EVOLVE CONTACT SUITE: CUSTOM REPORT GUIDE

Evolve Contact Suite: How to Build a Report

May 2018 © Copyright Evolve IP 2017 All rights reserved.

Evolve IP® Guide

Copyright Notice

Table of Contents

How to create a sample report:

1. Create a paginated report
   a. Go to the folder where a report will be placed
   b. Find the "New" item at the menu panel
   c. Choose **Paginated Report**
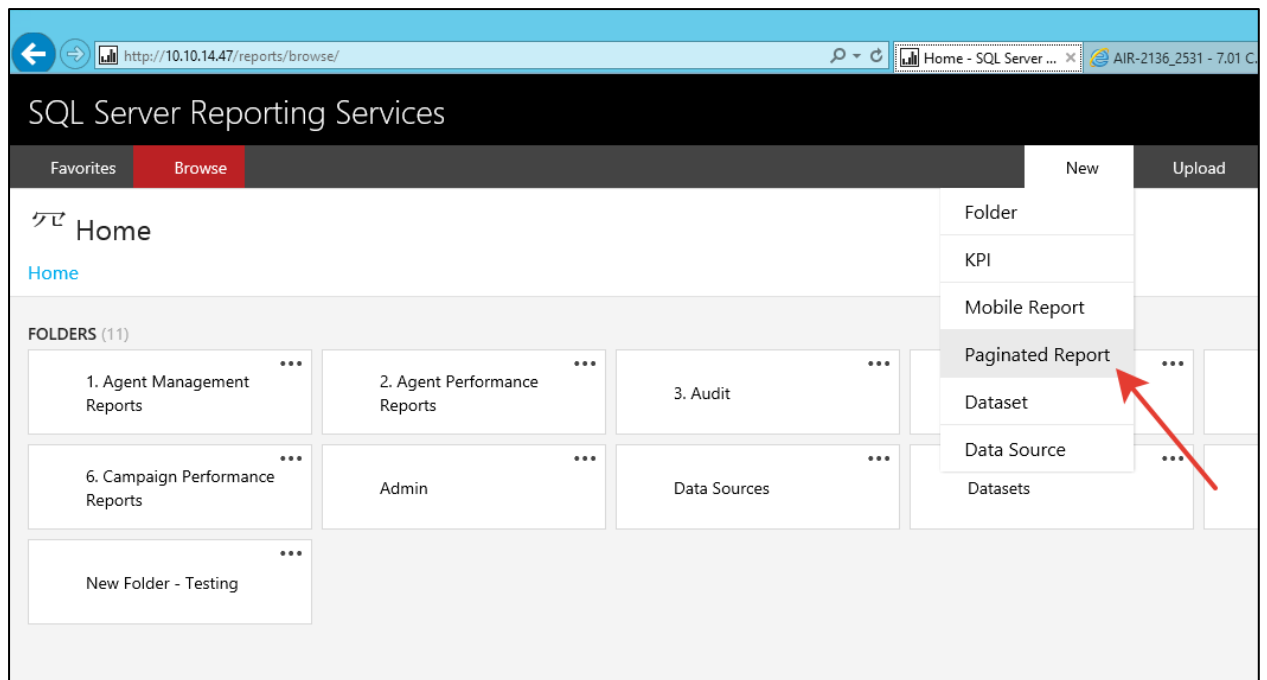
2. Confirmation message

   You can receive a confirmation message
   a. If you have installed Report Builder already, you should allow the application running.
   b. If you have not installed Report Builder earlier, you should "Get Report Builder" from official Microsoft site (see annex 1).
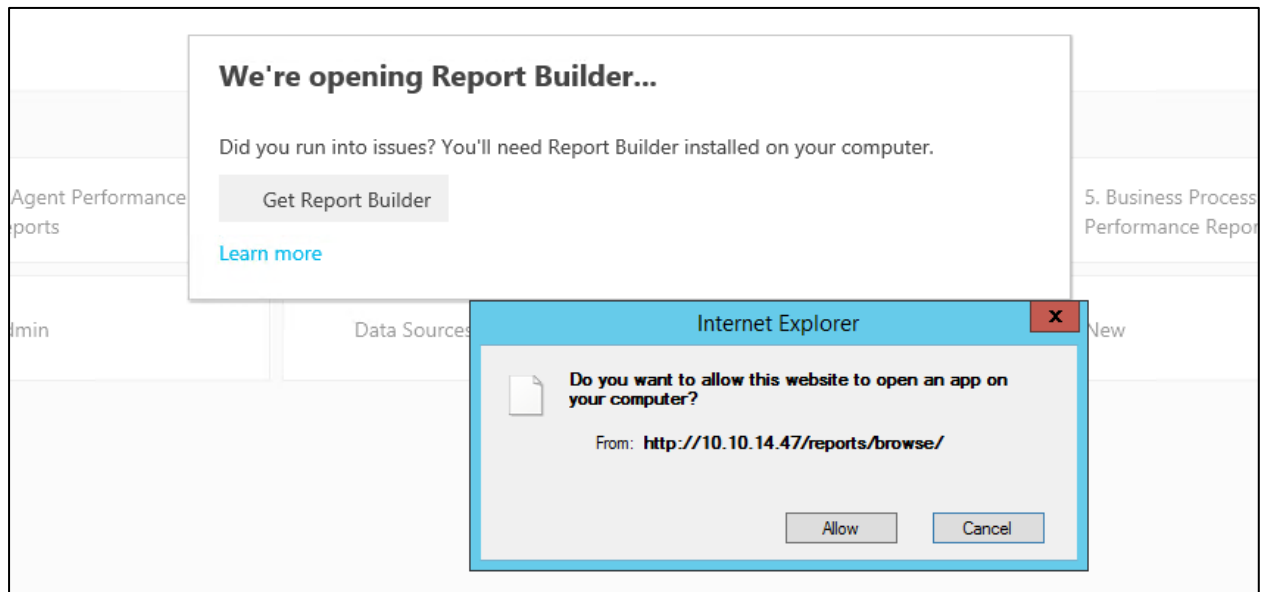
3. Access to connect to the default Report Server

Report Builder may ask for access to connect to the default Report
Server -- **https://ecs-reports.voip.evolveip.net:443/ReportServer**
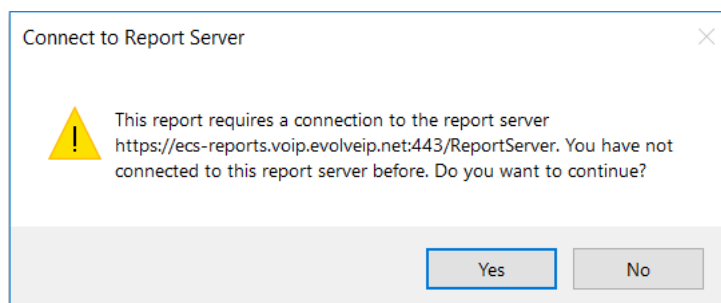
Click Yes.

4. Type of a report template

After that you should choose type of a report template.
- Table or matrix Wizard
- Chart Wizard
- Map Wizard
- Blank Report
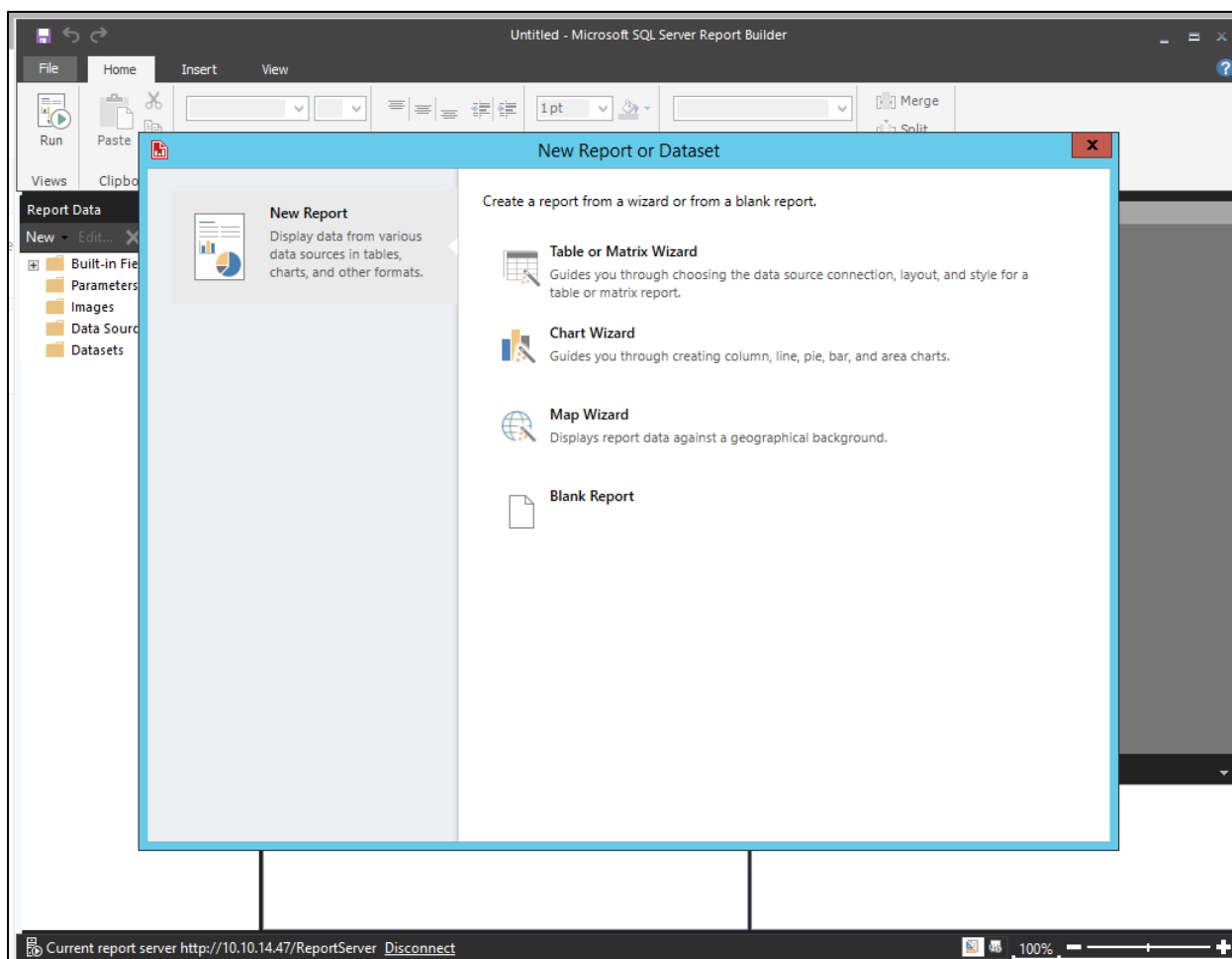
You can create your own report design, take a blank report in this case.

For the simple report we choose **Table or Matrix Wizard**.

5. Choose a dataset for a table

On the next step, you should choose a dataset for a table:
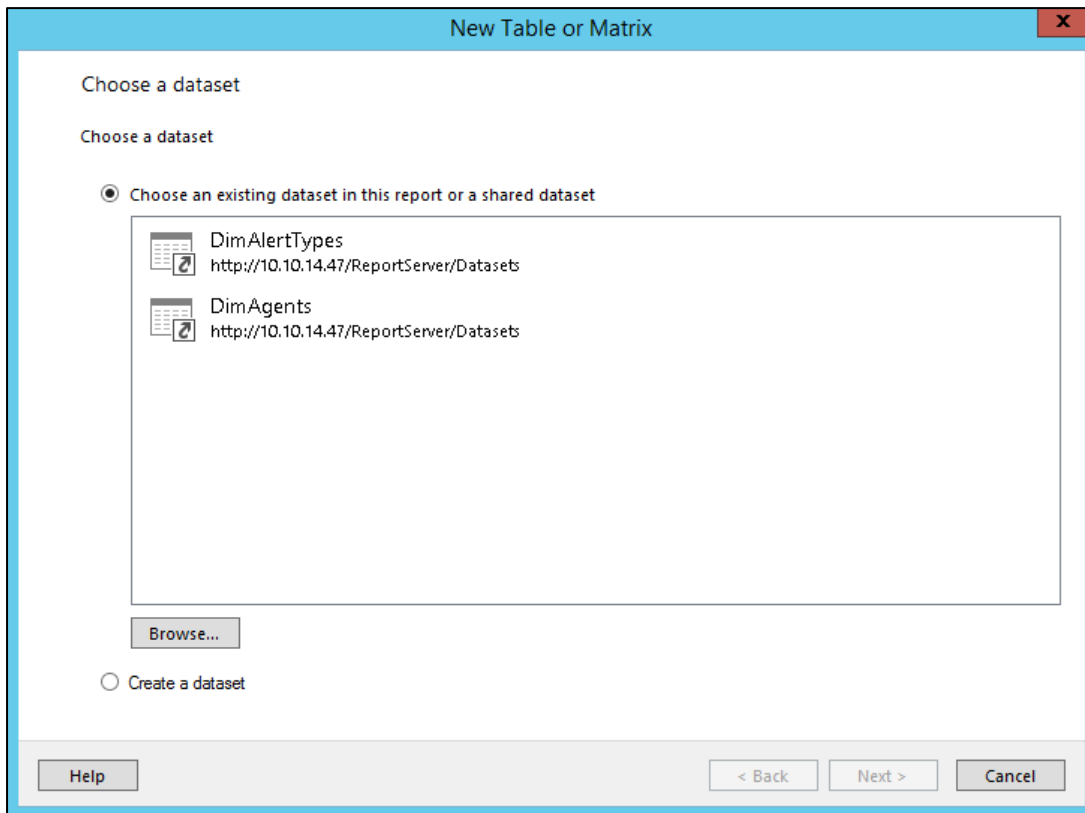
  a. If there is no needed dataset, click "Browse" and go to the Datasets folder.
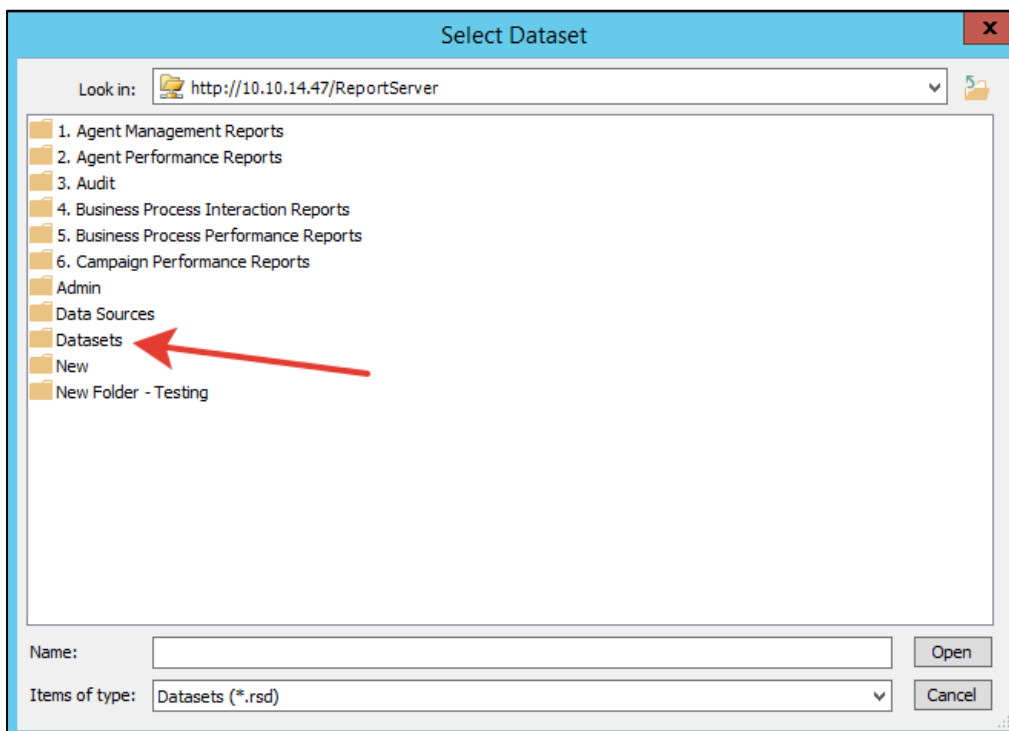
b. Select the main dataset for your report. For example, AllInteractions
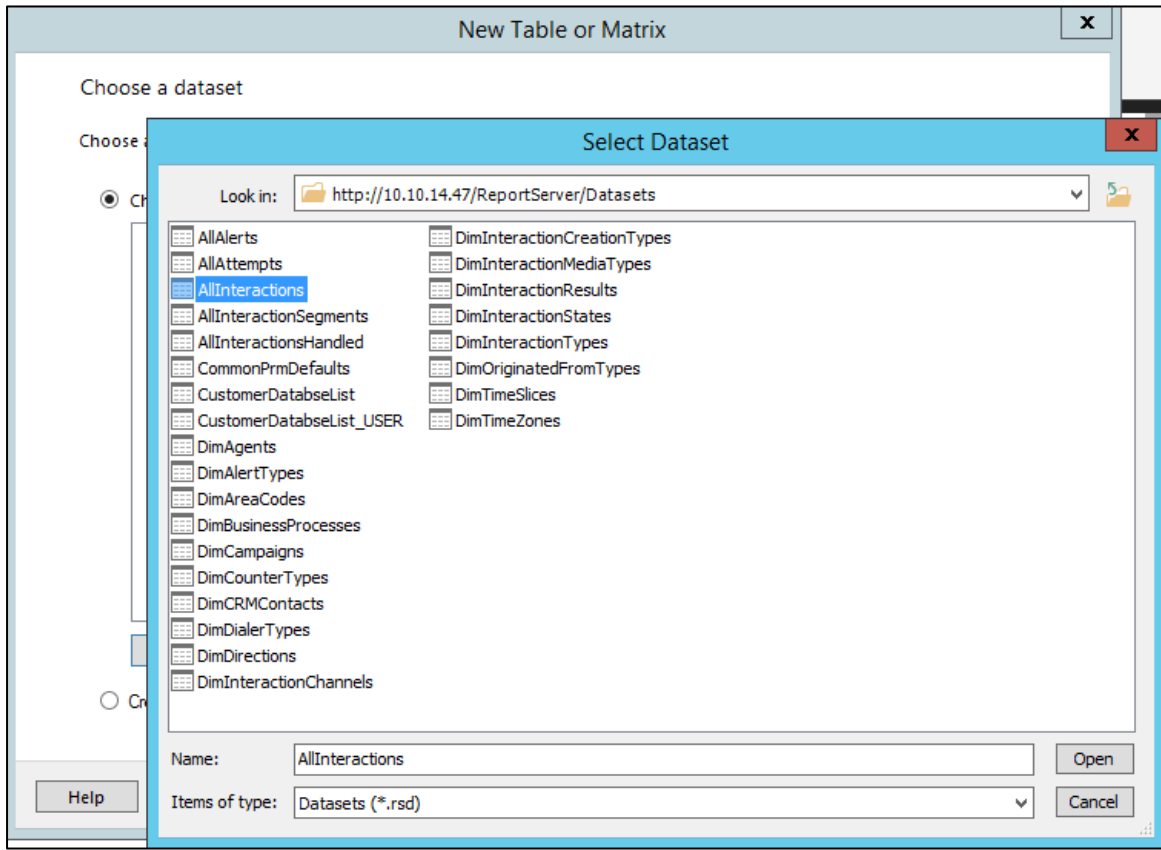
c. Click Open and you will return to the report wizard.
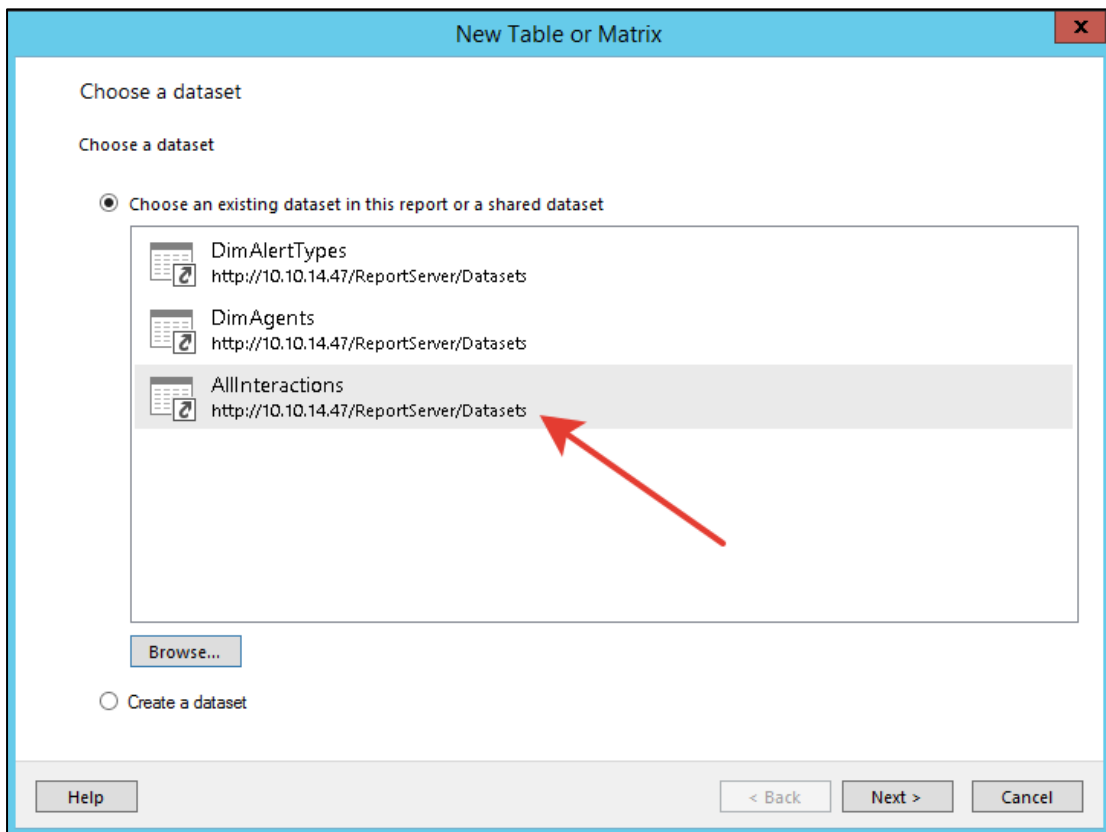
  d. Choose the dataset AllInteractions, click Next.

  e. In the next step you can choose data for the report:
-    Row groups
-    Column groups
-    Aggregate values

  f. Select columns that you would like to see in the report and transfer them to the aggregate section.

To combine rows, use the InteractionID field.
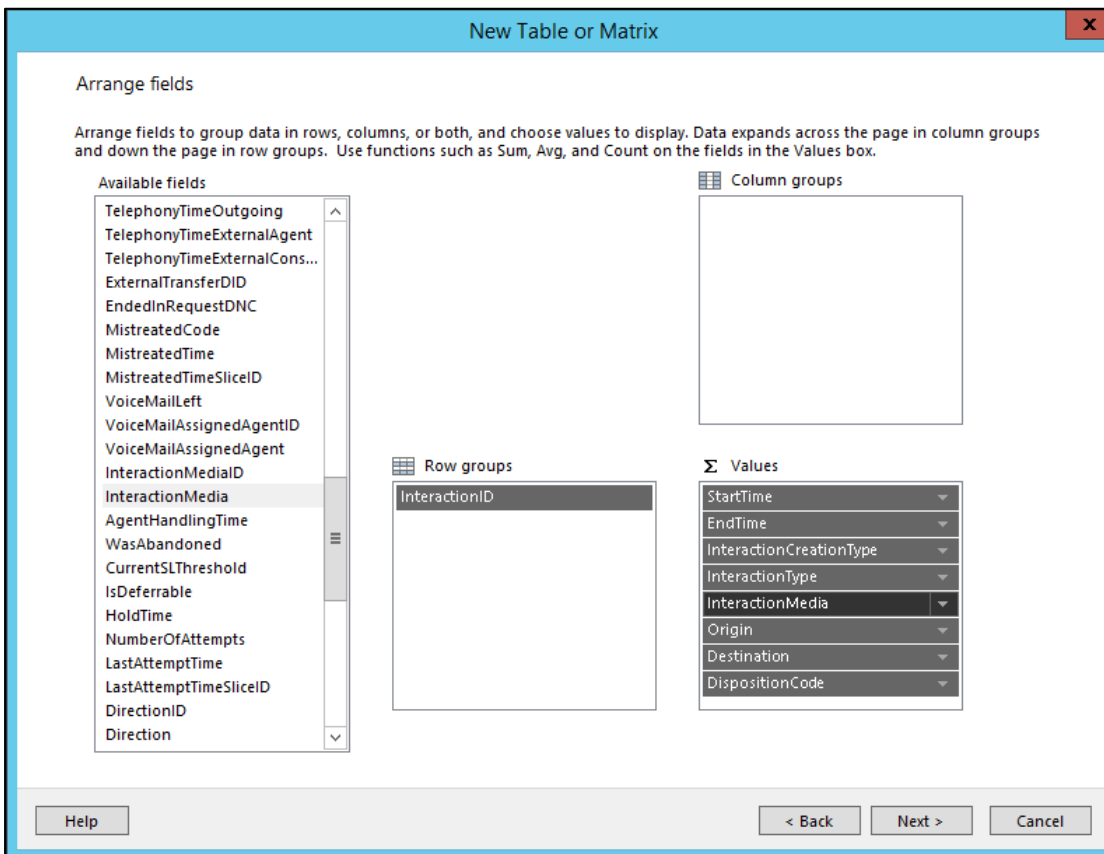
Click Next.

  g. In the next step, you can set totals and grouping properties.

We don't need any totals for this simple report, that's why all checkboxes are cleared.
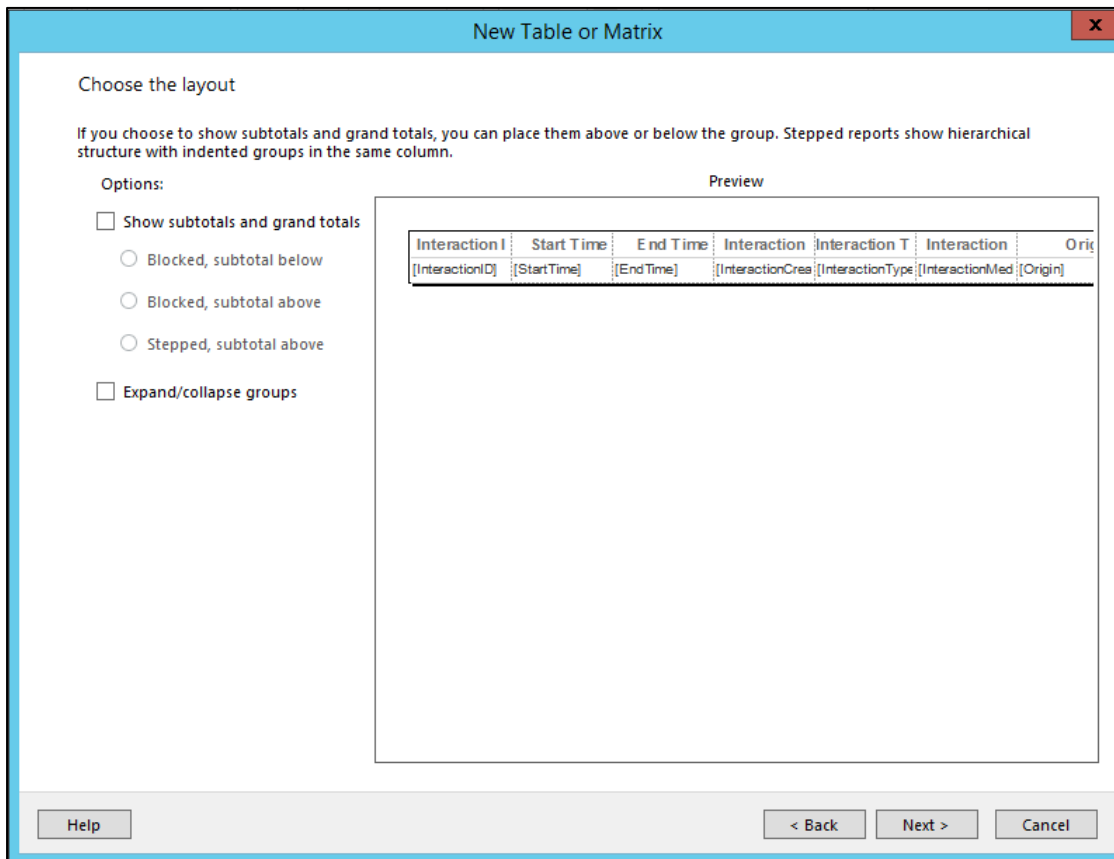
h. Click Next and you will see a preview of the future report.
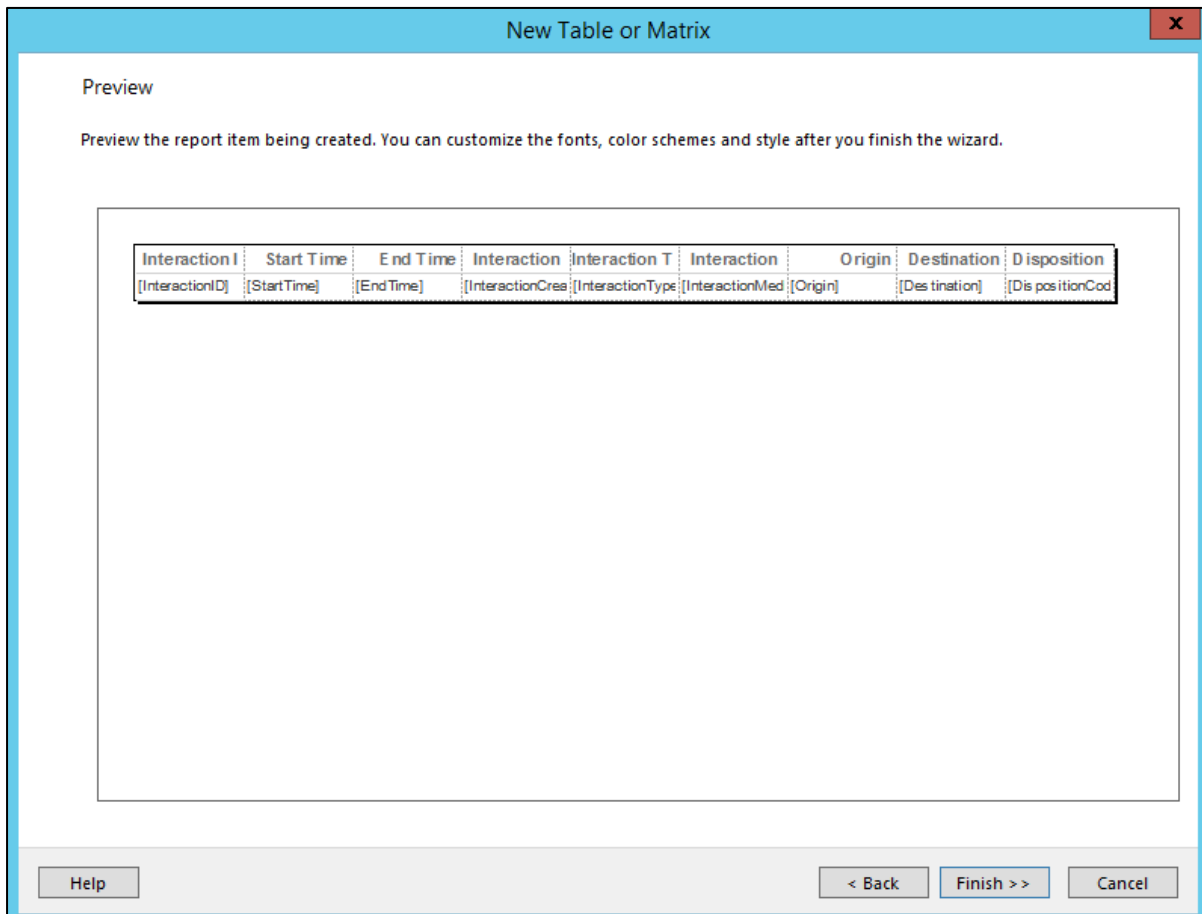
i. Click Finish.

6. Work with the Report constructor

Now you can work with the report constructor.
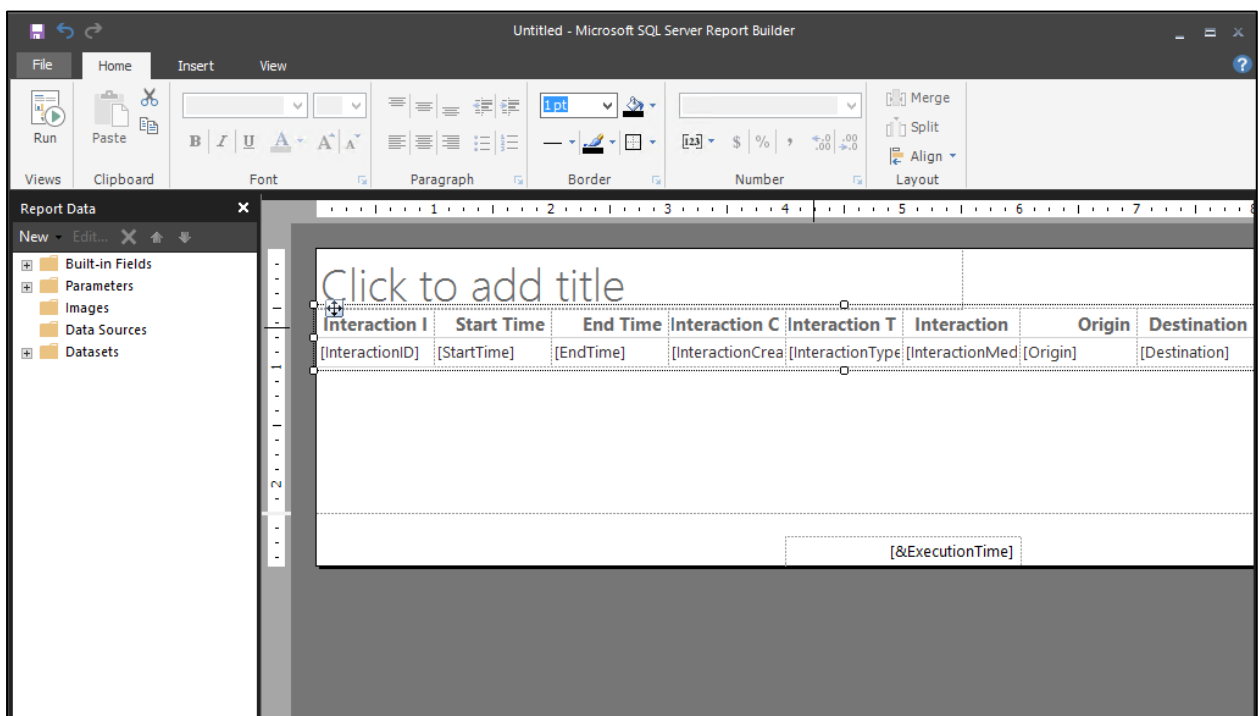
a. Click on the textbox "Click to add title" and change default title.
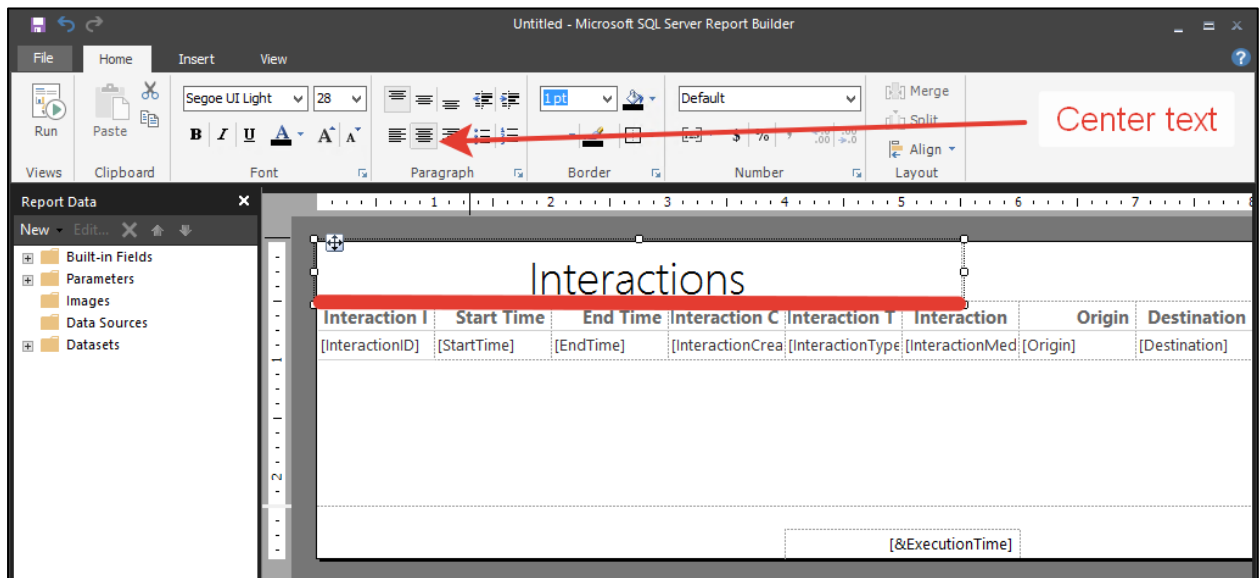
b. Also, stretch a textbox to the whole report width.
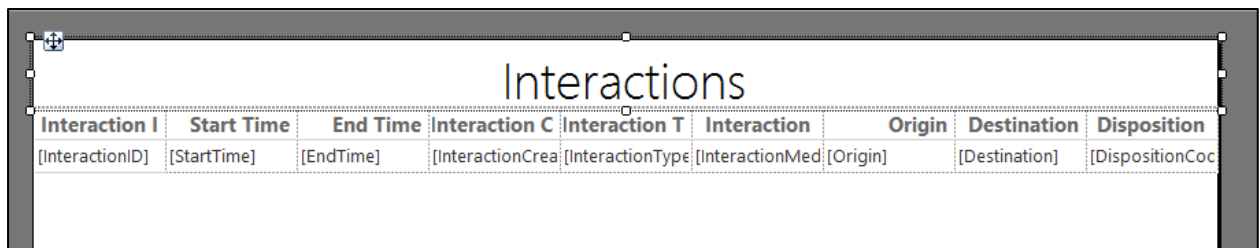
7. Correct using of parameters.

Add some datasets for the correct using of parameters.

a. Double-click on the main dataset AllInteractions.
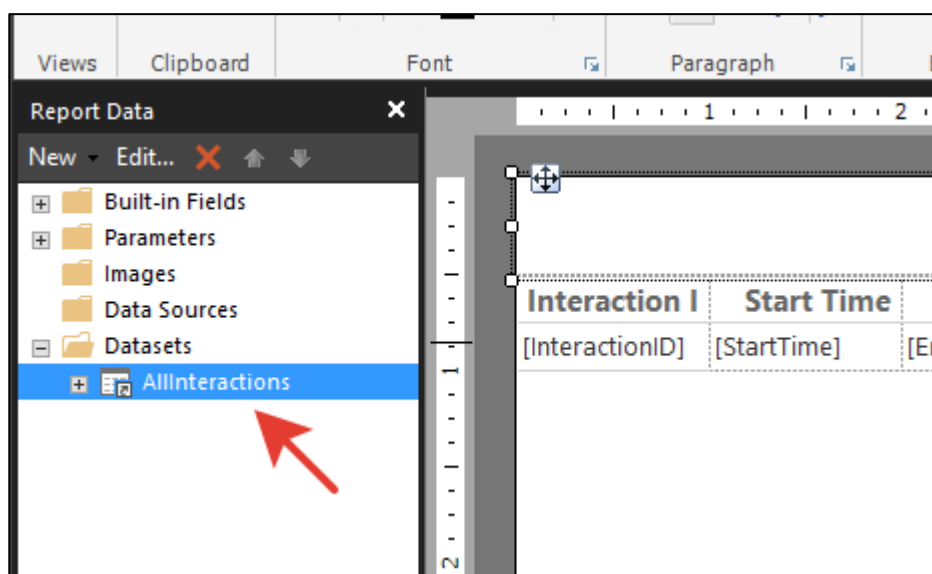
b. Go to the Parameters tab.
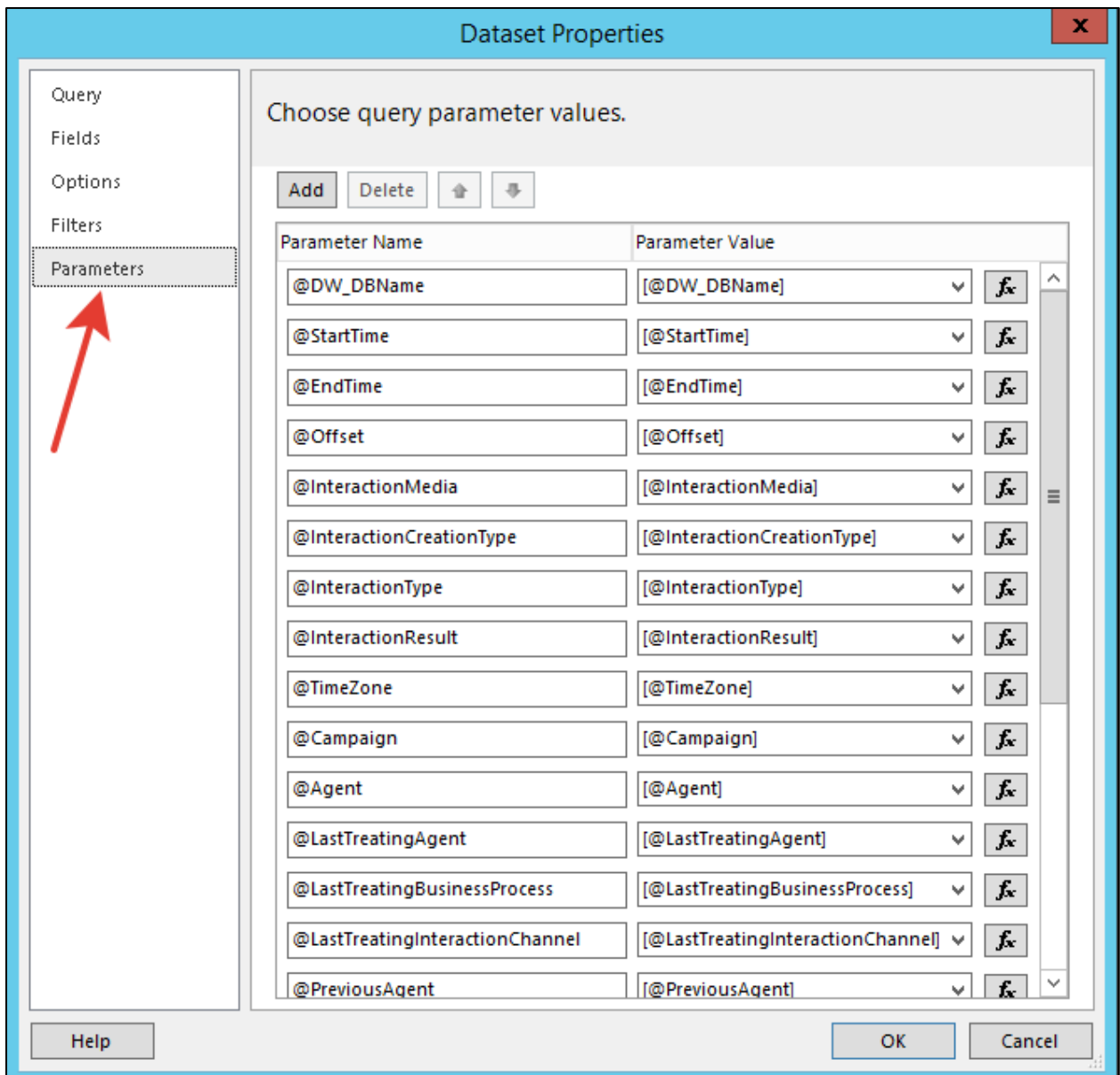
All of these parameters are optional, besides @DW_DBName parameter, that should be applied.

c. Leave only needed parameters for the report.

In this simple case, we need only InteractionMedia, InteractionType, InteractionCreationType, StartTime and EndTime parameters. So, set NULL default value for other parameters.

Dataset Properties   ✕

Query	**Choose query parameter values.**
Fields	
Options	Add Delete ⬆ ⬇
Filters	
Parameters	

Parameter Name	Parameter Value	
@DW_DBName	[@DW_DBName] ⌄	ƒx
@StartTime	[@StartTime] ⌄	ƒx
@EndTime	[@EndTime] ⌄	ƒx
@InteractionMedia	[@InteractionMedia] ⌄	ƒx
@InteractionCreationType	[@InteractionCreationType] ⌄	ƒx
@InteractionType	[@InteractionType] ⌄	ƒx
@InteractionResult	NULL ⌄	ƒx
@TimeZone	NULL ⌄	ƒx
@Campaign	NULL ⌄	ƒx
@Agent	NULL ⌄	ƒx
@LastTreatingAgent	NULL ⌄	ƒx
@LastTreatingBusinessProcess	NULL ⌄	ƒx
@LastTreatingInteractionChannel	NULL ⌄	ƒx
@PreviousAgent	NULL ⌄	ƒx
@PreviousBusinessProcess	NULL ⌄	ƒx
@PreviousInteractionChannel	NULL ⌄	ƒx
@AreaCode	NULL ⌄	ƒx
@DispositionCode	NULL ⌄	ƒx
@VoiceMailAssignedAgent	NULL ⌄	ƒx

Help   OK   Cancel

d. Now go to the Parameters node at the Report Builder constructor
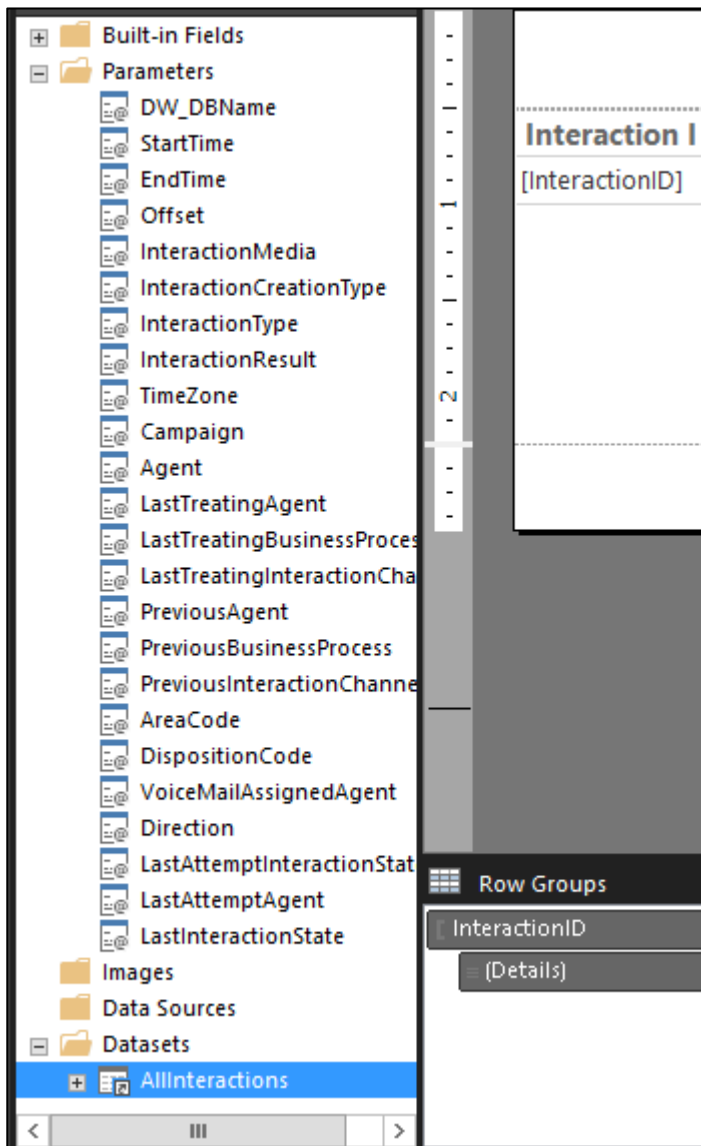
We need only 7 parameters, that's why all others should be deleted.

e. Use ✖ button to delete extra parameters.

The correct number of parameters:
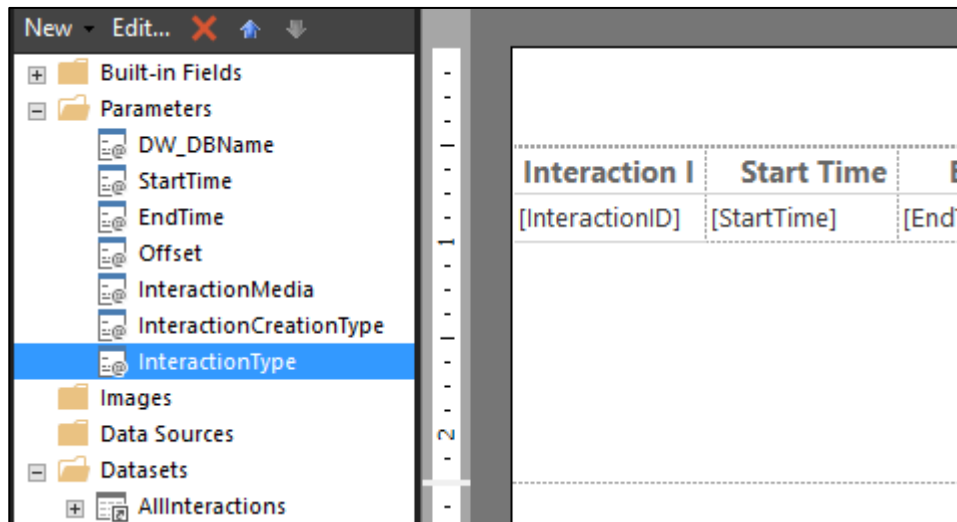
8. **Add datasets for parameters**

    a. Add a dataset for the @EndTime Parameter (repeat step 5 for the new shared dataset):

    b. Right-click on the Datasets node and choose "Add Dataset…"
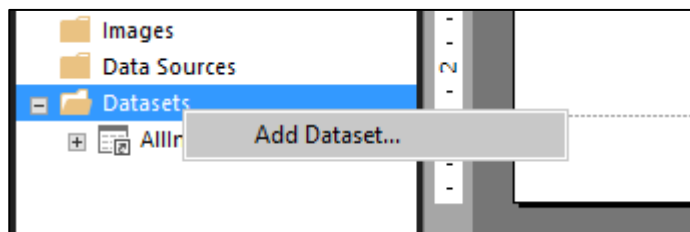
    c. Choose CommonPrmDefaults_USER shared dataset:
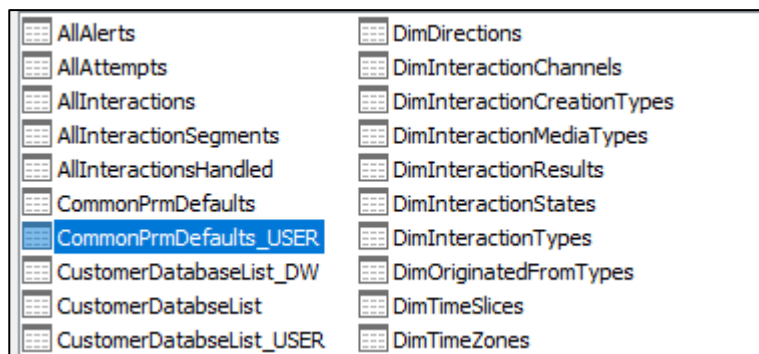
    d. Set one parameter for that:
         - Open Expression value.
         - Choose Built-in field UserID as a value.
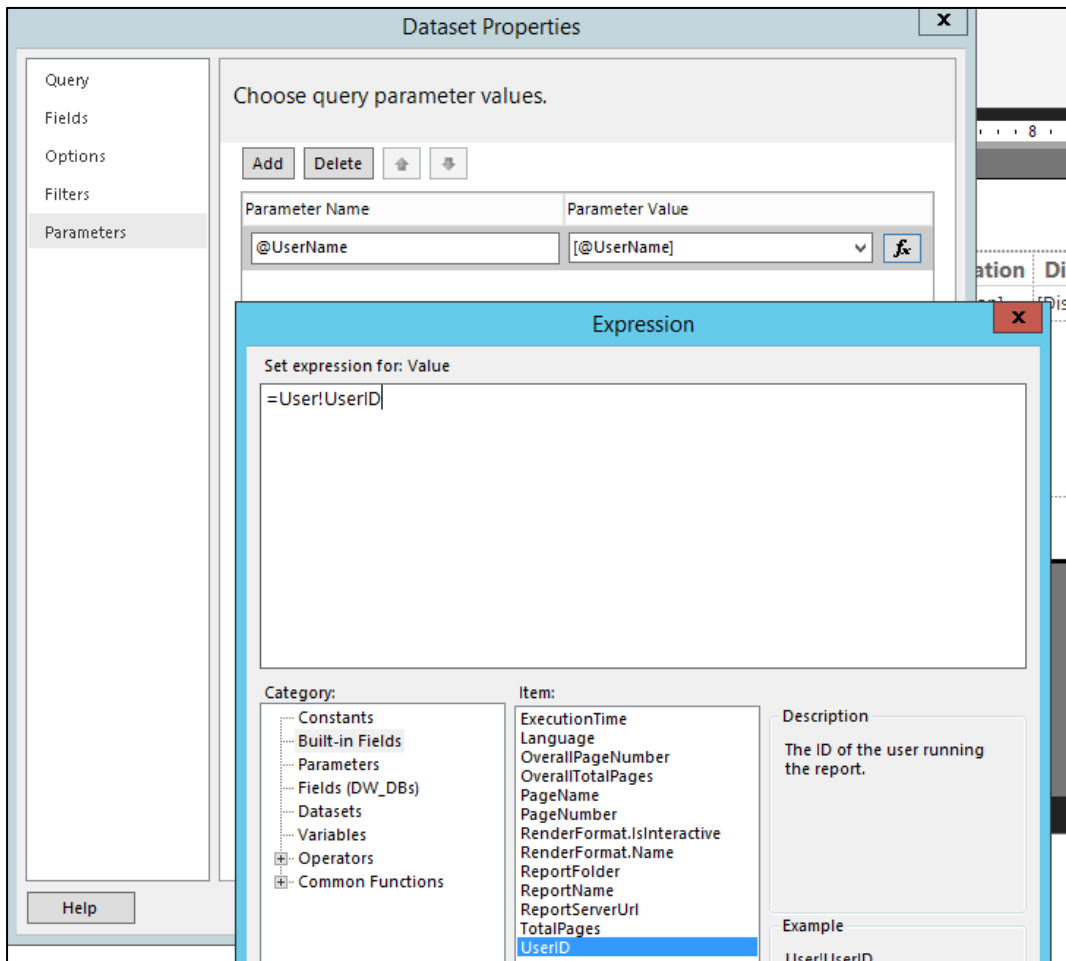
The parameter will be next:
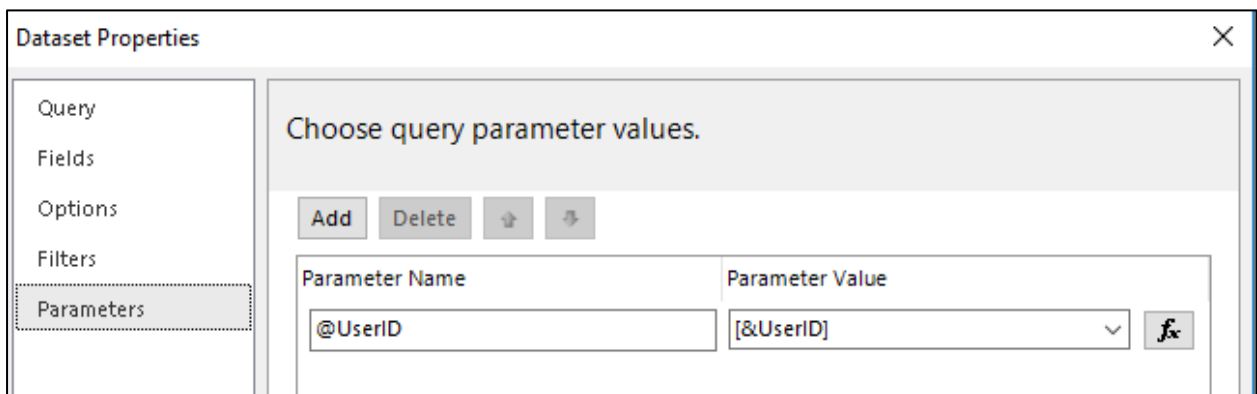
e. Set default value for the @EndTime parameter:

Report Parameter Properties   ✕

| General |
| Available Values |
| Default Values |
| Advanced |

Choose the default values for this parameter.

Select from one of the following options:

○ No default value
○ Specify values
◉ Get values from a query

Dataset: (Warning: Possible performance impact)

| Common_Defaults | ⌄ |

Value field:

| EndDate | ⌄ |

Now you should add a dataset for these parameters: @InteractionMedia, @InteractionCreationType, @InteractionType.

    f.   Browse a dataset DimInteractionMediaTypes.

    g.   Set a correct name for that.
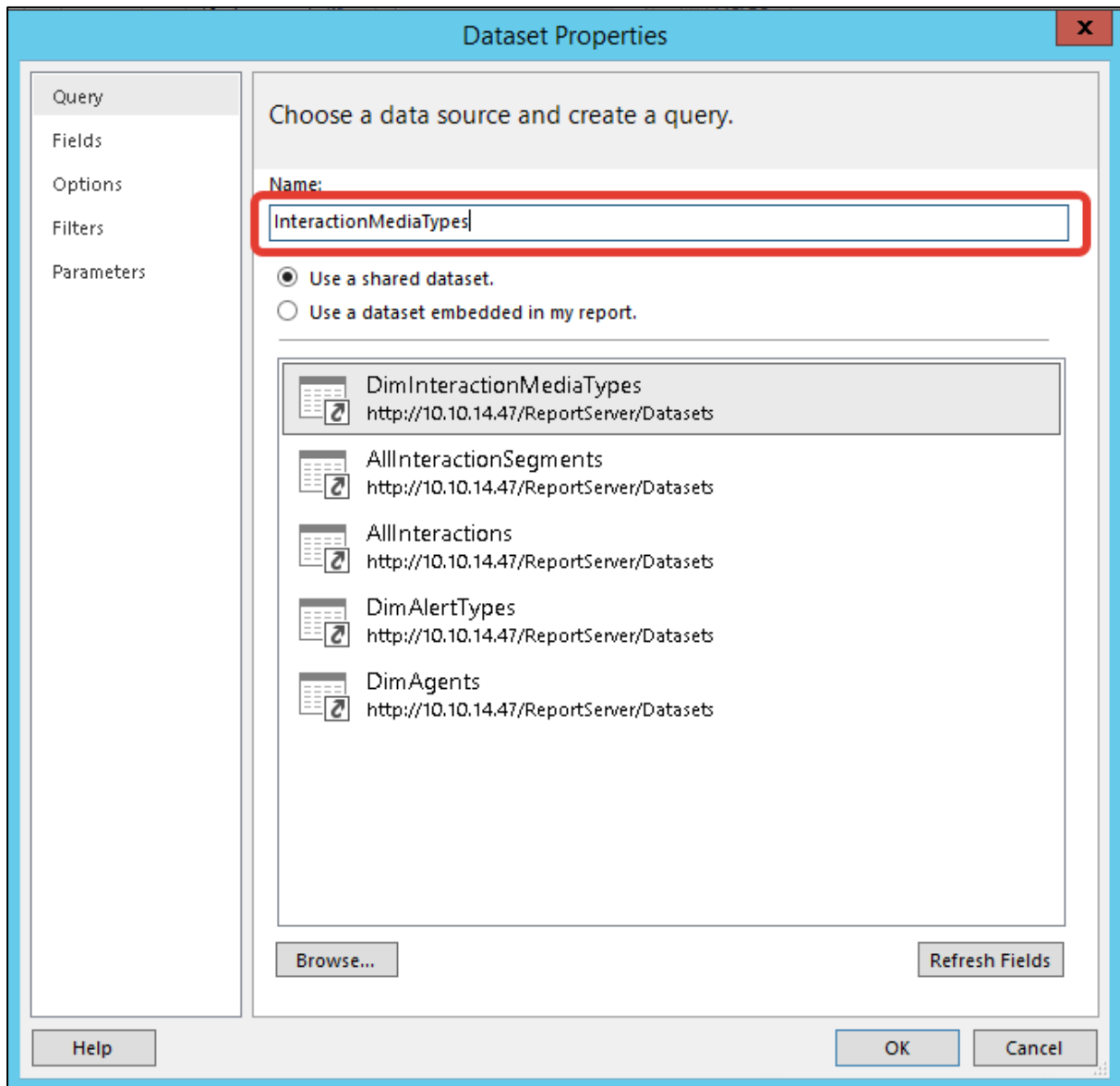
Now you see 2 datasets at the report.
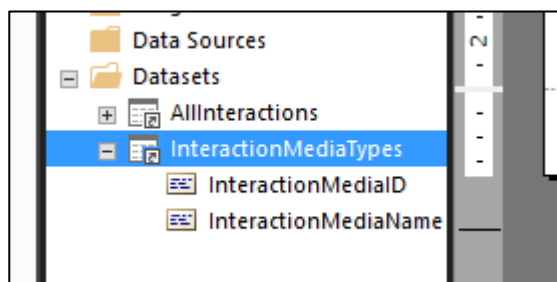
h. Change properties for the parameter @InteractionMedia accordingly.

To open parameter properties you should double-click at the needed parameter.

General Page:

1. Data Type = Text

2. Allow multiple values

Available Values:

And default value:

i. Repeat steps for parameters @InteractionCreationType, @InteractionType using DimInteractionCreationTypes and DimInteractionTypes datasets respectively.

9. **Add a mandatory dataset**

a. The last dataset that should be added anyway is CustomerDatabaseList_DW. It will be used by @DW_DBName parameter.
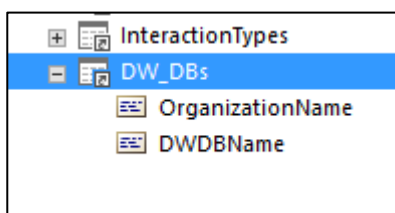
b. Set correct expression for the parameter @UserName of the DW_DBs dataset.

Dataset Properties

Query
Fields
Options
Filters
Parameters

Choose query parameter values.

Add   Delete   ⬆   ⬇

Parameter Name	Parameter Value
@UserName	[@UserName] ∨ *fx*

Help

Expression

Set expression for: Value

=User!UserID

Category:
- Constants
- **Built-in Fields**
- Parameters
- Fields (DW_DBs)
- Datasets
- Variables
- ⊞ Operators
- ⊞ Common Functions

Item:
ExecutionTime
Language
OverallPageNumber
OverallTotalPages
PageName
PageNumber
RenderFormat.IsInteractive
RenderFormat.Name
ReportFolder
ReportName
ReportServerUrl
TotalPages
UserID

Description
The ID of the user running the report.

Example
User!UserID

c. Set next properties for the @DW_DBName parameter:

Report Parameter Properties

General
Available Values
Default Values
Advanced

Choose the available values for this parameter.

Select from one of the following options:
- ○ None
- ○ Specify values
- ● Get values from a query

Dataset: (Warning: Possible performance impact)

DW_DBs ∨

Value field:

DWDBName ∨

Label field:

OrganizationName ∨

Help   OK   Cancel
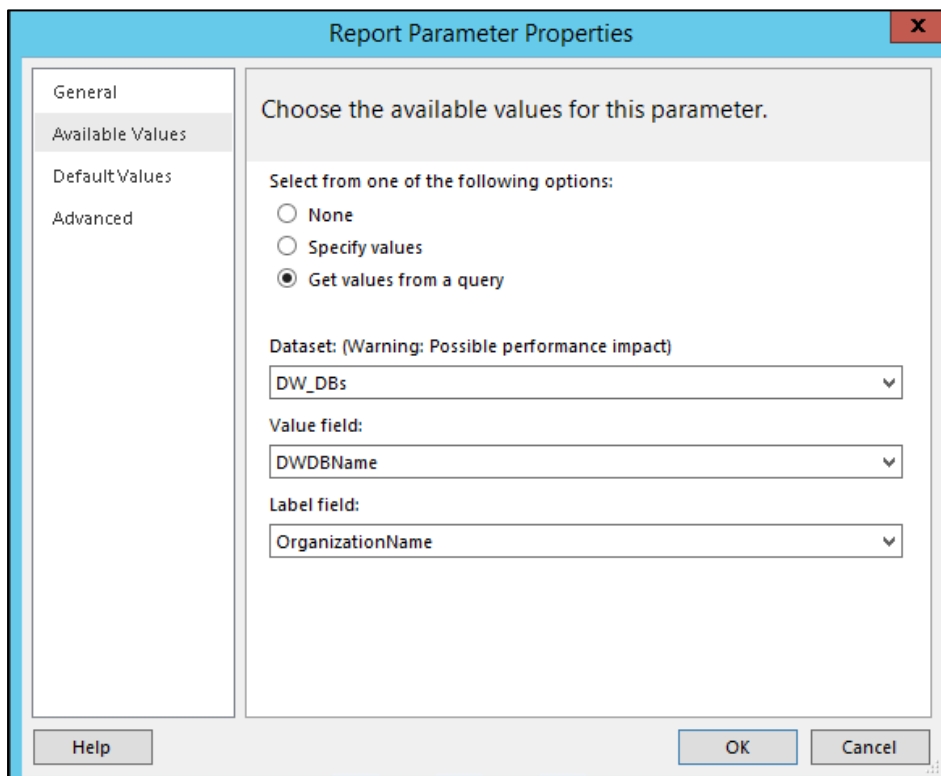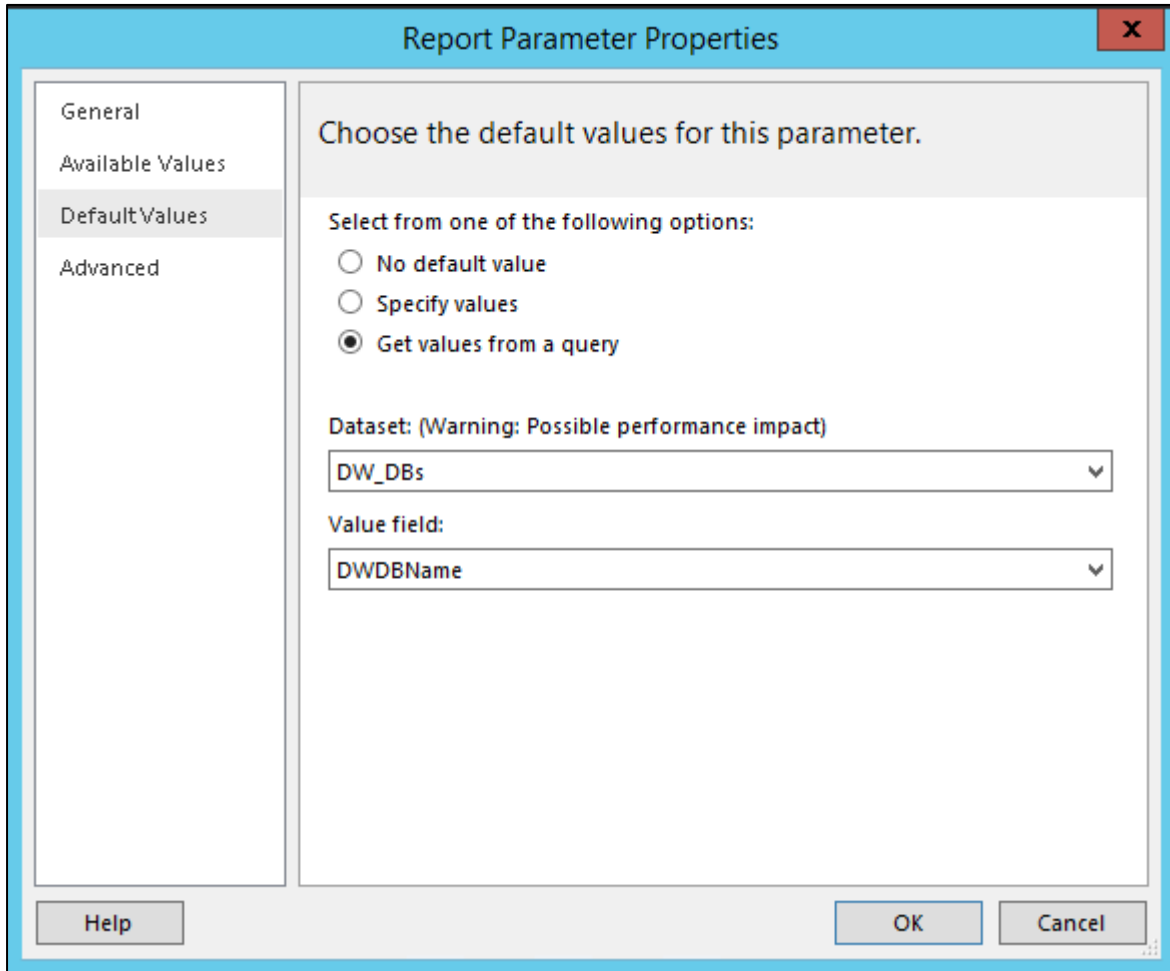
10. Save a report to the chosen folder at the Report Server.

    a. You need to find the "Custom Reports" folder.
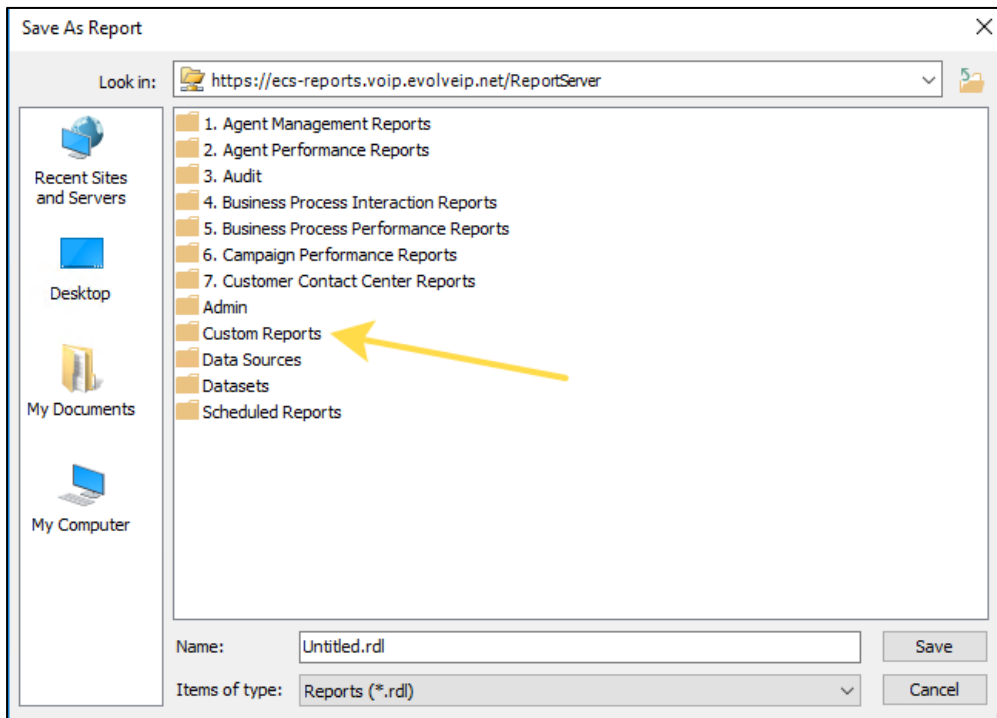
b. After that open a folder that contains your organization name
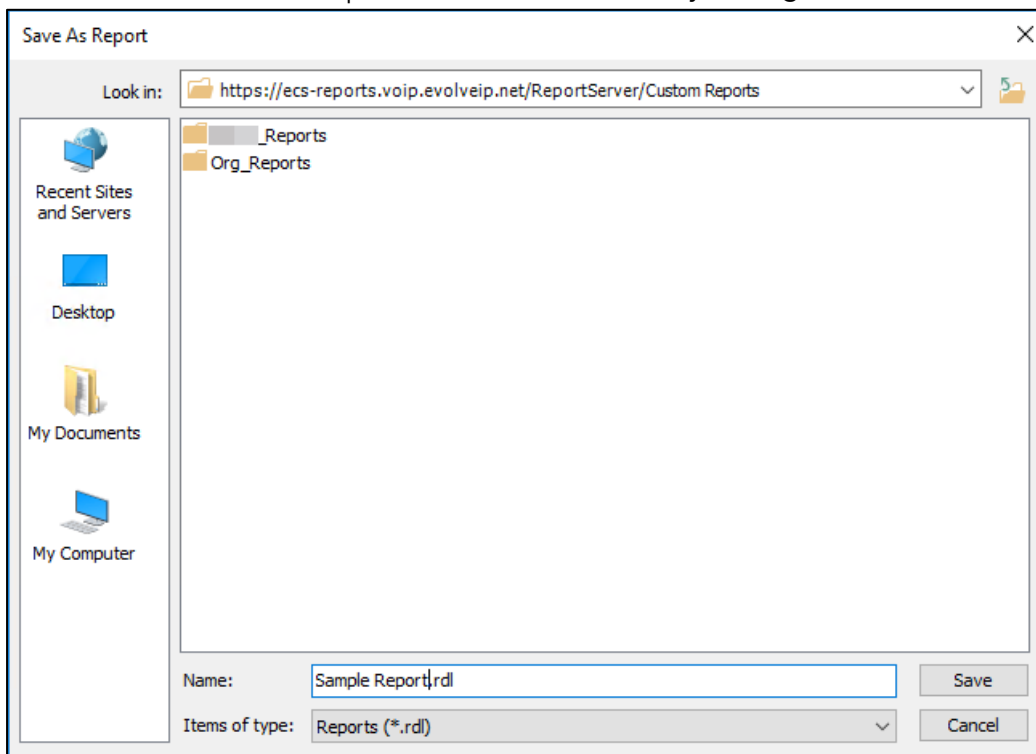
c. Set the Name of your report and click Save.
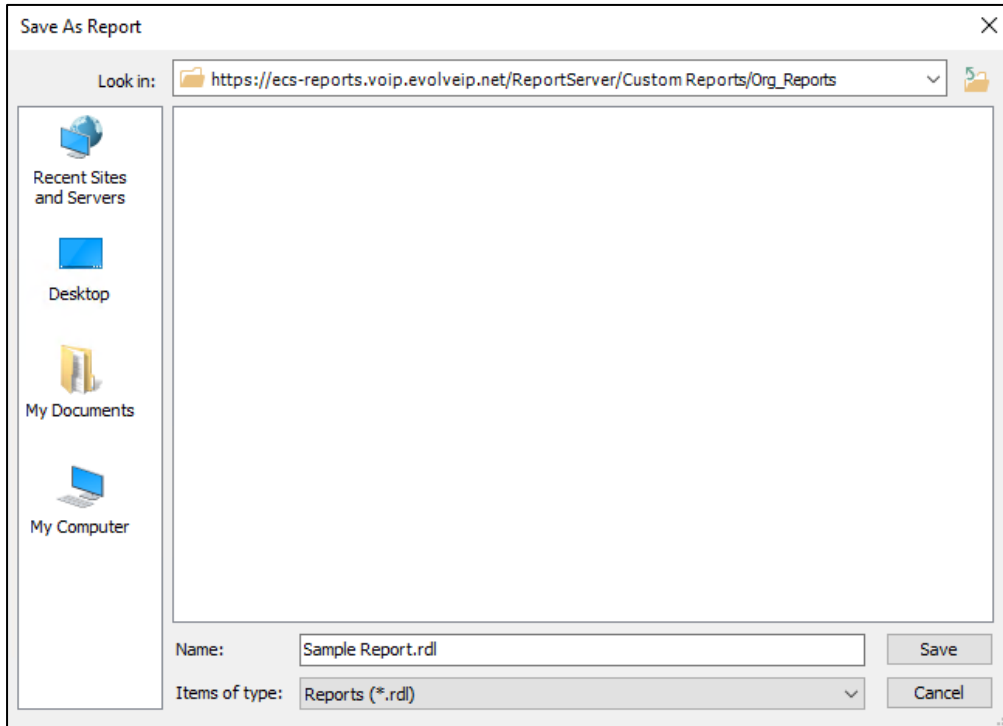
11. Use Run menu item to preview the report.
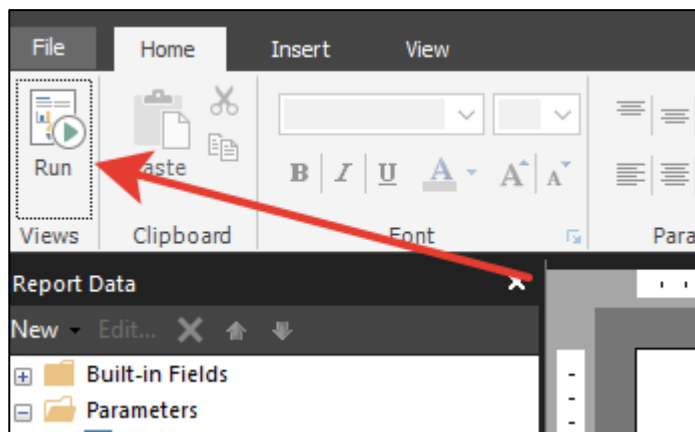
Preview:
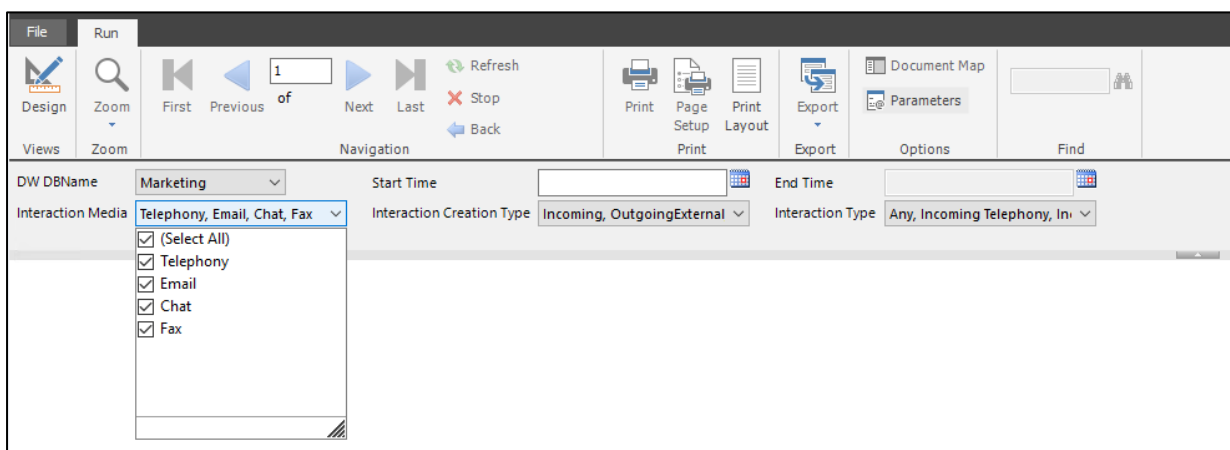
- Default values are all values from combox field.
- You can choose some of them
- After Start Time update, End Time will have a default value and you can click "View" report to check data.

| DW DBName | Marketing ∨ | Start Time | 5/1/2018 | End Time | 5/19/2018 | View Report |
| Interaction Media | Telephony, Email, Chat, Fax ∨ | Interaction Creation Type | Incoming, OutgoingExternal ∨ | Interaction Type | Any, Incoming Telephony, In ∨ | |

As you can note, DW DBName is not so pretty caption for users. We can change it as follows:

- Open @DW_DBName parameter properties
- Change Prompt to the **Customer**

Report Parameter Properties   ✕

General	Change name, data type, and other options.
Available Values	
Default Values	**Name:**
Advanced	DW_DBName
	Prompt:
	Customer
	Data type:
	Text ∨

After changes:

| Customer | AB009 ∨ | Start Time | | End Time | | View Report |
| Interaction Media | Telephony, Email, Chat, Fax ∨ | Interaction Creation Type | Incoming, OutgoingExternal ∨ | Interaction Type | Any, Incoming Telephony, In ∨ | |

Click Save button to deploy a report on a Report Server.

Annex 1

How to install Report Builder

1. Download Report Builder using direct link from Reporting Services Web portal or use this link: https://www.microsoft.com/en-us/download/details.aspx?id=53613
2. Run the Installation Wizard. Click Next
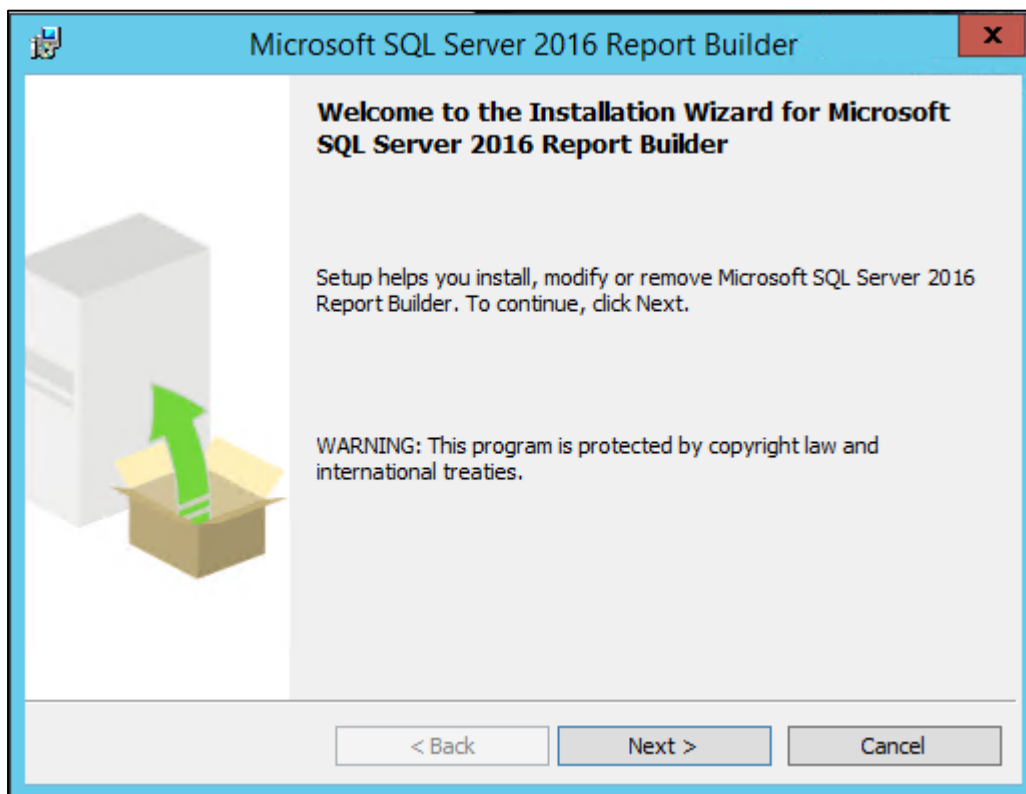
3. Choose "I accept the terms in the license agreement"
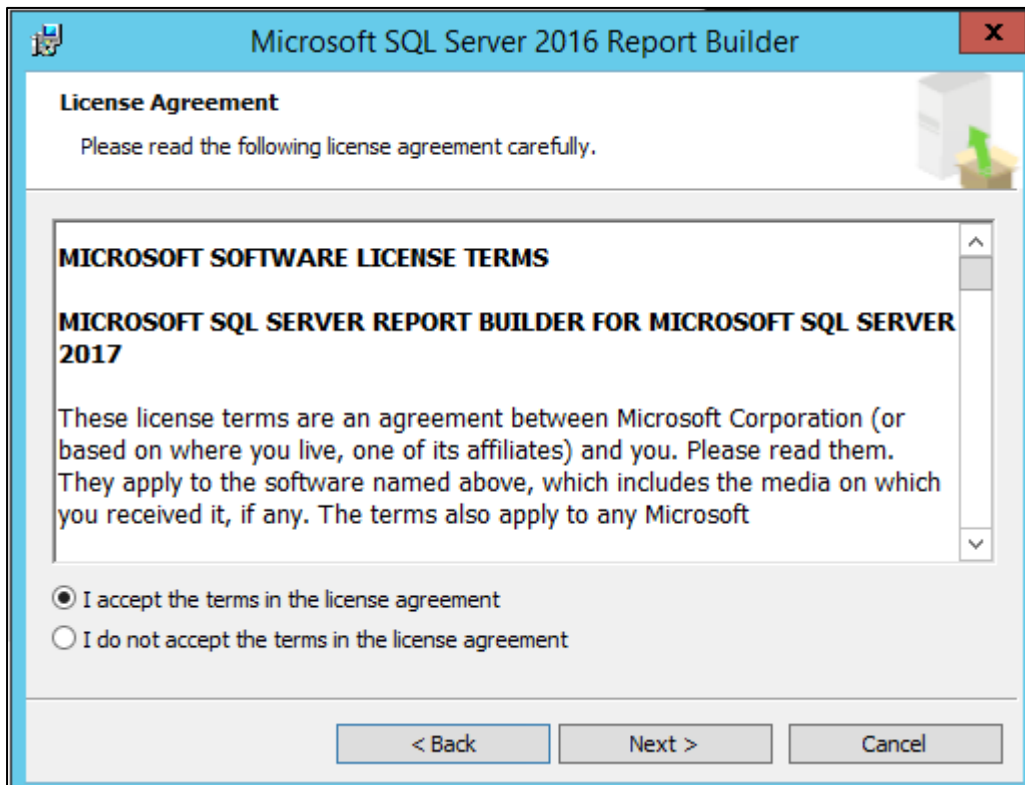
4. Click Next
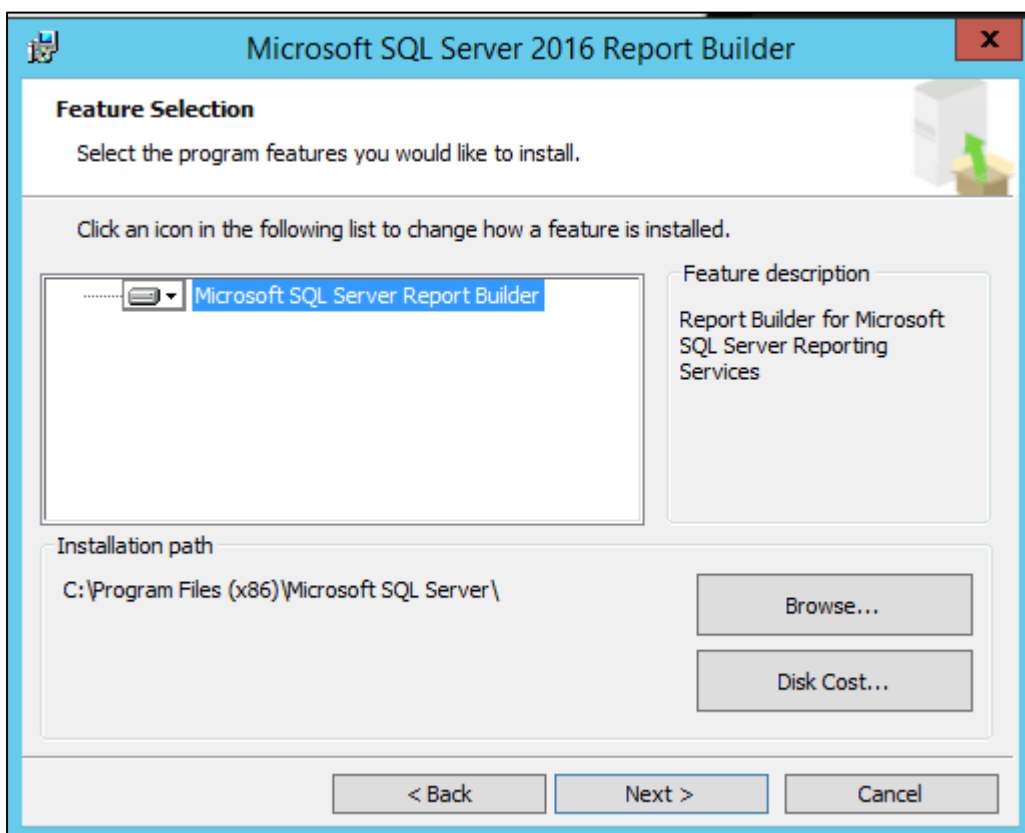
5. You can leave "Default target server URL" empty, it is not a mandatory field to install Report Builder.
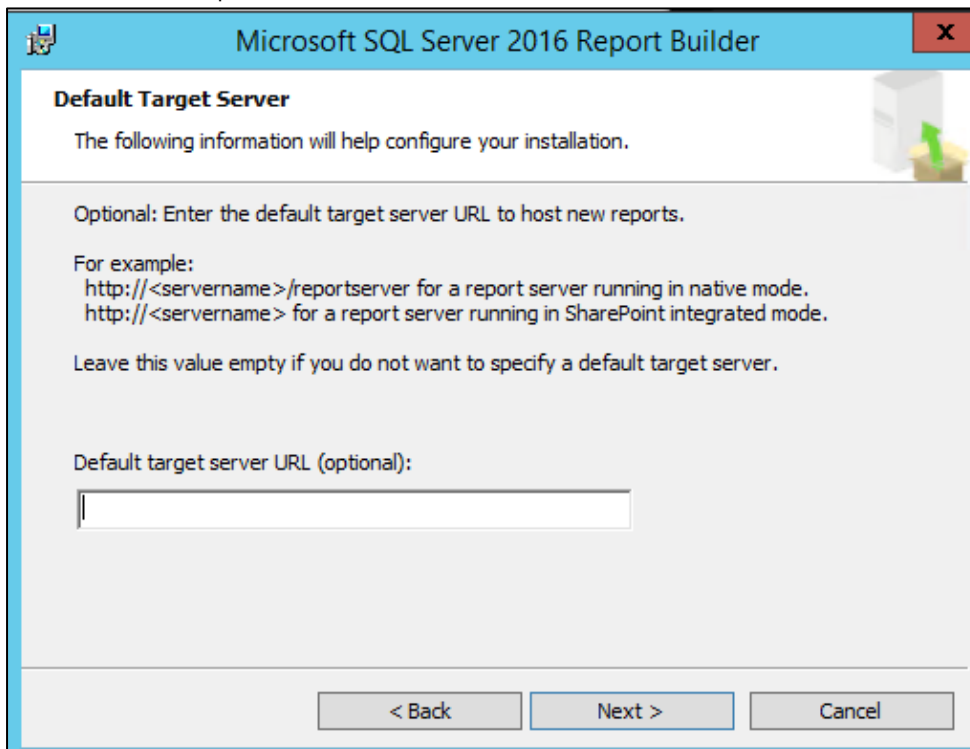
6. At the last step click "Install".
7. If there are no any issues with installation, you will see this message
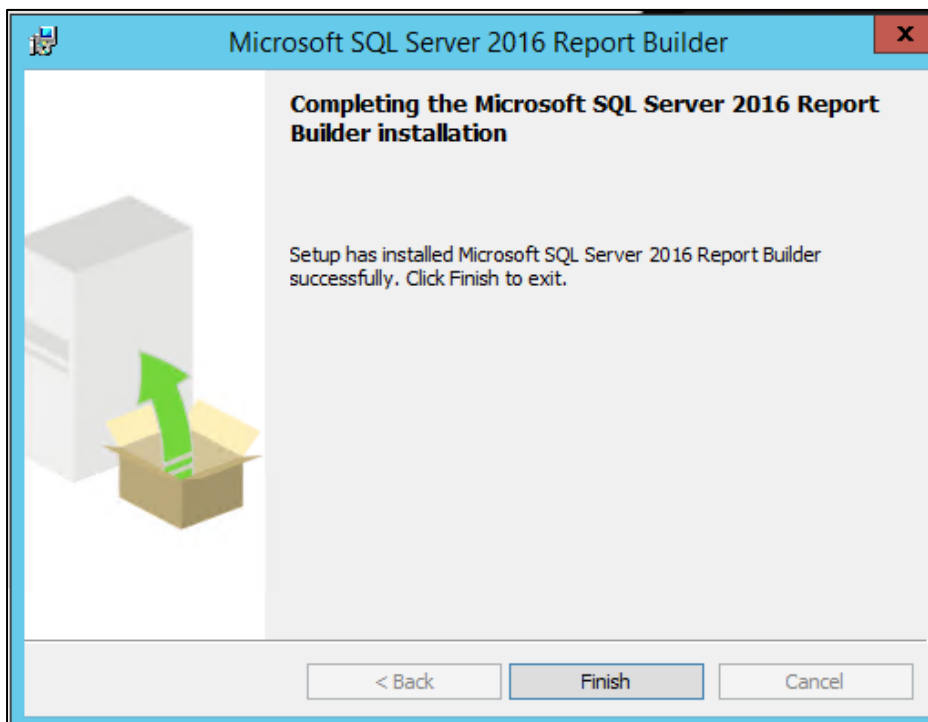
Datasets:

Dimensions

🔲 DimAgents

AgentID	Identifier
AgentName	Agent name

🔲 DimAlertTypes

AlertTypeID	Identifier
AlertTypeName	Name of the alert type

🔲 DimAreaCodes

AreaCodeID	Identifier
State	State
MajorCity	Major city

🔲 DimBusinessProcesses

BusinessProcessID	Identifier
BusinessProcessName	Business process name
ContactCenterName	Contact center name

🔲 DimCampaigns

CampaignID	Identifier
CampaignName	Name of the Campaign
DialerTypeID	Identifier of the dialer type
DialerTypeName	Dialer type name

BusinessProcessID	Identifier of the business process
BusinessProcessName	Business process name

⊞ DimCounterTypes

CounterTypeID	Identifier
CounterTypeName	Counter type name

⊞ DimCRMContacts

CRMContactID	Identifier
Phone1	Field for the phone number
Phone2	Additional phone number
Phone3	Additional phone number
Phone4	Additional phone number
Phone5	Additional phone number
Title	Name of the Contact
FirstName	First name
LastName	Last name
Email	e-mail
Street	Street
AddressLine1	Address text
AddressLine2	Address text
City	City
State	State

Zip	Zip
Country	Country
DNC	DNC
Company	Company name

🖾 DimDialerTypes

DialerTypeID	Identifier
DialerTypeName	Dialer type name

🖾 DimDirections

DirectionID	Identifier
DirectionName	Direction name

🖾 DimInteractionChannels

InteractionChannelID	Identifier
InteractionChannelName	Channel name
ContactCenterName	Contact center name

🖾 DimInteractionCreationTypes

InteractionCreationTypeID	Identifier
InteractionCreationTypeName	Name of the creation type

🖾 DimInteractionMediaTypes

InteractionMediaID	Identifier
InteractionMediaName	Media name

📇 DimInteractionResults

InteractionResultID	Identifier
InteractionResultName	Result name

📇 DimInteractionStates

InteractionStateID	Identifier
InteractionStateName	State name
StatusName	Status name
OutBoundStatusName	Outbound status name

📇 DimInteractionTypes

InteractionTypeID	Identifier
InteractionTypeName	Type name
DirectionName	Direction name
MediaName	Media name
PurposeName	Purpose name

📇 DimOriginatedFromTypes

OriginatedFromID	Identifier
OriginatedFromName	Type name

🔲 DimTimeSlices

TimeSliceID	Identifier
Date	Date
DateName	String date name
Year	Year
HalfYear	Half of the year
Quarter	Quarter
Month	Month
MonthName	Name of the month
Week	Week
WeekName	String week name
DayOfWeek	Day of week
DayOfWeekName	String day of week
DayOfMonth	Day of month
BeginTime	Begin time
EndTime	End time
Hour	Hour

🔲 DimTimeZones

TimeZoneID	Identifier

TimeZoneName	Name of the time zone
DisplayName	Display name
Offset	Offset

Facts

🗐 AllInteractions

InteractionID	Identifier
InteractionGUIDID	Guid ID
InteractionLeg	Interaction leg
InteractionCreationTypeID	Identifier of the Creation Type
InteractionCreationType	Creation Type Name
InteractionTypeID	Identifier of the Interaction Type
InteractionType	Interaction Type Name
InteractionResultID	Identifier of the Result Type
InteractionResult	Result Type Name
TimeZoneID	Identifier of the Time Zone
TimeZone	Time Zone name
CampaignID	Identifier of the Campaign (if interaction refers to the Campaign)
Campaign	Campaign Name
AgentID	Identifier of the Agent (if interaction refers to the Agent)
Agent	Agent Name
LastTreatingAgentID	Identifier of the Agent: last treating handler (if the last treating handler is Agent)
LastTreatingAgent	Agent name (when LastTreatingAgentID is not null)
LastTreatingBusinessProcessID	Identifier of the BP: last treating handler (if the last treating handler is BP)

How to Build a Report

LastTreatingBusinessProcess	BP name (when LastTreatingBusinessProcessID is not null)
LastTreatingInteractionChannelID	Identifier of the Interaction Channel: last treating handler (if the last treating handler is interaction channel)
LastTreatingInteractionChannel	Interaction channel name (when LastTreatingInteractionChannelID is not null)
PreviousAgentID	Identifier of the previous handler: Agent ID, if previous handler is an agent
PreviousAgent	Agent name (when PreviousAgentID is not null)
PreviousBusinessProcessID	Identifier of the previous handler: BP ID, if previous handler is a BP
PreviousBusinessProcess	BP name (when PreviousBusinessProcessID is not null)
PreviousInteractionChannelID	Identifier of the previous handler: Interaction Channel ID, if previous handler is an interaction channel
PreviousInteractionChannel	Interaction channel name (when PreviousInteractionChannelID is not null)
AreaCodeID	Identifier of the Area Code
AreaCode	Area Code name
StartTime	Start time of the interaction
StartTimeSliceID	Identifier of the start time (helps for the grouping)
EndTime	End time of the interaction
EndTimeSliceID	Identifier of the end time (helps for the grouping)
EnterTime	When the interaction was added to campaign (loaded)
EnterTimeSliceID	Identifier of the enter time (helps for the grouping)
Origin	Origin
Destination	Destination
Remarks	Remarks
DispositionCode	Disposition code

Evolve IP Proprietary and Confidential 37

EndingStatus	Ending status of the interaction
IVRTime	The time the interaction was on the flow, not in wait state
QueueTime	Waiting time in the queue
LastHandlerHandlingTime	Last handler handling time
WrapUpTime	Wrarup time
PreviousHandlerHandlingTime	Previous handler handling time
ConsultTime	Consult time
CustomerBillingCode	Customer billing code
HasAnotherAttempt	Flag to identify if there was another attempt
TelephonyTimeIncoming	Incoming time
TelephonyTimeOutgoing	Outgoing time
TelephonyTimeExternalAgent	External agent time (Telephony time, where agent used external terminal (not the built in telephone))
TelephonyTimeExternalConsult	External consult time (Telephony time, where agent consulted with an agent or other (like external number) who uses external terminal (not the built in telephone))
ExternalTransferDID	External teansfer DID (Interaction was ended by transferring to an external number. This is the number)
EndedInRequestDNC	Ended in request DNC (customer asked to be called again (Do Not Call))
MistreatedCode	DNC number
MistreatedTime	When DNC number was called
MistreatedTimeSliceID	Identifier of the mistreated time (helps for the grouping)
VoiceMailLeft	Flag to identify if there was left voice mail
VoiceMailAssignedAgentID	Identifier of the agent which voice mail was assigned
VoiceMailAssignedAgent	Agent name for the voice mail
InteractionMediaID	Identifier of the Media type
InteractionMedia	Media type name

AgentHandlingTime	Total time handling by agent
WasAbandoned	Flag to identify if the interaction was abandoned
CurrentSLThreshold	Threshold in seconds
IsDeferrable	Flag to identify if the interaction was deferrable
HoldTime	Total time when the interaction was on hold
NumberOfAttempts	Count of attempts
LastAttemptTime	Last attempt time
LastAttemptTimeSliceID	Identifier of the last attempt time (helps for the grouping)
DirectionID	Identifier of the Direction
Direction	Direction name
Duration	Duration of the interaction
LastAttemptDestination	Last attempt destination
LastAttemptInteractionStateID	Identifier of the last attempt interaction state
LastAttemptInteractionState	Last attempt interaction state name
LastAttemptAgentID	Identifier of the last attempt agent
LastAttemptAgent	Last attempt agent name
LastAttemptRemarks	Last attempt remarks
EndedInTransfer	Flag to identify if the interaction was ended in transfer
ClosedBySystem	Flag to identify if the interaction was closed by system
Queued	Flag to identify if the interaction was added in the queue
SLExcluded	Flag to identify if the interaction was excluded from Service Level calculations
AnsweredWithinGoalTime	Flag to identify if the interaction was answered within goal time
EmailBacklog	Flag to identify if the interaction (email) was added in the backlog
LastInteractionStateID	Identifier of the last interaction state
LastInteractionState	Last interaction state name

ResponseCount	Count of the responded chat messages
ResponseTimeSum	Total time (in seconds) of the waiting by customer
CustomerCalls	Customer calls
Overflow	Flag to identify if the interaction was overflowed

⊞ AllInteractionSegments

InteractionSegmentID	Identifier of the segment of the interaction
SequenceID	Segment sequence identifier within the interaction
InteractionID	Identifier of the interaction
InteractionGUIDID	Interaction guid ID
InteractionLeg	Interaction leg
InteractionCreationTypeID	Identifier of the Creation Type
InteractionCreationType	Creation Type Name
InteractionTypeID	Identifier of the Interaction Type
InteractionType	Interaction Type Name
InteractionStateID	Identifier of the interaction state
InteractionState	Interaction state name
NextInteractionStateID	Identifier of the next interaction state (if it exists)
NextInteractionState	Next interaction name (if it exists)
InteractionResultID	Identifier of the Result Type
InteractionResult	Result Type Name
TimeZoneID	Identifier of the Time Zone
TimeZone	Time Zone name
CampaignID	Identifier of the Campaign (if interaction refers to the Campaign)
Campaign	Campaign Name
AgentID	Identifier of the Agent (if segment handler is an agent)
Agent	Agent Name

BusinessProcessID	Identifier of the business process (if segment handler is a BP)
BusinessProcess	BP name
InteractionChannelID	Identifier of the interaction channel (if segment handler is an interaction channel)
InteractionChannel	Interaction channel name
LastTreatingAgentID	Identifier of the Agent: last treating handler (if the last treating handler is Agent)
LastTreatingAgent	Agent name (when LastTreatingAgentID is not null)
LastTreatingBusinessProcessID	Identifier of the BP: last treating handler (if the last treating handler is BP)
LastTreatingBusinessProcess	BP name (when LastTreatingBusinessProcessID is not null)
LastTreatingInteractionChannelID	Identifier of the Interaction Channel: last treating handler (if the last treating handler is interaction channel)
LastTreatingInteractionChannel	Interaction channel name (when LastTreatingInteractionChannelID is not null)
PreviousAgentID	Identifier of the previous handler: Agent ID, if previous handler is an agent
PreviousAgent	Agent name (when PreviousAgentID is not null)
PreviousBusinessProcessID	Identifier of the previous handler: BP ID, if previous handler is a BP
PreviousBusinessProcess	BP name (when PreviousBusinessProcessID is not null)
PreviousInteractionChannelID	Identifier of the previous handler: Interaction Channel ID, if previous handler is an interaction channel
PreviousInteractionChannel	Interaction channel name (when PreviousInteractionChannelID is not null)
AreaCodeID	Identifier of the Area Code
AreaCode	Area Code name
InteractionStartTime	Start time of the interaction
InteractionStartTimeSliceID	Identifier of the interaction start time (helps for the grouping)

InteractionEndTime	End time of the interaction
InteractionEndTimeSliceID	Identifier of the interaction end time (helps for the grouping)
StartTime	Start time of the segment
StartTimeSliceID	Identifier of the segment start time
EndTime	End time of the segment
EndTimeSliceID	Identifier of the segment end time
EnterTime	When the interaction was added to campaign (loaded)
EnterTimeSliceID	Identifier of the enter time (helps for the grouping)
Origin	Origin
Destination	Destination
Remarks	Remarks
DispositionCode	Disposition code
EndingStatus	Ending status of the interaction
IVRTime	The time the interaction was on the flow, not in wait state
QueueTime	Waiting time in the queue
LastHandlerHandlingTime	Last handler handling time
WrapUpTime	Wrarup time
PreviousHandlerHandlingTime	Previous handler handling time
ConsultTime	Consult time
CustomerBillingCode	Customer billing code
HasAnotherAttempt	Flag to identify if there was another attempt
TelephonyTimeIncoming	Incoming time
TelephonyTimeOutgoing	Outgoing time
TelephonyTimeExternalAgent	External agent time (Telephony time, where agent used external terminal (not the built in telephone))
TelephonyTimeExternalConsult	External consult time (Telephony time, where agent consulted with an agent or other (like

	external number) who uses external terminal (not the built in telephone))
ExternalTransferDID	External teansfer DID (Interaction was ended by transferring to an external number. This is the number)
EndedInRequestDNC	Ended in request DNC (customer asked to be called again (Do Not Call))
MistreatedCode	DNC number
MistreatedTime	When DNC number was called
MistreatedTimeSliceID	Identifier of the mistreated time (helps for the grouping)
VoiceMailLeft	Flag to identify if there was left voice mail
VoiceMailAssignedAgentID	Identifier of the agent which voice mail was assigned
VoiceMailAssignedAgent	Agent name for the voice mail
InteractionMediaID	Identifier of the Media type
InteractionMedia	Media type name
AgentHandlingTime	Total time handling by agent
WasAbandoned	Flag to identify if the interaction was abandoned
CurrentSLThreshold	Threshold in seconds
IsDeferrable	Flag to identify if the interaction was deferrable
HoldTime	Total time when the interaction was on hold
NumberOfAttempts	Count of attempts
LastAttemptTime	Last attempt time
LastAttemptTimeSliceID	Identifier of the last attempt time (helps for the grouping)
DirectionID	Identifier of the Direction
Direction	Direction name
Duration	Duration of the segment
LastAttemptDestination	Last attempt destination
LastAttemptInteractionStateID	Identifier of the last attempt interaction state
LastAttemptInteractionState	Last attempt interaction state name
LastAttemptAgentID	Identifier of the last attempt agent

LastAttemptAgent	Last attempt agent name
LastAttemptRemarks	Last attempt remarks
Handler	Handler type (additional system field)
EndedInTransfer	Flag to identify if the interaction was ended in transfer
ClosedBySystem	Flag to identify if the interaction was closed by system
Queued	Flag to identify if the interaction was added in the queue
SLExcluded	Flag to identify if the interaction was excluded from Service Level calculations
AnsweredWithinGoalTime	Flag to identify if the interaction was answered within goal time
EmailBacklog	Flag to identify if the interaction (email) was added in the backlog
LastInteractionStateID	Identifier of the last interaction state
LastInteractionState	Last interaction state name
ResponseCount	Count of the responded chat messages
ResponseTimeSum	Total time (in seconds) of the waiting by customer
CustomerCalls	Customer calls
Overflow	Flag to identify if the interaction was overflowed

▦   AllAlerts

AlertID	Identifier
AgentID	Identifier of the Agent (if alert handler is an agent)
Agent	Agent name
BusinessProcessID	Identifier of the BP (if alert handler is a BP)
BusinessProcess	BP name
CounterTypeID	Identifier of the counter type

CounterType	Counter type name
AlertTypeID	Identifier of the alert type
AlertType	Alert type name
StartTime	Start time
StartTimeSliceID	Identifier of the start time (helps for the grouping)
EndTime	End time
EndTimeSliceID	Identifier of the end time (helps for the grouping)
Value	Count of seconds of the alert
Counter	Supervisor's counter

AllAttempts

AttemptID	Identifier
CampaignID	Identifier of the Campaign
Campaign	Campaign name
Destination	Destination
CampaignEnterTime	When the interaction was added to campaign (loaded)
CampaignEnterTimeSliceID	Identifier of the enter time (helps for the grouping)
CampaignLastAttemptTime	Last attempt time of the main interaction
CampaignLastAttemptTimeSliceID	Identifier of the last attempt time (helps for the grouping)
NumberOfAttempts	Count of the attempts in the whole interaction
LastAttemptInteractionStateID	Identifier of the last attempt interaction state in the whole interaction
LastAttemptInteractionState	Last attempt interaction state
AttmeptNo	Attempt number

AttemptTime	Attempt time
AttemptTimeSliceID	Identifier of the attempt time (helps for the grouping)
AgentID	Identifier of the Agent (if the attempt handler was an agent)
Agent	Agent name (if the attempt handler was an agent)
Remarks	Remarks
InteractionStateID	Identifier of the interaction state
InteractionState	Interaction state name
BusinessProcessID	Identifier of the BP (if the attempt handler was a BP)
BusinessProcess	BP name (if the attempt handler was a BP)