

InReports

User Guide

Version 1.0

For InReports 1.9.0

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Revision History

Version	Author	Date	Changes
1.0	Richard Horsley	01/10/2019	Initial release of InReports 1.9
			 https support



Introduction

InReports is part of NEC's easy to use 'InApps' range of applications and can be used to see reports, graphs and charts to show telephony activity. Each time a call is made or received an SMDR (Station Message Detailing Recording) record is outputted by the telephone system. This record contains key information about the call such as:

- The Call Type Incoming / Outgoing / Un-Answered / Internal
- The Extension Number
- The Trunk Number
- The DDI Number
- The Call Duration
- The Ring Duration

InReports receives a copy of these records, processes them and stores them away on the CPU. A Web browser can be used logon to the InReports application and analyse these calls as in list format, a variety of reports, graphically and as a wallboard. The following calls are available in InReports.

Name	Description
Incoming Answered	An Inbound Answered call
Incoming Unanswered	An Inbound call that wasn't answered by an extension
Outgoing	An outgoing call that was answered by the far party
Outgoing Unanswered	An outgoing call that wasn't answered by the far party.
Internal	An Internal call connected call.
Barred	A call to a destination number that is barred via toll restriction
Daneu	programming the PBX.

Calls that are answered by voicemail will show as an Incoming Answered call against the voicemail port that answered the call.

Calls that pass through the VRS and are ultimately answered by and extension will show as an Incoming Answered call.

Calls that pass through the VRS and are not answered by an extension will show as an Incoming Unanswered call.

Requirements

The application can only be accessed using either http or https. When using http the number of concurrent connections to the application is 100, using https 9 concurrent connections can be established. This guide explains how to use and configure InReports. InReports is accessed using a Web Browser, Internet Explorer 11, Firefox and Google Chrome are all supported.

Logon to InReports

To directly access the user interface for InReports over http, use the URL:

http://IP Address of the PBX/html/apps/reports/reports.cgi

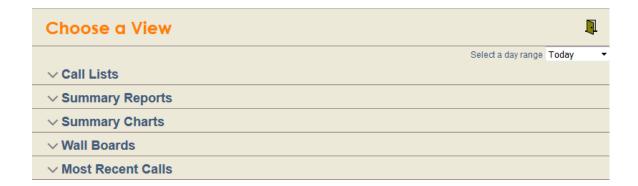
If https is being used to access InReports then use https:// and then either the IP Address of the PBX or name of the PBX followed by /html/apps/reports/reports.cgi for example:

https://10.0.0.150/html/apps/reports/reports.cgi https://sv9100/html/apps/reports/reports.cgi

When you reach the login page, enter a username and password for the application then click the green tick icon. The default username is tech and the password is 12345678 .



Once you have logged on to the web page then you will see the available options in the view. If you don't see all the options as below then the user account you have logged on with might not be configured to use all of the available InReports features.



Using InReports

By default the Call Lists, Reports and Charts include all calls, filtering can be used to see specific calls in the views. Call Lists, Summary Reports and Summary Charts can all be filtered to show data based on the following:

Filter	Description
	If 'Any Date' is selected then the calls are selected from the date
	range drop down menu in the application.
Dates	Relative Date Range allows calls over a fixed period to be specified.
	Fixed Date Range allows two dates to be entered and calls between
	these two dates are included in the report.
Time of Day	This can be used to only select calls between a certain duration, for
Time of Day	example all calls between 09:00 and 17:00.
Call Types	Any of the different Call Types can be selected.
Extensions	An extension or extension group can be selected.
Trunks	A trunk or trunk group can be selected.
Numbers	A DDI number or DDI group can be selected.
Durations	Calls over or under a certain duration or ring duration can be
Durations	included.
Call Costs	When call costing tariffs are configured, calls can be included based
Call Costs	on the cost being under or over a specified amount.

This guide explains how to run all the default items and how the application can be customised.

Most Recent Calls

Most Recent Calls is a handy way to make sure InReports is running correctly. This view can't be configured, it will simply shows the last 30 calls that have been processed. There is a scroll bar on the right hand side to look through the list of calls. The list can be sorted by clicking on a column header, a down arrow will indicate descending and will put a higher value first i.e. the most recent call or the highest extension number etc. An up arrow is ascending which puts lower values / older dates first.



Call Lists

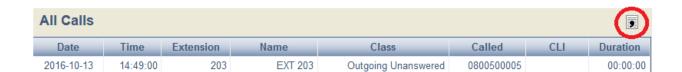
Expand the option for Call Lists and the available default templates are listed. If the list is configured to show calls from 'any date' then you can choose which calls are displayed in the list by selecting one of the ranges in the drop down menu. Available options are Today, Yesterday, Last 7 days, This Week, Last Week, This Month, Last Month, This Year and Last year. The call lists are dynamically updated so if a new CDR record is processed it will be displayed in the view.

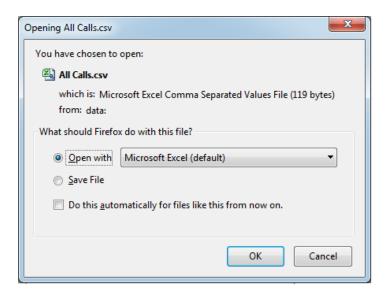


Call lists show individual calls and the associated details, the data in the report such the available columns and the order of the report will be as per the configuration of the report. To display a call list, click on the list you wish to see and the list will be displayed.



The data can be exported to a CSV file to allow the data to be analysed by external applications. To export the calls in the current view, click the export button in the upper right hand corner of the view. Follow the prompt to save the file and the data is exported.





Any of the Call Lists can be displayed in the same way.

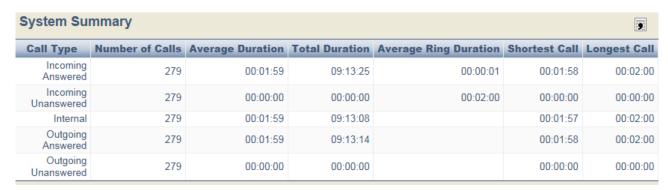
Summary Reports

Summary Reports will show totalled statistics based on their call type, each of the default reports can be displayed as a summary or be broken down per Week, Day or Hour. If the report is configured to show calls from 'any date' then you can choose which calls are displayed in the list by selecting one of the ranges in the drop down menu. Available options are Today, Yesterday, Last 7 days, This Week, Last Week, This Month, Last Month, This Year and Last year. The reports are dynamically updated so if a new CDR record is processed it will be displayed in the view.

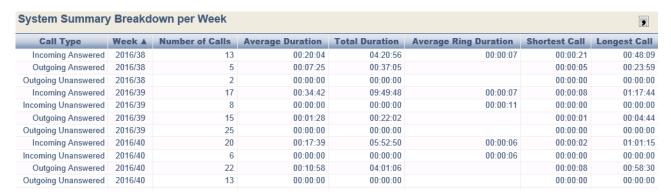


There are 4 different types of Summary Reports, System Summary, Extension Summary, Trunk Summary and DDI Summary. The available columns in the Summary Reports is fixed and cannot be customised. Click any of the reports to run them.

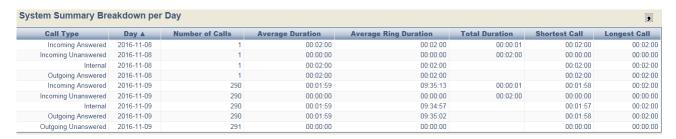
The System Summary Report shows a list of call types and statistics relating to them.



The System Summary Breakdown per Week will list each call type and usage for the given week. This makes it easy to compare week on week statistics.



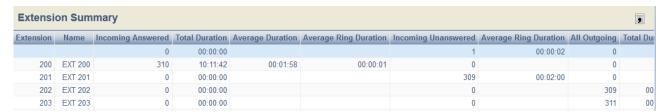
The System Summary Breakdown per day is similar to the breakdown per week but lists the calls based on their date.



Finally the System Summary Breakdown per Hour will show the call types and the number of calls based on hourly intervals.

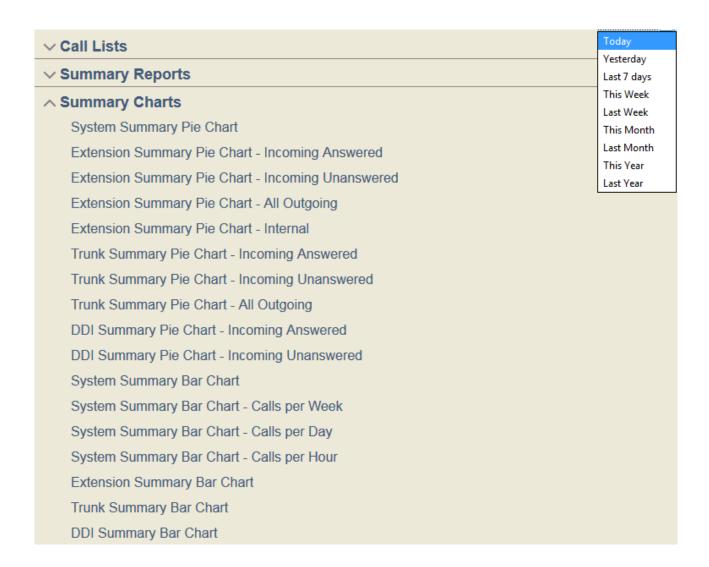


The remaining Extension / Trunk / DDI summary reports list the individual devices in the left hand column of the report and then shows call information in the next columns. Each of the reports can run per week / day / hour just list the summary reports.

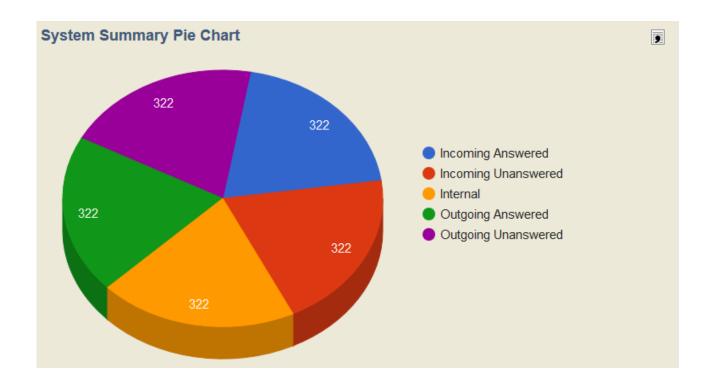


Summary Charts

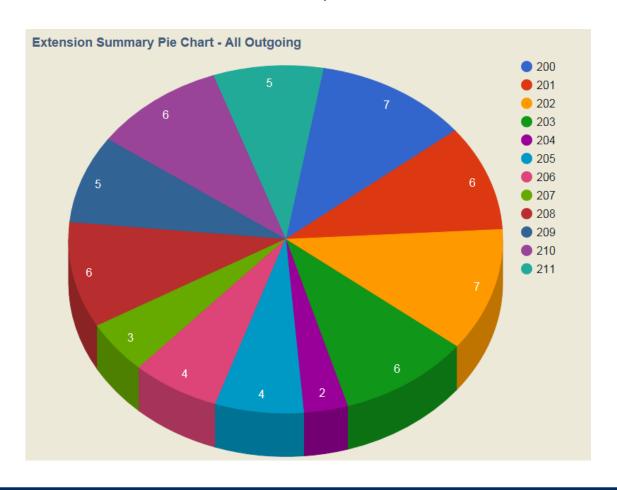
Summary Charts are used to display pie charts and bar charts, again the date range can be selected to choose which calls are included in the view.



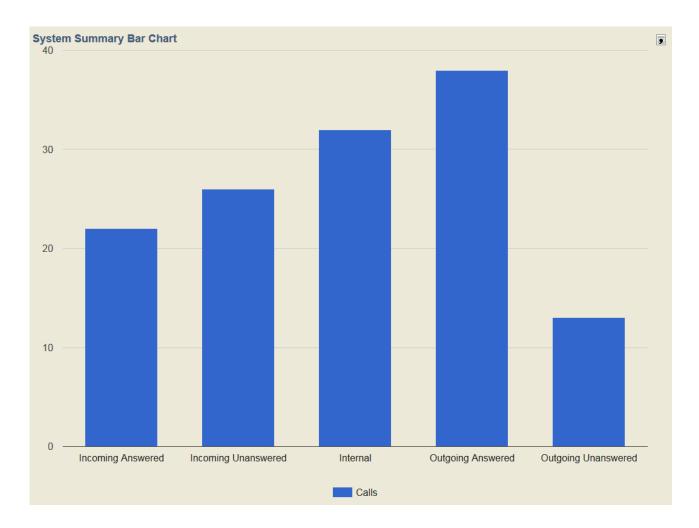
The System Summary Pie Chart will show each call type in a different slice and the number of calls is displayed too.



Pie charts can be also display the number of a call type against each device. For example the chart below shows each extension and the number of calls they have made.

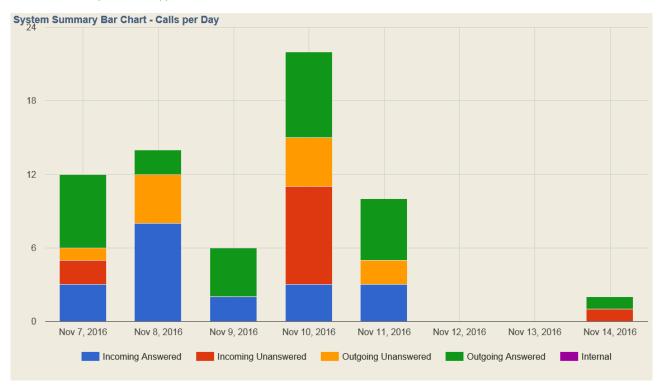


Similar data can also be displayed as a bar chart, the first available is the System Summary Bar Chart. This will show call type across the X axis and the number of call on the Y axis.

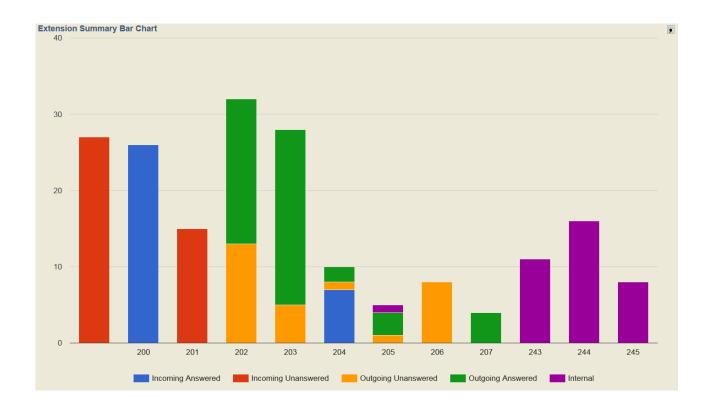


The further System Summary bar charts are available that will display calls per week, day and hour.

Here is an example of the System Summary Bar Chart – Calls per Day. The legend at the bottom can be used to identify the call types.



The remaining bar charts are the Extension Summary Bar Chart, Trunk Summary Bar chart and the DDI Summary Bar chart. These will show the device across the X axis and the call volume on the Y axis.



Wallboards

The wallboards are fixed and show system wide information, it's not possible to apply any filtering to the view. The wallboard will only show statistics for the current day, the 'select a day range' doesn't alter what is displayed in the view. There are 3 different wallboard views available, click either Trunk Statistics, Extension Statistics or DDI Statistics.

Choose a View
∨ Call Lists
∨ Summary Reports
∨ Summary Charts
∧ Wall Boards
Daily Trunk Statistics
Daily Extensions Statistics
DDI Statistics
∨ Most Recent Calls

Daily Trunk Statistics shows the number of Incoming Answered calls, Incoming Unanswered and Outgoing Calls. Average time statistics are shown under each of the call types.

Ti	runk Statistic	CS
Incoming Answered	Incoming Unanswered	All Outgoing
188	1	376
Average Answer Time	Average Unanswered Time	Average Outgoing Duration
00:00:16	00:02:01	00:01:49

The Extension Statistics view shows the same information as the trunk statistics page with the addition of Outgoing Unanswered calls and Internal calls.

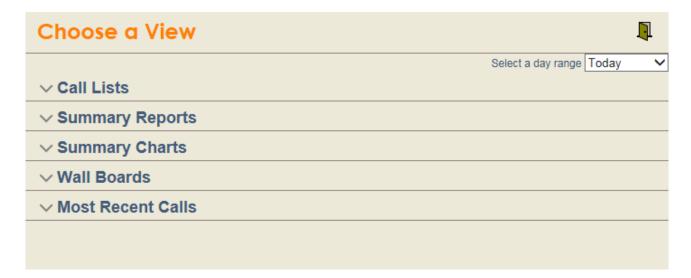


The DDI Statistics page shows Answered Calls, Unanswered Calls, the Average Answer Time and the Average Unanswered Time.

DDI Statistics				
Answered	Unanswered			
189	1			
Average Answer Time	Average Unanswered Time			
00:00:16	00:02:01			

Logout of InReports

Once you have finished using InReports then you can click the Logout above the Select a day range to logout.



Once you have been logged out then the Login screen is displayed.



Configuring InReports

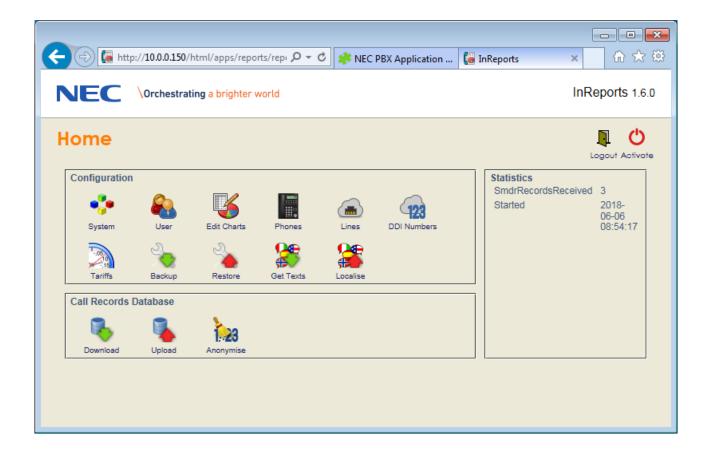
To directly access the configuration interface for InReports access the URL:

http://IP Address of the PBX/html/apps/reports/config.cgi

If https is being used to access InReports then use https:// and then either the IP Address of the PBX or name of the PBX followed by /html/apps/reports/config.cgi for example

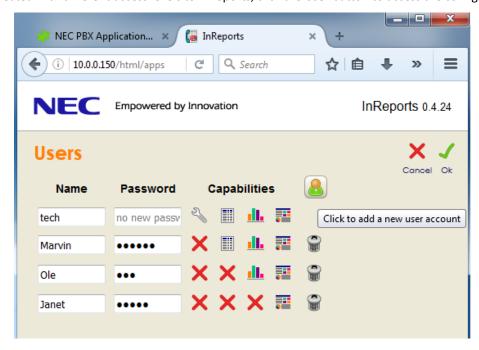
https://10.0.0.150/html/apps/reports/config.cgi

The default username and password for the configuration page is tech / 12345678 . Once logged in then the Configuration Home page is displayed.

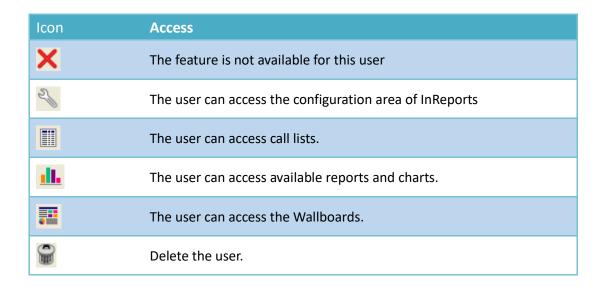


User Configuration

Users can be created with different access levels to InReports, click the User button to access the configuration page.



When you access the page for the first time, you can see the existing user 'tech' and this has access to all areas of InReports, the password for tech user can be changed if required. To create a new user, click the green user icon A new row will appear where you can enter a username and password. You can then select which features the user will have access to.



After making any changes click OK to save, when you return to the configuration home page the changes won't be

applied until you click the Activate button Activate in the upper right hand corner of the configuration home page.

Phones

The phones area of the configuration allows extensions to be grouped together for reporting purposes, to setup groups, click phones in the configuration home page. Double click in the column header and you can type a name in for the group. Once the group has a name then you can click in the column to move the extension into the group. Once the changes have been made then click OK to save them, they will need to be activated from the configuration home page.

Extensio	Extension Groups						X Cancel Ok	
	Telesales	Support	Accounts					
	200 Ext 200							
	201 Ext 201							
	202 EXT 202							
		203 Ext 203						
		204 EXT 204						
		205 EXT 205						
			206 EXT 206					
			207 EXT 207					
			208 EXT 208					
209 EXT 209								
210 EXT 210								

Lines

The lines area of the configuration allows trunks to be grouped together for reporting purposes, click lines in the configuration home page. Double click in the column header and you can type a name in for the group. Once the group has a name then you can click in the column to move the trunk into the group. Once the changes have been made then click OK to save them, they will need to be activated from the configuration home page.

Trunk Groups					×✓
					Cancel Ok
SIP Lines	ISDN Lines				
1 Line 1					
2 Line 002					
3 Line 003					
4 Line 004					
	5 Line 005				
	6 Line 006				
	7 Line 007				
	8 Line 008				

DDI Numbers

The DDI numbers area of the configuration allows DDI's to be grouped together for reporting purposes, click DDI numbers in the configuration home page. Double click in the column header and you can type a name in for the group. Once the group has a name then you can click in the column to move the DDI into the group. Once the changes have been made then click OK to save them, they will need to be activated from the configuration home page.

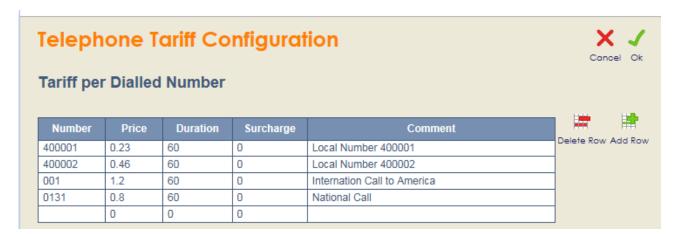
DDI Number Groups				X Cancel Ok		
Sales DDIs	Support DDIs					
	130885 SIP					
	315890 DDI 3					
	315891 Sales					
	315892 Acco					
315893 Cust						
315970 Main						
400000 Cons						
400001 Loop						

Call Costing

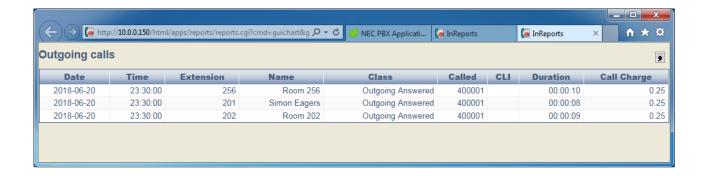
Call Costing allows a cost to be associated with a call based on the dialled number, in order for this to work the Tariff has to be configured. From the configuration home page, click the Tariffs button. Use the Add Row button to start building the Tariff Table. The table below explains each of the configurable items in the table.

Filter	Description
Number	Enter the number that is dialled on the outbound call. Numbers can be vary in length so you could for example enter 400001 for calls for a number beginning 400001, the number 4 can also be entered for any number beginning with 4. When a call is made to a number beginning 4, the call will be costed at the rate for 4. Calls to 400001 and 400002 will be costed accordingly.
Price	Enter the cost for the call in the format of the currency and decimal places. 3.40 would be for example £3.40p / €3.40c 0.50 would 50p / 50c
Duration	Enter the duration in seconds that is associated with the cost of the call.
Surcharge	The surcharge can be used to add a connection charge to connected outbound calls. The surcharge adds the amount to each call matching the dialled number. For example if a surcharge of 2 was entered, this is added to the call cost and stored against the call record.
Comment	Enter a comment that can be used to describe entry in the table.

Enter the details in the tables as required and click OK to save the changes.



Calls that are made to a number that doesn't match in the tariff table will show a zero cost against the call. Once the changes have been saved then the feature can be tested by making calls to numbers from the table. In the 'Call List' reports you can see any cost that has been associated with calls. Summary Reports that show outbound calls also display call costs.



Filtering Call Lists, Reports and Charts

The chart editor configuration page allows the Call Lists, Summary Reports and Summary charts to be filtered. This allows them to display data based on Dates, Time of Day, Call Types, Extensions / Groups, Trunks / Groups, DDI's / Groups and durations. Call Lists show lists of individual calls, the columns available in the view can be selected by editing the list. Summary Reports and Summary Charts have a fixed columns that can't be altered.

To Edit the configuration of a Call List, Report or Chart, click Edit Charts from the configuration home page.



The existing Call Lists, Reports and charts are displayed, click edit icon to change the configuration. You can also click on the clone chart icon, this will copy the existing report and create a new item called 'Clone of' and the original name. This allows many similar reports to be created that can be filtered differently against different groups of devices.



If you click the arrow to the left of properties, two options are available Chart Name and Chart Type. Chart Name will change the name of the list as it's displayed in the application. The chart type shouldn't be changed.

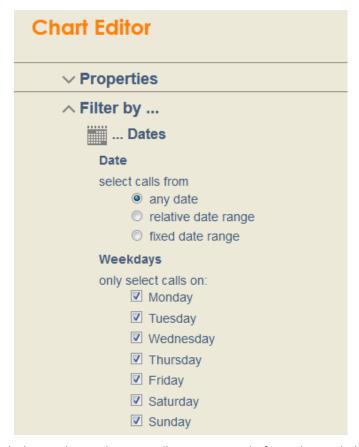


Filter by

The next option is Filter by, this is used to define what calls are selected in the output, many combinations of filters can be used to generate specific output. Click the arrow to the left hand side of Filter by to expand the available options.



Filter by Dates can be used to select which calls are included in the report. The default option is any date which will show calls that are selected in the date range of the application. Relative date range allows calls from a period to be selected i.e. show the calls for the last x days / weeks / months. Fixed Date Range allows an actual date range to be specified.



Week days can be specified, this can be used to see calls over a period of time but exclude calls on certain days, for example Saturday or Sunday.

Filter by Time of Day

Time of Day can be used exclude calls before or after certain times, for example you may only want to see calls for working hours. The example below would only show calls between 9:00 and 17:00.



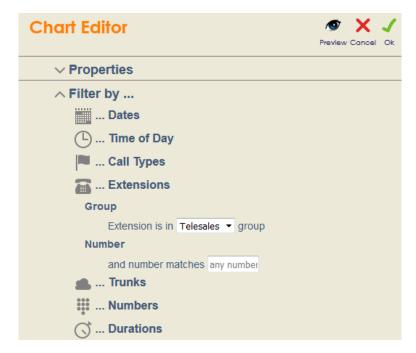
Filter by Call Type

Certain call types can be included or excluded by selecting them from the list. If **no** call types are selected then **all** are included in the reports.



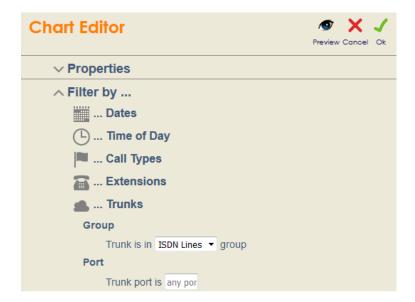
Filter by Extensions

An extension group can be selected in the drop down menu or a single extension number can be manually entered in the box below.



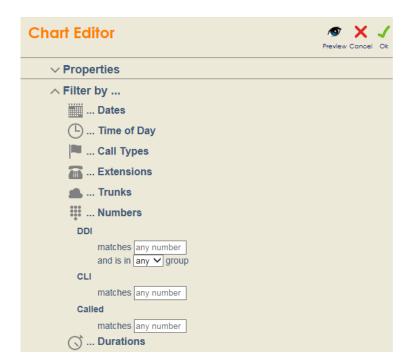
Filter by Trunks

Similar to extensions a trunk group can be selected in the drop down menu or a trunk number can be entered manually.



Filter by Numbers

Numbers allows calls to be displayed based on the DDI, CLI or Called number matching the filter. DDI numbers can be entered manually or a group can be selected and matching call records will be displayed. CLI allows for a particular CLI to be entered, this is the CLI presented by the outside caller on incoming calls. Called number is the number that is dialled when a user makes an outbound call.



Filter by Durations

Calls can be included based on their duration, a minimum and maximum value can be entered in seconds. If a minimum value is entered then calls over this duration will be shown. If a maximum duration is enter the calls under this duration will be shown. If both minimum and maximum values are entered then only calls between those durations are included.

The same can be done for calls that have a ring duration, only incoming and incoming unanswered calls have ring duration.

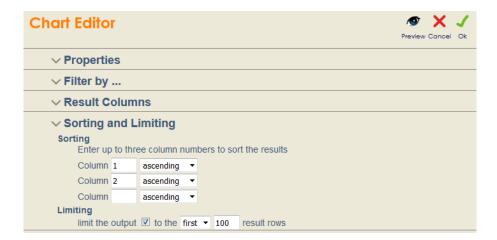
Internal and outgoing calls do not have ring duration.



Sorting and Limiting

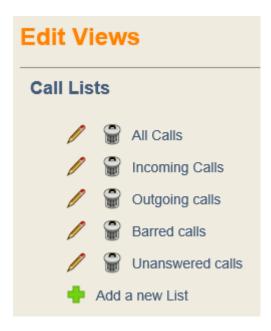
Sorting and Limiting allows the default ordering of columns to be set against call lists and reports. For example you may wish to see a list of calls ordered by the extension number and then the time of the call. This could be achieved by firstly sorting on the extension number and also on the time of call. Ascending and descending can also be selected to choose the order. Limiting can be used to only include a fixed number of calls, for example you may only want to see the last 100 calls.

In Column enter a column number and then choose ascending or descending, this can be done for up to 3 columns. You may for example want to sort by extension number and then by call type and then by call duration. Limiting can be used to only show or calculate statistics on a fixed number of calls.

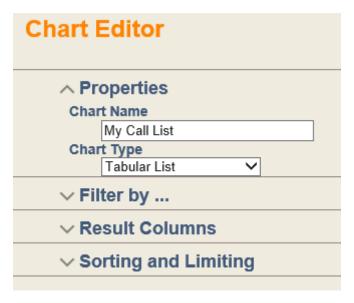


Creating Customised Call Lists

Custom Call Lists can be created, under Call Lists click Add a new list.



Enter a name for the Call list and select Tabular List in the Chart Type drop down menu.



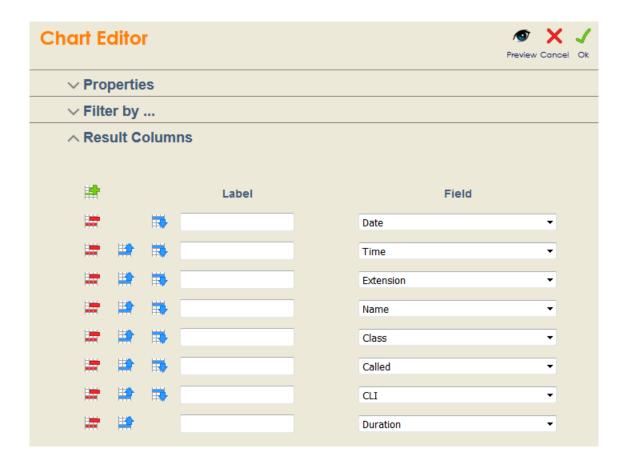
The Filter by option can be used to apply any of the filtering rules for the Call List.

Result Columns can be used to add columns to the call list, the order for the columns can be specified too. Detail of how to do this can be found in <u>Result Columns</u>.

Once the call list has been created then click OK to save it, once it has been saved then it will appear in the main application once the view has been refreshed.

Result Columns

The result columns can be edited for any of the Call Lists and they can be re-ordered too. In the Label box you can enter a name for the column, if you leave it blank then the field name is shown instead. The result columns can't be altered for Reports and Charts.



There are 4 icons available in the result columns, these can be used to add, delete and re-order the columns in the view.

Icon	Function
	Add a new column
*	Delete the column
	Move the column to the left in the view
-	Move the column to the right in the view

When adding a new column, the following fields are available broken down by category.

Date, Time and Duration

Item	Function
Timestamp	The time that the CDR was created in the database.
Time and Date	The time and date that the call started.
Date	The date that the call started on.
Time	The time the call started.
Duration	The Duration of the call.
Ringing Duration	The Ringing Duration.

Extensions

Extension	The extension number associated with the call.	
2 nd Extension	The second extension, used for internal calls.	
Name	The name of the extension.	
2 nd Ext Name	The name of the second extension, used for internal calls.	
Extension Group	The name of the extension group.	
2 nd Extension Group	The name of the second extension group, used for internal calls/.	

Trunk Lines

Trunk	The trunk associated with call	
2 nd Trunk	The second trunk associated with the call, this will be displayed on	
	calls that are transferred trunk to trunk.	
Trunk Name	The name of the trunk.	
2 nd Trunk Name	The name of the second trunk.	
Trunk Group	The name of the trunk group.	
2 nd Trunk Group	The name of the second trunk group.	

Numbers

Called	The number that was dialled when an outbound call is made.	
CLI	The outside callers telephone number sent when receiving an	
	incoming call	
CLI Name	If the CLI is matched against an abb dial name, this is displayed.	
DDI	The DDI number.	
DDI Name	The DDI name.	
DDI Group	The name of the DDI group.	

Call Types

Class	This displays the call type.
Internal	This displays a checkbox to indicate the call type.
Incoming	This displays a checkbox to indicate the call type.
Outgoing	This displays a checkbox to indicate the call type.

Flags and Attributes

Barred	A checkbox to indicate is this option applied to the call.	
Unanswered	A checkbox to indicate is this option applied to the call.	
Transferred	A checkbox to indicate is this option applied to the call.	
Flags	A checkbox to indicate is this option applied to the call.	
Account	This displays the account code if there was one associated with the	
	call.	
Walking Class	This displays the walking toll restriction code if there was one	
	associated with the call.	

Timestamp Functions.

Hour number of the timestamp	The hour from when the CDR was created.
Day number of the timestamp	The day from when the CDR was created.
Week number of the timestamp	The week number from when the CDR was created.
Month number of the timestamp	The month number from when the CDR was created.
Year number of the timestamp	The year number from when the CDR was created.



Deleting Lists / Reports / Charts

To delete the any of the Call Lists / Reports / Charts click the delete button next to the item you wish to delete.

Call Lists can be re-created but Summary Reports and Summary Charts cannot.



Anonymising Call Records

Call Records that are stored in InReports can contain an outside callers CLI for any type of incoming call type. Outgoing calls show the telephone number that was dialled. This information could be considered as personal information to an individual, the Anonymise feature allows this data to be removed from call records in InReports.



Item	Function	
Incoming	Select this option to anonymise incoming calls	
Outgoing	Select this option to anonymise outgoing calls	
Matching	Enter the telephone number that should be removed from the call records. Wildcards can be used so for example 07* would remove any telephone numbers beginning 07. 0131* would remove and calls beginning 0131. Just entering * will anonymise all call records. You can also enter a specific telephone number without a * to remove that number from the call records.	
From	Enter the start of date	
То	Enter the end date	
Remove Digits	Select an option in the drop down menu of how many digits should be removed from the call records. You may for example just remove the last 3 digits from the call record.	
Stored Names	If a name exists for the caller, select if this is removed or not.	

Enter the criteria for anonymising calls and click OK to start the process. Once complete, InReports will return to the Configuration home page.



If you look back at the call records in the list calls reports, they will have been updated.

Store Calls for a Fixed Period

It's possible to store calls for a fixed period in line with a company's data storage policy. From the InReports Configuration home page, click System. In the 'Keep monthly generated CDR files' select an option between 1 and 12 months in the drop down menu.



The calls for the current month are always kept and in addition the calls are kept for the previous number of months specified. For example if 'Keep monthly generated CDR files' is set to 3 months, during July calls are kept for July, June, May and April. On the 1st day of August, calls are now kept for August, July, June and May.

NEC Enterprise Solutions reserves the right to change the specifications, functions, or features at any time without notice.

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