, policy term
dim_claimant	FSBI_DW_SPINN	Claim, Claimant, AllContacts, PersonInfo	Dimension Type 1 (Dictionary)	Claimant names, contact info

## Tables

dim_claimextension	FSBI_DW_SPINN	ClaimStats,Claim,Propertydamaged,Catastrophe	Dimension Type 1	Claim details. See dim_claimextension for more details
dim_claimrisk	FSBI_DW_SPINN	ClaimPolicyInfo,PolicyRisk,PropertyDamaged,Vehicle,Risk,DriverInfo,PersonInfo,Building,Location	Dimension Type 0	Claim risks. Use FACT_CLAIMTRANSACTION.PRIMARYRISK_ID to join. It's a table for a special purposes. Use direct links to risk items from FACT tables via VEHICLE_ID, DRIVER_ID, BUILDING_ID and LOCATION_ID
dim_claimtransactiontype	FSBI_DW_SPINN		Dimension Type 1 (Dictionary)	DW special table
dim_classification	FSBI_DW_SPINN	PolicyStats	Dimension Type 1 (Dictionary)	Insured items (Bicycles,Cameras,Coins) Rare used
dim_coverage	FSBI_DW_SPINN	PolicyStats,ClaimStats	Dimension Type 1 (Dictionary)	Dictionary table. All available Coverage codes, ASL, SubLine
dim_coverageextension	Public		Dimension Type 1 (Dictionary)	Manually populated, used for coverage custom grouping and descriptions
dim_coveredrisk	FSBI_DW_SPINN	Risk,DriverLink,Vehicle,Building,DriverInfo,PersonInfo,Location	Dimension Type 0	Risk details at the level of mid-term changes. There are very basic risk information (risk number, VIN, Driver License, inception date) and links to DIM_VEHICLE, DIM_BUILDING, DIM_DRIVER and DIM_LOCATION. Useful in special cases when Risk Type is needed. Widely used in ETL. Use direct links to risk items from FACT tables via VEHICLE_ID, DRIVER_ID, BUILDING_ID and LOCATION_ID



## Tables

dim_coveredriskextension	FSBI_DW_SPINN	Risk,DriverInfo,Building,Location	Dimension Type 0	Risk groups description: Building Risks for Commercial, Drivers groups for Auto. See also DIM_GROUP_BRIDGE. Can be excluded in queries. The primary Id is the same as in DIM_COVEREDRISK. It was added just to describe relationshipd between risks
dim_customer	FSBI_DW_SPINN	Customer	Dimension	Customer name and contacts
dim_deductible	FSBI_DW_SPINN	PolicyStats, ClaimStats	Dimension Type 1 (Dictionary)	Dictionary table. All available deductibles. Based on PolicyStats. As good as PolicyStats
dim_discount	FSBI_DW_SPINN		Dimension Type 1 (Dictionary)	Dictionary of discounts
dim_driver	FSBI_DW_SPINN	DriverInfo, PersonInfo, DriverPoints, LossHistory	Slowly Changing Dimension Type 2	Drivers attributes, discounts, MVR at the level of mid-term changes. ValidFrom - ValidTo are based on transaction effective dates
dim_geography	FSBI_DW_SPINN	Addr	Dimension Type 1 (Dictionary)	Dictionary table. The same as address but with less details (no postal code, street address etc)
dim_group_bridge	FSBI_DW_SPINN	Risk,DriverInfo,Building,Location	Dimension Type 0	Detail relationships between risks: location and buildings (buildinrisks); vehicles and not primary assigned drivers at the level of mid-term changes. If you need just number of buildings (building risks) per location or TIV you can use DIM_LOCATION
dim_insured	FSBI_DW_SPINN	Insured,NameInfo,PersonInfo,Addr,AllContacts,InsuranceScore	Dimension Type 1	Insured names, date of birth, credit scores

## Tables

dim_limit	FSBI_DW_SPINN	PolicyStats, ClaimStats	Dimension Type 1 (Dictionary)	Dictionary table. All available limits combinations. Based on PolicyStats. As good as PolicyStats
dim_location	FSBI_DW_SPINN	Location, LocationRisk Group, Risk, Building	Slowly Changing Dimension Type 2	Extension of DIM_BUILDING for commercial LOB at the level of mid-term changes. ValidFrom - ValidTo are based on transaction effective dates.
dim_month	FSBI_DW_SPINN		Dimension Type 1 (Dictionary)	For backward compatibility only, not needed in new projects, all foreign keys (date fields) are integers in format YYYYMM
dim_newrenewal	FSBI_DW_SPINN		Dimension Type 1 (Dictionary)	Not needed. New or Renewal values are available directly in FACT tables
dim_policy	FSBI_DW_SPINN	BasicPolicy	Dimension Type 1	PolicyNumber, Version (pol_policynumbersuffix), State See dim_policyextension for more details
dim_policy_changes	FSBI_DW_SPINN	BasicPolicy	Slowly Changing Dimension Type 2	Policy level attributes which can be changed at mid-term are needed at mid-term change level. ValidFrom - ValidTo are based on transaction effective dates.
dim_policyextension	FSBI_DW_SPINN	BasicPolicy, Line, ArTrans, PaperlessDe liveryPolicy,	Dimension Type 1	Policy details
dim_policytransactionexte	FSBI_DW_SPINN	PolicyStats, Transaction History	Dimension Type 1	Transaction descriptions
dim_policytransactiontype	FSBI_DW_SPINN		Dimension Type 1 (Dictionary)	DW special table
dim_portaluser	FSBI_DW_SPINN	CustomerLo gin	Dimension	Basic information about registration and last logon to Customer Portal

## Tables

dim_product	FSBI_DW_SPINN	BasicPolicy	Dimension Type 1 (Dictionary)	Besides ProductIdRef there is LOB and other product classification
dim_product_finance_attr	Public			
dim_status	FSBI_DW_SPINN		Dimension Type 1 (Dictionary)	DW special table with policies and claims statuses
dim_task	FSBI_DW_SPINN		Dimension Type 1	Source:Task, TaskLink,Claim,UserInfo, Application, QuoteInfo, Basicpolicy, ClaimPolicyInfo, Provider DW Table type: Dimension Type 1 Table description: Tasks base info
dim_task_completion_category	FSBI_DW_SPINN		Dimension Type 1	Source:TaskInfo DW Table type: Dimension Type 1 Table description: Tasks base info
dim_territory	FSBI_DW_SPINN	BasicPolicy	Dimension Type 1 (Dictionary)	Dictionary table. All available territories. Rare used. Territory from dim_production_ams is more usable
dim_time	FSBI_DW_SPINN		Dimension Type 1 (Dictionary)	For backward compatibility only, not needed in new projects, all foreign keys are integers in format YYYYMMDD
dim_userinfo	FSBI_DW_SPINN		Dimension Type 1	Source:UserInfo DW Table type: Dimension Type 1 Table description: SPINN users
dim_uw_rules	FSBI_DW_SPINN		Dimension Type 1 (Dictionary)	Source:ValidationError DW Table type: dictionary dimension Table description: Underwriting rules
dim_uw_rules_applied	FSBI_DW_SPINN		Dimension Type 1	Source:ValidationError DW Table type: Dimension Type 1 Table description: Underwriting rules applied to Qoutes and Applications
dim_vehicle	FSBI_DW_SPINN	Vehicle, Carfax,CarfaxOdometer Problem,CarfaxTitleBrand,	Slowly Changing Dimension Type 2	Vehicle attributes at mid-term changes level. ValidFrom - ValidTo are based on transaction effective dates
execprod_plan	FSBI_DW_SPINN	Excel file	Reporting Table	Plan and forecast for Results Committee dashboard
execprod_plan20180605	FSBI_DW_SPINN	Excel file	Reporting Table	Retired Plan and forecast for Results Committee dashboard

## Tables

fact_application	FSBI_DW_SPINN		Fact table	Source: Coverage,Limit,Deductible, DriverLink, Vehicle, DriverInfo, ParttyInfo, PersonalInfo,Building DW Tables type: transactional fact table Table description: Quotes and Applications coverages, limits, deductibles and premium (FullTermAmt)
fact_auto_modeldata	FSBI_DW_SPINN	Application, Transaction History	Fact table	Mid-Term changes in Auto
fact_claim	FSBI_DW_SPINN	The same info as in ClaimSummaryStats but build independently in DW	Fact Monthly Summary table	Monthly claim summaries. Months are based on accounting dates. You need to aggregate amounts from this table
fact_claimcatastrophe_rel	FSBI_DW_SPINN	Claim, Catastrophe	Fact table	Detail relations between claims and catastrophies
fact_claimtransaction	FSBI_DW_SPINN	ClaimStats	Fact table	Claim transactions with links to risk items (vehicle, driver, building)
fact_customer_rel	FSBI_DW_SPINN	Policy,CustomerLogin, PaperLessDeliveryPolicy	Fact table	Links between policies, customers and portal users.
fact_ho_ll_modeldata	FSBI_DW_SPINN	Application, Transaction History	Fact table	Mid-Term changes in Homeowners and LandLords
fact_policy	FSBI_DW_SPINN		Fact Monthly Summary table	Monthly summaries at policy term level. Months are based on accounting dates
fact_policy_discount	FSBI_DW_SPINN		Fact table	Policy discounts

## Tables

fact_policycoverage	FSBI_DW_SPINN	The same info as in PolicySummaryStats but build independently in DW	Fact Monthly Summary table	Monthly summaries at coverage level plus monthly policy state of coverages and risks (limits, deductibles) Months are based on accounting dates. You need to aggregate amounts from this table.
fact_policytransaction	FSBI_DW_SPINN	PolicyStats	Fact table	Policy transactions with correct risk addresses and fully populated risk items (vehicle, building, drivers)
fact_task	FSBI_DW_SPINN		Fact table	Source:Task, TaskHistory, TaskLink,Claim,UserInfo, Application, QuoteInfo, Basicpolicy, ClaimPolicyInfo, Provider DW Table type: Fact table Table description: Tasks relations to policies, applications or quotes, owners (current and historical), applied applications rules, completion categories
feature_stats	FSBI_DW_SPINN		Reporting Table	
rag_lookup	FSBI_DW_SPINN		Reporting Table	
ratechange	FSBI_DW_SPINN		Reporting Table	
spinn_payments	FSBI_DW_SPINN		Reporting Table	
territorymapping	Public			
userinfo	FSBI_DW_SPINN		Reporting Table	
vdim_company	FSBI_DW_SPINN		Dimension	Physical table dim_legalentity_other contains few entities like Company with very small number of records
vdim_producer	FSBI_DW_SPINN	AllContacts, Provider, AMS export	Dimension	The view is based on dim_producer and dim_producer_ams Use VDIM_PRODUCER to have infor from SPINN and AMS together
vmfact_claimtransaction	Public			
vmreserves_accidentyear	FSBI_DW_SPINN		Materialized view	
vmreserves_claim	FSBI_DW_SPINN		Materialized view	

Tables

vmreserves_feature	FSBI_DW_SPINN		Materialized view	
calendar	Public			
dim_carrier	Public			
vmfact_claim_blended	Public			
vmfact_claimtransacton_u	Public			

## Joins

Fact	Fact Column	join	Dimension	Dimension Column
fact_claim	class_id	=	dim_classification	class_id
fact_claim	primaryriskaddress_id	=	dim_address	address_id
fact_claim	primaryriskgeography_id	=	dim_geography	geography_id
fact_claim	primaryriskextension_id	=	dim_coveredriskextension	coveredriskextension_id
fact_claim	primaryrisk_id	=	dim_coveredrisk	coveredrisk_id
fact_claim	deductible_id	=	dim_deductible	deductible_id
fact_claim	limit_id	=	dim_limit	limit_id
fact_claim	firstinsured_id	=	dim_insured	insured_id
fact_claim	closeddate_id	=	dim_time	time_id
fact_claim	openeddate_id	=	dim_time	time_id
fact_claim	dateofloss_id	=	dim_time	time_id
fact_claim	datereported_id	=	dim_time	time_id
fact_claim	claimlossaddress_id	=	dim_address	address_id
fact_claim	claimlossgeography_id	=	dim_geography	geography_id
fact_claim	claimstatus_id	=	dim_status	status_id
fact_claim	claimextension_id	=	dim_claimextension	claimextension_id
fact_claim	claim_id	=	dim_claim	claim_id
fact_claim	primaryriskterritory_id	=	dim_territory	territory_id
fact_claim	polycymasterterritory_id	=	dim_territory	territory_id
fact_claim	producer_id	=	dim_producer	producer_id
fact_claim	policyexpirationdate_id	=	dim_time	time_id
fact_claim	policyeffectivedate_id	=	dim_time	time_id
fact_claim	policy_id	=	dim_policy	policy_id
fact_claim	company_id	=	dim_legalentity_other	legalentity_id
fact_claim	product_id	=	dim_product	product_id
fact_claim	adjuster_id	=	dim_adjuster	adjuster_id
fact_claim	coverageexpirationdate_id	=	dim_time	time_id
fact_claim	coverageeffectivedate_id	=	dim_time	time_id
fact_claim	coverage_id	=	dim_coverage	coverage_id
fact_claim	month_id	=	dim_month	month_id
fact_claimtransaction	class_id	=	dim_classification	class_id
fact_claimtransaction	primaryriskterritory_id	=	dim_territory	territory_id
fact_claimtransaction	primaryriskaddress_id	=	dim_address	address_id

## Joins

fact_claimtransaction	primaryriskgeography_id	=	dim_geography	geography_id
fact_claimtransaction	primaryriskextension_id	=	dim_coveredriskextension	coveredriskextension_id
fact_claimtransaction	primaryrisk_id	=	dim_coveredrisk	coveredrisk_id
fact_claimtransaction	polycymasterterritory_id	=	dim_territory	territory_id
fact_claimtransaction	dateofloss_id	=	dim_time	time_id
fact_claimtransaction	datereported_id	=	dim_time	time_id
fact_claimtransaction	closeddate_id	=	dim_time	time_id
fact_claimtransaction	openeddate_id	=	dim_time	time_id
fact_claimtransaction	coverageexpirationdate_id	=	dim_time	time_id
fact_claimtransaction	coverageeffectivedate_id	=	dim_time	time_id
fact_claimtransaction	deductible_id	=	dim_deductible	deductible_id
fact_claimtransaction	limit_id	=	dim_limit	limit_id
fact_claimtransaction	coverage_id	=	dim_coverage	coverage_id
fact_claimtransaction	policyexpirationdate_id	=	dim_time	time_id
fact_claimtransaction	policyeffectivedate_id	=	dim_time	time_id
fact_claimtransaction	policy_id	=	dim_policy	policy_id
fact_claimtransaction	claimlossaddress_id	=	dim_address	address_id
fact_claimtransaction	claimlossgeography_id	=	dim_geography	geography_id
fact_claimtransaction	claimstatus_id	=	dim_status	status_id
fact_claimtransaction	claimextension_id	=	dim_claimextension	claimextension_id
fact_claimtransaction	claim_id	=	dim_claim	claim_id
fact_claimtransaction	firstinsured_id	=	dim_insured	insured_id
fact_claimtransaction	company_id	=	dim_legalentity_other	legalentity_id
fact_claimtransaction	product_id	=	dim_product	product_id
fact_claimtransaction	producer_id	=	dim_producer	producer_id
fact_claimtransaction	adjuster_id	=	dim_adjuster	adjuster_id
fact_claimtransaction	claimtransactiontype_id	=	dim_claimtransactiontype	claimtransactiontype_id
fact_claimtransaction	accountingdate_id	=	dim_time	time_id
fact_claimtransaction	transactiondate_id	=	dim_time	time_id
fact_policy	polycymasterterritory_id	=	dim_territory	territory_id
fact_policy	polycystatus_id	=	dim_status	status_id
fact_policy	policyexpirationdate_id	=	dim_time	time_id
fact_policy	policyeffectivedate_id	=	dim_time	time_id
fact_policy	policyextension_id	=	dim_policyextension	policyextension_id



## Joins

fact_policy	policy_id	=	dim_policy	policy_id
fact_policy	firstinsured_id	=	dim_insured	insured_id
fact_policy	company_id	=	dim_legalentity_other	legalentity_id
fact_policy	product_id	=	dim_product	product_id
fact_policy	producer_id	=	dim_producer	producer_id
fact_policy	month_id	=	dim_month	month_id
fact_policycoverage	month_location_id	=	dim_location	location_id
fact_policycoverage	month_building_id	=	dim_building	building_id
fact_policycoverage	month_driver_id	=	dim_driver	driver_id
fact_policycoverage	month_vehicle_id	=	dim_vehicle	vehicle_id
fact_policycoverage	location_id	=	dim_location	location_id
fact_policycoverage	building_id	=	dim_building	building_id
fact_policycoverage	driver_id	=	dim_driver	driver_id
fact_policycoverage	vehicle_id	=	dim_vehicle	vehicle_id
fact_policycoverage	primaryriskaddress_id	=	dim_address	address_id
fact_policycoverage	primaryriskgeography_id	=	dim_geography	geography_id
fact_policycoverage	primaryriskextension_id	=	dim_coveredriskextension	coveredriskextension_id
fact_policycoverage	primaryrisk_id	=	dim_coveredrisk	coveredrisk_id
fact_policycoverage	class_id	=	dim_classification	class_id
fact_policycoverage	deductible_id	=	dim_deductible	deductible_id
fact_policycoverage	limit_id	=	dim_limit	limit_id
fact_policycoverage	primaryriskterritory_id	=	dim_territory	territory_id
fact_policycoverage	polycymasterterritory_id	=	dim_territory	territory_id
fact_policycoverage	coverageexpirationdate_id	=	dim_time	time_id
fact_policycoverage	coverageeffectivedate_id	=	dim_time	time_id
fact_policycoverage	coverage_id	=	dim_coverage	coverage_id
fact_policycoverage	polycystatus_id	=	dim_status	status_id
fact_policycoverage	policyexpirationdate_id	=	dim_time	time_id
fact_policycoverage	policyeffectivedate_id	=	dim_time	time_id
fact_policycoverage	policyextension_id	=	dim_policyextension	policyextension_id
fact_policycoverage	policy_id	=	dim_policy	policy_id
fact_policycoverage	firstinsured_id	=	dim_insured	insured_id
fact_policycoverage	company_id	=	dim_legalentity_other	legalentity_id
fact_policycoverage	product_id	=	dim_product	product_id

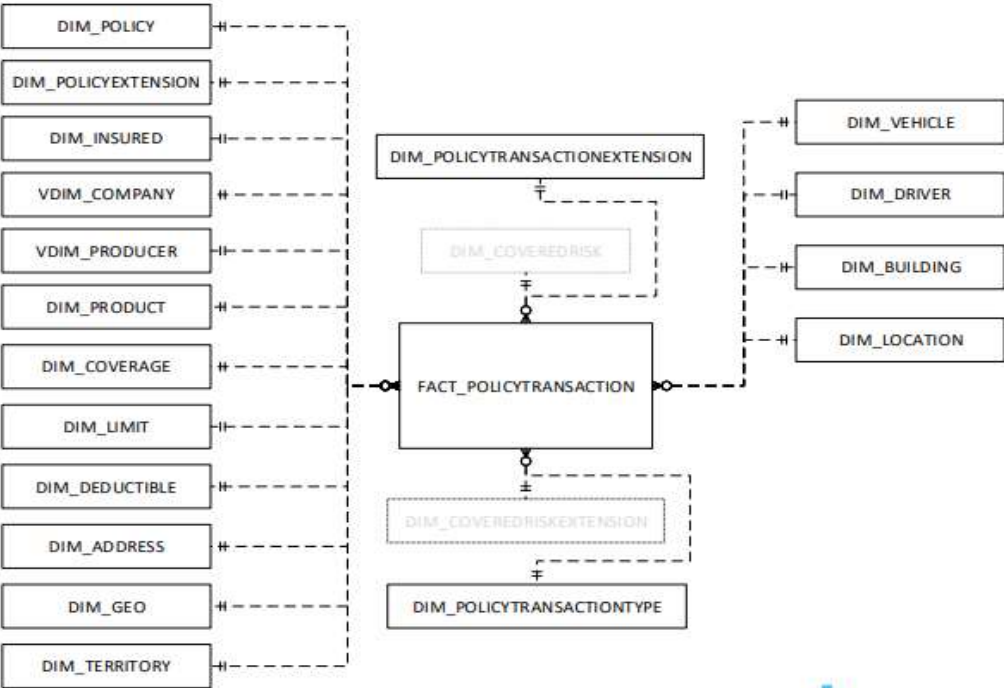
## Joins

fact_policycoverage	producer_id	=	dim_producer	producer_id
fact_policycoverage	month_id	=	dim_month	month_id
fact_policytransaction	trn_location_id	=	dim_location	location_id
fact_policytransaction	trn_building_id	=	dim_building	building_id
fact_policytransaction	trn_driver_id	=	dim_driver	driver_id
fact_policytransaction	trn_vehicle_id	=	dim_vehicle	vehicle_id
fact_policytransaction	location_id	=	dim_location	location_id
fact_policytransaction	building_id	=	dim_building	building_id
fact_policytransaction	driver_id	=	dim_driver	driver_id
fact_policytransaction	vehicle_id	=	dim_vehicle	vehicle_id
fact_policytransaction	class_id	=	dim_classification	class_id
fact_policytransaction	primaryriskaddress_id	=	dim_address	address_id
fact_policytransaction	primaryriskgeography_id	=	dim_geography	geography_id
fact_policytransaction	primaryriskextension_id	=	dim_coveredriskextension	coveredriskextension_id
fact_policytransaction	primaryrisk_id	=	dim_coveredrisk	coveredrisk_id
fact_policytransaction	policytransactionextension_id	=	dim_policytransactionextension	policytransactionextension_id
fact_policytransaction	deductible_id	=	dim_deductible	deductible_id
fact_policytransaction	limit_id	=	dim_limit	limit_id
fact_policytransaction	coverageexpirationdate_id	=	dim_time	time_id
fact_policytransaction	coverageeffectivedate_id	=	dim_time	time_id
fact_policytransaction	coverage_id	=	dim_coverage	coverage_id
fact_policytransaction	policyexpirationdate_id	=	dim_time	time_id
fact_policytransaction	policyeffectivedate_id	=	dim_time	time_id
fact_policytransaction	policyextension_id	=	dim_policyextension	policyextension_id
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fact_policytransaction	primaryriskterritory_id	=	dim_territory	territory_id
fact_policytransaction	polycymasterterritory_id	=	dim_territory	territory_id
fact_policytransaction	company_id	=	dim_legalentity_other	legalentity_id
fact_policytransaction	product_id	=	dim_product	product_id
fact_policytransaction	firstinsured_id	=	dim_insured	insured_id
fact_policytransaction	effectivedate_id	=	dim_time	time_id
fact_policytransaction	accountingdate_id	=	dim_time	time_id

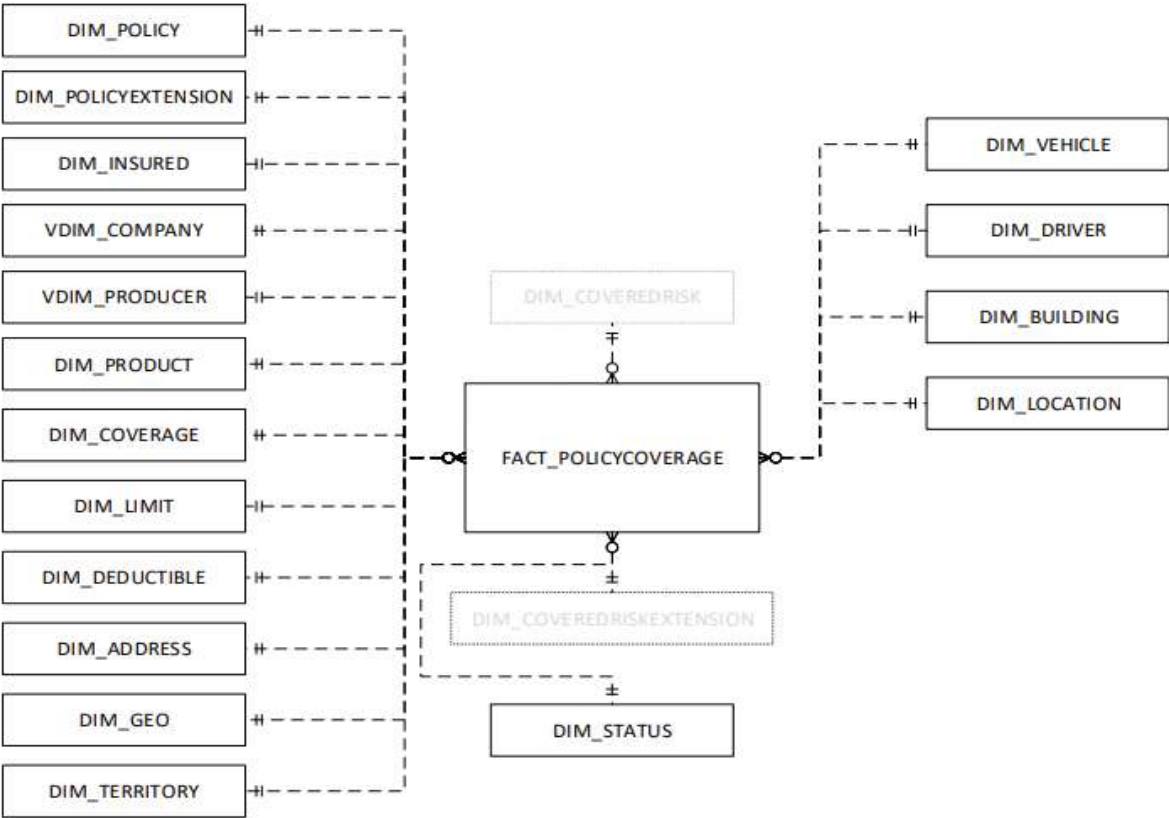
Joins

fact_policytransaction	transactiondate_id	=	dim_time	time_id
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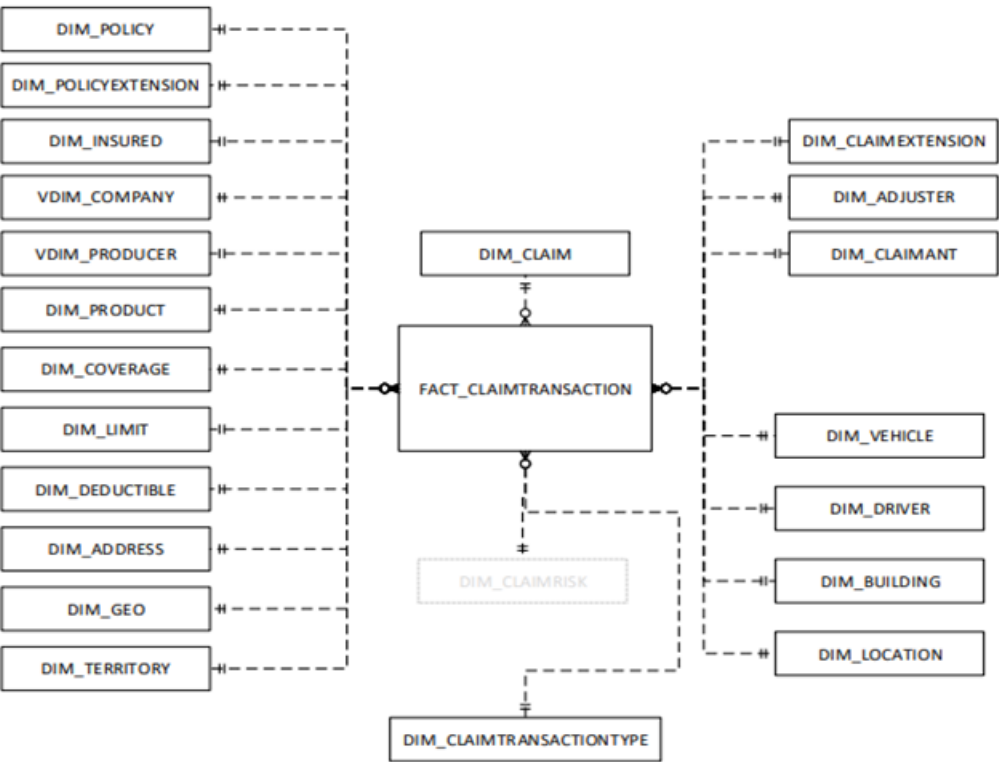
FACT\_POLICYTRANSACTION



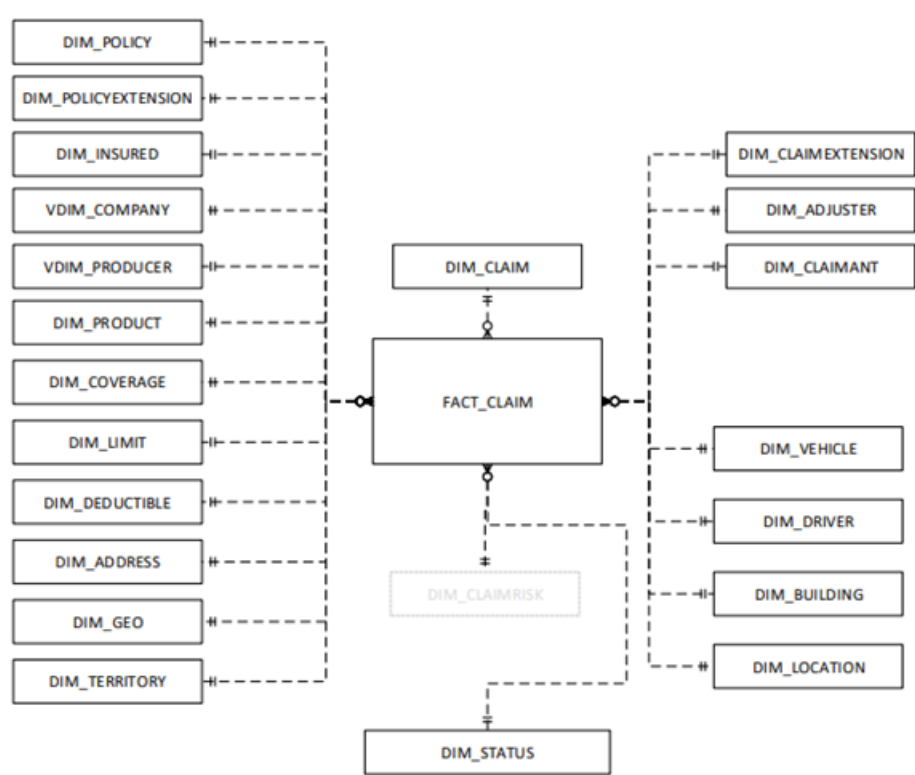
FACT\_POLICYCOVERAGE



FACT\_CLAIMTRANSACTION



FACT\_CLAIM



## Some Fact Table Metrics

schema	table	column	description
fsbi_dw_spinn	fact_claim	alc_exp_pd_amt	Amount of allocated expenses(ALAE) paid (monthly amount)
fsbi_dw_spinn	fact_claim	alc_exp_pd_amt_itd	Amount of allocated expenses(ALAE) paid (inception-to-date) *** This is a point-in-time number and should only be used with an Accounting Month and Accounting Year included in the report
fsbi_dw_spinn	fact_claim	alc_exp_pd_amt_ytd	Amount of allocated expenses(ALAE) paid (year-to-date)
fsbi_dw_spinn	fact_claim	alc_exp_rsrv_chng_amt	Change in allocated expense reserve(Outstanding ALAE reserve) amount (monthly amount)
fsbi_dw_spinn	fact_claim	alc_exp_rsrv_chng_amt_itd	Allocated expense reserve(Outstanding ALAE reserve) amount (inception-to-date) *** This is a point-in-time number and should only be used with an Accounting Month and Accounting Year included in the report
fsbi_dw_spinn	fact_claim	alc_exp_rsrv_chng_amt_ytd	Change in allocated expense reserve(Outstanding ALAE reserve) amount (year-to-date)
fsbi_dw_spinn	fact_claim	claim_uniqueid	The claim unique ID that uniquely identifies each claim. This value has been degenerated from the claim dimension table to provide unique counts and improved query performance.
fsbi_dw_spinn	fact_claim	claimnumber	The number associated with this claim. This is inserted into the fact table to do distinct counts.
fsbi_dw_spinn	fact_claim	clm_closed_in_month	Indicates if the claim was closed in the month. 1 = Closed In the Month, 0 = Not Closed in the Month. The field can be summed to get the number of claims closed in a given month.
fsbi_dw_spinn	fact_claim	clm_closed_with_pay	Indicates if the claim was closed with losses paid in the month. 1 = Closed In the Month with Pay, 0 = Not Closed in the Month. The field can be summed to get the number of claims closed with pay in a given month.
fsbi_dw_spinn	fact_claim	clm_closed_without_pay	Indicates if the claim was closed in the month and had no losses paid on it. 1 = Closed In the Month without Pay, 0 = Not Closed in the Month. The field can be summed to get the number of claims closed in a given month without pay.
fsbi_dw_spinn	fact_claim	clm_days_open	Returns the number of days a claim has been open (month-to-date)
fsbi_dw_spinn	fact_claim	clm_days_open_itd	Returns the number of days a claim has been open (inception-to-date)
fsbi_dw_spinn	fact_claim	clm_opened_in_month	Indicates if the claim was opened in the month. 1 = Opened In the Month, 0 = Not Opened in the Month. The field can be summed to get the number of claims opened in a given month.
fsbi_dw_spinn	fact_claim	coverage_uniqueid	The coverage unique ID that uniquely identifies each coverage. This value has been degenerated from the coverage dimension table to provide improved performance when loading the warehouse.
fsbi_dw_spinn	fact_claim	feat_closed_in_month	Indicates if the claim feature was closed in the month. 1 = Closed In the Month, 0 = Not Closed in the Month. The field can be summed to get the number of claim features closed in a given month.



## Some Fact Table Metrics

fsbi_dw_spinn	fact_claim	feat_closed_with_pay	Indicates if the claim feature was closed with losses paid in the month. 1 = Closed In the Month with Pay, 0 = Not Closed in the Month. The field can be summed to get the number of claim features closed with pay in a given month.
fsbi_dw_spinn	fact_claim	feat_closed_without_pay	Indicates if the claim feature was closed in the month and had no losses paid on it. 1 = Closed In the Month without Pay, 0 = Not Closed in the Month. The field can be summed to get the number of claim features closed in a given month without pay.
fsbi_dw_spinn	fact_claim	feat_days_open	Returns the number of days a claim feature has been open (month-to-date)
fsbi_dw_spinn	fact_claim	feat_days_open_itd	Returns the number of days a claim feature has been open (inception-to-date)
fsbi_dw_spinn	fact_claim	feat_opened_in_month	Indicates if the claim feature was opened in the month. 1 = Opened In the Month, 0 = Not Opened in the Month. The field can be summed to get the number of claim features opened in a given month.
fsbi_dw_spinn	fact_claim	insuredage	Age of the first insured.
fsbi_dw_spinn	fact_claim	loss_pd_amt	Loss(Indemnity) paid amount (monthly amount)
fsbi_dw_spinn	fact_claim	loss_pd_amt_itd	Loss(Indemnity) paid amount (inception-to-date) *** This is a point-in-time number and should only be used with an Accounting Month and Accounting Year included in the report
fsbi_dw_spinn	fact_claim	loss_pd_amt_ytd	Loss(Indemnity) paid amount (year-to-date)
fsbi_dw_spinn	fact_claim	loss_rsrv_chng_amt	Change in the loss reserve(Outstanding case reserve) amount (monthly amount)
fsbi_dw_spinn	fact_claim	loss_rsrv_chng_amt_itd	Loss reserve(Outstanding case reserve) amount (inception-to-date) *** This is a point-in-time number and should only be used with an Accounting Month and Accounting Year included in the report
fsbi_dw_spinn	fact_claim	loss_rsrv_chng_amt_ytd	Change in the loss reserve(Outstanding case reserve) amount (year-to-date)
fsbi_dw_spinn	fact_claim	masterclaim	Indicates that this is the master record for the claim - the record that contains the overall claim status counts
fsbi_dw_spinn	fact_claim	policy_uniqueid	The policy unique ID that uniquely identifies each policy. This value has been degenerated from the policy dimension table to provide unique counts and improved query performance.
fsbi_dw_spinn	fact_claim	salvage_rcv_chng_amt	Change in salvage received(recovered) amount (monthly amount)
fsbi_dw_spinn	fact_claim	salvage_rcv_chng_amt_itd	Change in salvage received(recovered) amount (inception-to-date) *** This is a point-in-time number and should only be used with an Accounting Month and Accounting Year included in the report
fsbi_dw_spinn	fact_claim	salvage_rcv_chng_amt_ytd	Change in salvage received(recovered) amount (year-to-date)
fsbi_dw_spinn	fact_claim	salvage_rsrv_chng_amt	Change in salvage reserve amount (monthly amount)

## Some Fact Table Metrics

fsbi_dw_spinn	fact_claim	salvage_rsrv_chng_amt_itd	Change in salvage reserve amount (inception-to-date) *** This is a point-in-time number and should only be used with an Accounting Month and Accounting Year included in the report
fsbi_dw_spinn	fact_claim	salvage_rsrv_chng_amt_ytd	Change in salvage reserve amount (year-to-date)
fsbi_dw_spinn	fact_claim	subro_rcv_chng_amt	Change in received(recovered) subrogation amount (monthly amount)
fsbi_dw_spinn	fact_claim	subro_rcv_chng_amt_itd	Change in received(recovered) subrogation amount (inception-to-date) *** This is a point-in-time number and should only be used with an Accounting Month and Accounting Year included in the report
fsbi_dw_spinn	fact_claim	subro_rcv_chng_amt_ytd	Change in received(recovered) subrogation amount (year-to-date)
fsbi_dw_spinn	fact_claim	subro_rsrv_chng_amt	Change in reserve subrogation amount (monthly amount)
fsbi_dw_spinn	fact_claim	subro_rsrv_chng_amt_itd	Amount of reserve subrogation (inception-to-date) *** This is a point-in-time number and should only be used with an Accounting Month and Accounting Year included in the report
fsbi_dw_spinn	fact_claim	subro_rsrv_chng_amt_ytd	Change in reserve subrogation amount (year-to-date)
fsbi_dw_spinn	fact_claim	ualc_exp_pd_amt	Amount of unallocated expenses paid (monthly amount)
fsbi_dw_spinn	fact_claim	ualc_exp_pd_amt_itd	Amount of unallocated expenses paid (inception-to-date) *** This is a point-in-time number and should only be used with an Accounting Month and Accounting Year included in the report
fsbi_dw_spinn	fact_claim	ualc_exp_pd_amt_ytd	Amount of unallocated expenses paid (year-to-date)
fsbi_dw_spinn	fact_claim	ualc_exp_rsrv_chng_amt	Change in unallocated expense reserve amount (monthly amount)
fsbi_dw_spinn	fact_claim	ualc_exp_rsrv_chng_amt_itd	Unallocated expense reserve amount (inception-to-date) *** This is a point-in-time number and should only be used with an Accounting Month and Accounting Year included in the report
fsbi_dw_spinn	fact_claim	ualc_exp_rsrv_chng_amt_ytd	Change in unallocated expense reserve amount (year-to-date)
fsbi_dw_spinn	fact_policy	cncl_prem_amt	Month-to-date cancellation premium amount.
fsbi_dw_spinn	fact_policy	cncl_prem_amt_itd	Inception-to-date cancellation premium amount.
fsbi_dw_spinn	fact_policy	cncl_prem_amt_ytd	Year-to-date cancellation premium amount.
fsbi_dw_spinn	fact_policy	comm_amt	Month-to-date producer commission amount
fsbi_dw_spinn	fact_policy	comm_amt_itd	Inception-to-date producer commission amount
fsbi_dw_spinn	fact_policy	comm_amt_ytd	Year-to-date producer commission amount
fsbi_dw_spinn	fact_policy	earned_prem_amt	Month-to-date earned premium amount.
fsbi_dw_spinn	fact_policy	earned_prem_amt_itd	Inception-to-date earned premium amount.
fsbi_dw_spinn	fact_policy	earned_prem_amt_ytd	Year-to-date earned premium amount.
fsbi_dw_spinn	fact_policy	endorse_prem_amt	Month-to-date endorsement premium amount
fsbi_dw_spinn	fact_policy	endorse_prem_amt_itd	Inception-to-date endorsement premium amount
fsbi_dw_spinn	fact_policy	endorse_prem_amt_ytd	Year-to-date endorsement premium amount
fsbi_dw_spinn	fact_policy	fees_amt	Month-to-date fees collected on a policy
fsbi_dw_spinn	fact_policy	fees_amt_itd	Inception-to-date fees collected on a policy

## Some Fact Table Metrics

fsbi_dw_spinn	fact_policy	fees_amt_ytd	Year-to-date fees collected on a policy
fsbi_dw_spinn	fact_policy	gross_earned_prem_amt	Month-to-date gross earned premium amount for this coverage. Does not include cancellation or reinstatement premium.
fsbi_dw_spinn	fact_policy	gross_earned_prem_amt_itd	Inception-to-date gross earned premium amount for this coverage. Does not include cancellation or reinstatement premium.
fsbi_dw_spinn	fact_policy	gross_earned_prem_amt_ytd	Year-to-date gross earned premium amount for this coverage. Does not include cancellation or reinstatement premium.
fsbi_dw_spinn	fact_policy	gross_wrtn_prem_amt	Month-to-date gross written premium amount for this coverage. Does not include cancellation or reinstatement premium.
fsbi_dw_spinn	fact_policy	gross_wrtn_prem_amt_itd	Month-to-date written premium amount for this coverage. Does not include cancellation or reinstatement premium.
fsbi_dw_spinn	fact_policy	gross_wrtn_prem_amt_ytd	Month-to-date written premium amount for this coverage. Does not include cancellation or reinstatement premium.
fsbi_dw_spinn	fact_policy	insuredage	Age of the first insured.
fsbi_dw_spinn	fact_policy	orig_wrtn_prem_amt	Premium written for the policy when it was issued (does not include endorsement/amendment or audit premium)
fsbi_dw_spinn	fact_policy	orig_wrtn_prem_amt_itd	Inception-to-date premium written for the policy when it was issued (does not include endorsement/amendment or audit premium)
fsbi_dw_spinn	fact_policy	orig_wrtn_prem_amt_ytd	Year-to-date premium written for the policy when it was issued (does not include endorsement/amendment or audit premium)
fsbi_dw_spinn	fact_policy	polycancelledissuedind	"Identifies if a policy that was *issued* a cancellation for the given month and year. Valid values are:1 = Cancellation issued in the month 0 = Not cancelled in the month"
fsbi_dw_spinn	fact_policy	policyendorsementissuedind	"Identifies if a policy had an endorsement that was *issued* for the given month and year. Valid values are:1 = Endorsement issued in the month 0 = No endorsement issued in the month"
fsbi_dw_spinn	fact_policy	policynewissuedind	"Identifies if a policy is a new policy that was *issued* for the given month and year. Valid values are:1 = New policy issued in the month 0 = Not new in the month"
fsbi_dw_spinn	fact_policy	polycynonrenewalissuedind	"Identifies if a policy was a non-renewed policy that was *issued* in the given month and year. Valid values are:1 = Non-renewal issued in the month 0 = Not non-renewed in the month"
fsbi_dw_spinn	fact_policy	policyrenewedissuedind	"Identifies if a policy is a renewal policy that was *issued* for the given month and year. Valid values are:1 = Renewal issued in the month 0 = Not renewed in the month"
fsbi_dw_spinn	fact_policy	rein_prem_amt	Month-to-date reinstated premium amount.
fsbi_dw_spinn	fact_policy	rein_prem_amt_itd	Inception-to-date reinstated premium amount.
fsbi_dw_spinn	fact_policy	rein_prem_amt_ytd	Year-to-date reinstated premium amount.
fsbi_dw_spinn	fact_policy	term_prem_amt	Full Inforced amount.

## Some Fact Table Metrics

fsbi_dw_spinn	fact_policy	term_prem_amt_itd	Inception-to-date Inforced amount.
fsbi_dw_spinn	fact_policy	term_prem_amt_ytd	Year-to-date full Inforced amount.
fsbi_dw_spinn	fact_policy	unearned_prem	Amount of premium unearned (left to be earned)
fsbi_dw_spinn	fact_policy	wrtm_prem_amt	Month-to-date written premium amount for this coverage.
fsbi_dw_spinn	fact_policy	wrtm_prem_amt_itd	Inception-to-date written premium amount for this coverage.
fsbi_dw_spinn	fact_policy	wrtm_prem_amt_ytd	Year-to-date written premium amount for this coverage.
fsbi_dw_spinn	fact_policycoverage	cncl_prem_amt	Month-to-date cancellation premium amount.
fsbi_dw_spinn	fact_policycoverage	cncl_prem_amt_itd	Inception-to-date cancellation premium amount.
fsbi_dw_spinn	fact_policycoverage	cncl_prem_amt_ytd	Year-to-date cancellation premium amount.
fsbi_dw_spinn	fact_policycoverage	comm_amt	Month-to-date producer commission amount
fsbi_dw_spinn	fact_policycoverage	comm_amt_itd	Inception-to-date producer commission amount
fsbi_dw_spinn	fact_policycoverage	comm_amt_ytd	Year-to-date producer commission amount
fsbi_dw_spinn	fact_policycoverage	earned_prem_amt	Month-to-date earned premium amount.
fsbi_dw_spinn	fact_policycoverage	earned_prem_amt_itd	Inception-to-date earned premium amount.
fsbi_dw_spinn	fact_policycoverage	earned_prem_amt_ytd	Year-to-date earned premium amount.
fsbi_dw_spinn	fact_policycoverage	ee	Earned Exposures based on 1 month = 1 exposure per policy term/coverage/Risk
fsbi_dw_spinn	fact_policycoverage	ee_itd	Inception To Date Earned Exposures based on 1 month = 1 exposure per policy term/coverage/Risk
fsbi_dw_spinn	fact_policycoverage	ee_rm	Earned Exposures (fractional) based on term length, since what day a policy is effective in a month and number of days in a month. E.g. 1 month exposure can be 0.03 or 1.018 per policy term/coverage/Risk
fsbi_dw_spinn	fact_policycoverage	ee_rm_itd	Inception To Date Earned Exposures (fractional) based on term length, since what day a policy is effective in a month and number of days in a month. E.g. 1 month exposure can be 0.03 or 1.018 per policy term/coverage/Risk
fsbi_dw_spinn	fact_policycoverage	ee_rm_ytd	Year To Date Earned Exposures (fractional) based on term length, since what day a policy is effective in a month and number of days in a month. E.g. 1 month exposure can be 0.03 or 1.018 per policy term/coverage/Risk
fsbi_dw_spinn	fact_policycoverage	ee_ytd	Year To Date Earned Exposures based on 1 month = 1 exposure per policy term/coverage/Risk
fsbi_dw_spinn	fact_policycoverage	endorse_prem_amt	Month-to-date endorsement premium amount
fsbi_dw_spinn	fact_policycoverage	endorse_prem_amt_itd	Inception-to-date endorsement premium amount
fsbi_dw_spinn	fact_policycoverage	endorse_prem_amt_ytd	Year-to-date endorsement premium amount
fsbi_dw_spinn	fact_policycoverage	fees_amt	Month-to-date fees collected on a policy
fsbi_dw_spinn	fact_policycoverage	fees_amt_itd	Inception-to-date fees collected on a policy

## Some Fact Table Metrics

fsbi_dw_spinn	fact_policycoverage	fees_amt_ytd	Year-to-date fees collected on a policy
fsbi_dw_spinn	fact_policycoverage	gross_earned_prem_amt	Month-to-date gross earned premium amount for this coverage. Does not include cancellation or reinstatement premium.
fsbi_dw_spinn	fact_policycoverage	gross_earned_prem_amt_itd	Inception-to-date gross earned premium amount for this coverage. Does not include cancellation or reinstatement premium.
fsbi_dw_spinn	fact_policycoverage	gross_earned_prem_amt_ytd	Year-to-date gross earned premium amount for this coverage. Does not include cancellation or reinstatement premium.
fsbi_dw_spinn	fact_policycoverage	gross_wrtn_prem_amt	Month-to-date gross written premium amount for this coverage. Does not include cancellation or reinstatement premium.
fsbi_dw_spinn	fact_policycoverage	gross_wrtn_prem_amt_itd	Month-to-date written premium amount for this coverage. Does not include cancellation or reinstatement premium.
fsbi_dw_spinn	fact_policycoverage	gross_wrtn_prem_amt_ytd	Month-to-date written premium amount for this coverage. Does not include cancellation or reinstatement premium.
fsbi_dw_spinn	fact_policycoverage	insuredage	Age of the first insured.
fsbi_dw_spinn	fact_policycoverage	orig_wrtn_prem_amt	Premium written for the policy when it was issued (does not include endorsement/amendment or audit premium)
fsbi_dw_spinn	fact_policycoverage	orig_wrtn_prem_amt_itd	Inception-to-date premium written for the policy when it was issued (does not include endorsement/amendment or audit premium)
fsbi_dw_spinn	fact_policycoverage	orig_wrtn_prem_amt_ytd	Year-to-date premium written for the policy when it was issued (does not include endorsement/amendment or audit premium)
fsbi_dw_spinn	fact_policycoverage	policy_changes_id	NOT READY FOR USE yet. Reference to DIM_POLICY_CHANGES (variable policy level attributes). DIM_POLICY_CHANGES is updated after this table is populated
fsbi_dw_spinn	fact_policycoverage	polycancelledissuedind	"Identifies if a policy that was *issued* a cancellation for the given month and year. Valid values are:1 = Cancellation issued in the month 0 = Not cancelled in the month"
fsbi_dw_spinn	fact_policycoverage	policyendorsementissuedind	"Identifies if a policy had an endorsement that was *issued* for the given month and year. Valid values are:1 = Endorsement issued in the month 0 = No endorsement issued in the month"
fsbi_dw_spinn	fact_policycoverage	policynewissuedind	"Identifies if a policy is a new policy that was *issued* for the given month and year. Valid values are:1 = New policy issued in the month 0 = Not new in the month"
fsbi_dw_spinn	fact_policycoverage	polycynonrenewalissuedind	"Identifies if a policy was a non-renewed policy that was *issued* in the given month and year. Valid values are:1 = Non-renewal issued in the month 0 = Not non-renewed in the month"
fsbi_dw_spinn	fact_policycoverage	policyrenewedissuedind	"Identifies if a policy is a renewal policy that was *issued* for the given month and year. Valid values are:1 = Renewal issued in the month 0 = Not renewed in the month"
fsbi_dw_spinn	fact_policycoverage	rein_prem_amt	Month-to-date reinstated premium amount.
fsbi_dw_spinn	fact_policycoverage	rein_prem_amt_itd	Inception-to-date reinstated premium amount.

## Some Fact Table Metrics

fsbi_dw_spinn	fact_policycoverage	rein_prem_amt_ytd	Year-to-date reinstated premium amount.
fsbi_dw_spinn	fact_policycoverage	term_prem_amt	Full Inforced amount.
fsbi_dw_spinn	fact_policycoverage	term_prem_amt_itd	Inception-to-date full Inforced amount.
fsbi_dw_spinn	fact_policycoverage	term_prem_amt_ytd	Year-to-date Inforced amount.
fsbi_dw_spinn	fact_policycoverage	unearned_prem	Amount of premium unearned (left to be earned)
fsbi_dw_spinn	fact_policycoverage	we	Written Exposures based on 1 month = 1 exposure per policy term/coverage/Risk
fsbi_dw_spinn	fact_policycoverage	we_itd	Inception To Date Written Exposures based on 1 month = 1 exposure per policy term/coverage/Risk
fsbi_dw_spinn	fact_policycoverage	we_rm	Written Exposures (fractional) based on term length, since what day a policy is effective in a month and number of days in a month. E.g. 1 month exposure can be 0.03 or 1.018 per policy term/coverage/Risk
fsbi_dw_spinn	fact_policycoverage	we_rm_itd	Inception To Date Written Exposures (fractional) based on term length, since what day a policy is effective in a month and number of days in a month. E.g. 1 month exposure can be 0.03 or 1.018 per policy term/coverage/Risk
fsbi_dw_spinn	fact_policycoverage	we_rm_ytd	Year To Date Written Exposures (fractional) based on term length, since what day a policy is effective in a month and number of days in a month. E.g. 1 month exposure can be 0.03 or 1.018 per policy term/coverage/Risk
fsbi_dw_spinn	fact_policycoverage	we_ytd	Year To Date Written Exposures based on 1 month = 1 exposure per policy term/coverage/Risk
fsbi_dw_spinn	fact_policycoverage	wrtm_prem_amt	Month-to-date written premium amount for this coverage.
fsbi_dw_spinn	fact_policycoverage	wrtm_prem_amt_itd	Inception-to-date written premium amount for this coverage.
fsbi_dw_spinn	fact_policycoverage	wrtm_prem_amt_ytd	Year-to-date written premium amount for this coverage.