

**UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
WACO DIVISION**

**BCS SOFTWARE, LLC,**

Plaintiff

v.

**SAMSUNG ELECTRONICS  
AMERICA, INC.,**

Defendant

**Case No. 6:19-cv-00235**

**JURY TRIAL DEMANDED**

**COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff BCS Software, LLC (“Plaintiff” or “BCS”) hereby asserts the following claims for patent infringement against Samsung Electronics America, Inc. (“Defendant or “Samsung”), and alleges, on information and belief, as follows:

**THE PARTIES**

1. BCS Software, LLC is a limited liability company organized and existing under the laws of the Texas with its principal place of business in Austin, Texas.
2. Samsung Electronics America, Inc. New York corporation having a principal place of business at 85 Challenger Road, Ridgefield Park, New Jersey 07660.

**JURISDICTION AND VENUE**

3. This action arises under the patent laws of the United States, 35 U.S.C. § 1, *et seq.* This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).
4. Samsung has committed acts of infringement in this judicial district.

5. On information and belief, Samsung has a regular and established place of business in this judicial district at 12100 Samsung Blvd, Austin, Texas 78754.
6. On information and belief, the Court has personal jurisdiction over Samsung because Samsung has committed, and continues to commit, acts of infringement in the state of Texas, has conducted business in the state of Texas, and/or has engaged in continuous and systematic activities in the state of Texas.
7. On information and belief, Samsung's instrumentalities that are alleged herein to infringe were and continue to be used, imported, offered for sale, and/or sold in the Western District of Texas.
8. Venue is proper in the Western District of Texas pursuant to 28 U.S.C. § 1400(b).

**U.S. PATENT NO. 7,890,809**

9. BCS is the owner, by assignment, of U.S. Patent No. 7,890,809 ("the '809 Patent"), entitled HIGH LEVEL OPERATIONAL SUPPORT SYSTEM, which issued on February 15, 2011. A copy of the '809 Patent is attached as **Exhibit A**.
10. The '809 Patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.
11. The '809 Patent was invented by Messrs. Blaine Nye and David Sze Hong.
12. The priority date for the '809 Patent is at least May 1, 2003.
13. The expiration date of the '809 Patent is August 21, 2023.
14. The '809 Patent has been referenced by 18 United States Patents, United States Patent Applications and foreign patents.
15. The '809 Patent was examined by United States Patent Examiner Joshua Lohn.

During the examination of the '809 Patent, the United States Patent Examiner searched for prior art in the following US Classifications: 714/38, 714/47, 719/320.

16. After conducting a search for prior art during the examination of the '809 Patent, the United States Patent Examiner identified and cited U.S. Patent No. 6,748,555 to Teegan et al as one of the most relevant prior art references found during the search.

17. After conducting a search for prior art during the examination of the '809 Patent, the United States Patent Examiner identified and cited U.S. Patent No. 6,862,698 to Shyu as one of the most relevant prior art references found during the search.

18. After conducting a search for prior art during the examination of the '809 Patent, the United States Patent Examiner identified and cited U.S. Patent No. 7,003,560 to Mullen et al as one of the most relevant prior art references found during the search.

19. After conducting a search for prior art during the examination of the '809 Patent, the United States Patent Examiner identified and cited U.S. Patent No. 7,100,195 to Underwood as one of the most relevant prior art references found during the search.

20. After conducting a search for prior art during the examination of the '809 Patent, the United States Patent Examiner identified and cited U.S. Patent Application No. 2003/0037288 by Harper et al as one of the most relevant prior art references found during the search.

21. After conducting a search for prior art during the examination of the '809 Patent, the United States Patent Examiner identified and cited U.S. Patent Application No. 2003/0204791 by Helgren et al as one of the most relevant prior art references found during the search.

22. After conducting a search for prior art during the examination of the '809 Patent, the United States Patent Examiner identified and cited U.S. Patent Application No. 2004/0073566 by Trivedi as one of the most relevant prior art references found during the search.

23. After conducting a search for prior art during the examination of the '809 Patent, the United States Patent Examiner identified and cited U.S. Patent Application No. 2004/0088401 by Tripathi et al as one of the most relevant prior art references found during the search.

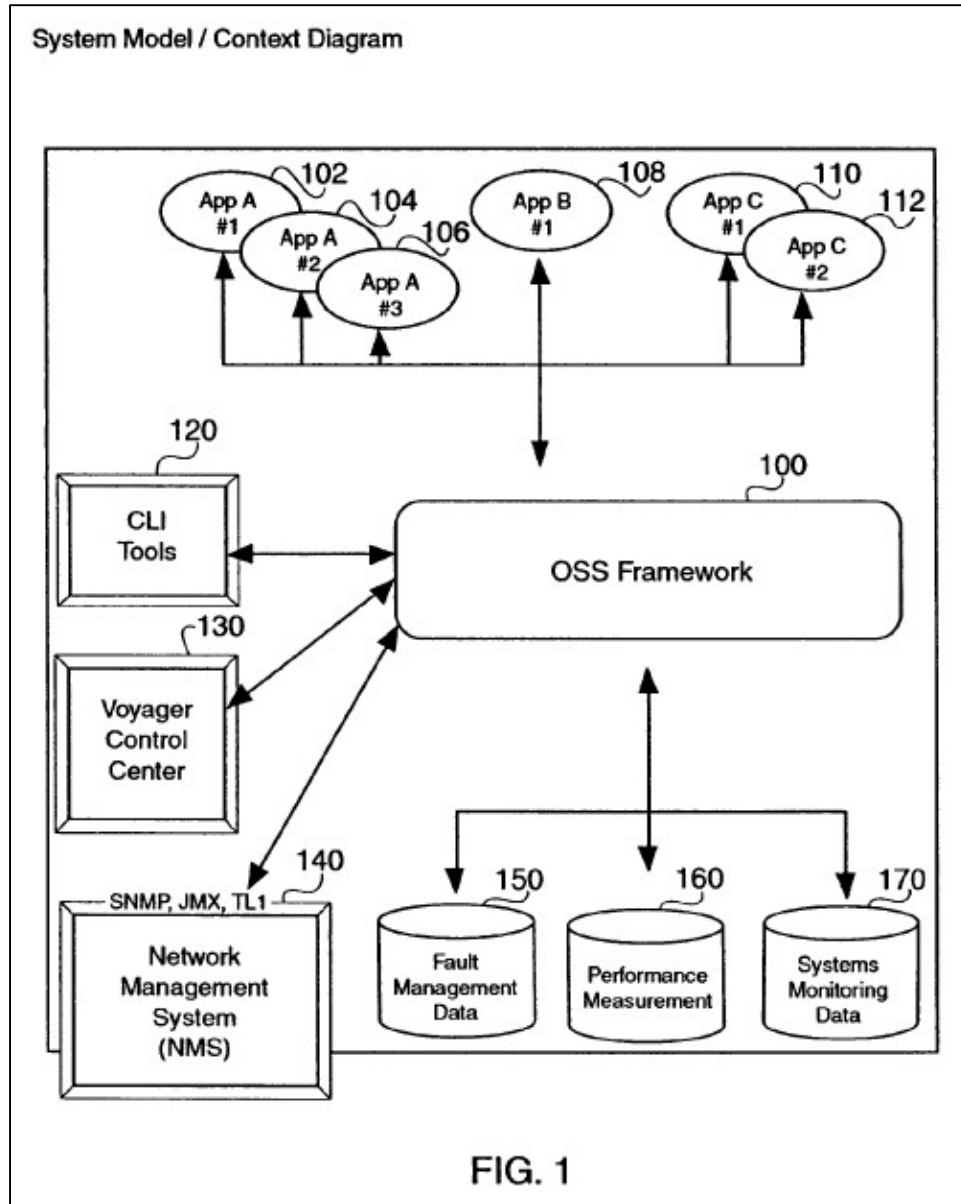
24. After conducting a search for prior art during the examination of the '809 Patent, the United States Patent Examiner identified and cited U.S. Patent Application No. 2005/0044535 by Coppert as one of the most relevant prior art references found during the search.

25. After conducting a search for prior art during the examination of the '809 Patent, the United States Patent Examiner identified and cited U.S. Patent Application No. 6,748,555 by Shyu as one of the most relevant prior art references found during the search.

26. The '809 Patent relates to:

A high level Operational Support System (OSS) framework provides the infrastructure and analytical system to enable all applications and systems to be managed dynamically at runtime regardless of platform or programming technology. Applications are automatically discovered and managed. Java applications have the additional advantage of auto-inspection (through reflection) to determine their manageability. Resources belonging to application instances are associated and managed with that application instance. This provides operators the ability to not only manage an application, but its distributed components as well. They are presented as belonging to a single application instance node that can be monitored, analyzed, and managed. The OSS framework provides the platform-independent infrastructure that heterogeneous applications require to be monitored, controlled, analyzed and managed at runtime. New and legacy applications written in C++ or Java are viewed and manipulated identically with zero coupling between the applications themselves and the tools that scrutinize them.

'809 Patent (Abstract).



*Id.* (Figure 1).

27. The field of the invention is to improvements in “wireless communication carriers. More particularly, it relates to operational support system (OSS), application/systems management, and network management.” *Id.*, col. 1:17-20.

28. As disclosed in the '809 Patent, “[m]any network management technologies exist that allow operators to manage applications and devices at runtime. For instance, SNMP, TL1 and JMX

each attempt to provide operators with the ability to manipulate and affect change at runtime.” *Id.*, col. 1:22-26.

29. As disclosed in the ’809 Patent, “[t]he fundamental of each is similar. It is to manipulate the objects of an application through messaging.” *Id.*, col. 1:26-27.

30. As disclosed in the ’809 Patent, “SNMP is the standard basic management service for networks that operate in TCP/IP environments. It is intended primarily to operate well-defined devices easily and does so quite successfully. However, it is limited to the querying and updating of variables.” *Id.*, col. 1:28-32.

31. As disclosed in the ’809 Patent, “Transaction Language 1 (TL1) is a set of ASCII-based instructions, or ‘messages,’ that an operations support system (OSS) uses to manage a network element (NE) and its resources. *Id.*, col. 1:32-35.

32. As disclosed in the ’809 Patent, “JMX is a Java centric technology that permits the total management of objects: not only the manipulation of fields, but also the execution of object operations. It is designed to take advantage of the Java language to allow for the discovery and manipulation of new or legacy applications or devices.” *Id.*, col. 1:35-40.

33. As disclosed in the ’809 Patent, “Operational Support for enterprise applications is currently realized using a variety of technologies and distinct, separate services. For instance, network management protocols (SNMP, JMX, TL1, etc.) provide runtime configuration and some provide operation invocation, but these technologies are not necessarily geared toward applications.” *Id.*, col. 1:40-45.

34. As disclosed in the ’809 Patent, “[s]ome are language specific (e.g., JMX) and require language agnostic bridging mechanisms that must be implemented, configured and maintained.

SNMP is generic (e.g., TL1 and SNMP) and very simple in nature, but it requires application developers to implement solutions to common OSS tasks on top of SNMP. *Id.*, col. 1:46-51.

35. As disclosed in the '809 Patent, “TL1 is also ASCII based and generic. However, while it is very flexible and powerful, it is another language that must be mastered, and it's nature is command line based. As a result, it is not intuitively based in presentation layer tools. While all the technologies have their respective benefits, they do not provide direct means of providing higher level OSS functionality. Conventionally, applications are monitored, analyzed and managed at runtime.” *Id.*, col. 1:52-59.

36. As disclosed in the '809 Patent, one or more claims “provid[e] a high level operational support system framework comprises monitoring a health of a plurality of applications. The health of the plurality of applications is assessed, and the health of the plurality of applications is analyzed, whereby each of the plurality of applications are managed dynamically at runtime regardless of a platform of each of the plurality of applications.” *Id.*, col. 1:64–2:3.

37. Consequently, the '809 Patent improves the computer functionality itself and represents a technological improvement to the operation of computers.

### **SAMSUNG PRODUCTS**

38. Upon information and belief, Samsung makes, uses, imports, sells, and/or offers for sale Samsung SyncThru software products (“**SyncThru**”), which is described by the Samsung website ([www.samsung.com](http://www.samsung.com)). and is exemplified by the following references:

- “SAMSUNG | Printer Solutions” (“**ST1**”), available at [https://www.samsung.com/us/printersolutions/device\\_print\\_mgmt.html](https://www.samsung.com/us/printersolutions/device_print_mgmt.html) (last accessed April 1, 2019);
- “Samsung. Printing Innovation” (“**ST2**”), available at <https://www.samsung.com/us/printersolutions/docs/PNT-Solutions-SyncThru6-Sales-Guide-9-2013.pdf> (last accessed April 1, 2019);

- “SyncThru Admin6 – 1.Installation” (“**ST3**”), *available at* <https://www.youtube.com/watch?v=S4j4Scd9UDw> (last accessed April 1, 2019);
- “Samsung Universal Print Driver 2 – User’s Guide” (“**ST4**”), *available at* [http://downloadcenter.samsung.com/content/UM/201304/20130423145353550/EN/UPD2\\_Guide\\_English.pdf](http://downloadcenter.samsung.com/content/UM/201304/20130423145353550/EN/UPD2_Guide_English.pdf) (last accessed April 1, 2019);
- “SyncThru Web Admin Service Administrator Manual” (“**ST5**”), *available at* [http://www.electis.co.il/files/Applications/SWAS%204.x/SWAS\\_main.pdf](http://www.electis.co.il/files/Applications/SWAS%204.x/SWAS_main.pdf) (last accessed April 1, 2019);
- “Installing the driver locally” (“**ST6**”), *available at* <http://downloadcenter.samsung.com/content/UM/201502/20150210172429741/EN/english/english/manual/CHDEICGB.htm?isToCLink=opened> (last accessed April 1, 2019);
- “Using SyncThru Web Service” (“**ST7**”), *available at* <http://www.samsungsetup.com/ts/manual/samsung%20c1810%20series/english/manual/CHDIBFBI.htm> (last accessed April 1, 2019);

39. The information contained in References **ST1-ST7** is incorporated by reference as if set forth fully herein.

40. The information contained in reference **ST1** accurately describes the operation and functionality of the SyncThru software product.

41. The information contained in reference **ST2** accurately describes the operation and functionality of the SyncThru software product.

42. The information contained in reference **ST3** accurately describes the operation and functionality of the SyncThru software product.

43. The information contained in reference **ST4** accurately describes the operation and functionality of the SyncThru software product.

44. The information contained in reference **ST5** accurately describes the operation and functionality of the SyncThru software product.



45. The information contained in reference **ST6** accurately describes the operation and functionality of the SyncThru software product.

46. The information contained in reference **ST7** accurately describes the operation and functionality of the SyncThru software product.

**COUNT I**  
**(Infringement of U.S. Patent No. 7,890,809)**

47. BCS incorporates paragraphs 1-37 herein by reference.

48. Samsung has been on notice of the '809 Patent at least as early as the date it received service of this complaint.

49. Upon information and belief, Samsung has infringed and continues to infringe one or more claims, including Claim 1, of the '809 Patent by making, using, importing, selling, and/or, offering for sale the SyncThru software product.

50. Samsung, with knowledge of the '809 Patent, infringes the '809 Patent by inducing others to infringe the '706 Patent. In particular, Samsung intends to induce its customers to infringe the '809 Patent by encouraging its customers to use the SyncThru software product.

51. Samsung also induces others, including its customers, to infringe the '809 Patent by providing technical support for the use of the SyncThru software product.

52. Upon information and belief, at all times Samsung owns and controls the operation of the SyncThru software product in accordance with an end user license agreement.

53. Claim 1 of the '809 Patent recites:

1. A method of providing a high level support framework, comprising:

monitoring from a physical server a health of a plurality of client applications and a health of said plurality of client applications' distributed components, using a common monitoring protocol, said monitoring being independent of a programming technology of said plurality

of client applications and respective distributed components;

assessing said health of said plurality of client applications and said respective distributed components; and

associating said health of said plurality of client applications and said respective distributed components as belonging to a single application node.

54. With the SyncThru, Samsung provides a high-level operational support system framework.

## SyncThru™ Admin 6 Overview

**Fleet management software**

IT administrators can manage staff and users, monitor and diagnose devices remotely.

▷ **Increase the user efficiency and productivity of the customer's organization**



- Discovery network devices
- Fleet Management
- Real-time Monitoring
- Detail analyze & report

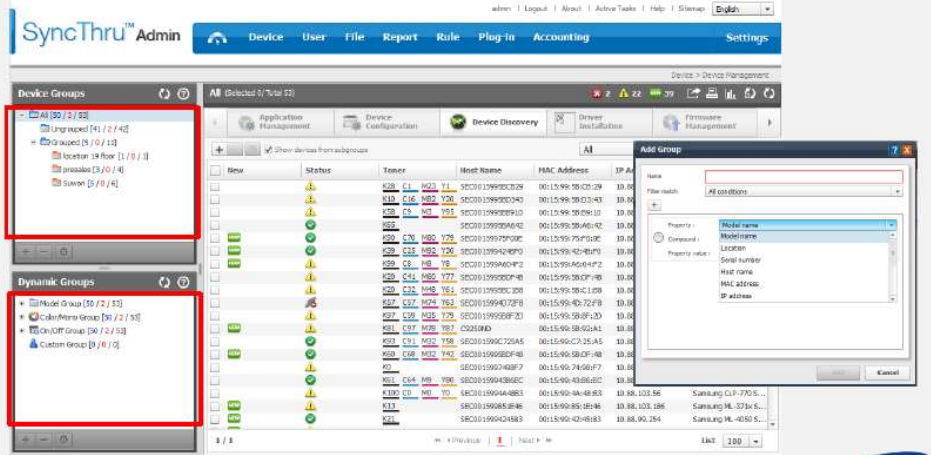


Source: ST2.

## SyncThru™ Admin 6 Overview

**Main Feature – Fleet management based on group**

Provide a way for organizing devices into groups.  
Managing devices of group using group filter.



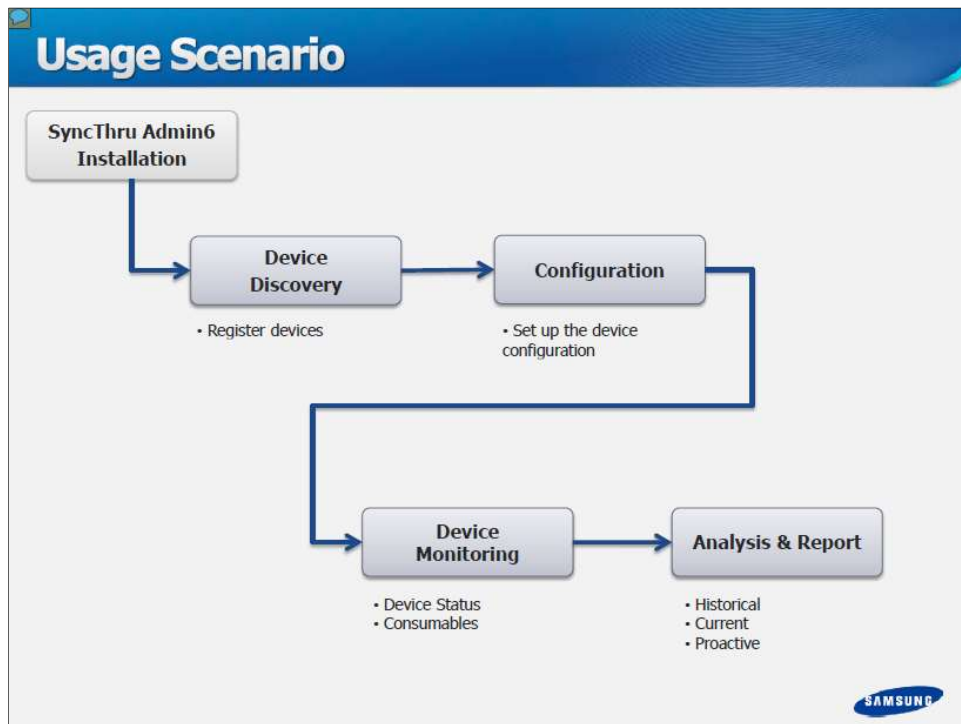
ID	Model	IMEI	MAC	IP	Status	
428	C1	M23	T1	SEC01159900208	00:15:99:38:C3:29	33.36
418	C16	M82	V26	SEC01159900343	00:15:99:38:C3:43	33.36
426	C1	M1	Y51	SEC01159900910	00:15:99:38:69:10	33.36
422	C20	M82	V26	SEC01159904902	00:15:99:38:69:10	33.36
424	C16	M82	V26	SEC01159904900	00:15:99:38:69:10	33.36
420	C1	M82	V26	SEC01159904902	00:15:99:38:69:10	33.36
422	C20	M82	V26	SEC01159904900	00:15:99:38:69:10	33.36
424	C16	M82	V26	SEC01159904902	00:15:99:38:69:10	33.36
426	C1	M82	V26	SEC01159904900	00:15:99:38:69:10	33.36
428	C1	M82	V26	SEC01159904902	00:15:99:38:69:10	33.36
430	C1	M82	V26	SEC01159904900	00:15:99:38:69:10	33.36
432	C1	M82	V26	SEC01159904902	00:15:99:38:69:10	33.36
434	C1	M82	V26	SEC01159904900	00:15:99:38:69:10	33.36
436	C1	M82	V26	SEC01159904902	00:15:99:38:69:10	33.36
438	C1	M82	V26	SEC01159904900	00:15:99:38:69:10	33.36
440	C1	M82	V26	SEC01159904902	00:15:99:38:69:10	33.36
442	C1	M82	V26	SEC01159904900	00:15:99:38:69:10	33.36
444	C1	M82	V26	SEC01159904902	00:15:99:38:69:10	33.36
446	C1	M82	V26	SEC01159904900	00:15:99:38:69:10	33.36
448	C1	M82	V26	SEC01159904902	00:15:99:38:69:10	33.36
450	C1	M82	V26	SEC01159904900	00:15:99:38:69:10	33.36
452	C1	M82	V26	SEC01159904902	00:15:99:38:69:10	33.36
454	C1	M82	V26	SEC01159904900	00:15:99:38:69:10	33.36
456	C1	M82	V26	SEC01159904902	00:15:99:38:69:10	33.36
458	C1	M82	V26	SEC01159904900	00:15:99:38:69:10	33.36
460	C1	M82	V26	SEC01159904902	00:15:99:38:69:10	33.36
462	C1	M82	V26	SEC01159904900	00:15:99:38:69:10	33.36
464	C1	M82	V26	SEC01159904902	00:15:99:38:69:10	33.36
466	C1	M82	V26	SEC01159904900	00:15:99:38:69:10	33.36
468	C1	M82	V26	SEC01159904902	00:15:99:38:69:10	33.36
470	C1	M82	V26	SEC01159904900	00:15:99:38:69:10	33.36
472	C1	M82	V26	SEC01159904902	00:15:99:38:69:10	33.36
474	C1	M82	V26	SEC01159904900	00:15:99:38:69:10	33.36
476	C1	M82	V26	SEC01159904902	00:15:99:38:69:10	33.36
478	C1	M82	V26	SEC01159904900	00:15:99:38:69:10	33.36
480	C1	M82	V26	SEC01159904902	00:15:99:38:69:10	33.36
482	C1	M82	V26	SEC01159904900	00:15:99:38:69:10	33.36
484	C1	M82	V26	SEC01159904902	00:15:99:38:69:10	33.36
486	C1	M82	V26	SEC01159904900	00:15:99:38:69:10	33.36
488	C1	M82	V26	SEC01159904902	00:15:99:38:69:10	33.36
490	C1	M82	V26	SEC01159904900	00:15:99:38:69:10	33.36
492	C1	M82	V26	SEC01159904902	00:15:99:38:69:10	33.36
494	C1	M82	V26	SEC01159904900	00:15:99:38:69:10	33.36
496	C1	M82	V26	SEC01159904902	00:15:99:38:69:10	33.36
498	C1	M82	V26	SEC01159904900	00:15:99:38:69:10	33.36
500	C1	M82	V26	SEC01159904902	00:15:99:38:69:10	33.36

Source: ST2.

### Major Changes

	SyncThru 5.0	SyncThru 6.0
Mobile Dashboard	No	Yes
Automated Task (Rule management)	No	Yes
SNS Notification	No	Yes (Twitter)
<sup>3rd</sup> party Plug-in (SDK)	No	Yes
E-mail Notification	Alert Management	Any Type
Type of Widgets	7	8
SNMP Agent <small>Collect local (USB connected) device information</small>	No	Yes
Reports	18	23 (SLA*)
Default plug-in	Job accounting	Yes
	Map	No
	driver	Move to main menu
	Application	Move to main menu

Source: ST2.



Source: ST2.

## Device Discovery

► **Find network and local devices on various network environments**  
 : Various discovery methods allow user to select the proper discovery method based on user's environment  
 : Support SNMPv3 and IPv6

To Find **specific** Devices (Active discovery)

The diagram illustrates a network topology with a central 'SyncThru™ Admin' server. It shows various discovery methods: 'IP Broadcast' (represented by a printer icon), 'Local Devices' (represented by a printer icon), 'LDAP' (represented by a server icon), and 'SLP IP Range CSV Importing' (represented by a printer icon). The network is depicted with a central switch and multiple branches connecting to various devices.

Source: ST2.

## Device Configuration

► **To Configure Devices' Properties**  
 : Admin can configure devices without leaving their offices.  
 : Admin can configure multiple **devices at a time**  
 : Admin can **export device properties** from device

Configure different values for multiple devices by using CSV importing

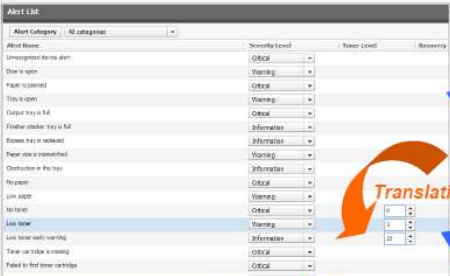
The screenshot shows the 'Device Configuration' window. On the left, a 'SyncThru™ Admin' server is connected to three assets labeled 'Asset\_1', 'Asset\_2', and 'Asset\_3', all located on the '30th floor'. The main window displays 'Configuration Settings' with a tree view on the left and an 'Action List' table on the right.

Feature	Action List
System	
Action	
General	
Host name	
Location	30th Floor
Contact	
Asset number	
Distributor	
Custom field	

Source: ST2.

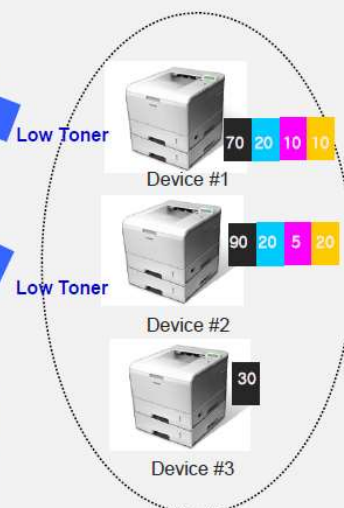
## User defined alert management

► **Customization alerts**  
 Admin can have customized severity levels and define values



Alert List

Alert Name	Severity Level	Toner Level	Reserved
Unrecognized device alert	Critical		
Device is open	Warning		
Paper is jammed	Critical		
Toner is open	Warning		
Color tray is full	Critical		
Front panel is not full	Information		
Power tray is not closed	Information		
Paper size is mismatched	Warning		
Disturbance in the tray	Information		
No paper	Critical		
Low paper	Warning		
No toner	Critical		
Low toner	Warning		
Low level warning	Information		
Toner cartridge is missing	Critical		
Failed to feed toner cartridge	Critical		



Low Toner

Low Toner

Device #1


Device #2

Device #3

Let's define low toner when remaining toner is 5%

Administrator PC

Final information for users	
Normal	: Device #1
Low Toner	: Device #2
Normal	: Device #3

39 

Source: ST2.

## New Feature 2. Mobile Dashboard

You don't need to sit in front of your PC monitor. You can get the essential information for managing devices through a mobile phone.  
 => You can manage your devices more efficiently.

**Can't check device status in the outside**


John, a service staff member was on a week-long vacation. On the last day of vacation, suddenly he received a call from his manager.

Three MFPs being used by a customer had stopped and the IT manager complained to his manager.

Two MFPs had empty toner and the other was reading a fuser error.

John couldn't check the device status before the vacation because he visited another customer the whole day.


**\* Caution**  
 Usually company network is intranet. In this environment, IT admin should open the web port to allow access from outside through the internet.




**Mobile Dashboard**

If you use Mobile Dashboard, you can check device status at anytime. In John's case, if he used Mobile Dashboard, he could have checked the status on the road so he could have prepared toner for his customer.

Mobile dashboard address  
 - <http://<server ip:port>/m/index.htm>





Source: ST2.

SAMSUNG SYNCTHRU ADMIN 6

Efficiently manage, monitor and diagnose multiple printing devices remotely with a robust printer fleet management solution  
Samsung SyncThru™ Admin 6 is a robust printer fleet management solution that helps organizations increase their efficiency and productivity. This tool is easy to install, and allows IT administrators and support staff to manage, monitor and diagnose multiple printing devices remotely, saving your business time and reducing operational costs. In addition, SyncThru collects summary data on an ongoing basis and can deliver status and analysis reports that can assist a user to ensure their print infrastructure maintains an advanced, professional performance level.

Source: ST1.

INTERACTIVE WIDGETS



Interactive Widgets Enable Administrators To Manage Fleets With Greater Ease

The SyncThru Admin 6 PC Dashboard uses visually stunning interactive widgets to help users manage multiple devices across their entire print infrastructure. Up to 5,000 devices can easily be monitored on a single screen. Each widget is displayed as an image, pie chart, table or columns, ensuring that your data is always legible and easy to analyze. In addition, every widget is directly linked to a related report or device list which can be viewed on demand.

Source: ST1.

MOBILE DASHBOARD



Mobile Dashboard Displays The PC Interface On Your Mobile Device

Users can monitor printers with ease even when away from the office thanks to the Mobile Dashboard. This feature helps increase efficiency and productivity by displaying select PC Dashboard widgets on a wide range of smartphone and tablet devices connected to the company's intranet. With the capability of managing print devices on the move, administrators can respond quicker than ever to events and errors. Real-time SMS notifications are sent to a PC or mobile device alerting administrators to interruptions or print-related issues.

Source: ST1.

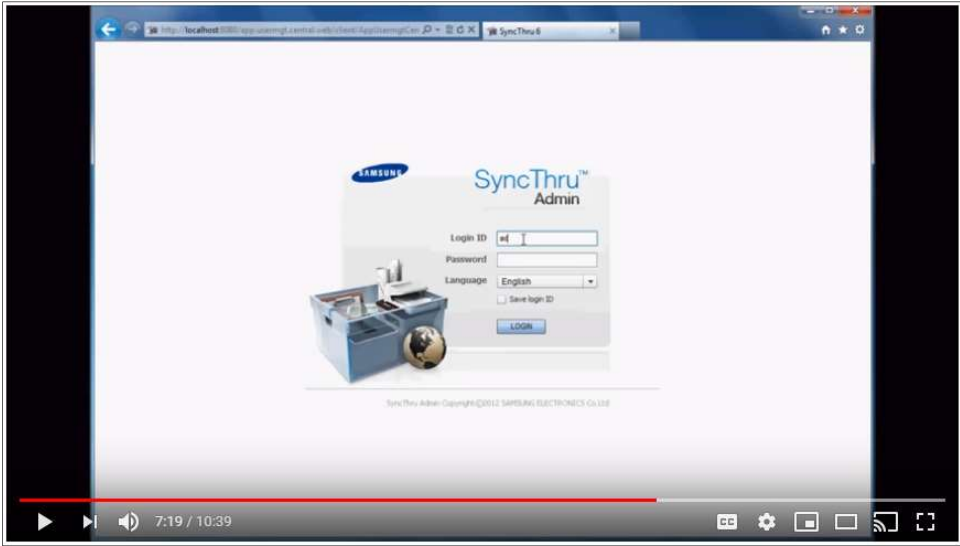
AUTOMATED TASK MANAGER



Automate Repetitive Tasks Using The Automated Task Manager

The SyncThru Admin 6 Automated Task Manager saves users time by streamlining the processing of recurrent tasks. When devices are added or removed from the fleet, or their state changes or they issue an error message, SyncThru can react automatically by sending a Tweet or e-mail message or applying a pre-defined configuration. This feature simplifies Install, Move, Add, Change and Disposal (IMACD) processes, meaning a new device can be integrated into or withdrawn from the appropriate device group automatically and seamlessly. Rules are simple to set through an automated Wizard process.

Source: ST1.



Source: **ST3**.

55. With the SyncThru software product, Samsung monitors health of client applications and health of the distributed components of the client applications using a common monitoring protocol, which is independent of the programming technology of the client applications and distributed components.

**SUPPORTED PRINTERS**

The list below is based on the UPD2 Ver.2.50.00.00.

Newer devices(models) will be added accordingly. Visit <http://www.samsung.com/printer> for the latest supported printers.

Device(Model)		Driver			
Series	Model Number	UPD2	UPD2 PCL6	UPD2 PS	UPD2 XPS
<b>Color Models</b>					
CF-	5100P				
	530 Series		X	X	X
	555P				
	5800P/6800				
CLP-	300/310/320 Series	O	X	X	X
	350 Series	O	O	O	O
	360 Series	O	X	X	O
	410 Series	O	O	O	O
	500/510 Series	O	X	X	X
	550 Series	O	O	O	X
	600 Series	O	X	X	X
	610/620 Series	O	O	X	X
	650/660/670 Series	O	O	O	X
	680 Series	O	O	O	O
	770 Series	O	O	O	X
	775 Series	O	O	O	O

Source: **ST4**.



### Supported Printers

Any printer directly connected to the network that supports SNMP and the standard printer MIB, RFC 1759, is supported.

- All Samsung Network Printers and MFPs
- Other SNMP compliant printers and MFPs

Network SNMP Printers and MFPs should support the following Request for Comments (RFC) standards:

- RFC 1213 (MIB-II for TCP/IP)
- RFC 1759 (Printer MIB v1)
- RFC 3805 (Printer MIB v2)
- RFC 3806 (Printer Finishing MIB)
- RFC 1514 / RFC 2790 (Host Resources MIB v1, v2)

Source: **ST5**.

### Installing the driver locally

A locally connected machine is a machine directly attached to your computer using the cable.



- Only use a USB cable no longer than 3 meters (118 inches).
- **Samsung Printer Experience** app can only be used in the **Start** screen when V4 driver is installed. The V4 driver is automatically downloaded from the Windows Update if your computer is connected to the Internet. If not, you can manually download the V4 driver from Samsung website, [www.samsung.com](http://www.samsung.com) > find your product > Support or downloads.
- If you install the driver using the supplied software CD, V4 driver is not installed. If you want to use the V4 driver in the **Desktop** screen, you can download from the Samsung website, [www.samsung.com](http://www.samsung.com) > find your product > Support or downloads.

Source: **ST6**.

**Information tab**

This tab gives you general information about your machine. You can check things, such as remaining amount of toner. You can also print reports, such as an error report.

- **Active Alerts:** Shows the alerts that have occurred in the machine and their severity.
- **Supplies:** Shows how many pages are printed and amount of toner left in the cartridge.
- **Usage Counters:** Shows the usage count by print types: simplex and duplex.
- **Current Settings:** Shows the machine's and network's information.
- **Print information:** Prints reports such as system related reports, e-mail address, and font reports.

Source: ST7.

**Security tab**

This tab allows you to set system and network security information. You need to log-in as an administrator to view this tab.

- **System Security:** Sets the system administrator's information and also enables or disables machine features.
- **Network Security:** Sets settings for HTTPs, IPSec, IPv4/IPv6 filtering, 802.1x, and Authentication servers.
- **User Access Control:** Classifies users into several groups according to each user's role. Each user's authorization, authentication and accounting will be controlled by the group's role definition.

Source: ST7.

4. If it is a Samsung device with HDD, you can see the **Job Manager** button at left frame of the embedded web server page.


The screenshot shows the 'Information' tab of a printer's web interface. The left sidebar contains a 'Job Manager' button. The main content area displays the following information:

- Supplies Status:**
  - Black Toner : Ready
  - Drum Cartridge : Ready
- Paper Sources:**
  - Copy Tray : Tray 1
- Input Trays:**
  - Tray 1 : Ready
  - MP Tray : Empty

Additional details on the right side of the page include a printer icon, a timestamp '19-06-2007 16:43', a warning 'Tray 1 Paper Low', and a 'Refresh' button.

Source: ST5.

## Using SyncThru™ Web Service



- Internet Explorer 6.0 or higher is the minimum requirement for SyncThru™ Web Service.
- SyncThru™ Web Service explanation in this user's guide may differ from your machine depending on its options or models.
- Network model only (see [Software](#)).

---

### Accessing SyncThru™ Web Service

1. Access a web browser, such as Internet Explorer, from Windows.  
 Enter the machine IP address of your printer (<http://xxx.xxx.xxx.xxx>) in the address field and press the Enter key or click **Go**.
2. Your machine's embedded website opens.

Source: **ST7**.

**Information tab**

This tab gives you general information about your machine. You can check things, such as remaining amount of toner. You can also print reports, such as an error report.

- Active Alerts:** Shows the alerts that have occurred in the machine and their severity.
- Supplies:** Shows how many pages are printed and amount of toner left in the cartridge.
- Usage Counters:** Shows the usage count by print types: simplex and duplex.
- Current Settings:** Shows the machine's and network's information.
- Print information:** Prints reports such as system related reports and font reports.

---

**Settings tab**

This tab allows you to set configurations provided by your machine and network. You need to log-in as an administrator to view this tab.

- Machine Settings tab:** Sets options provided by your machine.
- Network Settings tab:** Shows options for the network environment. Sets options such as TCP/IP and network protocols.

---

**Security tab**

This tab allows you to set system and network security information. You need to log-in as an administrator to view this tab.

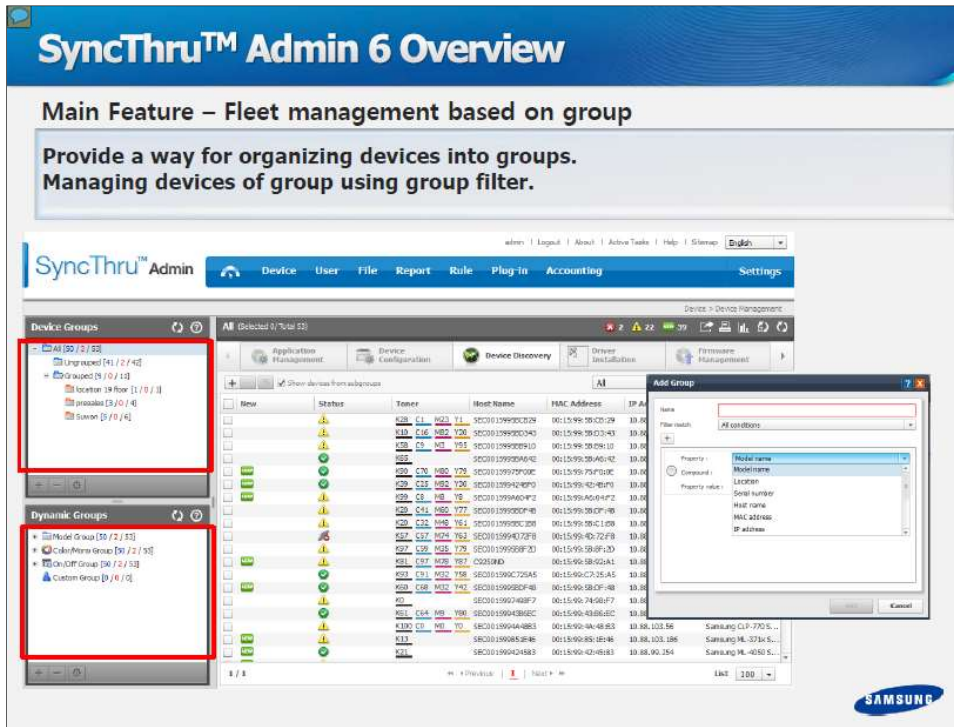
- System Security:** Sets the system administrator's information and also enables or disables machine features.
- Network Security:** Sets settings for IPv4/IPv6 filtering.

Source: **ST7**.

<b>Browser</b>	<ul style="list-style-type: none"> <li>Microsoft Internet Explorer 8.0 or higher</li> <li>Mozilla Firefox 3.6.8 or higher</li> <li>Browser needs Adobe Flash Player 10.1 or higher</li> </ul>
<b>Network</b>	<ul style="list-style-type: none"> <li>• Network interface:                             <ul style="list-style-type: none"> <li>- Ethernet 10/100 Base-TX</li> </ul> </li> <li>• Network protocols:                             <ul style="list-style-type: none"> <li>- TCP/IP (compatible with IPv6)</li> <li>- Device communication : SNMP, SNMPv3, HTTP, WMI</li> <li>- SyncThru™ 6.0 server &amp; client communication: HTTP, HTTPS</li> </ul> </li> </ul>

Source: **ST2**.

56. With the SyncThru software product, Samsung assesses the health of the client applications and distributed components.



Source: ST2.

### SUPPORTED PRINTERS

The list below is based on the UPD2 Ver.2.50.00.00.

Newer devices(models) will be added accordingly. Visit <http://www.samsung.com/printer> for the latest supported printers.

Device(Model)		Driver			
Series	Model Number	UPD2	UPD2 PCL6	UPD2 PS	UPD2 XPS
<b>Color Models</b>					
CF-	5100P				
	530 Series				
	555P	O	X	X	X
	5800P/6800				
CLP-	300/310/320 Series	O	X	X	X
	350 Series	O	O	O	O
	360 Series	O	X	X	O
	410 Series	O	O	O	O
	500/510 Series	O	X	X	X
	550 Series	O	O	O	X
	600 Series	O	X	X	X
	610/620 Series	O	O	X	X
	650/660/670 Series	O	O	O	X
	680 Series	O	O	O	O
	770 Series	O	O	O	X
	775 Series	O	O	O	O

Source: ST4.

## Supported Printers

Any printer directly connected to the network that supports SNMP and the standard printer MIB, RFC 1759, is supported.

- All Samsung Network Printers and MFPs
- Other SNMP compliant printers and MFPs

Network SNMP Printers and MFPs should support the following Request for Comments (RFC) standards:

- RFC 1213 (MIB-II for TCP/IP)
- RFC 1759 (Printer MIB v1)
- RFC 3805 (Printer MIB v2)
- RFC 3806 (Printer Finishing MIB)
- RFC 1514 / RFC 2790 (Host Resources MIB v1, v2)

Source: **ST5**.

## Installing the driver locally

A locally connected machine is a machine directly attached to your computer using the cable.



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- **Samsung Printer Experience** app can only be used in the **Start** screen when V4 driver is installed. The V4 driver is automatically downloaded from the Windows Update if your computer is connected to the Internet. If not, you can manually download the V4 driver from Samsung website, [www.samsung.com](http://www.samsung.com) > find your product > Support or downloads.
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Source: **ST6**.

## INTERACTIVE WIDGETS



Interactive Widgets Enable Administrators To Manage Fleets With Greater Ease

The SyncThru Admin 6 PC Dashboard uses visually stunning interactive widgets to help users manage multiple devices across their entire print infrastructure. Up to 5,000 devices can easily be monitored on a single screen. Each widget is displayed as an image, pie chart, table or columns, ensuring that your data is always legible and easy to analyze. In addition, every widget is directly linked to a related report or device list which can be viewed on demand.

Source: **ST1**.

## What You Can Do With Device Grouping

► **To Group Devices For Effective Management**

- Administrators can create groups according to their intention.
- Grouping by location, department or model is useful to manage multiple devices.

**With Consumables Groups, you can monitor consumables status in Dashboard:**

**In Device List, you can see Group Summary**

**You can do perform operations based on Groups:**

- Firmware Upgrade
- Configuration
- File Storage
- Analysis & Reports

**Device Groups**

- All [50 / 2 / 53]
- Ungrouped [41 / 2 / 42]
- Grouped [9 / 0 / 11]
  - Location 19 Floor [1 / 0 / 1]
  - presales [3 / 0 / 4]
  - Suivon [5 / 0 / 6]

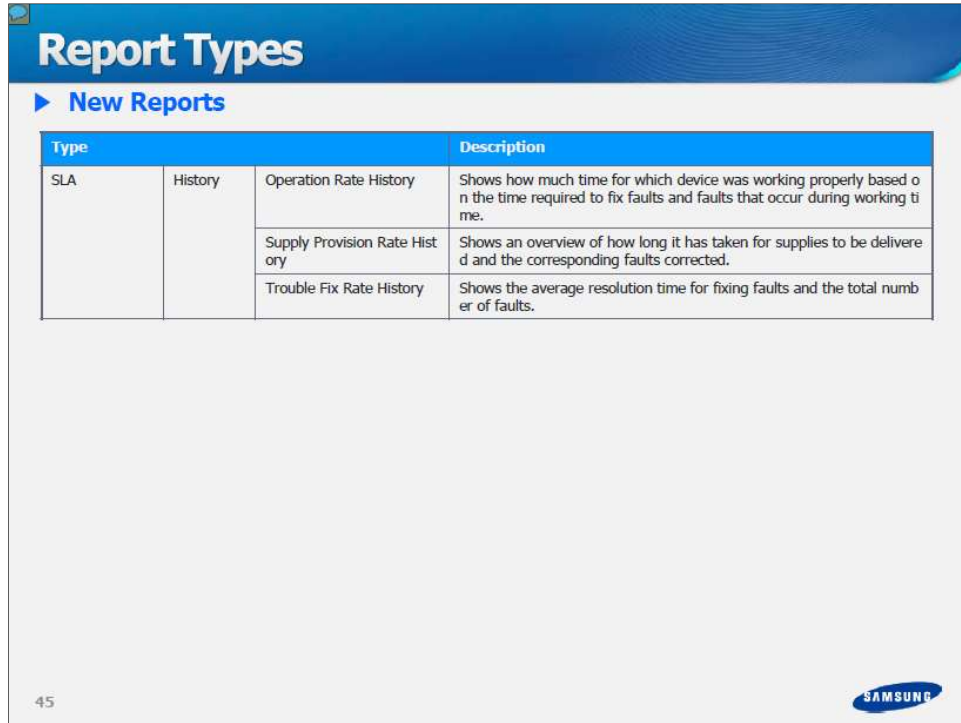
Source: ST2.

## Report Types

► **Key Reports**

Type		Description	
Consumables	Historical	Toner Lifecycle	Statistics for toner changing history including average time and counts
	Current	Consumables Information	Current consumables status including remaining level
	Proactive	Consumables Forecast	Estimation for how many toners should be bought in the period and when to be replaced
Asset	Historical	Accessory Tracking	Changes of device accessories including HDD, memory, finisher and so on
	Current	Asset List	Current assets list
Alert	Historical	Alert Severity Summary	How many alerts happened up to now with severity level
		Average Recovery Time	Average time for solving alerts grouped by alert or severity level
		Alert Full History	Full history with alert name, severity, and average recovery time
		Most Frequently Alerts	Alerts information which happened most frequently
		Device Availability	How long devices have been "down" status
	Current	Current Alerts	Current alerts information
Usage	Historical	Total Usage/Peak Usage	How many pages were printed/Hourly distribution
		Detailed Usage	Usage counts by Paper size/Duplex option/Color option/Job Type
	Current	Total Pages Printed	Current state of device usage counts

Source: ST2.



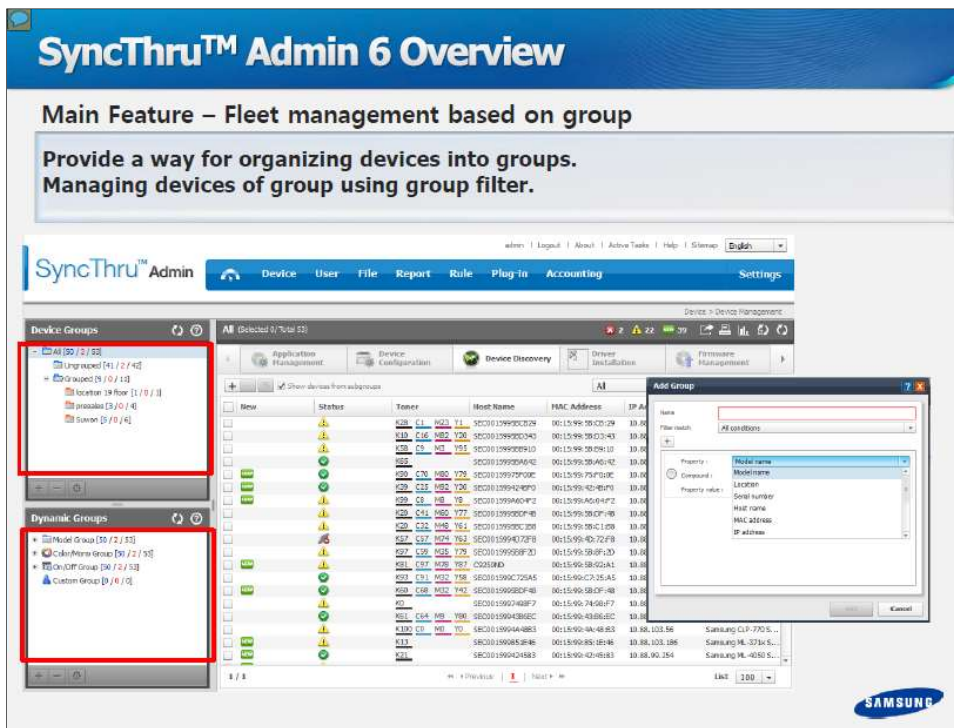
The screenshot shows a software interface titled "Report Types" with a sub-section "New Reports". It contains a table with the following data:

Type		Description	
SLA	History	Operation Rate History	Shows how much time for which device was working properly based on the time required to fix faults and faults that occur during working time.
		Supply Provision Rate History	Shows an overview of how long it has taken for supplies to be delivered and the corresponding faults corrected.
		Trouble Fix Rate History	Shows the average resolution time for fixing faults and the total number of faults.

The interface also includes a page number "45" in the bottom left and the Samsung logo in the bottom right.

Source: **ST2**.

57. With the SyncThru software product, Samsung associates the health of the client applications and the respective distributed components as belonging to a single application node.



Source: ST2.

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Source: **ST5**.

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Source: **ST1**.

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Source: ST2.

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Source: ST2.

Report Types			
▶ New Reports			
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		Trouble Fix Rate History	Shows the average resolution time for fixing faults and the total number of faults.

45



Source: **ST2**.

58. BCS has been damaged by Samsung's infringement of the '809 Patent.

### **PRAYER FOR RELIEF**

WHEREFORE, BCS respectfully requests the Court enter judgment against Samsung:

1. declaring that the Samsung has infringed the '809 Patent;
2. awarding BCS its damages suffered as a result of Samsung's infringement of the '809 Patent;
3. awarding BCS its costs, attorneys' fees, expenses, and interest; and
4. granting BCS such further relief as the Court finds appropriate.

### **JURY DEMAND**

BCS demands trial by jury, Under Fed. R. Civ. P. 38.

Dated: April 1, 2019

Respectfully Submitted

*/s/ Raymond W. Mort, III*

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