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BigFix Insights Data Schema

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Introduction

BigFix Insights is a data analytics and integration platform allowing organizations to aggregate and correlate data from multiple BigFix deployments, along with 3rd party solutions, into a single repository to enable analytics, and advanced reporting, as well as an integration platform for both BigFix as well as external systems. Business Intelligence (BI) tools such as Tableau or MS Power BI can reference the Insights database to provide rich visualizations, drive deep analytics and advanced reports.

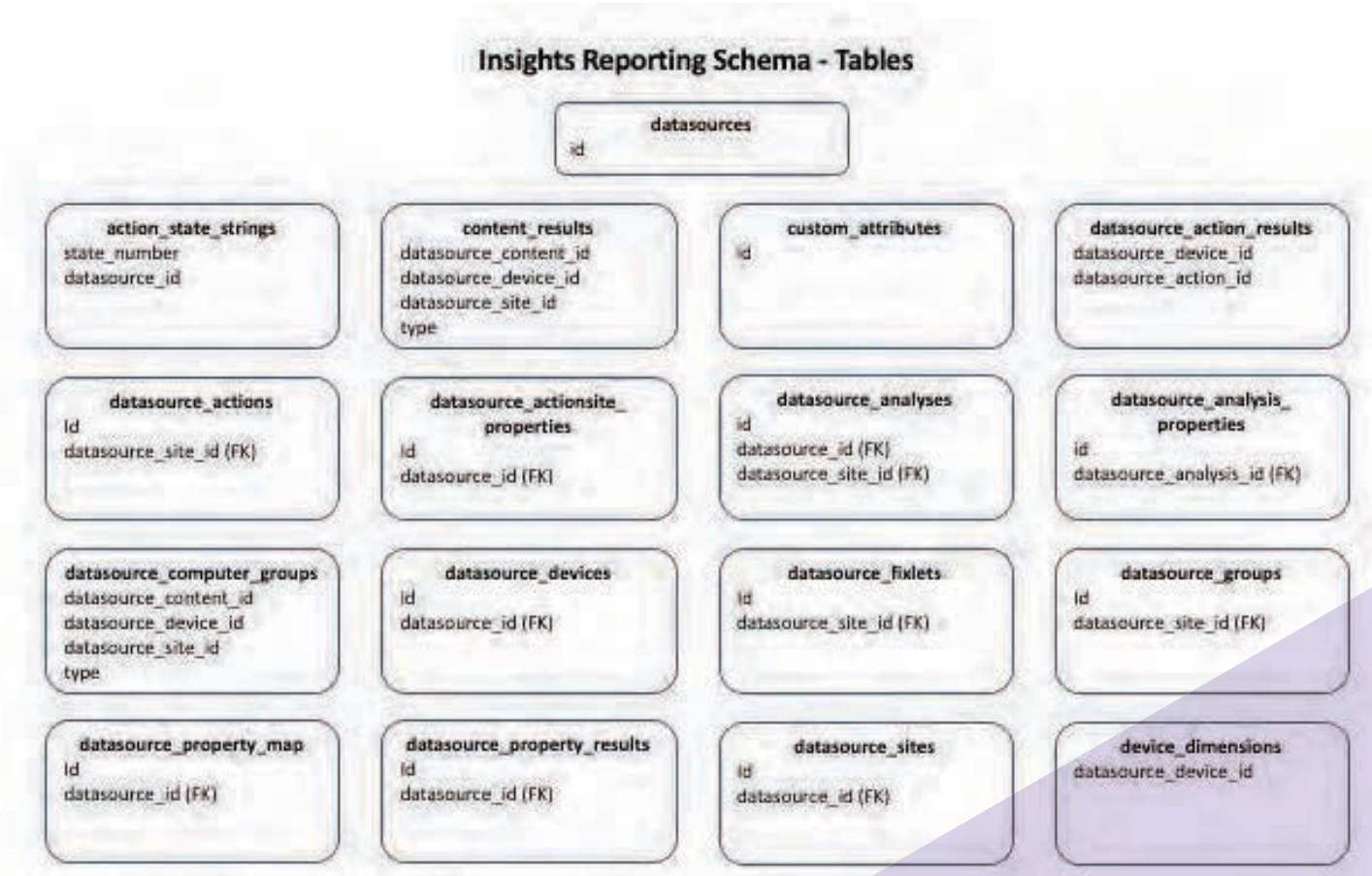
BigFix Insights offers:

- Elevated visibility allowing you to quickly find trends and analyze risk
- A centralized, consolidated, and aggregated endpoint data repository including your BigFix data, as well as 3rd party solutions
- Historical tracking
- A platform for integration with an extendable, open data model (described in this document)
- Several out-of-the-box sample reports for Tableau and MS Power BI covering the following areas
  - Patch rhythm
  - Device inventory
  - OS migration
  - Deployment progress

Data Analysts, Business Intelligence users, and System Integrators will find this document useful to understand the data model delivered with BigFix insights, the relationships between the tables that enable reporting, and sample data models used to generate two of the out-of-the-box sample reports.

BigFix Insights Reporting Schema

The following diagram shows the tables and keys of the tables in the database schema delivered with BigFix Insights. On subsequent pages, the table definitions is provided for each table.



In the following pages, definitions are provided for each of the tables. Columns which are primary keys are highlighted in green; foreign keys in blue.

Table Name : datasource_actions

Description : Stores the actions for all ETL'd datasources, pulling from BFE ACTIONS table.

Table Type : Database Action Reporting

Table Active : TRUE

Initial Release Version : 10.0

Column name	Column description	Data type	Primary Key (PK)	Foreign Key (FK)	Nullable
id	The unique identifier of the action in Insights.	bigint	TRUE	FALSE	FALSE
remote_id	The id of the action in BFE ACTIONS.	bigint	FALSE	TRUE	FALSE
datasource_id	The id of the datasource the action was ETL'ed from id in datasource.	int	TRUE	FALSE	FALSE
datasource_site_id	The id of the site the action was ETL'ed from id in datasource_site.	bigint	FALSE	TRUE	FALSE
type	Pulled from Type in BFE ACTIONS. 0 = single action,1 = parent action (multiple action group parent), 2 - member action (multiple action group member).	int	FALSE	FALSE	FALSE
deleted	Whether the content has been deleted or not. 0 = False, 1 = True.	tinyint	FALSE	FALSE	FALSE
parent_id	Pulled from ParentID in BFE ACTIONS. If this is a member of a multiple action group, the parent id of the group. 0 = False, 1 = True.	int	FALSE	FALSE	TRUE
is_subscription	Pulled from IsSubscription in BFE ACTIONS. Whether this action sets a site subscriptions. 0 = False, 1 = True.	int	FALSE	FALSE	FALSE
is_setting	Pulled from IsSetting in BFE ACTIONS. Whether this action sets a client setting. 0 = False, 1 = True.	int	FALSE	FALSE	FALSE
inception_time	Pulled from InceptionTime in BFE ACTIONS. The earliest time an action could possibly start on an agent. ,	datetime	FALSE	FALSE	TRUE
expiration_time	Pulled from ExpirationTime in BFE ACTIONS. The expiration time of the action. If null, the action doesn't expire. In UTC.	datetime	FALSE	FALSE	TRUE
stopped_at	Pulled from StoppedAt in BFE ACTIONS. The time that the actions was stopped. If null, the actions has not been stopped. In UTC.	datetime	FALSE	FALSE	TRUE
stopped_by	Pulled from StoppedBy in BFE ACTIONS. The id of the user who stopped the action.	int	FALSE	FALSE	TRUE
name	Pulled from Name in BFE ACTIONS. Name of the action.	nvarchar(1024)	FALSE	FALSE	FALSE
state	The state of the action, calculated by looking at the IsStopped and ExpirationTime columns from BFE ACTIONS	tinyint	FALSE	FALSE	FALSE
creator_id	Pulled from CreatorID in BFE ACTIONS. The user that created the action.	int	FALSE	FALSE	FALSE
creation_time	Pulled from CreationTime in BFE ACTIONS. The time the action was created in a UNIX epoch UTC timestamp.	datetime	FALSE	FALSE	FALSE
targeting_method	Pulled from TargetingMethod in BFE ACTIONS.	tinyint	FALSE	FALSE	FALSE
targeting_relevance	Pulled from TargetingRelevance in BFE ACTIONS. If TargetingMethod is 2 or 3, the targeting relevance.	nvarchar(max)	FALSE	FALSE	TRUE
targeting_properties	Pulled from TargetingProperties in BFE ACTIONS. If TargetingMethod is 2, the property tree selections.	nvarchar(max)	FALSE	FALSE	TRUE
source_site_url	Pulled from SourceSiteURL in BFE ACTIONS. If this action has a source fixlet, the source fixlet site URL.	nvarchar(1024)	FALSE	FALSE	TRUE
source_site_id	Pulled from SourceSiteID in BFE ACTIONS. If this action has a source fixlet, the source fixlet site id.	bigint	FALSE	FALSE	TRUE
source_content_id	Pulled from SourceContentID in BFE ACTIONS. If the action has a source fixlet, the source fixlet content id.	int	FALSE	FALSE	TRUE
source_site_name	Pulled from SourceSiteName in BFE ACTIONS. If this action has a source fixlet, the source fixlet site name.	nvarchar(1024)	FALSE	FALSE	TRUE
source_content_name	Pulled from SourceContentName in BFE ACTIONS. If this action has a source fixlet, the source fixlet site name.	nvarchar(1024)	FALSE	FALSE	TRUE
relevance	Pulled from Relevance in BFE Actions. The applicability relevance for this action.	nvarchar(max)	FALSE	FALSE	FALSE
has_secure_parameters	Pulled from HasSecureParameters in BFE ACTIONS. Whether the action had secure parameters when it was created. 0 = False, 1 = True.	tinyint	FALSE	FALSE	FALSE
script_type	Pulled from ScriptType in BFE ACTIONS. They type of action script	tinyint	FALSE	FALSE	FALSE
script	Pulled from Script in BFE ACTIONs. The action script to facilitate the action.	nvarchar(max)	FALSE	FALSE	FALSE
time_zone	Pulled from TimeZone in BFE ACTIONS. Whether the times in the action or Client Time or UTC	tinyint	FALSE	FALSE	FALSE

Column name	Column description	Data type	Primary Key (PK)	Foreign Key (FK)	Nullable
start_date	Pulled from StartDate in BFE ACTIONS. The start date for the action. If null, there is no start date. In Client Time or UTC.	date	FALSE	FALSE	TRUE
start_time	Pulled from StartTime in BFE ACTIONS. The start time for the action. If null, there is no start time. In Client Time or UTC.	time(7)	FALSE	FALSE	TRUE
end_date	Pulled from EndDate in BFE ACTIONS. The end date for the action. If null, there is no end date. Either in Client Time or UTC.	date	FALSE	FALSE	TRUE
end_time	Pulled from EndTime in BFE ACTIONS. The end time for the action. If null, there is no end time. Either in Client Time or UTC.	time(7)	FALSE	FALSE	TRUE
time_range_start	Pulled from TimeRangeStart in BFE ACTIONS. The time-of-day range that the action can run. If null, the action can run at any time of day.	time(7)	FALSE	FALSE	TRUE
time_range_end	Pulled from TimeRangeEnd in BFE ACTIONS. The time-of-day range that the action can run. If null, the action can run at any time of day.	time(7)	FALSE	FALSE	TRUE
has_day_of_week_constraint	Pulled from HasDayOfWeekConstraint in BFE ACTIONS. Whether a day-of-week constraint is set. 0 = False, 1 = True.	tinyint	FALSE	FALSE	FALSE
day_of_week_sun	Pulled from DayOfWeekSun in BFE ACTIONS. If HasDayOfWeekConstraint is set to 1, it allows the action to run on Sunday.	tinyint	FALSE	FALSE	FALSE
day_of_week_mon	Pulled from DayOfWeekMon in BFE ACTIONS. If HasDayOfWeekConstraint is set to 1, it allows the action to run on Monday.	tinyint	FALSE	FALSE	FALSE
day_of_week_tue	Pulled from DayOfWeekTue in BFE ACTIONS. If HasDayOfWeekConstraint is set to 1, it allows the action to run on Tuesday.	tinyint	FALSE	FALSE	FALSE
day_of_week_wed	Pulled from DayOfWeekWed in BFE ACTIONS. If HasDayOfWeekConstraint is set to 1, it allows the action to run on Wednesday.	tinyint	FALSE	FALSE	FALSE
day_of_week_thu	Pulled from DayOfWeekThu in BFE ACTIONS. If HasDayOfWeekConstraint is set to 1, it allows the action to run on Thursday.	tinyint	FALSE	FALSE	FALSE
day_of_week_fri	Pulled from DayOfWeekFri in BFE ACTIONS. If HasDayOfWeekConstraint is set to 1, it allows the action to run on Friday.	tinyint	FALSE	FALSE	FALSE
day_of_week_sat	Pulled from DayOfWeekSat in BFE ACTIONS. If HasDayOfWeekConstraint is set to 1, it allows the action to run on Saturday.	tinyint	FALSE	FALSE	FALSE
has_property_constraint	Pulled from HasPropertyConstraint in BFE ACTIONS. Whether it has a property value constraint. 0 = False, 1 = True.	tinyint	FALSE	FALSE	FALSE
property_name	Pulled from PropertyName in BFE ACTIONS. If HasPropertyConstraint is true, the name of the property to constrain the action.	nvarchar(max)	FALSE	FALSE	TRUE
property_relation	Pulled from PropertyRelation in BFE ACTIONS. If HasPropertyConstraint is true, the relation of the property to constrain the action	tinyint	FALSE	FALSE	TRUE
property_value	Pulled from PropertyValue in BFE ACTIONs. If HasPropertyConstraint is true, the value of the property to constrain the action.	nvarchar(max)	FALSE	FALSE	TRUE
retry	Pulled from Retry in BFE ACTIONS. Whether the action should be retried on failure. 0 = False, 1 = True.	tinyint	FALSE	FALSE	FALSE
retry_limit	Pulled from RetryLimit in BFE ACTIONS. The max number of times to retry the action.	int	FALSE	FALSE	FALSE
retry_behavior	Pulled from RetryBehavior in BFE ACTIONS. The retry behavior	tinyint	FALSE	FALSE	FALSE
retry_interval_minutes	Pulled from RetryIntervalMinutes in BFE Actions. If RetryBehavior is 0, the time to wait between retries.	int	FALSE	FALSE	FALSE
reapply	Pulled from Reapply in BFE ACTIONS. Whether the action should be re-applied. 0 = False, 1 = True.	tinyint	FALSE	FALSE	FALSE
reapply_limit	Pulled from ReapplyLimit in BFE ACTIONS. The max number of times to reapply the action. If null, there is no limit.	int	FALSE	FALSE	TRUE
reapply_behavior	Pulled from ReapplyBehavior in BFE ACTIONS. The reapply behavior	int	FALSE	FALSE	FALSE
reapply_interval_minutes	Pulled from ReapplyIntervalMinutes in BFE Actions. If ReapplyBehavior is 0, the time to wait between reapplications.	int	FALSE	FALSE	FALSE

Column name	Column description	Data type	Primary Key (PK)	Foreign Key (FK)	Nullable
precache_download	Pulled from PreCacheDownload in BFE ACTIONS. Whether to pre-cache the download for this action. 0 = False, 1 = True.	tinyint	FALSE	FALSE	FALSE
temporal_distribution_minutes	Pulled from TemporalDistributionMinutes in BFE ACTIONS. Distribute action start times over this interval of time. If null, there is no distribution of start times.	int	FALSE	FALSE	TRUE
continue_on_errors	Pulled from ContinueOnErrors in BFE ACTIONS. If it's a multiple-action-group, run all member-actions even if some of them have errors. 0 = False, 1 = True.	tinyint	FALSE	FALSE	FALSE
user_requirement	Pulled from UserRequirement in BFE ACTIONS. Whether to require a user presence or lack thereof to run the action	int	FALSE	FALSE	FALSE
user_type	Pulled from UserType in BFE ACTIONS. The type of user to require for UserRequirement	int	FALSE	FALSE	FALSE
pre_action_show_ui	Pulled from PreActionShowUI in BFE ACTIONS. Whether to show a message before running the action. 0 = False, 1 = True.	tinyint	FALSE	FALSE	FALSE
pre_action_title	Pulled from PreActionTitle in BFE ACTIONS. If PreActionShowUI is true, the title of the message shown before running the action.	nvarchar(max)	FALSE	FALSE	TRUE
pre_action_text	Pulled from PreActionText in BFE ACTIONS. If PreActionShowUI is true, the text of the message shown before running the action.	nvarchar(max)	FALSE	FALSE	FALSE
pre_action_ask_to_save_work	Pulled from PreActionAskToSaveWork in BFE ACTIONS. Whether to ask users to save their work before the action is run. 0 = False, 1 = True.	tinyint	FALSE	FALSE	FALSE
pre_action_allow_view_script	Pulled from PreActionAllowViewScript in BFE ACTIONS. Whether the user is allowed to view the actionscript. 0 = False, 1 = True.	tinyint	FALSE	FALSE	FALSE
pre_action_allow_cancel	Pulled from PreActionAllowCancel in BFE ACTIONS. Whether to allow the user to cancel action before it's run. 0 = False, 1 = True.	tinyint	FALSE	FALSE	FALSE
pre_action_deadline_type	Pulled from PreActionDeadlineType in BFE ACTIONS. When to set the pre-action deadline. 0 = At 'PreActionDeadlineIntervalMinutes' after the action is relevant,1 = At 'PreActionDeadlineTime'.	int	FALSE	FALSE	FALSE
pre_action_deadline_interval_minut	Pulled from PreActionDeadlineIntervalMinutes in BFE ACTIONS. If PreActionDeadlineType is 0, the time after the action is relevant to set the deadline.	int	FALSE	FALSE	FALSE
pre_action_deadline_date	Pulled from PreActionDeadlineDate in BFE ACTIONS. If PreActionDeadlineType is 1, the absolute date to set the deadline. In Client Time or UTC.	date	FALSE	FALSE	TRUE
pre_action_deadline_time	Pulled from PreActionDeadlineTime in BFE ACTIONS. If PreActionDeadlineType is 1, the absolute time to set the deadline. In Client Time or UTC.	time(7)	FALSE	FALSE	TRUE
pre_action_deadline_behavior	Pulled from PreActionDeadlineBehavior in BFE ACTIONS. The pre-action deadline behavior. 0 = Keep the action message visible until the user accepts it, 1 = Run the action automatically.	tinyint	FALSE	FALSE	FALSE
pre_action_show_confirmation	Pulled from PreActionShowConfirmation in BFE ACTIONS. Whether to show a confirmation message before running the action. 0 = False, 1 = True.	tinyint	FALSE	FALSE	FALSE
pre_action_show_confirmation_text	Pulled from PreActionShowConfirmationText in BFE ACTIONS. If PreActionShowConfirmation is true, the text of the confirmation message.	nvarchar(max)	FALSE	FALSE	TRUE
show_running_message	Pulled from ShowRunningMessage in BFE ACTIONS. Whether to show a message while running this action. 0 = False, 1 = True.	tinyint	FALSE	FALSE	FALSE
running_message_text	Pulled from RunningMessageText in BFE ACTIONS. If ShowRunningMessage is true, the message text to show while running the action.	nvarchar(max)	FALSE	FALSE	TRUE
is_offer	Pulled from IsOffer in BFE ACTIONS. Whether this action is an offer. 0 = False, 1 = True.	tinyint	FALSE	FALSE	FALSE
offer_notify	Pulled from OfferNotify in BFE ACTIONS. If the action is an offer, whether to notify users of the offer. 0 = False, 1 = True.	tinyint	FALSE	FALSE	TRUE
offer_title	Pulled from OfferTitle in BFE ACTIONS. If the action is an offer, the title of the offer.	nvarchar(max)	FALSE	FALSE	TRUE
offer_description	Pulled from OfferDescription in BFE ACTIONS. If the action is an offer, the description of the offer.	nvarchar(max)	FALSE	FALSE	TRUE
post_action_behavior	Pulled from PostActionBehavior in BFE ACTIONS. The post-action behavior. 0 = None, 1 = Restart, 2 - Shutdown.	tinyint	FALSE	FALSE	FALSE

Column name	Column description	Data type	Primary Key (PK)	Foreign Key (FK)	Nullable
post_action_message_title	Pulled from PostActionMessageTitle in BFE ACTIONS. If there is a post-action behavior, The title of the message to show before the post-action behavior.	nvarchar(max)	FALSE	FALSE	TRUE
post_action_message_text	Pulled from PostActionMessageText in BFE ACTIONS. If there is a post-action behavior, The text of the message to show before the post-action behavior.	nvarchar(max)	FALSE	FALSE	TRUE
post_action_allow_cancel	Pulled from PostActionAllowCancel in BFE ACTIONS. If there is a post-action behavior, allow the user to cancel post-action behavior after the action is run. 0 = False, 1 = True.	tinyint	FALSE	FALSE	FALSE
post_action_deadline_behavior	Pulled from PostActionDeadlineBehavior in BFE ACTIONS. The post-action deadline behavior. 0 = Keep the action message visible until the user accepts it, 1 = Restart / shutdown automatically.	tinyint	FALSE	FALSE	FALSE
post_action_deadline_interval_minu	Pulled from PostActionDeadlineIntervalMinutes in BFE ACTIONS. The time after the action completes to set the post-action behavior deadline.	int	FALSE	FALSE	FALSE
success_criteria_type	Pulled from SuccessCriteriaType in BFE Actions. The criteria used to determine if the action was succesful. 0 = Successful when the original relevance becomes false. 1 = Successful when all lines of the action script have run successfully, 2 = Successful when 'SuccessCriteriaCustomRelevance' becomes false.	tinyint	FALSE	FALSE	FALSE
success_criteria_custom_relevance	Pulled from SuccessCriteriaCustomRelevance in BFE ACTIONS. If SuccessCriteriaType is 2, the relevance value must be false for the action to be considered successful.	nvarchar(max)	FALSE	FALSE	TRUE
valid_from	The timestamp of the last ETL.	datetime2(0)	FALSE	FALSE	FALSE
valid_to	The timestamp indicating until when this row is valid.	datetime2(0)	FALSE	FALSE	FALSE

Relationships:

PK Table	PK Column Name	PK Cardinality	FK Cardinality	FK Table	FK Column Name
datasource_actions	datasource_id	MANY	ONE	datasources	id
datasource_actions	datasource_site_id	MANY	ONE	datasource_sites	id

Table Name : action_state_strings

Description : Stores the string representation of various possible action states. datasource_action_results contains a tinyint state column. To get a human-readable form of the action result state, users can reference dbo.ac tion_state_strings

Table Type : Reporting Enablement / Lookups

Table Active : TRUE

Initial Release Version : 10.0

Column name	Column description	Data type	Primary Key (PK)	Foreign Key (FK)	Nullable
state_number	The state number that is stored in datasource_action_results.	int	TRUE	TRUE	FALSE
datasource_id	The id of the datasource from which the state_number-state_string pair came	int	TRUE	FALSE	FALSE
state_string	The human-readable version of the state.	nvarchar	FALSE	FALSE	FALSE

Relationships:

PK Table	PK Column Name	PK Cardinality	FK Cardinality	FK Table	FK Column Name
action_state_strings	datasource_id	MANY	ONE	datasources	id

Table Name : content_results

Description : Stores results for all datasources associated back to datasource_sites, datasource_devices, datasource_analyses and datasource_fixlets. Fixlet and Analysis relevance results are both in this table.

Think of this as flattened content results that is not linked. There is no global representation within this table.

Table Type : Database Content Reporting

Table Active : TRUE

Initial Release Version : 10.0

Column name	Column description	Data type	Primary Key (PK)	Foreign Key (FK)	Nullable
datasource_site_id	The id from datasource_sites.	bigint	TRUE	TRUE	FALSE
datasource_device_id	The id from datasource_devices.	bigint	TRUE	TRUE	FALSE
datasource_content_id	The id from datasource_fixlet OR datasource_analysis. Check type to determine which the row refers to.	bigint	TRUE	FALSE	FALSE
type	Type of fixlet	tinyint	TRUE	FALSE	FALSE
relevant	Whether this content is relevant	bit	FALSE	FALSE	FALSE
applicable	Whether the content relevance is applicable	bit	FALSE	FALSE	TRUE
resolved	Whether the action is resolved	bit	FALSE	FALSE	TRUE
reverted	Whether the action is reverted	bit	FALSE	FALSE	TRUE
last_non_relevant	The last time the action was non-relevant.	datetime	FALSE	FALSE	TRUE
first_relevant	The first time the action was relevant.	datetime	FALSE	FALSE	TRUE
last_relevant	The last time the action was relevant.	datetime	FALSE	FALSE	TRUE
valid_from	The timestamp of the last ETL.	datetime2	FALSE	FALSE	FALSE
valid_to	The timestamp indicating until when this row is valid.	datetime2	FALSE	FALSE	FALSE

Relationships:

PK Table	PK Column Name	PK Cardinality	FK Cardinality	FK Table	FK Column Name
content_results	id	MANY	ONE	datasource_devices	datasource_device_id
content_results	datasource_site_id	MANY	ONE	datasource_sites	id

Table Name : custom_attributes

Description : A set of key-value pairs meant to store additional data the user might need to create reports.

Table Type : Reporting Enablement / Lookups

Table Active : TRUE

Initial Release Version : 10.0

Column name	Column description	Data type	Primary Key (PK)	Foreign Key (FK)	Nullable
id	The id of the name-value pair	int	TRUE	FALSE	FALSE
category	The value of the category.	nvarchar	FALSE	FALSE	FALSE
attribute_name	The name of the attribute	nvarchar	FALSE	FALSE	FALSE
attribute_value	The value of the attribute	nvarchar	FALSE	FALSE	FALSE
last_updated	The timestamp at which the attribute was last updated.	datetime2	FALSE	FALSE	FALSE

Relationships: None

Table Name : datasource_action_results

Description : Stores the action results from all ETL'd datasource. Information is pulled from BFE ACTIONRESULTS.

Table Type : Database Action Reporting

Table Active : TRUE

Initial Release Version : 10.0

Column name	Column description	Data type	Primary Key (PK)	Foreign Key (FK)	Nullable
datasource_device_id	The id of the device the row belongs to.	bigint	TRUE	TRUE	FALSE
datasource_action_id	The id of the action the row belongs to.	bigint	TRUE	TRUE	FALSE
start_time	Pulled from StartTime in BFE ACTIONRESULTS	datetime	FALSE	FALSE	TRUE
end_time	Pulled from EndTime in BFE ACTIONRESULTS.	datetime	FALSE	FALSE	TRUE
start_time	Pulled from StartTime in BFE ACTIONRESULTS	datetime	FALSE	FALSE	TRUE
retry_count	Pulled from RetryCount in BFE ACTIONRESULTS	smallint	FALSE	FALSE	FALSE
start_time	Pulled from StartTime in BFE ACTIONRESULTS	datetime	FALSE	FALSE	TRUE
state	Pulled from State in BFE ACTIONRESULTS and contains a numerical representation. The human-readable format is stored in dbo.action_state_strings.	smallint	FALSE	FALSE	FALSE
start_time	Pulled from StartTime in BFE ACTIONRESULTS	datetime	FALSE	FALSE	TRUE
exit_code	Pulled from ExitCode in BFE ACTIONRESULTS.	int	FALSE	FALSE	TRUE
start_time	Pulled from StartTime in BFE ACTIONRESULTS	datetime	FALSE	FALSE	TRUE
valid_to	The timestamp indicating until when this row is valid.	datetime2	FALSE	FALSE	FALSE

Relationships:

PK Table	PK Column Name	PK Cardinality	FK Cardinality	FK Table	FK Column Name
datasource_action_results	datasource_device_id	MANY	ONE	datasource_devices	id
datasource_action_results	datasource_action_id	MANY	ONE	datasource_actions	id

Table Name : datasource_actionsite_properties

Description : Contains all properties are pulled from the BES PROPERTIES table that exist in the site ACTIONSITE. This table is temporal. These properties are used within the ETL to populate the datasource_property_map table which can then be used to generate dimensions tables.

Table Type : Database Property Reporting

Table Active : TRUE

Initial Release Version : 10.0

Column name	Column description	Data type	Primary Key (PK)	Foreign Key (FK)	Nullable
id	The unique identifier of the property in Insights	bigint	TRUE	FALSE	FALSE
datasource_id	The id of the datasource of which the property information is being retrieved from.	int	FALSE	TRUE	FALSE
remote_content_id	The content id of the property in the datasource.	bigint	FALSE	FALSE	FALSE
remote_site_id	The site id of the property in the datasource	bigint	FALSE	FALSE	FALSE
remote_property_id	The id of the property in the datasource.	tinyint	FALSE	FALSE	FALSE
name	The name of the property.	nvarchar(512)	FALSE	FALSE	FALSE
type	The property type. 0 = Reserved. This is a read-only predefined property. 1 = Default. This is a predefined property that can be edited. 2 = Custom. This is a user created property.	tinyint	FALSE	FALSE	FALSE
deleted	Whether the content has been deleted or not. **0 = False, 1 = True.**	bit	FALSE	FALSE	FALSE
updated_at	The timestamp of the last update.	datetime2(0)	FALSE	FALSE	FALSE
valid_from	The timestamp of the last ETL.	datetime2(0)	FALSE	FALSE	FALSE
valid_to	The timestamp indicating until when this row is valid.	datetime2(0)	FALSE	FALSE	FALSE

Relationships:

PK Table	PK Column Name	PK Cardinality	FK Cardinality	FK Table	FK Column Name
datasource_actionsite_properties	datasource_id	MANY	ONE	datasources	id

Table Name : datasource_analyses

Description : External and custom analyses from ETL'd datasources.

Table Type : Database Property Reporting

Table Active : TRUE

Initial Release Version : 10.0

Column name	Column description	Data type	Primary Key (PK)	Foreign Key (FK)	Nullable
id	The unique identifier of an analysis in Insights.	bigint	TRUE	FALSE	FALSE
remote_id	The content id of the analysis in the datasource.	bigint	FALSE	FALSE	FALSE
datasource_id	The id of the datasource of which the analysis is retrieved from.	int	FALSE	TRUE	FALSE
datasource_site_id	The site id of the analysis in the datasource.	bigint	FALSE	TRUE	FALSE
name	Name of the analysis.	nvarchar(255)	FALSE	FALSE	FALSE
deleted	Whether the analysis has been deleted or not. 0 = False, 1 = True.	bit	FALSE	FALSE	FALSE
valid_from	The timestamp of the last ETL.	datetime2(0)	FALSE	FALSE	FALSE
valid_to	The timestamp indicating until when this row is valid.	datetime2(0)	FALSE	FALSE	FALSE

Relationships:

PK Table	PK Column Name	PK Cardinality	FK Cardinality	FK Table	FK Column Name
datasource_analyses	datasource_site_id	MANY	ONE	datasource_sites	id
datasource_analyses	datasource_id	MANY	ONE	datasources	id
datasource_analyses	id	MANY	ONE	datasource_analysis_properties	datasource_analysis_id
datasource_analyses	id	MANY	ONE	global_analyses_associations	datasource_analysis_id
datasource_analyses	id	MANY	ONE	global_analyses	datasource_analysis_id

Table Name : datasource_analysis_properties

Description : External and custom analyses from ETL'd datasources.

Table Type : Database Property Reporting

Table Active : TRUE

Initial Release Version : 10.0

datasource_analysis_id	The analysis id in the datasource.	bigint	FALSE	TRUE	FALSE
name	The name of the analysis property.	nvarchar(512)	FALSE	FALSE	FALSE
deleted	Whether the analysis property has been deleted or not. 0 = False, 1 = True.	bit	FALSE	FALSE	FALSE
valid_from	The timestamp of the last ETL.	datetime2(0)	FALSE	FALSE	FALSE
valid_to	The timestamp indicating until when this row is valid.	datetime2(0)	FALSE	FALSE	FALSE

Relationships:

PK Table	PK Column Name	PK Cardinality	FK Cardinality	FK Table	FK Column Name
datasource_analysis_properties	id	MANY	ONE	datasource_analyses	id

Table Name : datasource_computer_groups

Description : For all datasources provide relationship of computers to groups. Displays all computer groups memberships across all datasource devices. Think of this as flattened computer group membership results that is not linked, there is no vvglobal representation within this table.

Table Type : Database Computer Reporting

Table Active : TRUE

Initial Release Version : 10.0

Column name	Column description	Data type	Primary Key (PK)	Foreign Key (FK)	Nullable
id	The unique identifier of a computer group in Insights	bigint	TRUE	FALSE	FALSE
datasource_group_id	The group id in the datasource.	bigint	FALSE	TRUE	FALSE
datasource_device_id	The device id in the datasource.	bigint	FALSE	TRUE	FALSE
datasource_site_id	The site id in the datasource.	bigint	FALSE	TRUE	FALSE
datasource_id	The id of the datasource of which the computer group is retrieved from.	int	FALSE	TRUE	FALSE
version	The version of the group.	varbinary(512)	FALSE	FALSE	FALSE
is_member	Whether the computer is a member of the group. 0 = False, 1 = True.	tinyint	FALSE	FALSE	FALSE
valid_from	The timestamp of the last ETL.	datetime2(0)	FALSE	FALSE	FALSE
valid_to	The timestamp indicating until when this row is valid.	datetime2(0)	FALSE	FALSE	FALSE

Relationships:

PK Table	PK Column Name	PK Cardinality	FK Cardinality	FK Table	FK Column Name
datasource_computer_groups	datasource_site_id	MANY	ONE	datasource_sites	id

Table Name : datasource_devices

Description : Stores all devices from all ETL'd BES deployments

Table Type : Database Computer Reporting

Table Active : TRUE

Initial Release Version : 10.0

Column name	Column description	Data type	Primary Key (PK)	Foreign Key (FK)	Nullable
id	The unique identifier of the device in Insights.	bigint	TRUE	FALSE	FALSE
remote_id	The id of the device in the datasource.	bigint	FALSE	TRUE	FALSE
datasource_id	The id of the datasource of which the device is retrieved from.	int	FALSE	FALSE	FALSE
name	The name of the device.	nvarchar(512)	FALSE	FALSE	TRUE
report_number	The report number of the last report recieved.	bigint	FALSE	FALSE	FALSE
last_report_time	The last time a report was recieved. In UTC.	datetime	FALSE	FALSE	TRUE
last_report_sent	The last time a report was sent. In UTC.	datetime	FALSE	FALSE	TRUE
locked	Whether the device is locked or not. 0 = False, 1 = True.	bit	FALSE	FALSE	FALSE
deleted	Whether the device is deleted or not. 0 = False, 1 = True.	bit	FALSE	FALSE	FALSE
valid_from	The timestamp of the last ETL.	datetime2(0)	FALSE	FALSE	FALSE
valid_to	The timestamp indicating until when this row is valid.	datetime2(0)	FALSE	FALSE	FALSE

Relationships:

PK Table	PK Column Name	PK Cardinality	FK Cardinality	FK Table	FK Column Name
datasource_devices	datasource_id	MANY	ONE	datasources	id
datasource_devices	id	ONE	MANY	content_results	datasource_device_id
datasource_devices	id	ONE	MANY	datasource_computer_groups	datasource_device_id
datasource_devices	id	ONE	MANY	device_dimensions	datasource_device_id

Table Name : datasource_fixlets

Description : For all datasources facilitate datasource ids for content. Displays all content across all datasources. Think of this as flattened content objects that is not linked, there is no global representation within this table.

Table Type : Database Content Reporting

Table Active : TRUE

Initial Release Version : 10.0

Column name	Column description	Data type	Primary Key (PK)	Foreign Key (FK)	Nullable
id	The unique identifier of the fixlet in Insights.	bigint	TRUE	FALSE	FALSE
datasource_id	The id of the datasource of which the fixlet is retrieved from.	int	FALSE	TRUE	FALSE
datasource_site_id	The site id of the fixlet in the datasource	bigint	FALSE	TRUE	FALSE
remote_id	The id of the fixlet in the datasource.	bigint	FALSE	FALSE	FALSE
name	The name of the fixlet.	nvarchar(512)	FALSE	FALSE	FALSE
class		nvarchar(32)	FALSE	FALSE	FALSE
category	The category of the fixlet.	nvarchar(255)	FALSE	FALSE	TRUE
is_task	Whether the fixlet is task or not. 0 = False, 1 = True.	tinyint	FALSE	FALSE	FALSE
severity	The severity category of the fixlet. For example: Critical, Important, Low.	nvarchar(64)	FALSE	FALSE	TRUE
source	The source of the fixlet.	nvarchar(255)	FALSE	FALSE	TRUE
source_release_date	The source release date. In ISO 8601 date string.	nvarchar(32)	FALSE	FALSE	TRUE
source_id	The source id of the fixlet in the datasource.	nvarchar(1024)	FALSE	FALSE	TRUE
download_size	The download size of the fixlet. In MB.	bigint	FALSE	FALSE	TRUE
cve	The CVE id list of the fixlet.	nvarchar(max)	FALSE	FALSE	TRUE
sans	The SANs id list of the fixlet.	nvarchar(255)	FALSE	FALSE	TRUE
hidden	Whether the fixlet is hidden or not. 0 = False, 1 = True.	bit	FALSE	FALSE	FALSE
deleted	Whether the fixlet has been deleted or not. 0 = False, 1 = True.	bit	FALSE	FALSE	FALSE
superseded		bit	FALSE	FALSE	FALSE
superseded_by		nvarchar(1024)	FALSE	FALSE	FALSE
valid_from	The timestamp of the last ETL.	datetime2(0)	FALSE	FALSE	FALSE
valid_to	The timestamp indicating until when this row is valid.	datetime2(0)	FALSE	FALSE	FALSE

Relationships:

PK Table	PK Column Name	PK Cardinality	FK Cardinality	FK Table	FK Column Name
datasource_fixlets	datasource_id	MANY	ONE	datasources	id
datasource_fixlets	datasource_site_id	MANY	ONE	datasource_sites	id
datasource_fixlets	id	MANY	ONE	global_fixlets	datasource_fixlet_id
datasource_fixlets	id	MANY	ONE	global_fixlet_associations	datasource_fixlet_id
datasource_fixlets	id	MANY	ONE	staging_fixlet_fields	datasource_fixlet_id

Table Name : datasource_groups

Description : Has a listing of all datasources computer groups. Think of this as flattened content results that is not linked. There is no global representation within this table.

Table Type : Database Computer Reporting

Table Active : TRUE

Initial Release Version : 10.0

Column name	Column description	Data type	Primary Key (PK)	Foreign Key (FK)	Nullable
id	The unique identifier of the group in Insights.	bigint	TRUE	FALSE	FALSE
datasource_id	The id of the datasource which the group is retrieved from.	int	FALSE	TRUE	FALSE
datasource_site_id	The site id of the group in the datasource.	bigint	FALSE	TRUE	FALSE
remote_id	The id of the group in the datasource	bigint	FALSE	FALSE	FALSE
name	The name of the group.	nvarchar(512)	FALSE	FALSE	FALSE
type	The group type. 0 = manual, 1 = automatic.	tinyint	FALSE	FALSE	FALSE
is_client_evaluated	Whether the client evaluates that it is a member of this group. 0 = False, 1 = True.	bit	FALSE	FALSE	FALSE
creator_id	The id of the user that created the group.	int	FALSE	FALSE	FALSE
creation_time	The creation time of the group. In UTC.	datetime2(0)	FALSE	FALSE	TRUE
deleted	Whether the group has been deleted or not. 0 = False, 1 = True.	bit	FALSE	FALSE	FALSE
valid_from	The timestamp of the last ETL.	datetime2(0)	FALSE	FALSE	FALSE
valid_to	The timestamp indicating until when this row is valid.	datetime2(0)	FALSE	FALSE	FALSE

Relationships:

PK Table	PK Column Name	PK Cardinality	FK Cardinality	FK Table	FK Column Name
datasource_groups	datasource_id	MANY	ONE	datasources	id
datasource_groups	datasource_site_id	MANY	ONE	datasource_sites	id
datasource_groups	datasource_group_id	MANY	ONE	datasource_computer_groups	id

Table Name : datasource_property_map

Description : from [BFInsights].datasource_actionsite_properties, [BFInsights].datasource_analysis_properties, [BFInsights].datasource_analyses. This table is temporal. This table is used to generate the dimension table [BFInsights].[device_dimensions]

Table Type : Database Property Reporting

Table Active : TRUE

Initial Release Version : 10.0

Column name	Column description	Data type	Primary Key (PK)	Foreign Key (FK)	Nullable
id	The unique identifier of the property map in Insights.	bigint	TRUE	FALSE	FALSE
datasource_id	The id of the datasource of which the property is retrieved from.	int	FALSE	TRUE	FALSE
datasource_site_id	The site id of the property in the datasource.	bigint	FALSE	TRUE	FALSE
remote_content_id	The content id of the property in the datasource.	bigint	FALSE	FALSE	FALSE
remote_property_id	The id of the property in the datasource.	bigint	FALSE	FALSE	FALSE
name	The name of the property.	nvarchar(512)	FALSE	FALSE	FALSE
type	The property type	tinyint	FALSE	FALSE	TRUE
deleted	Whether the property has been deleted or not	bit	FALSE	FALSE	FALSE
valid_from	The timestamp of the last ETL.	datetime2(0)	FALSE	FALSE	FALSE
valid_to	The timestamp indicating until when this row is valid.	datetime2(0)	FALSE	FALSE	FALSE

Relationships:

PK Table	PK Column Name	PK Cardinality	FK Cardinality	FK Table	FK Column Name
datasource_property_map	datasource_id	MANY	ONE	datasources	id
datasource_property_map	datasource_site_id	MANY	ONE	datasource_sites	id

Table Name : datasource_property_results

Description : Contains full list of property values across all deployments. This table is temporal. This table is used in the webui to generate the [BFInsights].device_dimensions table. \r\n

Note: Values are pulled from QUESTIONRESULTS and LONGQUESTIONRESULTS, but only where: \r\n 1. A valid WebUISiteID exists (NOT NULL) \r\n2. The property type is either Default (0) Reserved (1)

Table Type : Database Property Reporting

Table Active : TRUE

Initial Release Version : 10.0

Column name	Column description	Data type	Primary Key (PK)	Foreign Key (FK)	Nullable
id	The unique identifier of the property result in Insights.	bigint	TRUE	FALSE	FALSE
datasource_id	The id of the datasource of which the values of the property is retrieved from.	int	FALSE	FALSE	FALSE
remote_device_id	The computer id of the property result in the datasource.	bigint	FALSE	FALSE	FALSE
remote_site_id	The WebUI site id of the property result in the datasource.	bigint	FALSE	FALSE	FALSE
remote_content_id	The analysis id of the property result in the datasource.	bigint	FALSE	FALSE	FALSE
remote_property_id	The property id of the property result in the datasource.	bigint	FALSE	FALSE	FALSE
value	The text result of the property.	nvarchar(4000)	FALSE	FALSE	TRUE
valid_from	The timestamp of the last ETL.	datetime2(0)	FALSE	FALSE	FALSE
valid_to	The timestamp indicating until when this row is valid.	datetime2(0)	FALSE	FALSE	FALSE

Relationships: None

Table Name : datasource_sites

Description : Holds the list of sites ETL'd from each datasource. Data comes from dbo.SITES table in BigFix Enterprise.

Table Type : Database Content Reporting

Table Active : TRUE

Initial Release Version : 10.0

Column name	Column description	Data type	Primary Key (PK)	Foreign Key (FK)	Nullable
id	The unique identifier of the site in Insights.	bigint	TRUE	FALSE	FALSE
datasource_id	The id of the datasource of which the sites are retrieved from.	int	FALSE	TRUE	FALSE
remote_id	The id of the site in the datasource.	bigint	FALSE	FALSE	FALSE
name	The masthead name of the site.	nvarchar(512)	FALSE	FALSE	FALSE
display_name	The display name of the site.	nvarchar(512)	FALSE	FALSE	TRUE
url	The url where the site can be gathered.	nvarchar(1024)	FALSE	FALSE	FALSE
version	The site version.	int	FALSE	FALSE	FALSE
type	The type of site. 0 = External, 1 = ActionSite, 2 = Custom, 3 = Operator.	tinyint	FALSE	FALSE	FALSE
deleted	Whether the site has been deleted or not. 0 = False, 1 = True.	bit	FALSE	FALSE	FALSE
is_excluded	Whether the site is excluded from the ETL or not. 0 = False, 1 = True.	tinyint	FALSE	FALSE	FALSE
valid_from	The timestamp of the last ETL.	datetime2(0)	FALSE	FALSE	FALSE
valid_to	The timestamp indicating until when this row is valid.	datetime2(0)	FALSE	FALSE	FALSE

Relationships:

PK Table	PK Column Name	PK Cardinality	FK Cardinality	FK Table	FK Column Name
datasource_groups	datasource_id	MANY	ONE	datasources	id
datasource_sites	id	MANY	ONE	global_site_associations	datasource_site_id
datasource_sites	id	MANY	ONE	content_results	datasource_site_id
datasource_sites	id	MANY	ONE	datasource_actions	datasource_site_id
datasource_sites	id	MANY	ONE	datasource_analyses	datasource_site_id
datasource_sites	id	MANY	ONE	datasource_computer_groups	datasource_site_id
datasource_sites	id	MANY	ONE	datasource_fixlets	datasource_site_id
datasource_sites	id	MANY	ONE	datasource_groups	datasource_site_id
datasource_sites	id	MANY	ONE	datasource_property_map	datasource_site_id

Table Name : datasources

Description : Represents all datasources added by the user when configuring ETLs

Table Type : Database Reporting

Table Active : TRUE

Initial Release Version : 10.0

Column name	Column description	Data type	Primary Key (PK)	Foreign Key (FK)	Nullable
id	The unique identifer of the datasource in Insights.	int	TRUE	FALSE	FALSE
name	The uuid for the datasource.	uniqueidentifie	FALSE	FALSE	FALSE
excluded	Whether the datasource is excluded from ETLs or not. 0 = False, 1 = True.	bit	FALSE	FALSE	FALSE
version	The datasource version.	nvarchar(32)	FALSE	FALSE	FALSE
user_alias	The display name for the datasource, set by the user.	nvarchar(128)	FALSE	FALSE	FALSE
last_modified	The last time the datasource was modified. In UTC.	datetime2(0)	FALSE	FALSE	FALSE
last_import_time		datetime2(0)	FALSE	FALSE	FALSE
bes_database_id	The unique identifer of the BES database for the datasource in Insights.	int	FALSE	FALSE	FALSE
sca_database_id		int	FALSE	FALSE	FALSE
bfi_database_id		int	FALSE	FALSE	FALSE

Relationships:

PK Table	PK Column Name	PK Cardinality	FK Cardinality	FK Table	FK Column Name
datasources	id	ONE	MANY	action_state_strings	datasource_id
datasources	id	ONE	MANY	datasource_actionsite_properties	datasource_id
datasources	id	ONE	MANY	datasource_devices	datasource_id
datasources	id	ONE	MANY	datasource_groups	datasource_id
datasources	id	ONE	MANY	datasource_computer_groups	datasource_id
datasources	id	ONE	MANY	datasource_sites	datasource_id
datasources	id	ONE	MANY	datasource_actions	datasource_id
datasources	id	ONE	MANY	datasource_fixlets	datasource_id

Table Name : device_dimensions

Description : Detailed attributes for scanned devices.

Table Type : Database Computer Reporting

Table Active : TRUE

Initial Release Version : 10.0

Column name	Column description	Data type	Primary Key (PK)	Foreign Key (FK)	Nullable
datasource_device_id	The id of the device in the datasource.	bigint	TRUE	TRUE	FALSE
computer_name	The name of the device.	nvarchar(512)	FALSE	FALSE	TRUE
locked	Whether the device is locked. . 0 = False, 1 = True.	bit	FALSE	FALSE	FALSE
os	The device's operating system.	nvarchar(512)	FALSE	FALSE	TRUE
cpu	The device's CPU.	nvarchar(512)	FALSE	FALSE	TRUE
relay	The device's BigFix relay.	nvarchar(512)	FALSE	FALSE	TRUE
dns_name	The device's DNS.	nvarchar(4000)	FALSE	FALSE	TRUE
active_directory_path	The device's active directory path.	nvarchar(4000)	FALSE	FALSE	TRUE
ip_address	The device's IP Address(es).	nvarchar(4000)	FALSE	FALSE	TRUE
ipv6_address	The device's IPV6 Address(es).	nvarchar(4000)	FALSE	FALSE	TRUE
agent_version	The device's agent version.	nvarchar(128)	FALSE	FALSE	TRUE
device_type	The device type. For example: Server, Laptop.	nvarchar(128)	FALSE	FALSE	TRUE
computer_type	The computer type. For example: Virtual	nvarchar(128)	FALSE	FALSE	TRUE
user_name	Names of the device's user(s).	nvarchar(512)	FALSE	FALSE	TRUE
ram	The amount of RAM on the device.	nvarchar(512)	FALSE	FALSE	TRUE
subnet_address	The device's subnet address.	nvarchar(4000)	FALSE	FALSE	TRUE
valid_from	The timestamp of the last ETL.	datetime2(0)	FALSE	FALSE	FALSE
valid_to	The timestamp indicating until when this row is valid.	datetime2(0)	FALSE	FALSE	FALSE

Relationships:

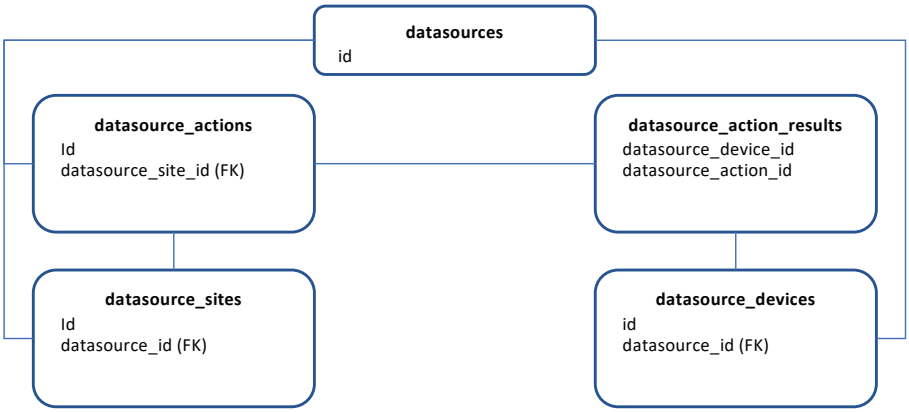
PK Table	PK Column Name	PK Cardinality	FK Cardinality	FK Table	FK Column Name
device_dimensions	datasource_device_id	MANY	ONE	datasource_devices	id

Table relationships

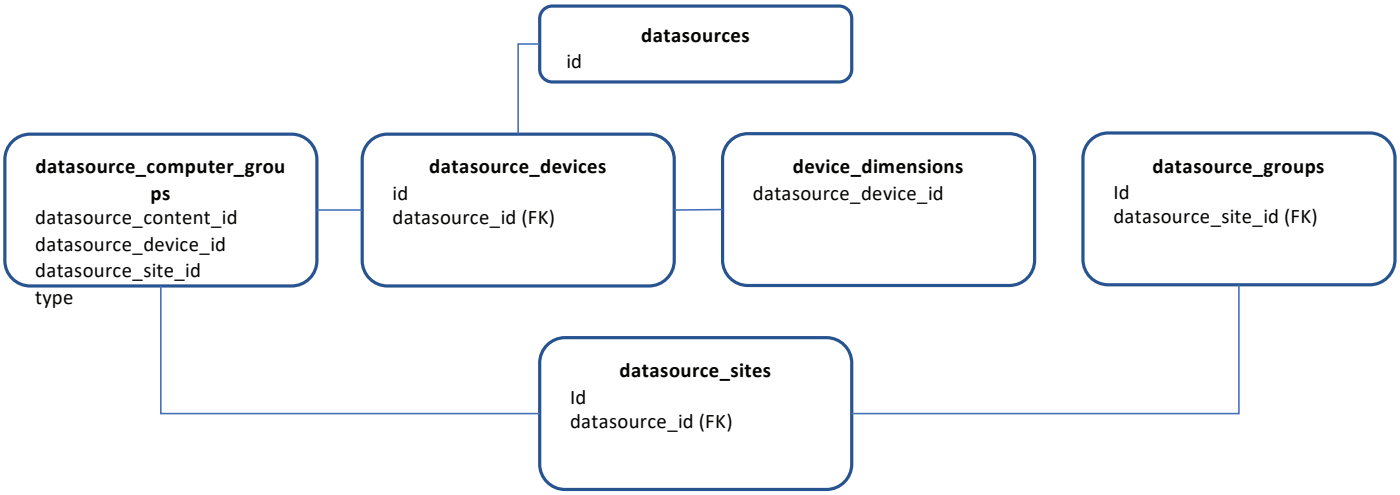
The following pages provide a visual representation of how the tables are related and used. The following diagrams are provided:

- Datasource Action Reporting
- Datasource Computer Reporting
- Datasource Content Reporting
- Datasource Property Reporting
- Reporting Enablement/Lookups

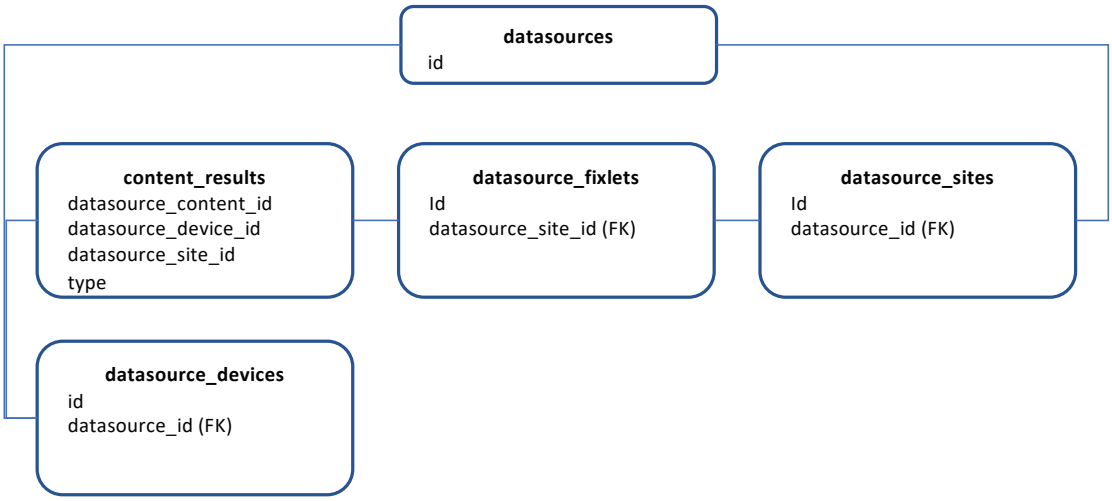
Datasource Action Reporting



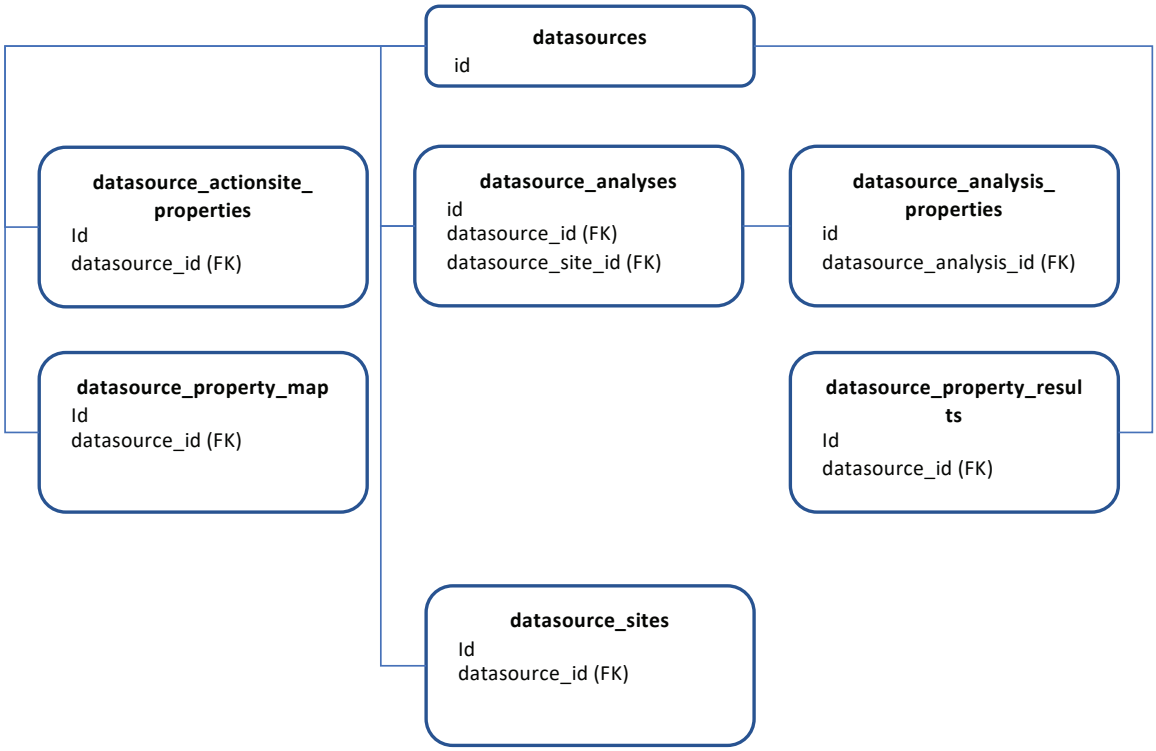
Datasource Computer Reporting



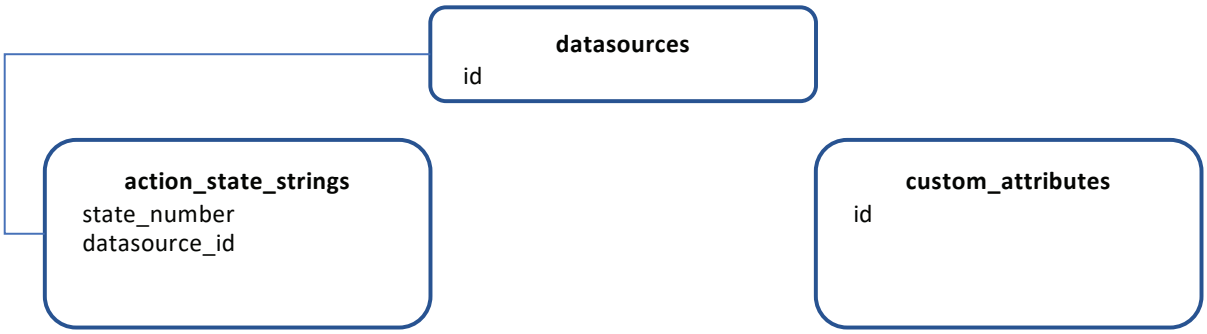
Datasource Content Reporting



Datasource Property Reporting



Reporting Enablement/Lookups



Data Models for Sample Reports

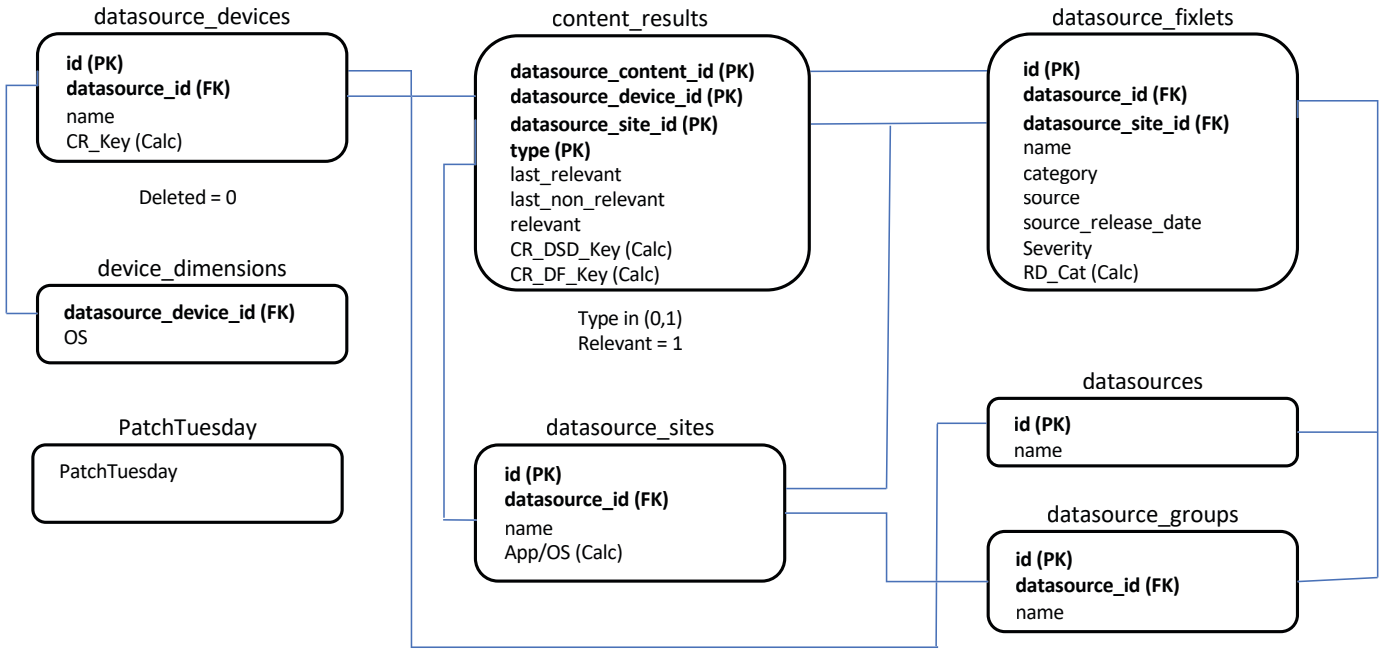
BigFix Insights is delivered with sample reports. In this section, the data models for the following two Power BI reports are provided:

- Patch Remediation Report
- Device Inventory Report

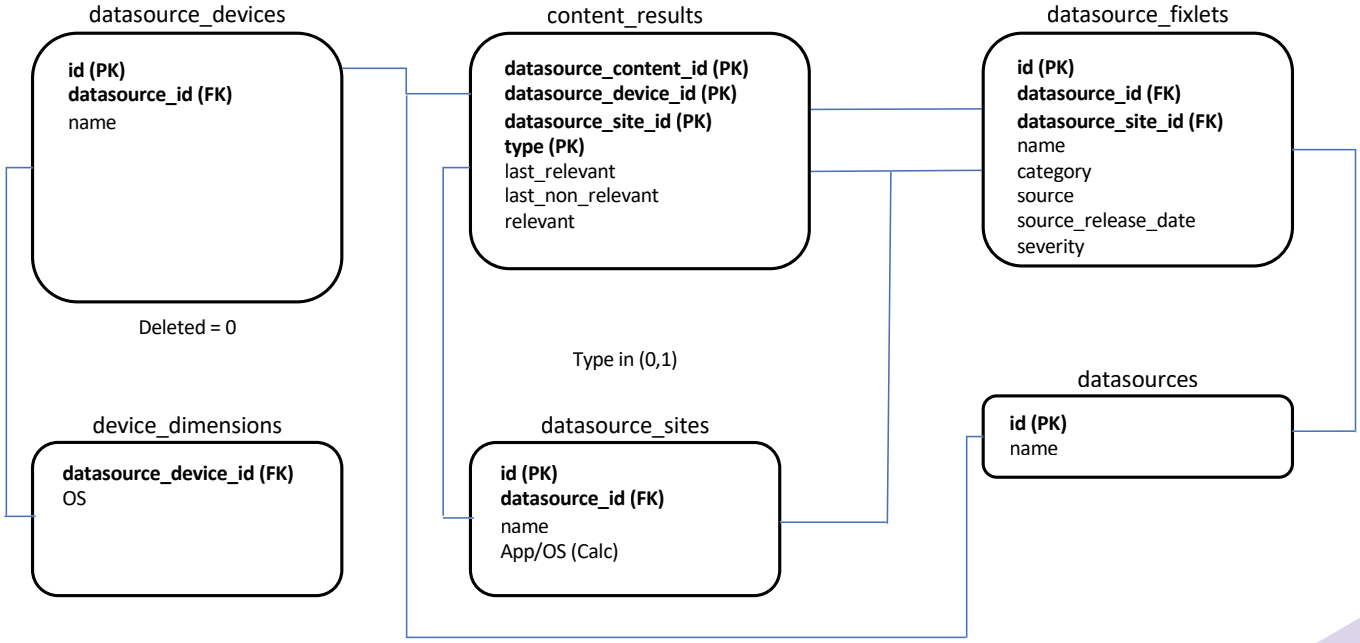
BigFix Insights – Power BI – Patch Remediation Report Data Model

The following diagrams show how the table used to create the Power BI Patch Remediation sample report.

Current Data*



Historical Data*



Aggregations

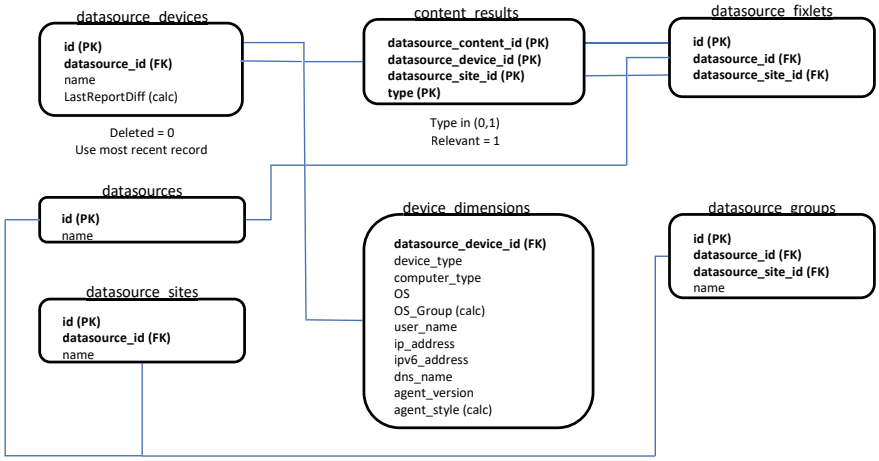
Fixlet History Count Aggregation

FixletCount

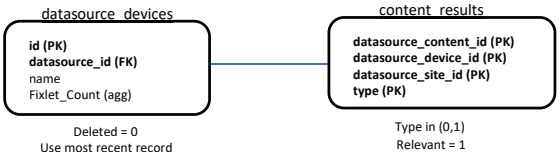
* Temporal functionality is not used

BigFix Insights – Power BI – Device Inventory Report Data Model

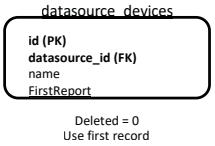
The following diagrams show how the table used to create the Power BI Device Inventory sample report.



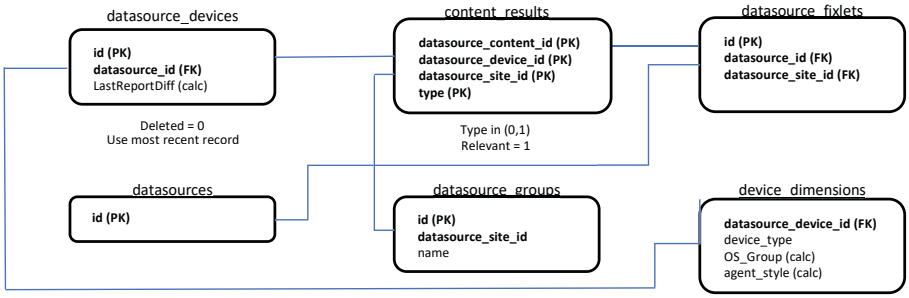
Fixlets for Each Device ID



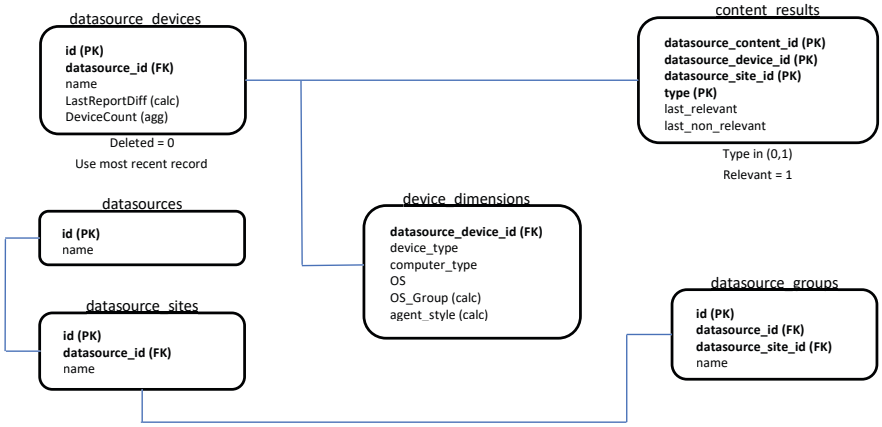
First Report of Each Device ID



Devices by Group Name



Historical Device Count



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