Streamcore

Streamcore Software Suite Release 6-5.T10

Release Notes

v1.1

March 2021
Streamcore | 9, Allée de l'Arche – 92671 Courbevoie Cedex – FRANCE

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1 The Software Suite 6-5.T10

The Streamcore Software Suite is a set of software versions for the StreamGroomers and the SGM. This document contains the release notes of the Streamcore Software Suite 6-5.T10.

The Software Suite must be installed on the SGM with the SGMConf application.

The OPE and BOOT elements must be deployed on the StreamGroomers from the SGM with StreamView application. **Since the release 6.3, when an OPE is installed on a StreamGroomer, the SGM automatically deploys the latest versions of the BOOT and ACC modules. The BOOT version will only be active after reboot of the StreamGroomer (see 2.3 Activation of a Boot, ACC and OPE version below)**

This Software Suite contains the following software versions of the SGM and StreamGroomers:

```
Software Suite: 6-5.T10
Official OPE: 6-4.23
Official ACC: ACC25 (version 6.1.0-243)
Official Boot M4G64: S52
```

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2 IMPORTANT RECOMMENDATIONS

Before deploying this software release, please carefully read the following recommendations and contact the Streamcore Support if you have any questions.

2.1 Licensing

Since release 6-5.T06 the Streamcore Software-suite installs a new license management system that needs an update of the license currently used on the SGM.

If you already used a SGM in 6-5.T06 you don't need to update the license.

2.2 New password

From version 6-5.T06 the default passwords for the users ***sgm*** and ***sc*** are set to different values.

Please contact Streamcore support at support@streamcore.com to receive these new passwords.

2.3 Activation of a Boot, ACC and OPE version

Activating a new version of the OPE/ACC requires to reboot the StreamGroomer. During the reboot phase, the StreamGroomer is unreachable. Rebooting the StreamGroomer will automatically stop the following functions on the corresponding sites:

- Monitoring: No measurement (polling) is performed during the reboot and probably no statistics will be available for the corresponding period of 1 minute or 10 minutes in the Real Time and in the Long-Term graphs and reports. Groomings stops functioning and their status is set to *Down* status unless the Grooming has been configured to be managed temporary as a shaping.
- QoS and tagging: Traffic will not be prioritized nor tagged until the StreamGroomer has reloaded and activated its configuration.
- Load balancing: Load balancing is disabled on the site supported by the StreamGroomer
- WAN optimization: Accelerated TCP sessions will be broken.
- Netflow and monitoring: The StreamGroomers will stop sending Netflow tickets and traps/informs until has reloaded and applied its configuration.

It is strongly recommended to plan and schedule the reboot of the appliances to minimize the impact on the IT production workflows and activities of the end users.

It is recommended to activate the same Boot, OPE and ACC versions on the StreamGroomers of a Dual and Tandem configuration.

If WAN optimization, Groomings, QoS and Tagging or Load Balancing functionalities are used, it is strongly recommended to run the same versions of Boot, OPE and ACC software on both endpoints of a grooming or peering to prevent errors caused by inconsistency between the StreamGroomers.

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2.4 Software versions for M3G not available

Boot and OPE packages for M3G appliances are removed from the Streamcore Software Suite 6-4.12. The reason is that M3G appliances are EOL.

OPE version 6.1 is also removed from the Streamcore Software Suite. The reason is that Release 6.1 is EOL.

2.5 Updating to ACC25

- The content of the existing cache may be deleted from the StreamGroomer each time this SG is started with ACC25(cf. Known issues).
- ACC25 can work with others SG in ACC25 or ACC24 only (for future versions please check the corresponding release note).

2.6 Updating to Boot M4G64 S49 or later

A critical issue has been identified with boot versions up to S42 on SG360e, SG860e, SG1660e and SG3260e that impact the communication with the StreamGroomers and many other operations such as configuration, statistics measurement and collect, WAN optimization.

If the uptime of these StreamGroomers is longer than 200 days, the appliance can become unreachable after a software reboot (for example when activating an OPE version). The workaround is a hardware reboot (unplug and plug the power supply). To solve this issue, deploy the Boot S49 on these appliances and apply the new version as soon as possible by rebooting the StreamGroomer.

Streamcore highly recommends updating all the StreamGroomers with a boot version S49 or later as soon as possible.

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3 End of Support of the Software Suites

Please note the End of Support dates of the Streamcore Software Suites and Operational (OPE) software versions:

Software Suites	End of Support
6.3	**End of support since November 30th 2018**
6.4	December 31st 2021
6-5	Not planned

OPE	End of Support
6.2	Not planned
6.3	**End of support since November 30th 2018**
6.4	Not planned
6-5	Not planned

It is highly recommended to upgrade the SGM, StreamGroomers and StreamCollectors to the latest versions of the Streamcore Software Suite, OPE and Boot.

Do not hesitate to contact the Streamcore Support team (support@streamcore.com) or your sales representative for further details about the update path.

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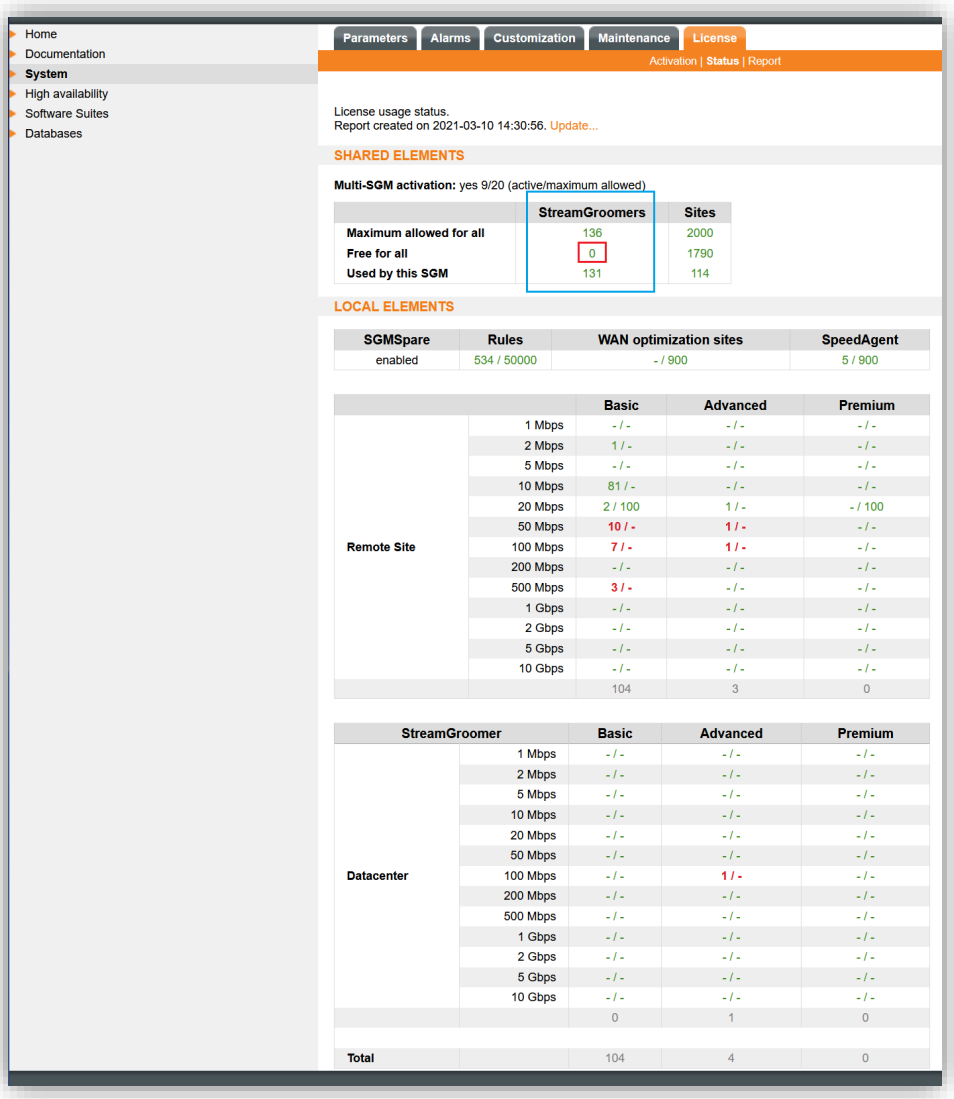
4 Improvements and new features

With this new release, Streamcore brings useful new features on its SGM and SG.

4.1 SGM 6-5.T10

4.1.1 Licensing with number of SG

To ease the distribution and control of StreamGroomers in virtual environments, the number of SG allowed to be managed by the different SGM running on the same license is now controlled. This number is limited with a value specified in the license.



In case of overpassing this limit the creation of a SG will still be possible, but this new SG will only be able to stay in a constrained status and just running in bypass mode.

A warning message is displayed to make aware of this limitation:

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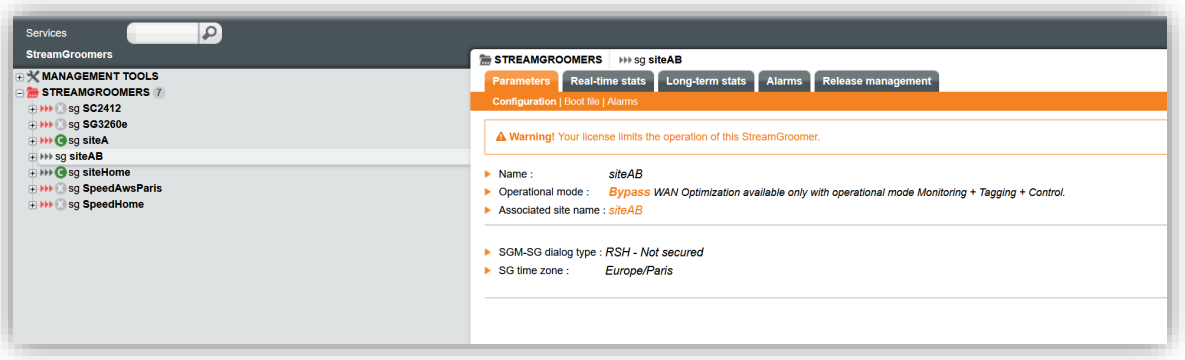
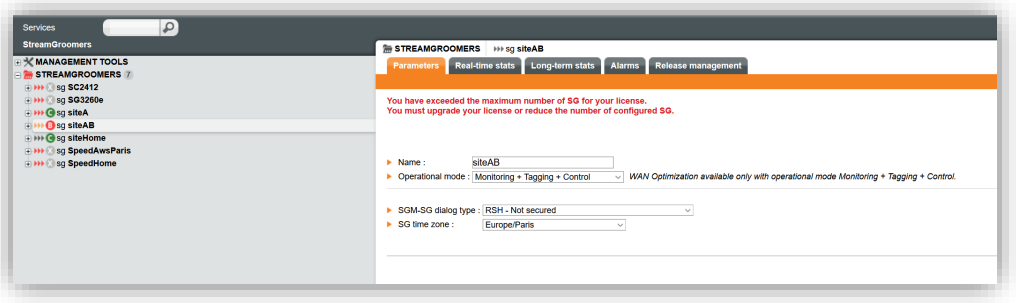
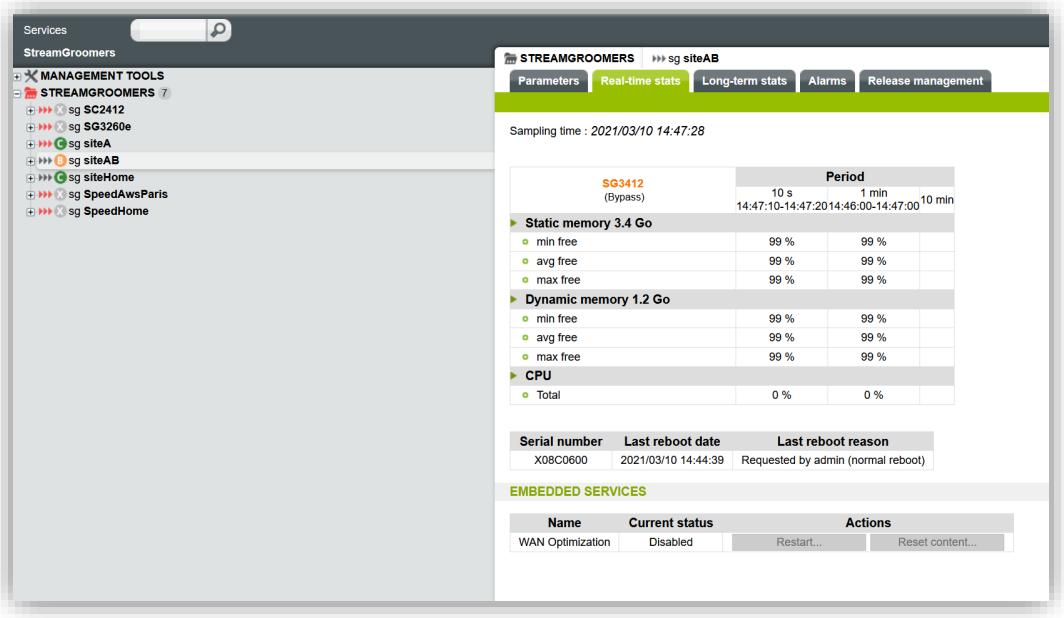


It will **not** be possible to configure this SG in Monitoring or QoS mode:



The SG stays in bypass mode:



You will need to delete already existing SGs or to ask to increase the number of SG to your license:

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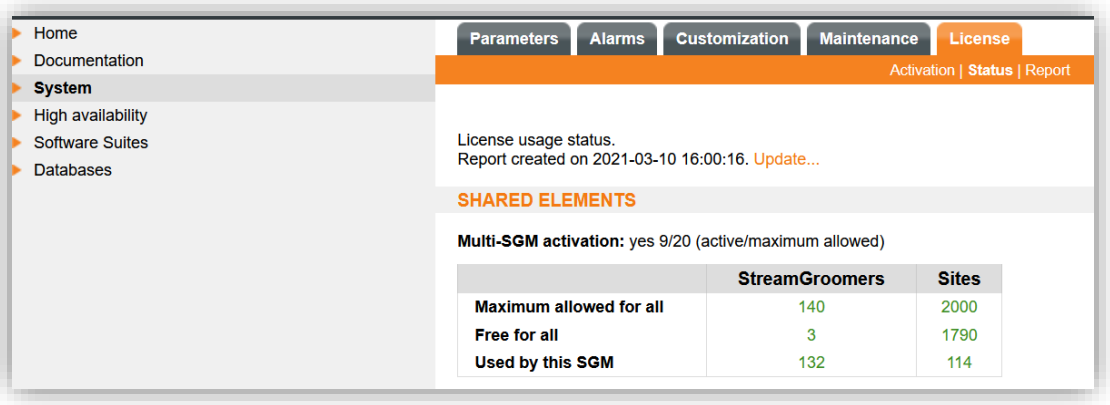
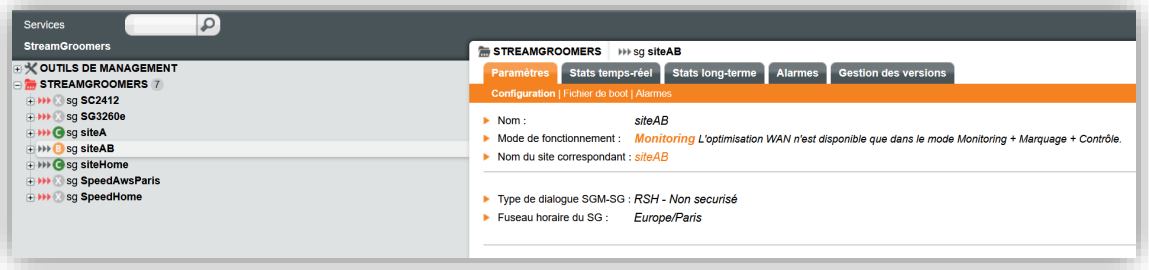
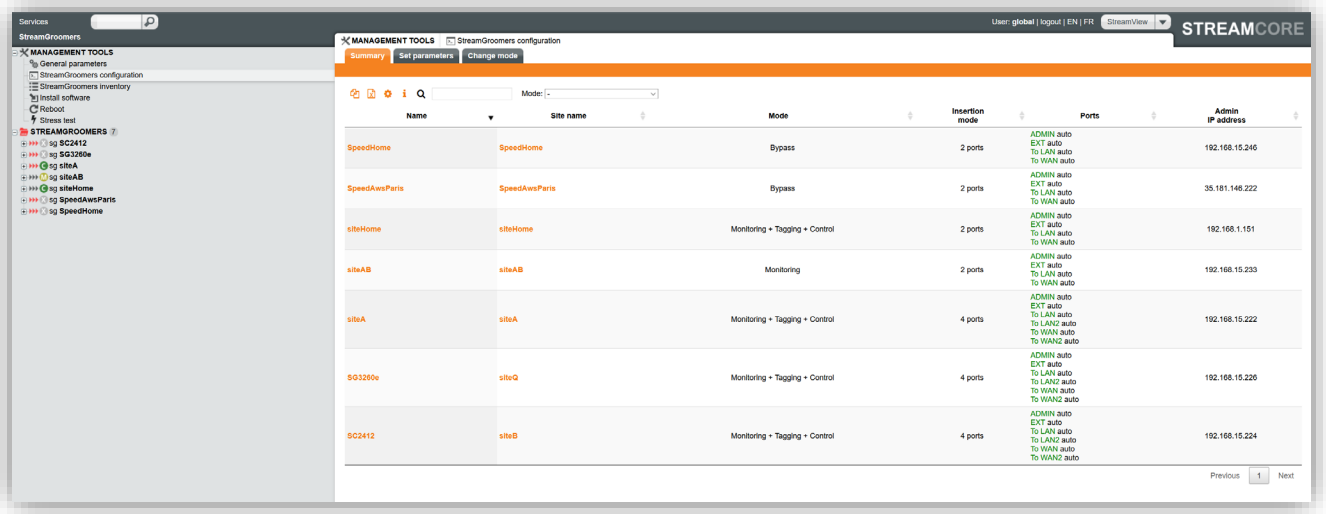


The new created SG can now be configured in monitoring or QoS mode:



4.1.2 StreamGroomers configuration

StreamGroomers configuration summary is displayed in a new table format:



where it is possible to add/remove printed fields.

All the configuration parameters of a SG are available for display and export.

It will be easier to spot differences or inconsistent configuration even among a large number of SG.

To add or remove one or more columns just click on the small gear and select the fields:

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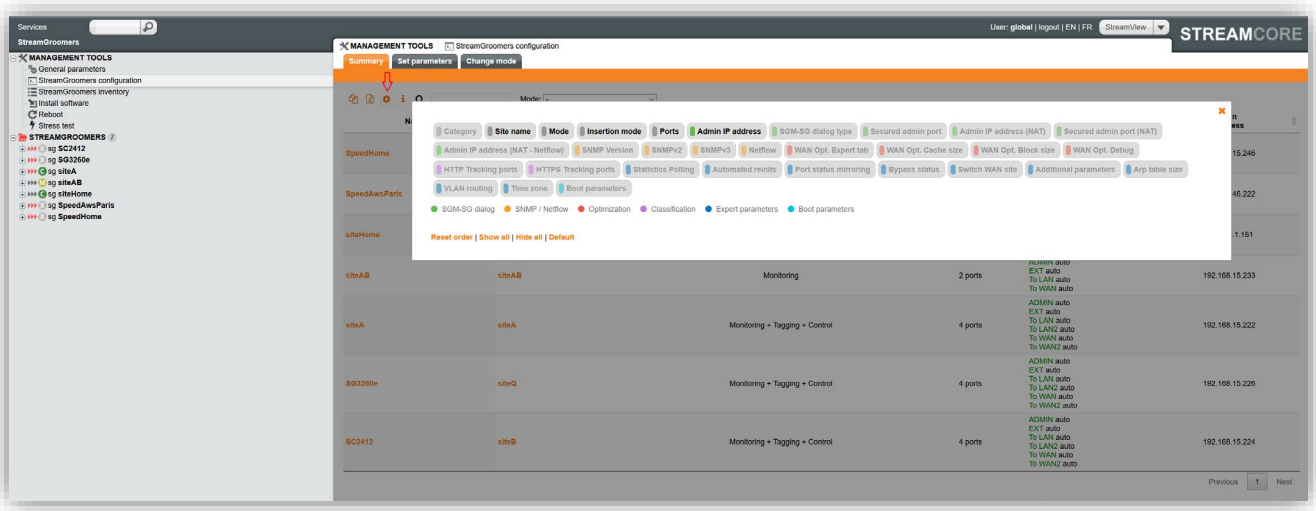

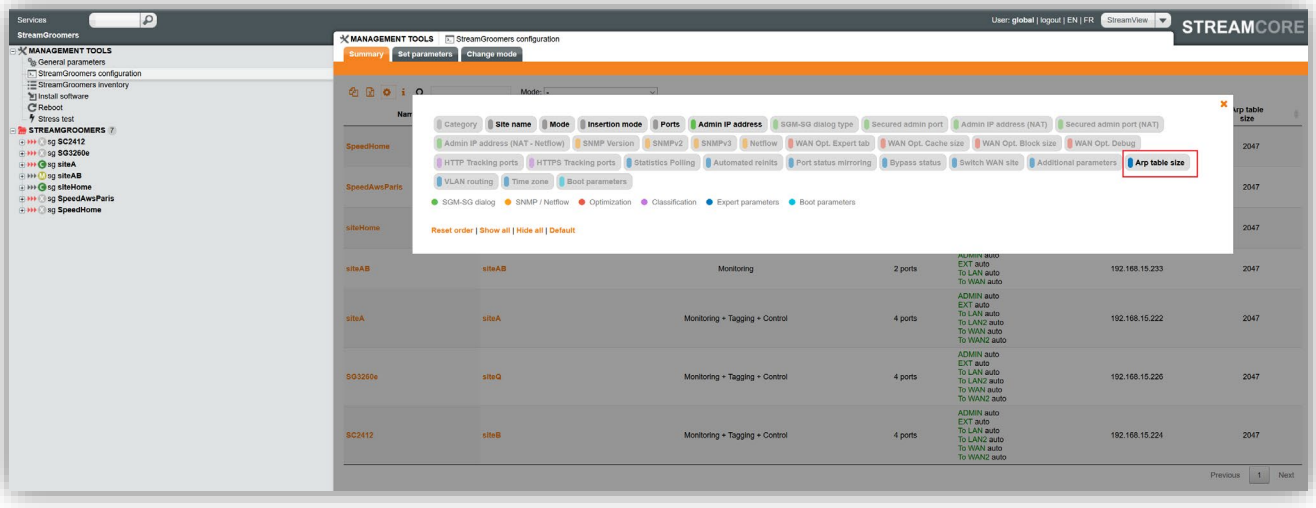

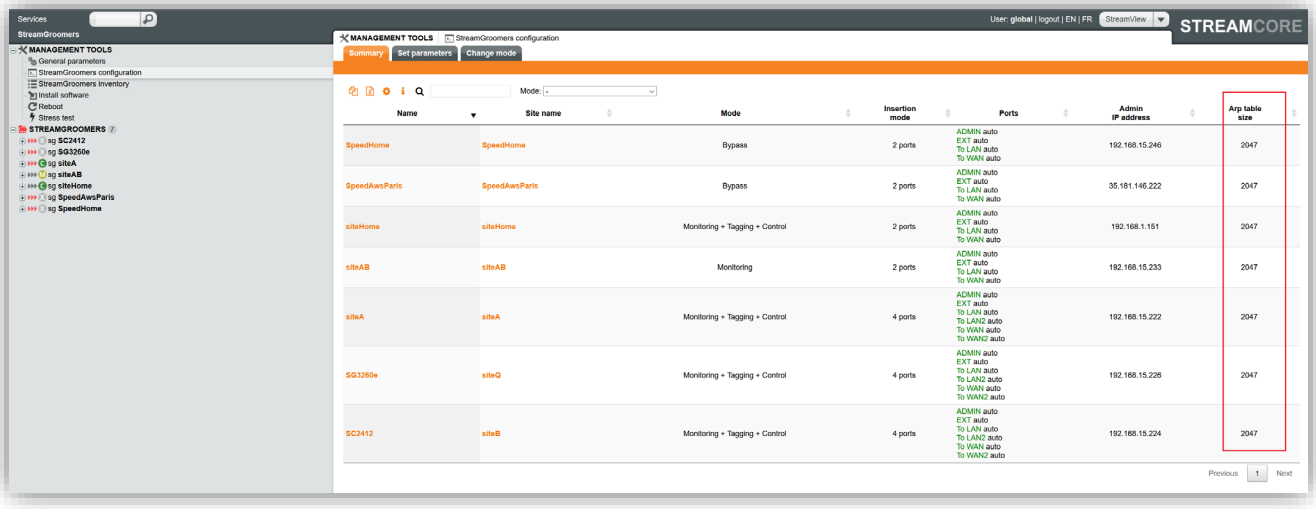

Fields can also be moved in a different place or sorted.

With this table it is also possible:

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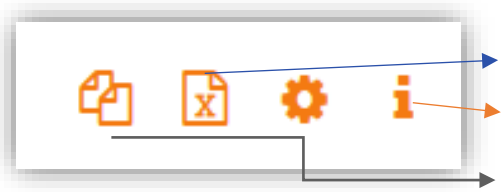


To export in an Excel table,

To display a help list,

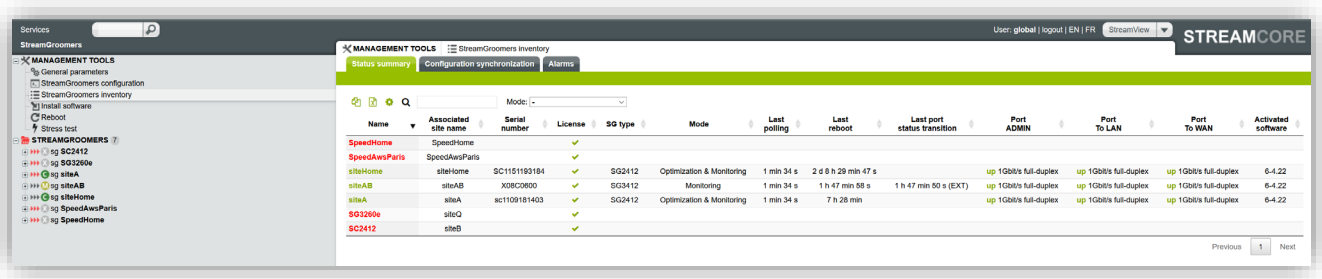
To copy the content into the clipboard of your PC.

4.1.3 StreamGroomers inventory

SG status summary is now automatically established during each polling.

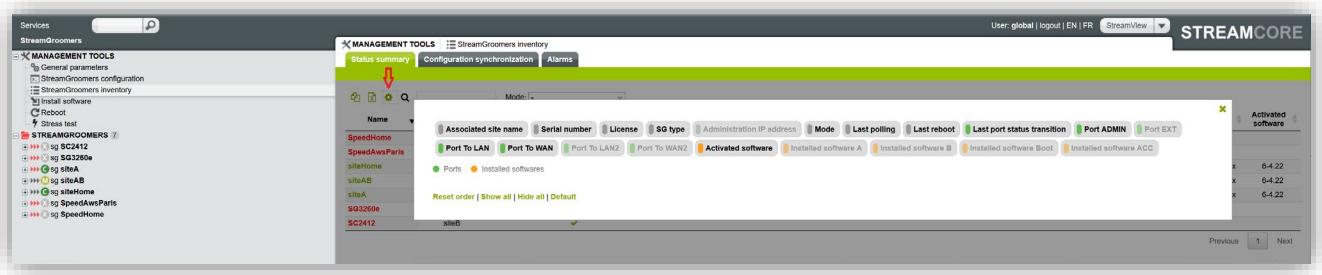
This means data are already available when asking an inventory, no need to ask to collect them.

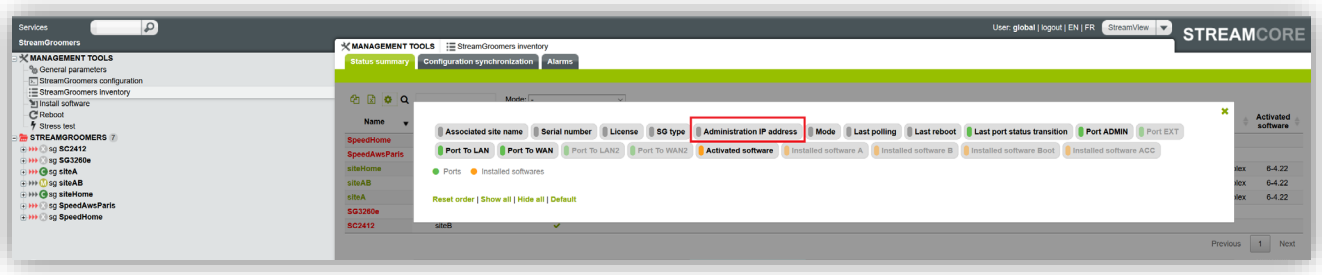
Therefore the "**On-demand inventory**" tab is now useless and, thus has been suppressed:



Data are displayed in the same new table content layout as the one used in the connections and sites tables.

With clicking on the little gear (see below) it is possible to ask the display of more (or less) columns:





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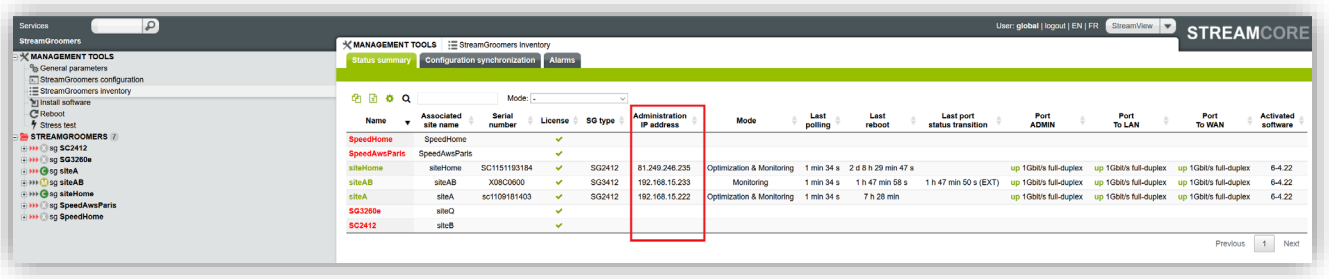
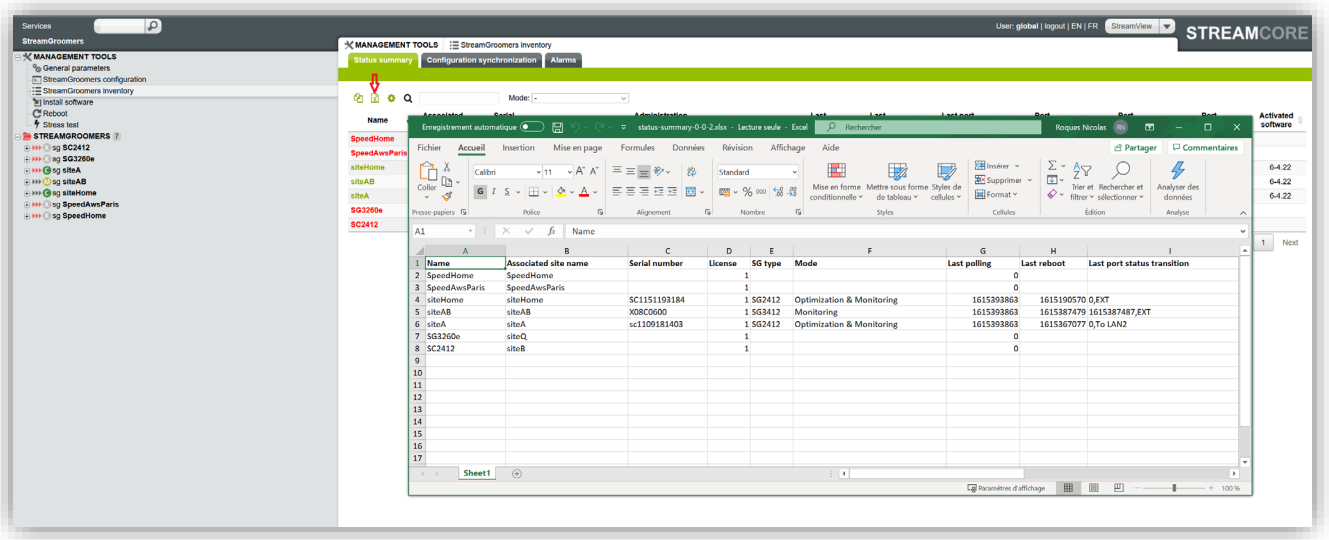


And to export the output into an Excel file:



4.1.4 StreamGroomer System indicators

Requires a S52 boot version on the SG.

The **Real-time stats** windows from a SG displays now a **SGSystemStas** table that will gather some system information about the SG:

- **Load average**: the Linux *loadavg* output presented in a CPU's capacity counter. This figure represents the percentage of the number of the different CPUs used by the system. So:
  - 50 indicates that half of the CPUs are in use and half are still available.
  - 100, all the different CPUs are in use, the system starts to be overcharged, some operations may wait for resources.
  - > 100 the system is overcharged, not enough CPU. Some processes are waiting for an available CPU.
- **RAM**: Memory usage
- **Disk**: disk occupation
- **Disk I/O counters**: read and write counters for the disks.
- **SSD**: if the SG contains one or more SSD displays some S.M.A.R.T. indicators computed from these disks: LBAs_read and LBAs_written attributes.

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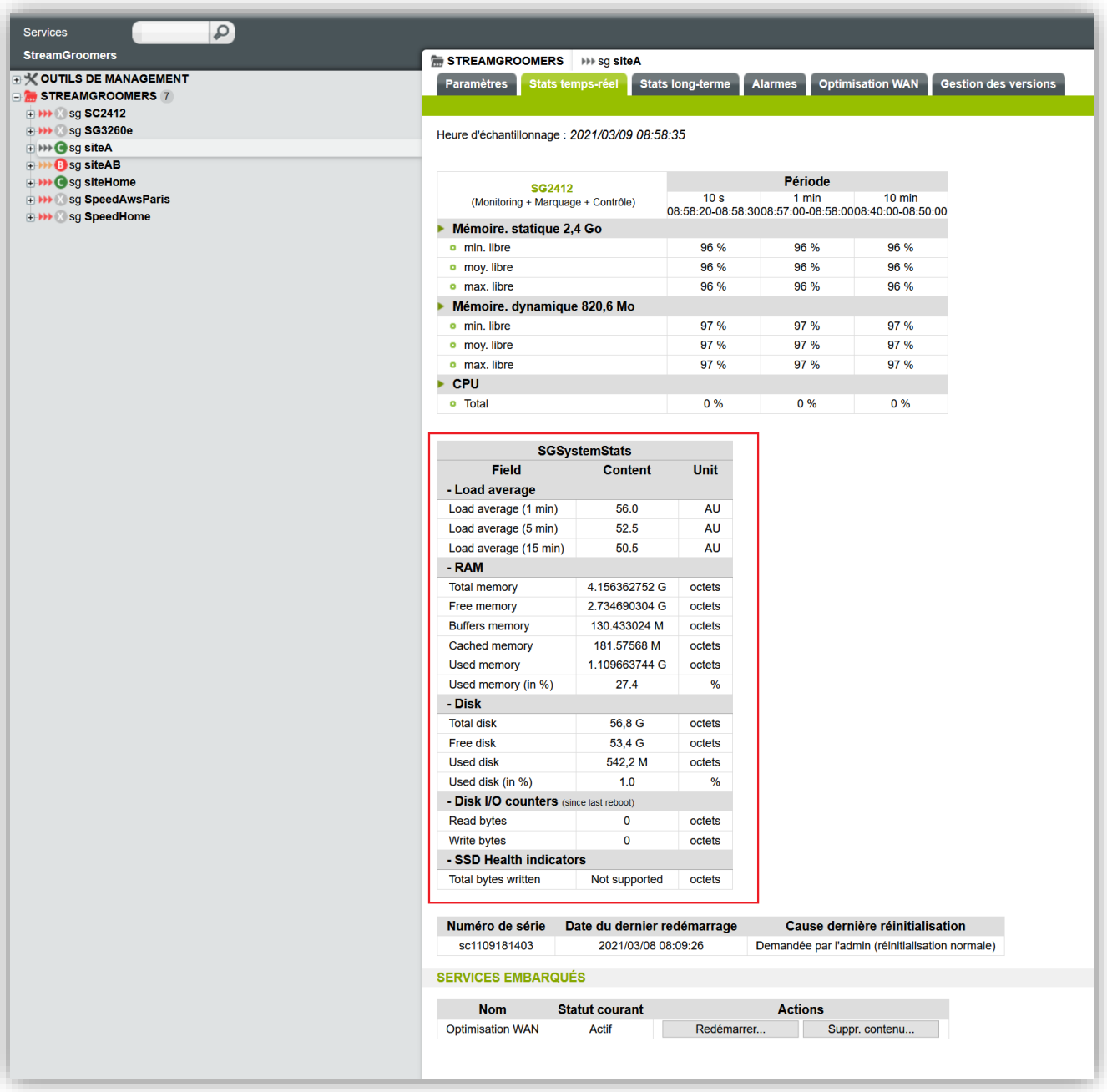

4.1.5 Expert mode

From this version when one selects, on any windows, the display of the "**expert mode**" information parameters then this display will stay for the following windows till "**normal mode**" is checked again:

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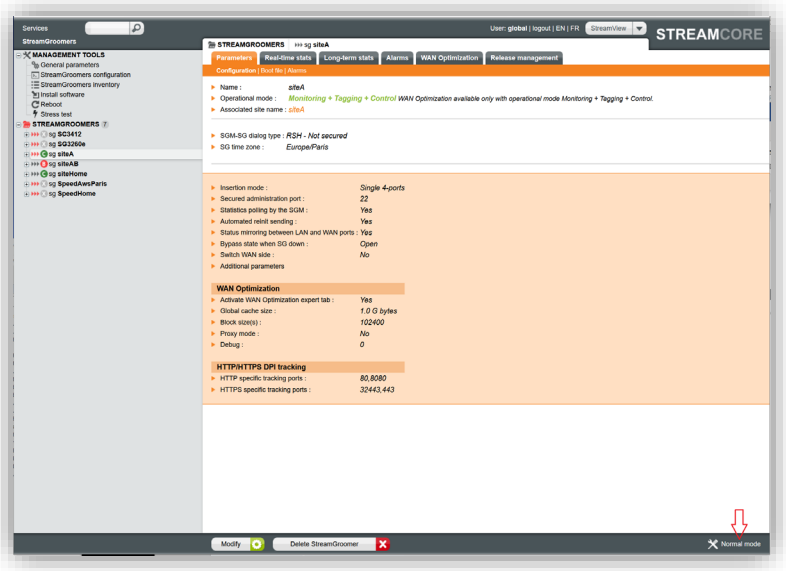
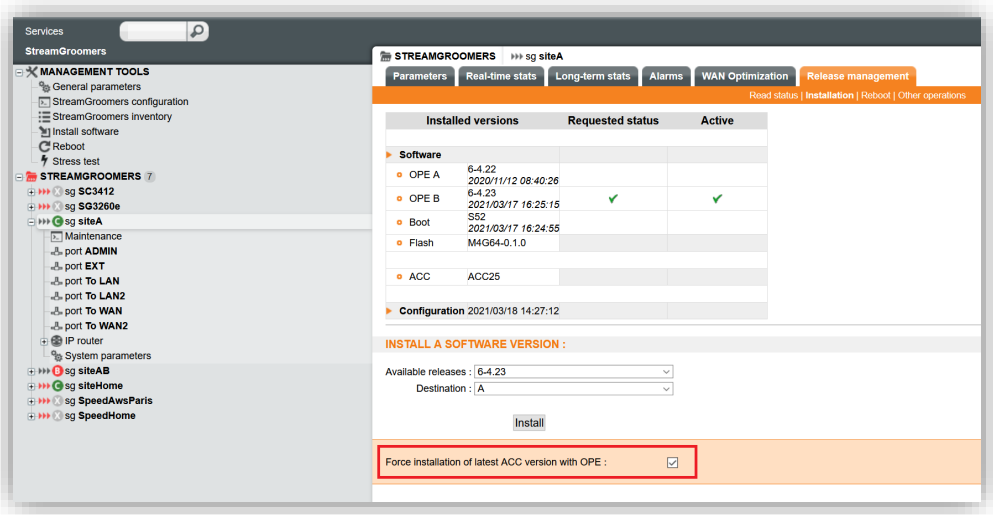


4.1.6 Automatic installation of the latest ACC

Installation of a new OPE on a SG did automatically triggered that of a new ACC if disponible on the SGM.

From version 6-5.T10 it is now possible to ask not launching this automatic installation.

The configuration is available in expert mode from the installation windows, with an "automatic installation" checked by default:



4.2 SG: OPE 6-4.23

4.2.1 QUIC flow and SNI

QUIC encryption key library has been updated. OPE 6-4.23 can read the SNI used in a QUIC connection up to the version 34 of the draft.

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4.2.2 Soft-Bypass

In a way to circumvent bad behavior when the SG reached a very high CPU load a new **Soft-bypass** mechanism was added to the OPE.

With this new mechanism when the SG reached a certain CPU load level the SG will act as a passthrough for the flow. And wait for the CPU load to lower for resuming monitoring or QoS processing.

This soft-bypass mechanism is implemented as follow:

three different CPU load thresholds are defined (0% … th0 … th1 … th2 … 100%):

1. CPU load reached **th1** level: all new connections traffic will run bypass through the SG.
2. CPU load reached **th2** level: all packets from all connections are running bypass through the SG.
3. CPU load goes down to **th1** level: only new connections will continue to go passthrough, already established connections' packets are processed again.
4. CPU load goes down to **th0**: resuming all the processing for all the packets.

This soft-bypass mechanism is, as for this 6-4.23 OPE version, **not activated by default**. Activation should be done by the Streamcore support upon request.

4.2.3 Classification workload indicator

Some new classification workload indicators are added to the debug information list on a SG:

- **perf_CLSF**: the number of classification operations launched.
- **perf_CLSF_filters**: the total number of filters used during these operations.
- **perf_CLSF_ratio**: represents the average number of filters used for one new connection (it is the perf_CLSF_filters /perf_CLSF ratio). The higher this number the more costly is a classification operation (in term of CPU processes).

To display the complete list of debugging information for a SG head to the real-time stats window where you will have to click on a tiny hidden spot at the bottom right (press Ctrl-a to get it visible):

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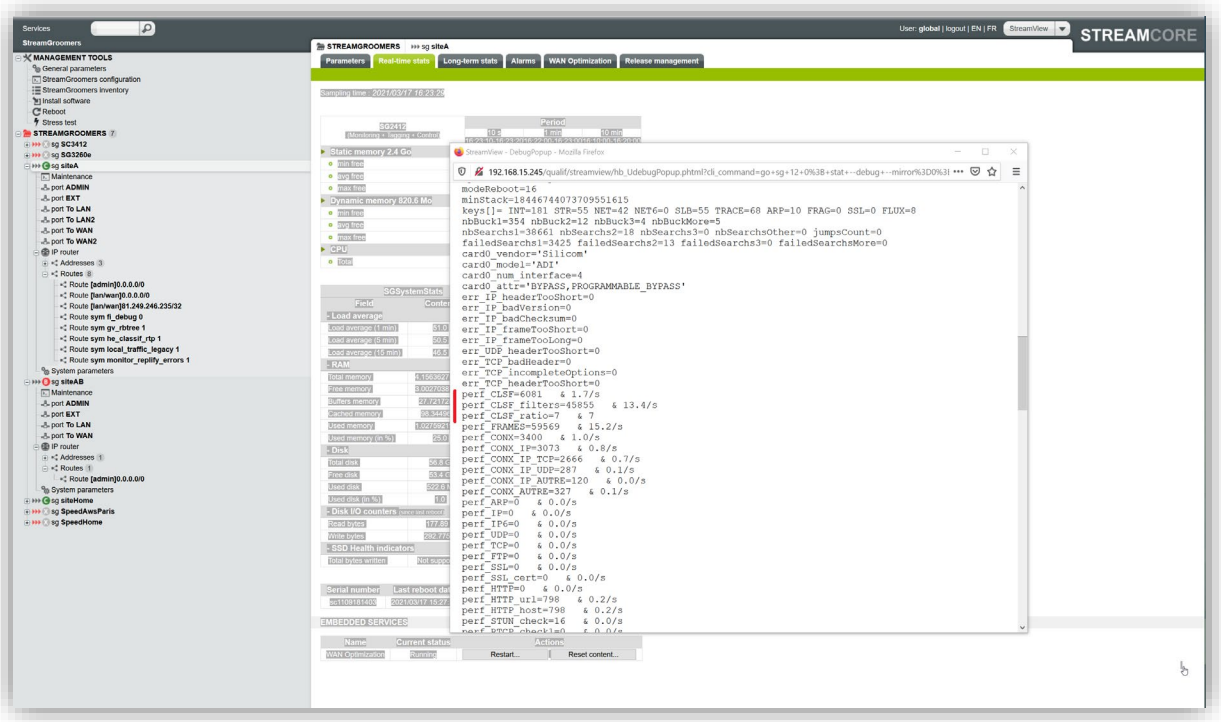

4.2.4 Improvement of SG's Grooming performances in Monitoring mode

Improve performance of grooming rules in Monitoring mode.

4.2.5 Local traffic classification

Since OPE version 6.3-x local traffic on a SG is first classified using an automatic rebound's detection algorithm before applying the filters declared on that rule.

Sometime this automatic detection proves to be not accurate enough and to collect to much of the traffic.

In such a situation it is now, from OPE **6-5.23**, possible to revert to the only use filters legacy classification for that local traffic rule.

In order to activate this "filter only classification" you have to create a particular route on the SG, a route named:

sym local_traffic_legacy 1 (only the name of the route is relevant here, other attributes just need to be filled with dummy values to allow the route creation):

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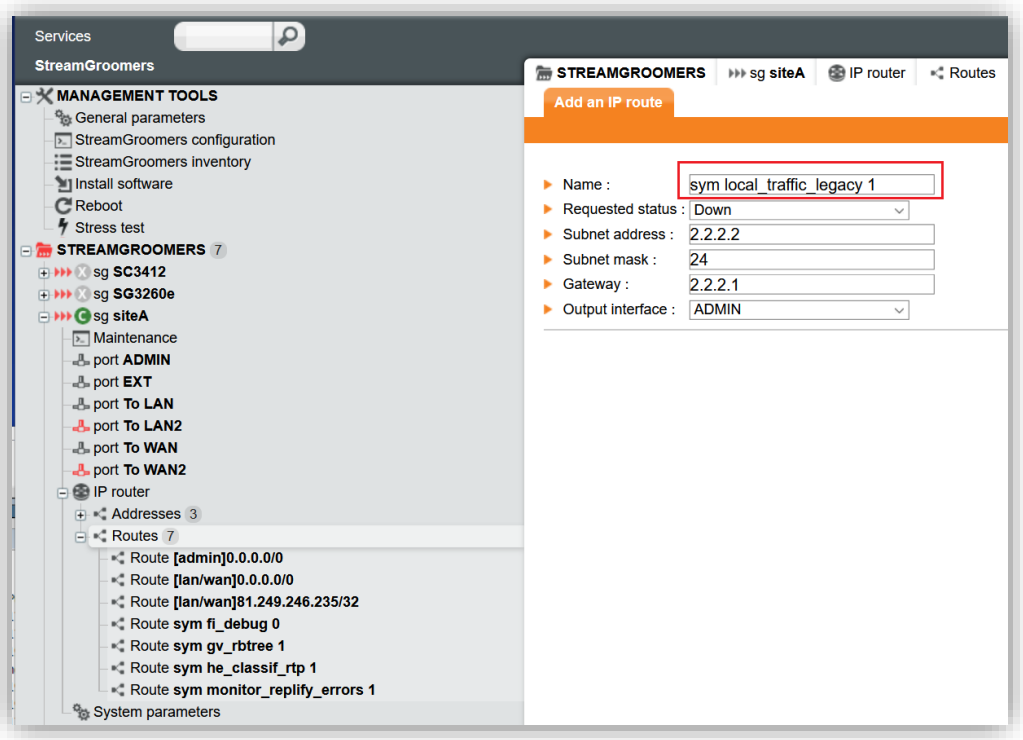

To go back to the previous version's classification, with automatic rebound detection, you need to rename this route as:

sym local_traffic_legacy 0

A simple route deletion will not make it.

4.3 SG: BOOT S52

4.3.1 System indicator

Cf. 4.1.4

4.4 ACC 25

- Performance improvements, particularly when accelerating TLS connections with SSL optimization enabled.
- Enhanced TLS Server Name (SNI) filtering capabilities
- Stability improvements when system is under load
- Enhanced configuration options around TLS configuration
- Newer compression, connection handling and logging frameworks

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5 Problems fixed by Software Suite 6-5.T10

All the components of the Software Suite are delivered as updated versions.

Note: In this Software Suite, the BOOT component is **S52**. It will be installed automatically by the SGM when an OPE is deployed on the StreamGroomers.

The following tables list the problems that have been fixed in release 6-5.T10 of the software suite and the new features if declared as [implemented]:

User Problem	Reference	Description of the problem that has been solved (SGM 6-5.T10)
		SGM 6-5.T10
	FB44178	[SGMConf] Alarms Syslog: Not able to configure the "Facility" field.
	FB46852	[Alarms] The Alarms table was not purged: with this version a 90 days period is used to clean the table. This is configurable.
SCC-1098	FB46890	[Matrix] some operations on the matrix were not effective (on lines and columns).
	FB48299	[SGMConf] Filters on "Alarms > Log" are not working
SCC-1318	FB48300	[StreamView] Creation of a site with a name with accent
	FB48305	[StreamView] A message "Import failed" is displayed when importing a category
	FB48309	[StreamAccess] User with no right can be created
	FB48314	[StreamView] Adding a group of rules in a macro-group failed
SCC-1323	FB48315	[StreamView] Macro group: adding a rule in one of the groups failed
SCC-1327	FB48318	[StreamView] Troubleshootings > Connections: names of rules are truncated
	FB48319	[StreamView] "WAN Optimization" tab reverts to « No »
SCC-1329	FB48321	[Alarms] No more "SG UNREACHABLE" alarm when the SGM could not reach the SG (during polling)
	FB48322	[StreamReport] Reports are generated with error: Argument "auto" isn't numeric.
	FB48323	[StreamView] Persistent « Expert mode » between pages.
	FB48324	[StreamView] Thousand separator in figures for graph's coordinates.
SCC-1331	FB48326	[Alarms] Alarm on EXT port for a single SG
	FB48331	[SG calling mode] Add warning when unpeering is asked.
	FB48332	[Acceleration] While installing an OPE on a SG one can now choose to not automatically add the new ACC.
	FB48335	[WAN Optimization] Allow to configure the size of caches before activating the acceleration (SG configuration in "expert mode").
SCC-1333	FB48336	[Matrix] No action when selecting a site with an accentuated name.

User Problem	Reference	Description of the problem that has been solved (OPE 6-4.23)
		OPE 6-4.23
	FB47062	Bad classification of accelerated FTP flow
SCC-1244	FB47067	Local traffic classification. Revert to only use filter classification. Cf. 4.2.4
	FB48301	Improve performance of grooming rules in Monitoring mode

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6 Known issues

The table below lists the known issues and provides a workaround if any.

Reference	Component	Known issue description	Workaround
FB46694	StreamView StreamAccess	Since Software Suite 6-4.S08 - Authentication with Radius does not work if the password contains the characters • Double quote " • Quote ' • Slash / • Exclamation point ! • Back slash \ • Brackets [and] • Star *	Change the Radius password avoiding using these characters.
FB42810	SG	StreamGroomers may reboot in a port mirroring configuration when capturing the traffic.	
-	SG	Grooming, dual and tandem mode do not function in high-performance mode.	Do not activate high performance mode.
FB44508	SGM	StreamView – There are no real time statistics on audio/video terminal rule when RTP+MOS measurements is selected.	
-	SG	In the WAN Optimization Profile definition, the FTP handler is not working. Only the control session is optimized.	FTP data traffic can be accelerated only through the Fallback handler.
-	SGM	StreamView – If we declare a server with a certificate while the corresponding SG is unreachable, the application server will not be considered for acceleration.	Work around: re-push the certificate and reboot the SG.
FB47230	SG	With ACC24 or latter and an old OPE (< 6-4.17) each restart (reboot) of the SG will erase the acceleration cache.	Upgrade to OPE 6-4.17 or later

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7 Installation & Deployment

Read carefully the recommendations below:

- CAUTION: On SG250e, the status mirroring between LAN and WAN ports does not work.
- After having started StreamGroomers in operational software, we strongly recommend checking the LAN and WAN port statistics (speed and duplex mode, CRC errors, collisions…) to avoid any configuration mismatch with interconnected equipment.
- We recommend connecting to the ADMIN port on the LAN side of the StreamGroomer.
- On SG350e, when switching from boot software (bypass closed) to operational software in bypass mode, then the bypass will open and close immediately, inducing 2 interface state changes. This operation may block the traffic for a few seconds.
- Directly connecting peripherals (mouse, keyboard, and screen) on the SGM must only be done for maintenance operations.

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8 Software Interoperability Rules

8.1 Upgrade Operation

Any upgrade is allowed according to the information provided in the migration guide.

Important: If the SGM is to be upgraded from 6.2 to 6.3 or later versions, it is mandatory to request a new Streamcore license before upgrading the SGM; if the license is not updated, some functionality may be disabled.

Important: To upgrade from v6.1 to v6.4 you must first upgrade to v6.2.

8.2 Downgrade Operation

Read carefully the rules:

- SGM: operation not allowed (data loss risk)
- SG OPE: operation allowed if the OPE vs Boot/System interoperability rules are met (see table below)
- SG Boot/System: operation not allowed (equipment crash risk)
- ACC Acceleration System: operation not allowed

8.3 Interoperability between components

Interoperability is guaranteed for an SGM in the following cases:

- SGSS 6.2 version with a SG in OPE 6.2, 6.1, 6.0 and 5.3
- SGSS 6.3 version with a SG in OPE 6.3, 6.2, 6.1, 6.0 and 5.3
- SGSS 6.4 version with a SG in OPE 6.4, 6.3, 6.2, 6.1, 6.0 and 5.3
- SGSS 6.5 version with a SG in OPE 6.4, 6.3, 6.2, 6.1, 6.0 and 5.3

Interoperability not guaranteed for an SGM with an older version than the OPE.

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The table below shows when the compatibility between the OPE versions and Boot versions is guaranteed:

Boot	OPE 6.1	OPE 6.2	OPE 6.3	OPE 6.4
S16 to S25	Yes	Not supported	Not supported	Not supported
From S26	Yes	Yes	Yes	Yes

The table below shows when the compatibility between the SGM versions and SCO versions is guaranteed:

SCO	SGSS 6.4	SGSS 6.5
To 1.2	Not Guaranteed	Not Guaranteed
To 1.3	Yes, for OPE >= 6-2	Yes, for OPE >= 6-2
From 6-5	Yes, for OPE >= 6-2	Yes, for OPE >= 6-2

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9 Technical Support

Streamcore Technical Support

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