

# opReports Release Notes

## Product Compatibility

Refer to [product compatibility](#) to determine supported Operating Systems and Database Versions.

Download opReports here - <https://opmantek.com/network-management-download/opreports-downloads/>

- [Product Compatibility](#)
- [opReports 3.5.2](#)
  - [Improvements](#)
- [opReports 3.5.1](#)
  - [Improvements](#)
- [opReports 3.5.0](#)
  - [Improvements](#)
- [opReports 3.4.2](#)
- [opReports 3.4.1](#)
  - [Highlights](#)
- [opReports 3.4.0](#)
- [opReports 3.3.0](#)
  - [Highlights](#)
- [opReports 3.2.1](#)
  - [Highlights](#)
- [opReports 3.2.0](#)
  - [Highlights](#)
- [opReports 3.1.11](#)
- [opReports 3.1.10](#)
  - [Highlights](#)
- [opReports 3.1.9](#)
- [opReports 3.1.8](#)
- [opReports 3.1.7](#)
- [opReports 3.1.6](#)
- [opReports 3.1.5](#)
  - [Highlights](#)
- [opReports 3.1.4](#)
  - [Highlights](#)
- [opReports 3.1.2](#)
  - [Highlights](#)
- [opReports 3.1.1](#)
  - [Highlights](#)
- [opReports 3.1.0](#)
  - [Highlights](#)
- [opReports 3.0.14](#)
  - [Highlights](#)
- [opReports 3.0.12](#)
  - [Highlights](#)
- [opReports 3.0.10](#)
  - [Highlights](#)
- [opReports 3.0.8](#)
  - [Highlights](#)
- [opReports 3.0.7](#)
  - [Highlights](#)
- [opReports 3.0.6](#)
  - [Highlights](#)
- [opReports 3.0.4](#)
  - [Highlights](#)
- [opReports 3.0.2](#)
  - [Changes since the 3.0 pre-release](#)
- [opReports 3.0](#)
  - [Highlights](#)

## opReports 3.5.2

RELEASED

02 Jun 2022

### Improvements

- opReports 3.5.2 and newer provide 3 new report types which require a [Burst Billing Customer List File](#):
  - [Burst Billing Summary Report](#)

- [Burst Billing Report](#)
- [Bandwidth Exceeds Contract Report](#)

## opReports 3.5.1

RELEASED 22 Feb 2022

### Improvements

- opReports 3.5.1 and newer include improvements to memory related fields in the [Node Health Report](#)
- The percentile function has been improved:
  - opReports 3.5.1 and newer now use the **nearest rank inclusive** percentile formula as provided in wikipedia: <https://en.wikipedia.org/wiki/Percentile>
  - The differences between the new and old percentile formula cause very few differences in the 95th percentile outputs, and when there are differences, they are generally very small fractional changes.

## opReports 3.5.0

RELEASED 13 Dec 2021

### Improvements

- Added secrets randomise and secure cookies. For more information see [Security Configurations](#).
- Updated jQuery dependencies.

## opReports 3.4.2

RELEASED 30 March 2021.

### Upgrade Notes

This version provides new [authentication configurations](#):

- Limit the number of sessions per user
- Lock users that have not logged in in a specified period of time

## opReports 3.4.1

RELEASED 16 Mar 2021.

### Highlights

This is a maintenance release:

- Introduces extra debug=9 level logging to assist in researching issues when encountered in opReports.
- Fixes **95th Percentile calculation** in **WAN Utilisation Distribution Report** and **WAN Utilisation Distribution Summary Report**: Prior to version 3.4.1 the reflected value for **95th Percentile** should be multiplied by 8 to get the correct value for **95th Percentile** in the above-mentioned reports.
- In the **QoS Report**, [Standardised Quality of Service](#) supported devices that do not support CBQoS will display interface QoS even though the interface has a setting of 'collect=false'.

## opReports 3.4.0

RELEASED 01 Oct 2020.

### Upgrade Notes

The new upcoming release of opReports 3.4 will work on Opmantek's latest and fastest platform, however, the currently installed products are incompatible with this upgrade.

To find out more about this upgrade please read: [Upgrading Opmantek Applications](#)

## opReports 3.3.0

This version was released on 16 July 2020.

## Highlights

⚠ This release requires updated licenses, please [contact Opmantek Support](#) to organise new licenses

- makes the following improvements:
  - **QoS Report:**
    - **Model** and **Vendor** details are provided per node in the report.
  - **Uptime Report:**
    - **New option 'Exceptions Report' (Default: true)**
      - The Uptime Report now offers this new option which defaults to the original behaviour of only returning nodes according to opCommon configuration settings:
        - where uptime is shorter than `uptime_shortest_days` (default 7); or
        - where uptime is longer than `uptime_longest_days` (default 365).
      - When **'Exceptions Report=false'**, the Uptime Report provides a third column with the remainder of nodes that have an uptime to report, in other words, those with uptime from `uptime_shortest_days` to `uptime_longest_days`.
      - Please read [Generating Reports](#) for generating on-demand reports: this new option is `uptime_exceptions` on that page.

## opReports 3.2.1

This version was released on 08 May 2020.

## Highlights

This version:

- makes the following improvements:
  - **Interface Capacity Report:**
    - Adds **Group** column; and
    - Adds **Availability %** column which provides **Availability % per interface**;
  - **Grouped Interface Capacity Report:**
    - Adds **Availability %** column which provides **Availability % per interface**;
  - **WAN Report:**
    - Adds **Speed In** and **Speed Out** columns which **provide the applicable value per interface**; and
    - Adds **Max Bandwidth In** and **Max Bandwidth Out** columns which **provide the applicable value per interface**.

## opReports 3.2.0

This major update of opReports was released on 21 February 2020.

## Highlights

This version:

- Improves the QoS report by providing 'Standardised Quality of Service' on Cisco, Huawei, Juniper and Teldat devices insofar as these devices support QoS.
  - [QoS Report: StandardisedQualityofService](#)
- Please read the [known\\_reports\\_cache](#) documentation:
  - Although the `known_reports_cache` has not changed since version 3.1.11, It is important to understand the benefits of applying the cache and that deleting reports via cronjob or commandline should be followed by a command to flush the `known_reports_cache`.

## opReports 3.1.11

This version was released on 04 Jul 2019.

This version fixes the Traffic Snapshot Report that was not working in opReports 3.1.10.

## opReports 3.1.10

This version was released on 28 Jun 2019.

Please don't upgrade to this version yet if you use the Traffic Snapshot Report. This report is broken in this version. We are working on a fix.

## Highlights

This version:

- Includes the following new report type: Monitored Services Report.
- Offers the following new option for Node Availability and Grouped Availability Reports: **'opreports\_availability\_average\_packetloss'** in **/path/to/omk/conf/opCommon.nmis**, controls whether the previous **'Packet Loss %'** (now renamed **'Count Packet Loss %'**) or **'Average Packet Loss %'** is displayed in this report.
- Fixes an issue with editing and saving existing reports that was experienced in recent releases of opReports.
- Fixes an issue in QoS report where **'NoBufDropPkt'** was being inserted into csv and xlsx report twice pushing last few columns out of sync by one column.
- Uses a newly developed **known\_reports\_cache** to speed up the loading of reports:
  - A new option **'opreports\_do\_cache\_known\_reports'** in **/path/to/omk/conf/opCommon.nmis** determines whether this cache is enabled or disabled. The cache is enabled by default.
  - **Testing on a server with a moderateley large number of generated reports has found load time to view a large report improves from more than 9 minutes to less than 45 seconds with the cache enabled.**

## opReports 3.1.9

This version was released privately on 23 May 2019.

This version includes the following new report types: UPS Configured Models Report.

## opReports 3.1.8

This version was released on 18 Apr 2019.

This version includes the following new report types: Grouped Interface Capacity Report, Interface Unicast Packets Report, WAN Utilisation Distribution Report and WAN Utilisation Distribution Summary Report.

This version also introduces two new options under Sources >> Node Selection: 'by Regular Expression for a Nodes and Interfaces Report per Group' and 'by Regular Expression for Groups, Nodes and Interfaces'.

## opReports 3.1.7

This version was released on 09 Apr 2019.

This release fixes issues with scheduling traffic snapshot reports and prepending a backslash to colons in the title of generated graphs.

## opReports 3.1.6

This release included minor feature improvements and was released on 20 Feb 2019.

- Added possibility to customise node availability graph colors, the configuration option **report\_node\_availability\_colors** in **opCommon.nmis** provides this capability.

```
'report_node_availability_colors' =>
{
  'down' => '#d9534f',
  'unreachable' => '#e6e619',
  'up' => '#59cf59',
  'partially_reachable' => '#288a28'
},
```

Added option to cap max bandwidth to configurable value (relevant to WAN report), setting **opreports\_max\_interface\_util** in **opCommon.nmis** to a value will cap the value to that as the maximum if the value is higher.

- Reports now shows the greatest value registered where "Max" values are reported instead of the average greatest value. The reports using this new approach are the Node Health Report, WAN Report, QoS Report, Response Time Report and Traffic Snapshot Report.

## opReports 3.1.5

This is a maintenance release of opReports and was published on 25 October 2018.

## Highlights

- Fixed bug where dos type files were not processed properly for Node Selection "from Node, Interfaces and Type List File (Upload).
- removed unused config items default\_report\_(from/to)
- load\_availability\_report (and thus load\_groupedav\_report) now honors undocumented and normally missing config option
  - **opreports\_availability\_strict (default true):**
    - If missing or 'true', then the normal behaviour for nodata-or-normal is used (ie. if reachability isn't present, it counts as nodata):
      - **no data = 'down' when opreports\_availability\_strict=true**
    - If set to 'false', then records with missing reachability but existing response time are fudged up so that the reachability = 100 (and loss = 0 if that's also missing) and therefore such a record does NOT count as nodata.
      - **no data = 'up' when opreports\_availability\_strict=false**
    - In both cases, if reachability is missing but response time is present, a debug3 about the inconsistency is logged. This applies to both availability report data and availability report graphs.
- node+intf regex now looks at Description as well as ifDescr not Description.

## opReports 3.1.4

This major release of opReports was published on 16 Jul 2018.

### Highlights

- The main opReports dashboard was reorganised and now shows the report types sorted and categorised in three (collapsible) sections for greater clarity.
- opReports now offers a new special report type called "[Grouped Availability Report](#)".
- A new node and interface selection mechanism was added: you can now [select nodes and interfaces by regular expression](#).
- The Node Health report was reworked to present more useful memory metrics for servers. Where present, 'cached' and 'buffer' memory is now taken into account when computing free main memory. On servers, swap memory is shown (as a separate column for XLSX and CSV outputs) instead of the much less useful 'Virtual Memory'.
- Coloring by condition class is now more reliable, and the condition and action column ordering in HTML output was corrected.
- The Interface Capacity report layout now offers configurable output formatting of the 95th percentile information. You can choose the display options Percent (default), Interface Bandwidth or both.
- All reports (except the Node Report) now support [Business Week](#) time filtering.
- The WAN, QoS and CoS reports now honor interface selections correctly.
- Node selection via opCharts Business Service membership now supports both business services consisting of nodes as well as specific nodes' interfaces.
- Various bug fixes and robustness improvements.

## opReports 3.1.2

This is a maintenance release of opReports and was published on 12 Jun 2018.

### Highlights

- This release fixes a bug that caused opReports 3.1.1 to not automatically email scheduled reports.
- Better handling of partially failed reports, e.g. reports that were created ok but could not be emailed: for such reports the GUI now shows the error message in question but does let you access the report date normally.
- Improved logging and robustness for certain error scenarios.
- For reports that are emailed automatically the logs now contain the last SMTP code and message. These usually include the next mail hop's Message ID, which can help with diagnosing email problems.

## opReports 3.1.1

This maintenance release of opReports was published on 24 May 2018.

### Highlights

- New layout option for the Traffic Summary Report
- opReports can now optionally display the 95th percentile of interface utilisation for this report. You may select no percentile display, display of the combined utilisation, input and output utilisation shown separately, or all of combined, input and output utilisation shown in separate columns.
- The [Single-Sign-On infrastructure](#) was reworked for improved robustness, but the necessary changes are unfortunately **not** backwards-compatible:
  - To activate SSO between opReports and NMIS, NMIS version 8.6.5G or newer is required (see the "Compatibility Aspects" section on the [NMIS-OMK SSO documentation](#) page).

- To enable SSO between Opmantek applications across servers, at least one Opmantek application release newer than 23.5.2018 must be installed on all involved servers.
- Various bug fixes and robustness improvements

## opReports 3.1.0

This major update of opReports was published on 16 Nov 2017.

Please note that this version of opReports strictly requires [NMIS 8.6.2G](#) or newer to be installed on the same system.

### Highlights

- There is a new report type "[Class of Service](#)", which presents Juniper-sourced Quality/Class of Service information.
- This version also introduces the new report type "[Configuration Summary](#)", which presents an overview of the configuration items, monitored services and elements with alerts and thresholds for any number of nodes.
- opReports now supports CSV as format for [Node, Interface and Type selection](#) files, and logs inconsistencies with this input type better.
- The report scheduler now handles 'impossible' reports more robustly and with fewer unnecessary retries (e.g. a daily report where the business week is set to Mon-Fri, which therefore cannot be generated for Sat or Sun)
- The error reporting and logging was improved for greater robustness and clarity.
- Various bug fixes and improvements.

## opReports 3.0.14

This major update of opReports was released on 27 Jun 2017.

Please note that the licensing system has been updated, and licenses issued before July 2017 will *not* work for opReports 3.0.14: You will have to obtain an updated license for this version of opReports.

You can check your licenses by visiting the [My Licenses](#) page; If unsure about your options, please email [contact@opmantek.com](mailto:contact@opmantek.com).

### Highlights

- The Report Scheduling GUI was reworked completely which should make it much easier to use.
- The Interface Capacity report offers more flexible percentile display options.  
You can now choose between showing
  - the 95th percentile for combined in and out utilisation,
  - or separate percentiles for in and out utilisation,
  - or the display of all three measurements (in, out and combined).
- The validity checks for report schedules were extended, and invalid combinations of report options are now reported better.
- The opReports scheduler is now started every 5 minutes by default (before: once hourly).
- The installer was adjusted to support all recent mainstream Linux distributions: Debian 7, 8 and 9, CentOS/RedHat 6 and 7.
- opReports now supports the new selection source "Business Service", which lets you select nodes and interfaces from one or more opCharts Business Service definitions.  
This feature requires that opCharts is installed (and licensed) on the same system. Like all other dynamic selection sources (e.g. node regular expression, group membership), Business Service selections are expanded at report creation time.

Please note: when you add a license for opCharts for the first time, then it may take up to one hour for opReports to detect opCharts as available. Until then you'd see an empty list of Business Services in opReports' scheduling GUI. The simplest workaround is to restart the `omkd` application (using `sudo service omkd restart`) after the licenses are installed.

- This version of opReports supports [Delegated Authentication](#).
- The landing page at `/omk` now checks for updates for all installed applications.
- When opReports emails Zipped reports, Javascript files are not included anymore.  
GMail recently started rejecting all emails with JS files in them, which made it impossible to email opReports reports where GMail was involved. Furthermore, CSS files are now embedded in the report HTML when generating Zip archives.
- The Node Availability report now correctly embeds graphs in XLSX outputs when instructed; in earlier versions graphs were incorrectly omitted unless HTML output was also selected.
- Problems with the generation of scheduled reports are now handled more robustly and better error indications are shown in the GUI.
- A new report type called "[Traffic Snapshot](#)" was added. This report type integrates with and depends on opCharts Business Services.
- Various internal robustness improvements and bug fixes.

## opReports 3.0.12

This maintenance release of opReports was released on 20 Feb 2017.

### Highlights

- The Node Availability report now supports selectable definitions for Uptime.  
If you set the config option `opreports_availability_nodata_separate` to "true", then Uptime, Downtime and No-Data periods are

treated as non-overlapping, independent concepts.

If "false" (the default), then uptime includes everything *except* confirmed downtime, i.e. Uptime includes (confirmed) uptime as well as periods of no data.

- Embedded graphs in a Node Availability report now display No-Data periods as yellow bars.
- The generated HTML reports now contain the URLs for any custom attached files in a Javascript object.  
`window.opreports_custom_files` is a map/hash of original name and instance URL. This makes it easier for a customised report template to refer to or render things like custom banners.
- Minor bug fixes and improvements.

## opReports 3.0.10

Version 3.0.10 was published on 7 Nov 2016. It's a major release consolidating a number of features that were begun in 3.0.8.

### Highlights

- The Node Availability and Interface Capacity reports now support embedded graphs.  
Embedded graphs work for the XLSX and HTML output formats; when emailing such reports, the HTML and graph files will be supplied as a ZIP.  
The size of the embedded graphs is configurable, and graph embedding can be enabled for each report instance.  
Embedded graphs also honor business hour and business week exclusions, which are shown shaded.
- OpReports can now label nodes and interfaces with the name (as before) or optionally by custom naming property from NMIS.  
The GUI offers this option under the title "Node Naming" and "Interface Naming", similar in the schedules and the `opreports-cli` tool.  
Please note that using this feature requires NMIS version 8.6.0G or above.
- Better error handling for editing of both report schedule as well as on-demand reports.  
Should there be any mistakes or invalid inputs when a report schedule is edited, you will now get more precise feedback within the editing GUI.
- opReports now supports [more customisation options for HTML reports](#), including things like custom logos and the like.
- various bug fixes and minor improvements.

## opReports 3.0.8

This version of opReports was published on 17 Aug 2016 and is a preview/early-adopter's release with a number of new features.

### Highlights

- There are two new report types, [Node Availability and Interface Capacity](#).  
Please note that the exact contents of these reports may change somewhat up to the next major release.
- Nodes can now be labelled with their name (as before) or optionally with any node property in NMIS (unique or not).  
The GUI offers this option under the title "Node Naming", similar in the [schedules](#) and the [opreports-cli tool](#).  
Please note that using this feature requires either a customised `Table-Nodes.nmis`, or NMIS version 8.6.0G or above.
- HTML reports are now templated and can be adjusted by the customer.  
Please note that the exact data interface between opReports and the templates is subject to change, but will be finalised (and documented) by the next major release.
- opReports now produces higher-precision data in CSV and XLSX outputs (more decimals for fractional numbers), and the display of fractional numbers and interface speeds in HTML reports was reworked.
- The navigation/menu bar was updated for responsive operation and now works better on small screens.
- opReports now supports the concept of filtering by [Business Days](#), and the GUI by default offers the choice of unrestricted and 'monday to friday' business weeks.  
This feature is independent of but compatible with business hours filtering, i.e. you can use neither, one or both.
- All reports that display interfaces now include the interface description (aka `ifAlias`) as a separate column.
- The WAN report's status color is now based correctly on the worst interface of a node, and the restriction to only process nodes with an NMIS net type 'wan' was removed (see config option `wan_nettypes`).
- The HTML report footers now include the correct application version.
- Various installer robustness fixes and support for non-interactive installation, and simple uninstallation.
- and a variety of internal efficiency improvements and other minor adjustments.

## opReports 3.0.7

This maintenance release of opReports was published on 8 Apr 2016 and can be [downloaded here](#).

### Highlights

- Report schedules now support multiple email addresses (comma-separated).
- Node+Interface+Type selection files now work for scheduled reports.
- The schedule editing GUI now displays whether any perviously uploaded selection files are already present on the server.  
Repeated edit operations for uploadable selection files was made more robust.
- To simplify diagnostics, the opReports log now contains the actual report generator command line arguments for both on-demand and scheduled reports.

## opReports 3.0.6

This maintenance release of opReports was published on 16 Mar 2016.

### Highlights

- The multiprocessing code was made more robust, and the selftest should no longer report problems about not being able to run "df".
- Node and Group selections in the report generation gui are now sorted.
- Uploading of [Node+Interface+Type selection files](#) now works for on-demand reports.
- opReports' timezone handling was greatly extended.  
If you set the config option `omkd_display_timezone` to your desired timezone, then all times in the opReports GUI will be displayed in that timezone *and* including the timezone offset.  
You can use any timezone definition from the ISO8601 standard and the Olson database, plus "local" (meaning the timezone configured on the server).  
If this option is not set, the times will be shown in the "local" timezone but *without* zone offset. If explicitly set to "local", the offset suffix is shown.
- The WAN reports now show interface descriptions with interface names.

## opReports 3.0.4

This version is a maintenance release, primarily fixing bugs and various usability issues; it was released on 2 Dec 2015.

### Highlights

- opReports 3.0.4 now offers **free licenses which are not time limited (but limited to 20 nodes)**.
- opReports now supports optional [Single-Sign-On across servers](#).
- Report schedules by group ("Each" or specific group name) now works correctly.  
In 3.0.2 such reports were incorrectly rejected by the report generator, with the log message being "no nodes or interfaces found".
- A number of GUI pages were reworked for improved compatibility and usability.  
The schedule editor displays better checkboxes.  
Lists of nodes and groups are now sorted before display (for both scheduled and on-demand report creation).  
All irrevocable operations in the GUI now require confirmation.
- The new configuration option `opreports_application_heading` lets you change the page heading to a custom value.
- Various installer improvements and minor bug fixes.

## opReports 3.0.2

Version 3.0.2 was released on 4 Jun 2015. This is a stable, general release.

### Changes since the 3.0 pre-release

- The report scheduling system is now fully manageable from the GUI (but we also retained the ability of very direct control via JSON schedule files).
- Reports can now be deleted from the GUI, which also includes uncompleted reports whose generation has not been completed (due to misconfigurations for example).
- opReports now offers an authorisation mechanism for reports: you can optionally designate an NMIS group, whose members are the only users allowed to see a report.
- Only admin users can access the scheduling system. Non-admin users are only able to see reports they are authorised to see.
- The opReports installer was improved for greater robustness.
- Error reporting was improved.
- Integration between command-line tool and GUI was improved.

## opReports 3.0

Version 3.0 was released on 8 Apr 2015. This is a pre-release of the 3.X series of opReports; a general full release is expected to follow very soon.

### Highlights

- A new look and feel: the GUI was completely rebuilt and now behaves like our other modern applications.
- A new, flexible scheduling system: any number of repeated or one-off reports can be specified, each with their own parameters and options.
- A [number of new report types](#), both special-purpose as well as generic ones
- More flexibility: there are [new mechanisms for selecting nodes and interfaces](#), the report titles and the banners are configurable
- A comfortable interactive installer: opReports now uses the [Opmantek Installer](#) for installation and upgrades.
- Better archive management: You can now define how long (and where) opReports should keep particular reports (or classes of reports).
- Easier archive access: The opReports GUI now keeps track of all reports (scheduled or on-demand) and provides fast access to them.
- More output formats: reports can now be created in HTML (for both inline as well as standalone viewing), CSV and XLSX - all selectable.
- More self-contained outputs: reports are now saved together with their metadata, which captures all parameters and inputs of a report.
- Better exporting: You can now get a report in ZIP form from the GUI. The GUI also allows you to email that ZIP file to anybody.



- Nicer Emails: reports can be emailed to anybody (automatically on generation), and contain all selected formats as attachments.
- Easier Administration: opReports now has a self-test (for diagnosing common problems) and is much easier to configure than before.