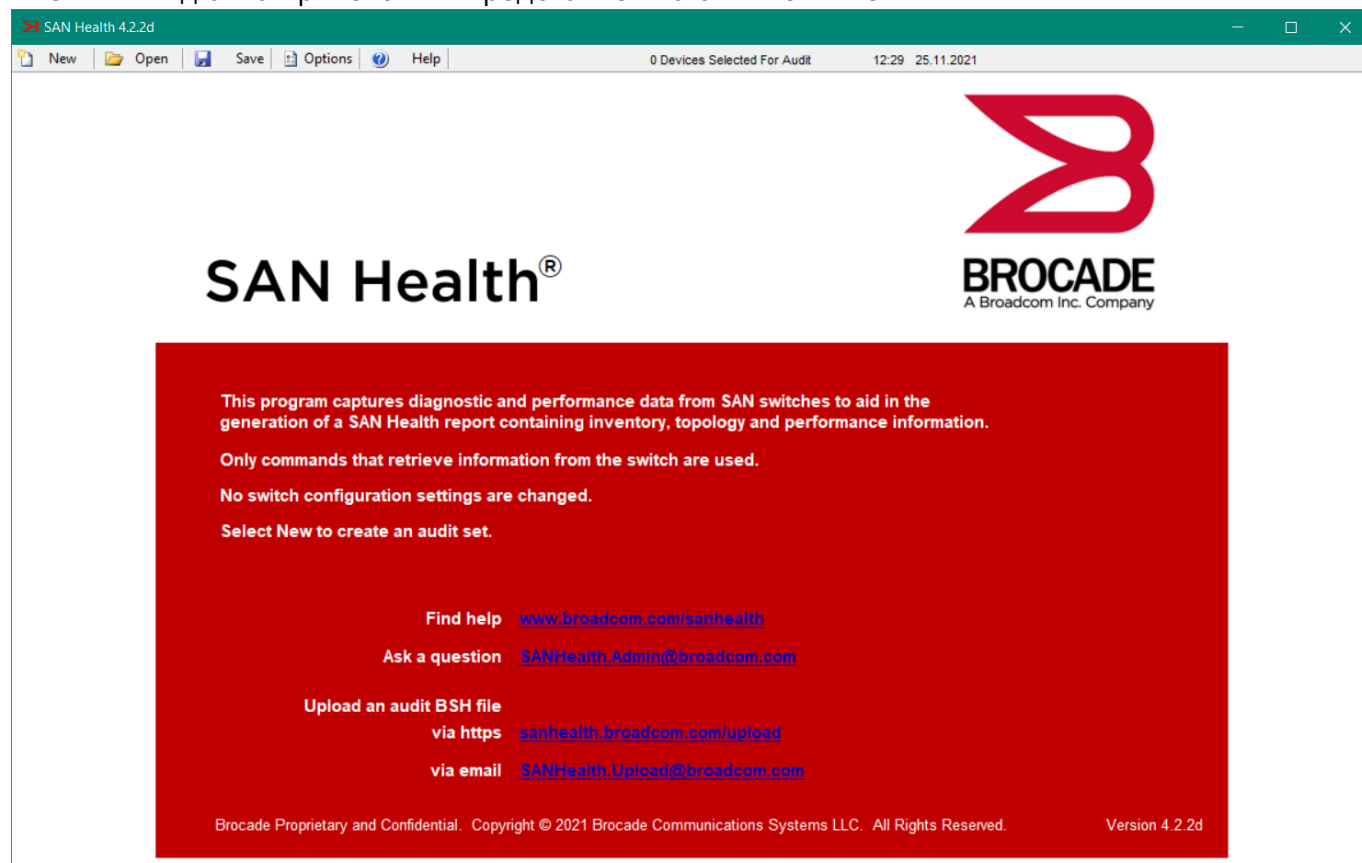


Сбор информации о SAN с использованием SAN Health

Подготовка

- Скачать дистрибутив с сайта [Broadcom](#)
- Установить программу

Внешний вид окна приветствия представлен на снимке ниже:



- Нажать в верхнем меню кнопку **New**

Report Details

Name this Report

User Details

First Name

Last Name

Job Title

Phone

Company

Name

Address1

Address2

City

Zip/Postal Code

State/Province

Country

Report Return

Email

Retype Email

Optional Additional Recipients

Share a copy of the resulting report with the following email address(es)

To complete a SAN Health audit

- Name the report, enter site details and report return options
- Enter a switch IP address and login credentials to add a fabric
- Click on fabric(s) in the tree view and complete the fabric details
- Test connectivity to the fabric members
- Save the audit set file you have just created
- Click on "Start Audit"

Time IP Address WWN FID Message

SAN Health started

SAN Health Version 4.2.2d Local Time: 25-ноя-2021 12:28:27 PM

Session Summary Queued:0 Diag Capture:0 Perf Capture:0 Completed:0 Failed:0

TIME IP ADDRESS WWN FID LOG MESSAGE

12:31:23,7 Starting New Audit Set

- Ввести сведения об организации и обязательно указать **Report Return Email**. При необходимости указать дополнительный email в поле **Optional Additional Recipients**

Report Details

Name this Report Demo report

User Details

First Name Name

Last Name Surname

Job Title Job Title

Phone 0000000

Company

Name Company INC

Address1 Address

Address2

City City

Zip/Postal Code 0000

State/Province

Country

Report Return

Email mchusavtin@platformix.ru

Retype Email mchusavtin@platformix.ru

Optional Additional Recipients

Share a copy of the resulting report with the following email address(es)

To complete a SAN Health audit

- Name the report, enter site details and report return options
- Enter a switch IP address and login credentials to add a fabric
- Click on fabric(s) in the tree view and complete the fabric details
- Test connectivity to the fabric members
- Save the audit set file you have just created
- Click on "Start Audit"

Time IP Address WWN FID Message

12:49:57,2 The City in the Site Details section contains a non-ASCII character

12:49:57,2 Postal or Zip Code in the Site Details section

12:49:57,3 cannot contain the characters \/*?<>|&[]\$"" or any of the extended ASCII character set

12:49:57,3 The Postal or Zip Code in the Site Details section contains a non-ASCII character

12:49:57,3 The State or Province value in the Site Details section is missing

12:49:57,3 The Country Name value in the Site Details section is missing

12:49:57,3 First Name in the Site Details section

12:49:57,3 cannot contain the characters \/*?<>|&[]\$"" or any of the extended ASCII character set

12:49:57,3 The First Name in the Site Details section contains a non-ASCII character

12:49:57,3 Last Name in the Site Details section

12:49:57,3 cannot contain the characters \/*?<>|&[]\$"" or any of the extended ASCII character set

12:49:57,3 The Last Name in the Site Details section contains a non-ASCII character

12:49:57,3 The Job Title in the Site Details section contains a non-ASCII character

12:49:57,3 Phone Number in the Site Details section

12:49:57,3 cannot contain the characters \/*?<>|&[]\$"" or any of the extended ASCII character set

12:49:57,3 The Phone Number in the Site Details section contains a non-ASCII character

12:49:57,4 The Phone number you entered in the Site Details section contains an invalid character: T

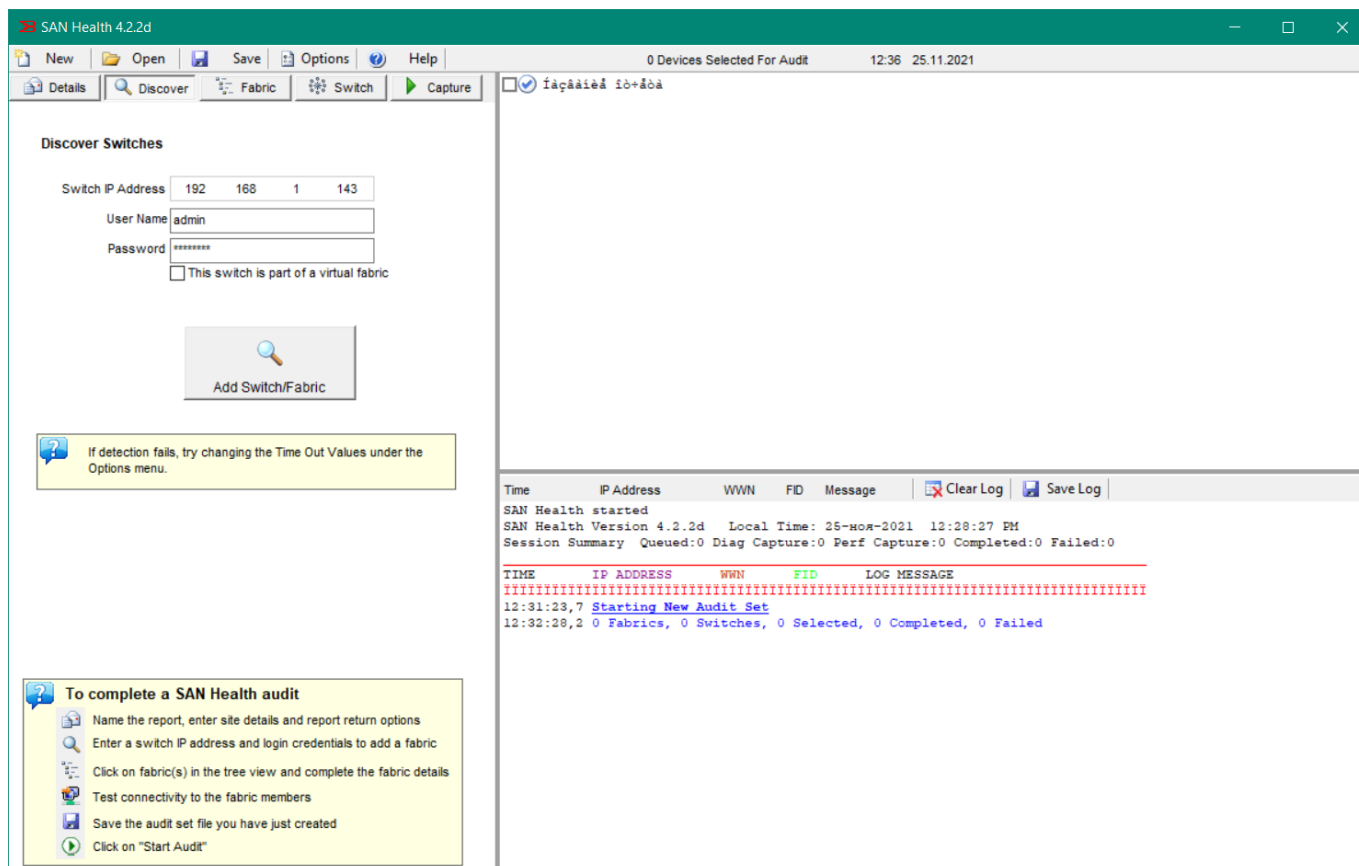
Valid characters are 0123456789()-+

12:49:57,4 The preflight check failed as incomplete or incorrect data values exist. Please review the log for red items that will inform you as to the missing values or incorrect items.

Указание устройств

Вкладка **Discover** позволяет в автоматическом режиме обнаружить все коммутаторы объединённые в одну фабрику.

- Перейти на вкладку **Discover** и указать для начала один коммутатор, ввести IP адрес логин и пароль,



- Нажать кнопку **Add Switch/Fabric** и дождаться завершения процесса обнаружения коммутаторов фабрики.

Discover Switches

Switch IP Address: 192 168 1 143

User Name: admin

Password: *****

☐ This switch is part of a virtual fabric

Add Switch/Fabric

If detection fails, try changing the Time Out Values under the Options menu.

To complete a SAN Health audit

- Name the report, enter site details and report return options
- Enter a switch IP address and login credentials to add a fabric
- Click on fabric(s) in the tree view and complete the fabric details
- Test connectivity to the fabric members
- Save the audit set file you have just created
- Click on "Start Audit"

Demo report

3 Devices Selected For Audit 12:37 25.11.2021

Time	IP Address	WWN	FID	Message
12:37:26,6	> 0e00 cu N8	Online	FC F-Port	21:00:00:24:ff:2b:b0:28
15 15	8f0f00 --	N8	No_Module	FC
16 16	8f1000 id	N8	Online	FC F-Port 50:06:0e:80:10:5d:4e:48
17 17	8f1100 id	N4	Online	FC E-Port 10:00:00:05:1e:90:6d:94 "BR5000-
san_even" (upstream)				
18 18	8f1200 --	N8	No_Module	FC
19 19	8f1300 --	N8	No_Module	FC
12:37:27,1	> IBM-san_even:admin>			
12:37:27,4	192.168.1.143 41:25:dc			CLI Responded with 1755chr after 1 Seconds
12:37:28,3	192.168.1.143 41:25:dc			Sending agshow to look for attached NPIV switches
12:37:28,4	> agshow			
12:37:28,9	> Worldwide Name	Ports	Enet IP Addr	Firmware
Local/Remote				
Name				
No Access Gateway is registered with this fabric				
12:37:29,4	> IBM-san_even:admin>			
12:37:30,0	192.168.1.143 41:25:dc			There are no Access Gateways registered with this fabric
12:37:30,0	192.168.1.143 41:25:dc			Discovered IBM-san_even Domain:143 Model:Unknown
12:37:30,1	192.168.1.143 41:25:dc			This switch is already a member of a fabric, updating the switch
without checking looking for other fabric members				
12:37:32,7	192.168.1.143 41:25:dc			Updating Switch Details for Brocade IBM-san_even Unknown
12:37:32,7	Telnet Activity Complete, Unlocking Program Menus			

- Изменить данные коммутатора на вкладке **Discover** на адрес коммутатора другой фабрики.

Discover Switches

Switch IP Address: 192 168 1 144

User Name: admin

Password: *****

☐ This switch is part of a virtual fabric

Add Switch/Fabric

If detection fails, try changing the Time Out Values under the Options menu.

To complete a SAN Health audit

- Name the report, enter site details and report return options
- Enter a switch IP address and login credentials to add a fabric
- Click on fabric(s) in the tree view and complete the fabric details
- Test connectivity to the fabric members
- Save the audit set file you have just created
- Click on "Start Audit"

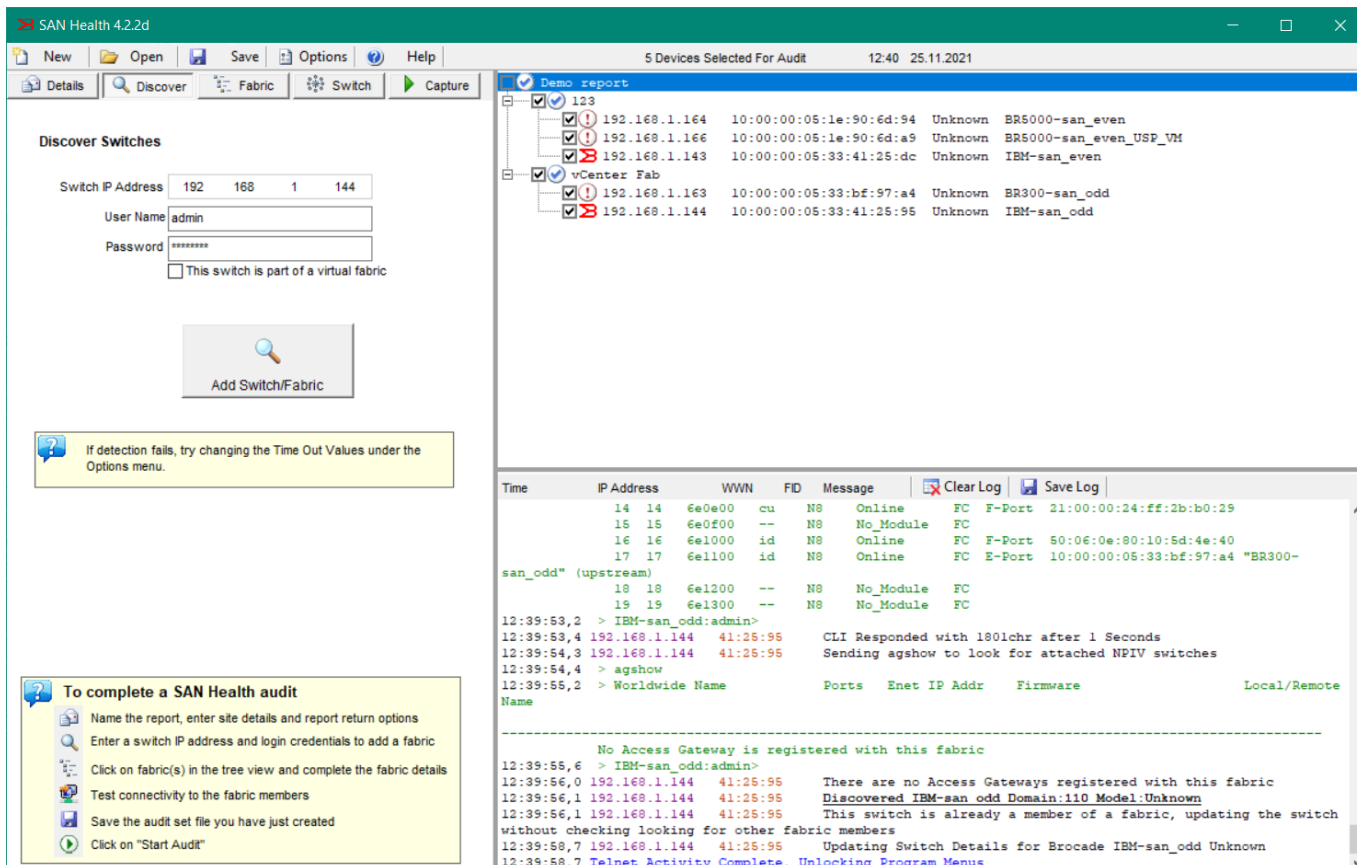
Demo report

3 Devices Selected For Audit 12:39 25.11.2021

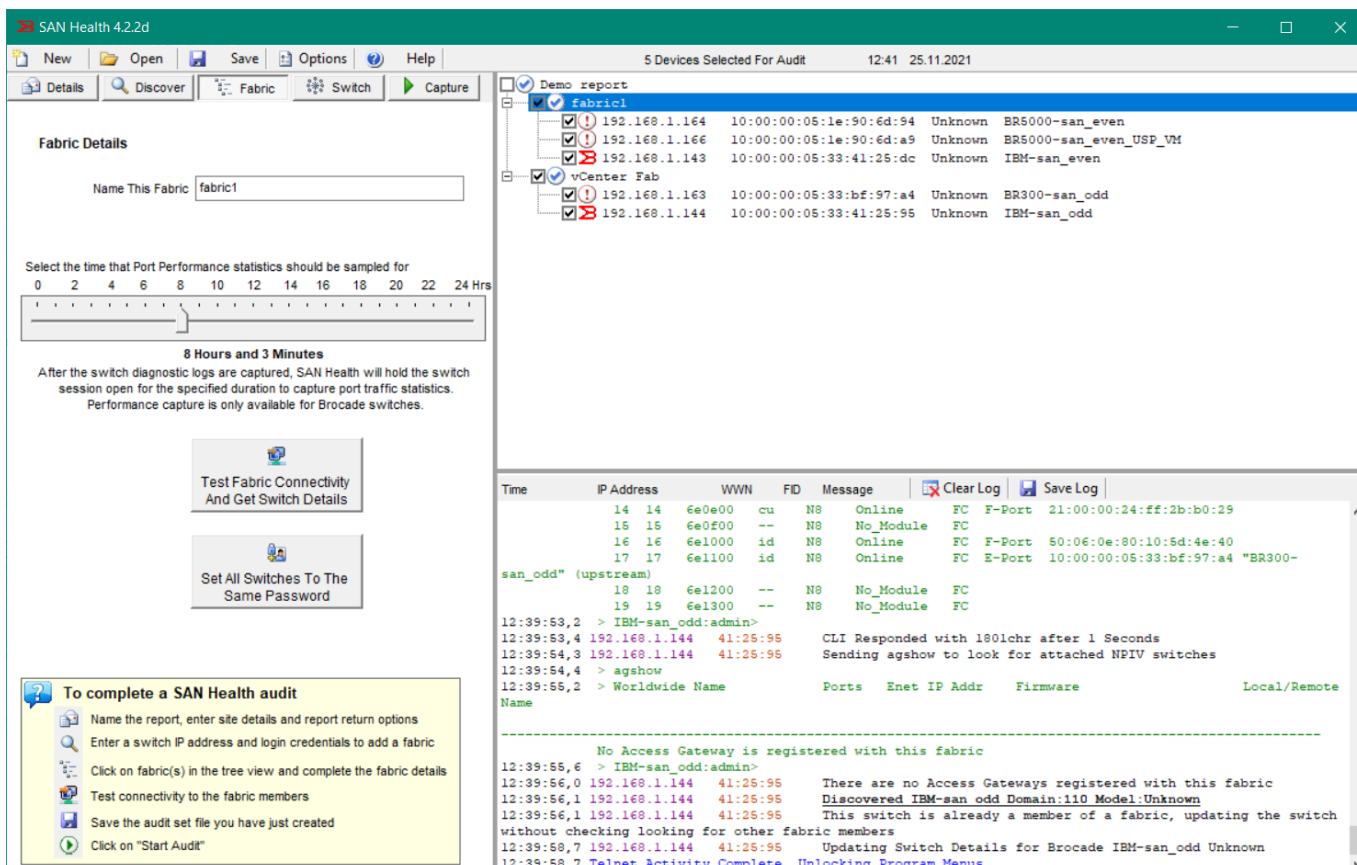
Time	IP Address	WWN	FID	Message
12:37:26,6	> 0e00 cu N8	Online	FC F-Port	21:00:00:24:ff:2b:b0:28
15 15	8f0f00 --	N8	No_Module	FC
16 16	8f1000 id	N8	Online	FC F-Port 50:06:0e:80:10:5d:4e:48
17 17	8f1100 id	N4	Online	FC E-Port 10:00:00:05:1e:90:6d:94 "BR5000-
san_even" (upstream)				
18 18	8f1200 --	N8	No_Module	FC
19 19	8f1300 --	N8	No_Module	FC
12:37:27,1	> IBM-san_even:admin>			
12:37:27,4	192.168.1.143 41:25:dc			CLI Responded with 1755chr after 1 Seconds
12:37:28,3	192.168.1.143 41:25:dc			Sending agshow to look for attached NPIV switches
12:37:28,4	> agshow			
12:37:28,9	> Worldwide Name	Ports	Enet IP Addr	Firmware
Local/Remote				
Name				
No Access Gateway is registered with this fabric				
12:37:29,4	> IBM-san_even:admin>			
12:37:30,0	192.168.1.143 41:25:dc			There are no Access Gateways registered with this fabric
12:37:30,0	192.168.1.143 41:25:dc			Discovered IBM-san_even Domain:143 Model:Unknown
12:37:30,1	192.168.1.143 41:25:dc			This switch is already a member of a fabric, updating the switch
without checking looking for other fabric members				
12:37:32,7	192.168.1.143 41:25:dc			Updating Switch Details for Brocade IBM-san_even Unknown
12:37:32,7	Telnet Activity Complete, Unlocking Program Menus			

- Нажать кнопку **Add Switch/Fabric** и дождаться завершения процесса обнаружения коммутаторов второй фабрики.

- После успешного выполнения **Discover** на двух фабриках обнаруженные коммутаторы отображаются в правой части окна программы



- В правой части окна нажать на название обнаруженной фабрики. Программа перейдёт на вкладку **Fabric**



- На этой вкладке изменить название фабрики (при необходимости) и задать интервал сбора статистики производительности. Во время сбора статистики программа должна быть открыта. Рекомендуется собрать статистику за время наибольшей нагрузки, например за следующие 8 часов.
- Повторить данную процедуру для всех обнаруженных фабрик сети
- Выбрать каждый коммутатор с пиктограммой ошибки в правой части окна и указать правильные учетные данные для входа.

The screenshot shows the SAN Health 4.2.2d application window. The 'Switch' tab is active, displaying a list of discovered switches. The 'Switch Details' panel on the left shows the configuration for 'BR5000-san_even' with IP 192.168.1.164, User 'admin', and Password '*****'. A 'Test Connectivity And Get Switch Details' button is visible. The main panel shows a tree view of discovered switches, including 'fabric1' and 'fabric2'. The 'fabric1' section lists three switches: 'BR5000-san_even' (IP 192.168.1.164), 'BR5000-san_even_USP_VM' (IP 192.168.1.166), and 'IBM-san_even' (IP 192.168.1.143). The 'fabric2' section lists two switches: 'BR300-san_odd' (IP 192.168.1.163) and 'IBM-san_odd' (IP 192.168.1.144). The bottom panel shows a log of commands and responses, including 'CLI Responded with 1801chr after 1 Seconds', 'Sending agshow to look for attached NPV switches', and 'No Access Gateway is registered with this fabric'.

- Нажать кнопку **Test Connectivity** для проверки возможности подключения к данному коммутатору.

Switch Details

IP Address: 192.168.1.164
 User Name: admin
 Password: *****

Test Connectivity And Get Switch Details

Switch Name: BR5000-san_even
 World Wide Name: 10:00:00:05:1e:90:6d:94
 Switch Model: Unknown
 Domain ID: 1
 Chassis WWN: 10:00:00:05:1e:90:6d:94
 Chassis name: Brocade5000

To complete a SAN Health audit

- Name the report, enter site details and report return options
- Enter a switch IP address and login credentials to add a fabric
- Click on fabric(s) in the tree view and complete the fabric details
- Test connectivity to the fabric members
- Save the audit set file you have just created
- Click on "Start Audit"

Log Window:

Time	IP Address	WWN	FID	Message	Clear Log	Save Log
17	17	011100	id	N4 Online	FC	L-Port
18	18	011200	id	N4 No_Light	FC	
19	19	011300	id	N4 Online	FC	F-Port 50:06:0e:80:13:28:a4:11
20	20	011400	id	N4 Online	FC	F-Port 10:00:00:00:c9:c5:be:e4
21	21	011500	id	N4 No_Light	FC	
22	22	011600	id	N4 No_Light	FC	
23	23	011700	id	N4 No_Light	FC	
24	24	011800	id	N4 Online	FC	F-Port 50:06:0e:80:13:28:a4:31
25	25	011900	id	N4 No_Light	FC	
26	26	011a00	id	N4 No_Light	FC	
27	27	011b00	id	N4 No_Light	FC	
28	28	011c00	id	N4 Online	FC	F-Port 50:06:0e:80:13:28:a4:10
29	29	011d00	id	N4 No_Light	FC	
30	30	011e00	id	N4 No_Light	FC	
31	31	011f00	id	N4 No_Light	FC	
12:45:46,7	> BR5000-san_even:admin>					
12:45:46,9	192.168.1.164	90:6d:94		CLI Responded with 2295chr after 0 Seconds		
12:45:47,4	192.168.1.164	90:6d:94		Discovered BR5000-san_even Domain:1 Model:Unknown		
12:45:47,4	192.168.1.164	90:6d:94		This switch is already a member of a fabric, updating the switch		
without checking looking for other fabric members						
12:45:49,0	192.168.1.164	90:6d:94		Updating Switch Details for Brocade BR5000-san_even Unknown		
12:45:49,0	192.168.1.164	90:6d:94		Completed connection test		
12:45:50,0	Telnet Activity Complete, Unlocking Program Menus					

- Если не все устройства обнаружены добавьте их дополнительно через вкладку **Discover**

Сбор информации об устройствах

- После указания всех коммутаторов и задания параметров сбора статистики нажать кнопку **Capture → Start Audit**
- При возникновении ошибок заполнения система укажет о них в окне журнала

Report Details

Name this Report: Demo report

User Details

First Name: Name
Last Name: Surname
Job Title: Job Title
Phone: 0000000

Company

Name: Company INC
Address1: Address
Address2: Address
City: City
Zip/Postal Code: 0000
State/Province: Not Applicable
Country: Russia

Report Return

Email: mchusavtin@platformix.ru
Retype Email: mchusavtin@platformix.ru

Optional Additional Recipients

Share a copy of the resulting report with the following email address(es)

To complete a SAN Health audit

- Name the report, enter site details and report return options
- Enter a switch IP address and login credentials to add a fabric
- Click on fabric(s) in the tree view and complete the fabric details
- Test connectivity to the fabric members
- Save the audit set file you have just created
- Click on "Start Audit"

4 Devices Selected For Audit

12:51 25.11.2021

Demo report

- fabric1
 - 192.168.1.164 10:00:00:05:1e:90:6d:94 Unknown BR5000-san_even
 - 192.168.1.166 Telnet connection attempt (timeout after 8sec)
 - 192.168.1.143 10:00:00:05:33:41:25:dc Unknown IBM-san_even
- fabric2
 - 192.168.1.163 10:00:00:05:33:bf:97:a4 Unknown BR300-san_odd
 - 192.168.1.144 10:00:00:05:33:41:25:95 Unknown IBM-san_odd

Time IP Address WWN FD Message

12:49:57,3 The First Name in the Site Details section contains a non-ASCII character

12:49:57,3 Last Name in the Site Details section

12:49:57,3 cannot contain the characters \[?<>|&[]#* or any of the extended ASCII character set

12:49:57,3 The Last Name in the Site Details section contains a non-ASCII character

12:49:57,3 Job Title in the Site Details section

12:49:57,3 cannot contain the characters \[?<>|&[]#* or any of the extended ASCII character set

12:49:57,3 The Job Title in the Site Details section contains a non-ASCII character

12:49:57,3 Phone Number in the Site Details section

12:49:57,3 cannot contain the characters \[?<>|&[]#* or any of the extended ASCII character set

12:49:57,3 The Phone Number in the Site Details section contains a non-ASCII character

12:49:57,4 The Phone number you entered in the Site Details section contains an invalid character: T

Valid characters are 0123456789()-+

12:49:57,4 The preflight check failed as incomplete or incorrect data values exist. Please review the log for red items that will inform you as to the missing values or incorrect items.

12:50:59,7 Start Audit Button Clicked

12:50:59,7 Starting preflight check

12:50:59,7 The State or Province value in the Site Details section is missing

12:50:59,7 The Country Name value in the Site Details section is missing

12:50:59,8 The preflight check failed as incomplete or incorrect data values exist. Please review the log for red items that will inform you as to the missing values or incorrect items.

- Если аудит успешно запущен об этом свидетельствует надпись **Audit in progress**

AN AUDIT IS IN PROGRESS

Queued For Audit: 2
Capturing Diagnostics Logs: 2
Capturing Port Throughput: 0
Failed: 0
Completed: 0

Interrupt and Forceably Stop All Sessions

or right click on a switch in the tree view to stop an individual session

Legend

- Incomplete data - Click on the item and add the missing details
- Complete data - Ready for the audit to be started
- Audit completed - Diagnostic data has been successfully collected
- Warning - Check the activity log for more information
- Audit aborted - Check the activity log for more information
- Session refused by the target or a firewall in the communication path
- Searching for open SSH or Telnet port
- Exchanging login credentials
- Bad login credentials - Click on the switch to change the credentials
- Gathering the output from CLI diagnostic commands
- Capturing throughput data for the specified duration (FOS switches only)
- Session timed out, try increasing the timeout values in the options menu
- Unknown device, send the log to SANHealth.Admin@brocade.com
- Logical Switches on the same IP that have been queued to run sequentially

4 Devices Selected For Audit

12:51 25.11.2021

Demo report

- fabric1
 - 192.168.1.164 Attempting Connection using Telnet
 - 192.168.1.166 Telnet connection attempt (timeout after 8sec)
 - 192.168.1.143 Attempting Connection using Telnet
- fabric2

Time IP Address WWN FD Message

review the log for red items that will inform you as to the missing values or incorrect items.

12:50:59,7 Start Audit Button Clicked

12:50:59,7 Starting preflight check

12:50:59,7 The State or Province value in the Site Details section is missing

12:50:59,7 The Country Name value in the Site Details section is missing

12:50:59,8 The preflight check failed as incomplete or incorrect data values exist. Please review the log for red items that will inform you as to the missing values or incorrect items.

12:52:05,4 Start Audit Button Clicked

12:52:05,4 Starting preflight check

12:52:05,4 The preflight check passed.

12:52:05,4 Queuing 4 Devices Selected For Audit switches for audit

12:52:05,4 Starting Telnet Activity....

12:52:07,8 192.168.1.164 90:6d:94 Switch audit STARTED - 192.168.1.164

12:52:07,8 192.168.1.164 90:6d:94 Initializing communications stack

12:52:07,8 192.168.1.164 90:6d:94 Starting session using (Telnet 1 SSH 2)

12:52:08,2 192.168.1.164 90:6d:94 Attempting Connection using Telnet

12:52:09,3 192.168.1.143 41:25:dc Switch audit STARTED - 192.168.1.143

12:52:09,4 192.168.1.143 41:25:dc Initializing communications stack

12:52:09,4 192.168.1.143 41:25:dc Starting session using (Telnet 1 SSH 2)

12:52:09,7 192.168.1.143 41:25:dc Attempting Connection using Telnet

12:52:10,9 192.168.1.163 bf:97:a4 Switch audit STARTED - 192.168.1.163

Отправка отчёта

Аудит не закончен пока файл отчета не будет отправлен в Broadcom для анализа. Программа предлагает несколько вариантов на выбор отправки отчёта. По умолчанию предлагается автоматическая отправка путем нажатия кнопки **Send via HTTPS**

AUDIT CAPTURE COMPLETED

Completed: 4 Failed: 0

C:\SAN Health Audits\Name_Surname_211125_1252_Demo_report.BSH

To complete the SAN Health process you must send the encrypted data file (.BSH) to the report generation queue.

Send the captured data file to the report generation queue via HTTPS

Or send the .BSH file via email
SANHealth.Upload@broadcom.com

Or use this upload page
<https://sanhealth.broadcom.com/upload>

If you do not receive a report back within 48 hours, please contact
 SANHealth.Admin@broadcom.com

The report will be posted to a secure single-sign-on download page against the user ID(s)
 mchusavitin@platformix.ru

If an account for this user ID does not already exist, it will be automatically created and an activation email sent.

A zip file will be returned that contains an Excel report, a Visio topology diagram and tables of raw data in CSV format.

Return to Start **Exit**

To display captured data click on a switch in the tree view

Demo report

IP Address	WWN	FD	Message
192.168.1.164	10:00:00:05:1e:90:6d:94	Unknown	BR5000-san_even [SUCCESSFUL (Perf dat
192.168.1.166	10:00:00:05:33:41:25:dc	Unknown	Telnet connection attempt (timeout after 8sec)
192.168.1.143	10:00:00:05:33:41:25:dc	Unknown	IBM-san_even [SUCCESSFUL (Perf dat
192.168.1.163	10:00:00:05:33:bf:97:a4	Unknown	BR300-san_odd [SUCCESSFUL - AUDIT
192.168.1.144	10:00:00:05:33:41:25:96	Unknown	IBM-san_odd [SUCCESSFUL - AUDIT

Time IP Address WWN FD Message

13:01:09,5 192.168.1.144 41:25:96 Switch audit SUCCESSFUL - 192.168.1.144

13:01:11,6 All Sessions have COMPLETED (Successful:4 Failed:0)

13:01:11,6 Compiling BSH file using AES256 encryption and GZip compression

13:01:11,6 Creating file header for Name_Surname_211125_1252_Demo_report

13:01:11,6 Data File Header Completed (179 Lines)

13:01:11,6 Adding File Header

13:01:11,6 192.168.1.164 90:6d:94 Adding switch data to upload file

13:01:11,6 192.168.1.143 41:25:dc Adding switch data to upload file

13:01:11,6 192.168.1.163 bf:97:a4 Adding switch data to upload file

13:01:11,6 192.168.1.144 41:25:96 Adding switch data to upload file

13:01:12,1 Completed Creation of C:\SAN Health Audits\Name_Surname_211125_1252_Demo_report.BSH

SAN HEALTH ACTIVITY LOG: AUDIT COMPLETED

LOG FILE: C:\SAN Health Audits\Audit Logs\Name_Surname_211125_1252_Demo_report_LOG_25ноя21At130112_Audit_Completed.rtf

USER: Name Surname mchusavitin@platformix.ru

SET FILE: Not saved yet

FABRICS: 2 SWITCHES: 4 COMPLETED: 4 FAILED: 0

TIMEOUTS: CLI Response=180s Session Connect=8s Login=60s

CPU USE: Max Concurrent Sessions=40 Delay between CLIs=100ms

PROTOCOL: Telnet First Then SSH If Telnet Fails

После автоматического анализа информация будет отправлена на почту, указанную в настройках программы.

From:
<https://micronode.ru/> - **micronode.ru**

Permanent link:
https://micronode.ru/enterprise/brocade/guide/san_health

Last update: **2021/12/15 12:23**

