



BES-Switch

Support and Services User Guide

User Guide

V 1.4: June 12, 2023

Broadcom, the pulse logo, and Connecting everything are among the trademarks of Broadcom and/or its affiliates in the United States, certain other countries, and/or the EU.

Copyright © 2021 by Broadcom. All Rights Reserved.

The term “Broadcom” refers to Broadcom Inc. and/or its subsidiaries. For more information, please visit www.broadcom.com.

Broadcom reserves the right to make changes without further notice to any products or data herein to improve reliability, function, or design. Information furnished by Broadcom is believed to be accurate and reliable. However, Broadcom does not assume any liability arising out of the application or use of this information, nor the application or use of any product or circuit described herein, neither does it convey any license under its patent rights nor the rights of others.

Table of Contents

Chapter 1: About this Manual.....	4
1.1 Audience	4
1.2 Abbreviations and Terms	4
1.3 Support Overview.....	5
Chapter 2: BES-Switch Hardware Support	6
2.1 Standard Hardware Warranty	6
2.2 Standard Software Warranty	6
2.3 DOA Hardware and Advanced Replacement	6
2.4 Return Material Authorization (RMA) Process.....	6
Chapter 3: Service Provider Support Contract and TAC (Technical Assistance Center).....	8
3.1 General Information on Support Contracts	8
3.2 Buying a Support Contract.....	8
3.3 Renewing a Support Contract.....	8
3.4 Interfacing with the Service Provider TAC.....	8
3.5 Trouble Ticket Case Creation.....	9
3.6 Issue Severity Levels	11
3.7 Priority and Escalations.....	12
3.8 Service Provider Support Network	12
Chapter 4: Service Support Agreements	13
4.1 How To Obtain Additional Product Support	13
4.2 Service Provider Support Agreements.....	13
4.3 Support Agreement Definitions	13
4.3.1 4-hour Onsite (4OS)	13
4.3.2 4-hour Parts (4P).....	14
4.3.3 Next-business-Day Onsite (NDO)	14
4.3.4 Next-business-Day Parts (NDP).....	14
4.4 Parts Only and Onsite Support	14
4.5 Request for Non-technical Services	15
4.6 Software Updates	15
4.7 Customer Data Backup and Customer Specific Configurations	16
4.8 Switch Return Policy.....	16
4.9 Security Access Protocols	16
4.10 Renewals and Extended Support.....	17
Chapter 5: Installation Services	18
5.1 Spares and Inventory Availability	18
5.2 Warranty Coverage Limitations	18
5.3 Supported Countries List	18
5.4 Summary of Service Levels and Descriptions	19
Revision History	21
BES-Switch_End_User_Support_UserGuide_v1.4; June 2023	21
BES-Switch_End_User_Support_UserGuide_v1.3; March 2023	21
BES-Switch_End_User_Support_UserGuide_v1.2; March 2021	21
BES-Switch_End_User_Support_UserGuide_v1.1; February 2021	21
BES-Switch_End_User_Support_UserGuide_v1.0; October 2020.....	21

Chapter 1: About this Manual

This document provides a detailed overview of the service and support terms for BES-Switch products to its customers. The guidelines provided to the customer are intended to enable a better user experience towards problem resolution and extend the life of their product purchases.

1.1 Audience

The document is focused on the end-user customer or possibly a VAR supporting the end customer.

1.2 Abbreviations and Terms

Term	Definition
24x7xNBD Onsite - (NDO)	Support SLA: 24x7x365 + Next Business Day Parts + Next Business Day Onsite
24x7x4HR Onsite - (4OS)	Support SLA: 24x7x365 + 4 Hour Parts + Onsite
24x7xNBD parts only - (NDP)	Support SLA: 24hr x7 days/week + Next Business Day Parts
24x7x4HR parts only - (4P)	Support SLA: 24hr x 7days/week+ 4 Hour Parts
8x5xNBD Onsite - (85OS)	Support SLA: 8hr x 5 days/week + Next Business Day Parts + Onsite
8x5xNBD parts only - (85P)	Support SLA: 8hrs x 5 days/week + Next Business Day Parts
4HR	Four Hour. This is relative to support contract SLA for having parts and/or onsite labor once a problem with equipment has been identified
Advanced Replacement	Replacing a part in the field before the defective part has been returned to a Service Provider facility
BES-Switch	Ethernet Switches such as BES-53248, BES-53432 etc. are high-capacity Ethernet Switch products targeted for Data Center Server and Storage Connectivity
CRM/Service Cloud	Customer Resource Management system – the system that provides support cases to be tracked from inception to closure
Case	A service ticket caused by an issue with hardware or software that includes details of the issue, customer contacts, issue status, notes of progress and problem resolution
DOA	Dead-On-Arrival. A product determined to be defective on arrival when a problem is ascertained upon the first use of the switch, e.g., at install, valid within 30 days from the product ship date to the customer
Maintenance or Support Contract	Services SLA purchased for maintenance of switch and software

Term	Definition
NBD	Next Business Day. This is relative to support contract SLA for having parts and/or onsite labor once a problem with equipment has been identified
OEM	Original Equipment Manufacturer. This is typically well-known Storage and Server vendors in the context of BES-Switch
OS (Onsite)	Onsite support used in conjunction with 4HR and NBD support options. Onsite support person will work with the Service Provider TAC to bring the software on the replacement switch to the appropriate level and install the required port licenses as in the faulty switch. This person typically does not troubleshoot customer problems onsite. Onsite support person may require remote access to the Service Provider TAC site and phone access to the Service Provider TAC at the onsite customer location
Parts Only	This is related to maintenance contracts that includes parts replacement in 4 hours or NBD (depending on SLA) from determination that a part needs to be replaced by the Service Provider TAC, but no onsite labor is required
RMA	Return Material Authorization. This authorization occurs when a part has experienced a problem and has been authorized to be returned to a Service Provider facility for replacement
Service Provider	Broadcom with Service Provider Front End Support. Support services provided by the Service Provider includes phone support, CRM, RMA and DOA part replacement, remote troubleshooting, onsite installation upon failure depending on SLA
SLA	Service Level Agreement. Definition of service terms for Maintenance Contracts
S/N	Serial Number of the product. Unique identifier for a BES-Switch product required for issue tracking
TAC	Service Provider's Technical Assistance Center. Hub for the support team handling product issues, phone support and case management
VAR	Value Added Reseller

1.3 Support Overview

Purchaser of the BES-Switch product is entitled to support and warranty based on the conditions as outlined in this document. Any product support is only applicable to products purchased from the authorized agent. TD Synnex and TD Synnex's OEM customers are authorized agents for BES-Switch products. Support is typically required for troubleshooting problems or issues as encountered during installation or at a later point after switch has been up and running in the customer environment. It is the customer's responsibility to assist the Service Provider TAC in the troubleshooting process. This assistance could include, but is not limited to, facilities access, necessary passwords, access to logs, timing, and network architecture diagrams. Failure to assist the Service Provider TAC may result in delays and timely resolution of the problem.

Chapter 2: BES-Switch Hardware Support

2.1 Standard Hardware Warranty

A one-year standard hardware warranty from the date of shipment of the BES-Switch product is provided to the purchaser of the product. Service Provider return and repair services are available by contacting the Service Provider TAC by any of the available options such as, placing a call to the Service Provider TAC, through the Case Ticket creation in the support portal or through email correspondence with the support team with the S/N (Serial Number) of the product. The Service Provider TAC will assist the customer in remotely troubleshooting the issue to identify the cause of failure. If the failure is caused by a hardware malfunction that cannot be resolved, the Service Provider TAC will issue an RMA (Return Material Authorization). Customer will be responsible for sending product to Service Provider for repair or replacement. Please see the section 2.4 on RMA for details on the procedure to be followed. Replacement part will be shipped upon receipt of the defective part.

2.2 Standard Software Warranty

Software updates or fixes will be available for 3 months from the date of shipment under the Standard Hardware Warranty.

2.3 DOA Hardware and Advanced Replacement

DOA (Dead on Arrival) is ascertained when the hardware is determined to have failed upon installation and/or first time use and is typically classified based the provided S/N which corresponds to a shipment date, and type of problem reported. The Service Provider TAC will always troubleshoot the problem prior to approving any failure. DOA is valid only within the first 30 days after product shipment to the customer. Advanced replacement is available for products determined to be DOA by the Service Provider with the replacement parts shipped out on the next business day. Actual delivery times may vary depending on customer location. Customer is responsible for the return of the DOA failed part to the Service Provider as part of the RMA process, but the cost and logistics in case of DOA is covered by the Service Provider. There are penalties associated with non-shipment of the failed part.

2.4 Return Material Authorization (RMA) Process

It is recommended that the customer troubleshoot the relevant asset, collect pertinent information and contact the Service Provider TAC as soon as problem is recognized. A customer must always verify with the Service Provider TAC that their issue is caused by a failed hardware part. The Service Provider TAC will remotely diagnose and be the sole determiner of hardware failure, whether under DOA or during regular operation of the device. Service Provider will validate warranty status of the switch based on its S/N.

The customer will receive an RMA number, and instruction on how to return the failed part via the Case tracking system.

Below table summarizes the handling of the hardware failure under different levels of support:

Hardware Failure Scenario	Trouble-shooting Support	Replacement Terms***	Shipping	Duration of Support	Onsite Support
Standard Hardware Warranty (without maintenance contract)	Remote support 24x7	Replacement parts will be shipped upon receipt of defective parts	Customer pays to ship defective part to Service Provider facility; Service Provider pays to ship a replacement product to customer	1 year from product shipment*	No
Dead on Arrival (DOA)	Remote support 24x7	NBD shipment, Advanced Replacement	Service Provider pays costs to ship new product and cost to return defective part	Within 30 days of product shipment to the customer*	No
Non-DOA Failures Under Maintenance Support Contract	Remote support 24x7	Part SLA, Advanced Replacement (see activation**)	Service Provider pays costs to ship replacement product and cost to return defective part	Contract duration purchased**	per SLA

* Start date recorded from ship date or from PO date as noted from the related POS reports in case of indirect sale of the asset

** Activated after 30 days from the receipt of the contract PO received by the Service Provider

*** for all parts only replacements, it is the customer responsibility to bring the firmware version and port licenses to the required level on the replacement switch by contacting the Service Provider TAC prior to any self-installation

Chapter 3: Service Provider Support Contract and TAC (Technical Assistance Center)

3.1 General Information on Support Contracts

In addition to the Standard Hardware Warranty, Service Provider offers Support Contracts to end users to protect against hardware and software failures or non-conformance. Support fulfillment occurs through the Service Provider TAC who are available to field calls, respond to emails and handle tickets opened via case creation on the support portal. Some of the functions that are performed by the Service Provider TAC are:

- Return Material Authorizations (RMA)
- Remote software assistance including firmware updates and bug fixes
- The Service Provider TAC technical support via portal, phone or email
- Complete Case Management to track issues and progress
- Handling processes for escalation
- Coordinating with part depots and service part inventory
- Provide systematic and efficient troubleshooting procedures

3.2 Buying a Support Contract

Please send a request to BroadcomBES@shyftservices.com, provide the part number and serial number of each switch that you are looking to buy contract for, planned time frame of the purchase, your name, title/position, company name, address and phone contact information. Without all the details we will not be able to provide you the required help.

3.3 Renewing a Support Contract

Support renewals are managed by Broadcom's strategic partner, Shyft Global Services (a division of TD Synnex). Shyft will notify the original reseller partner and/or end customer at least 90 days in advance of the expiration date and will quote the desired SLA and timeframe through an authorized reseller. All renewals must have a minimum of 12 months of support. All questions about renewals can be directed to BroadcomBES@shyftservices.com.

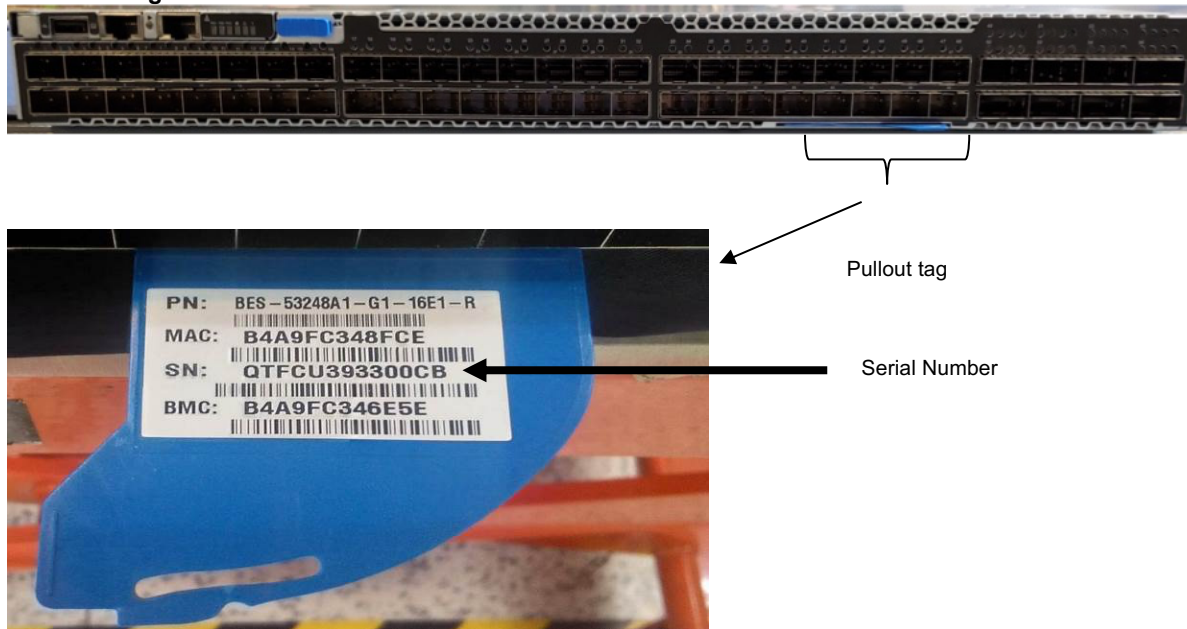
3.4 Interfacing with the Service Provider TAC

The Service Provider TAC is the customer's point of contact for all cases and is responsible for initiating and advancing a case to completion by engaging the relevant professionals according to defined procedures. Upon receiving a phone call, the Service Provider TAC Representative will ask the customer/caller for the appropriate information to verify entitlement and open a case. The following information will be required to move a case forward so please have all information available for case submission:

- Name
- Company, Address
- Product Serial Number (printed on the blue pull-out tag on the portside of the switch)*
- Severity: S1 to S5
- Description of the Problem
- Contact details: Who to follow up with, availability, contact info

- Logs if available

Figure 1 Pull-out tag with the Serial Number of the BES-53248 switch



The Service Provider TAC will inform customer of the next steps and provide the assigned case number. Please note the Service Provider TAC may need additional information on the deployment environment and network topology as troubleshooting occurs. It is in the customer’s best interest to be available to answer questions, observe switch behavior, and provide general chronology (when problem started, what changed, etc.) to support the efforts of the Service Provider TAC.

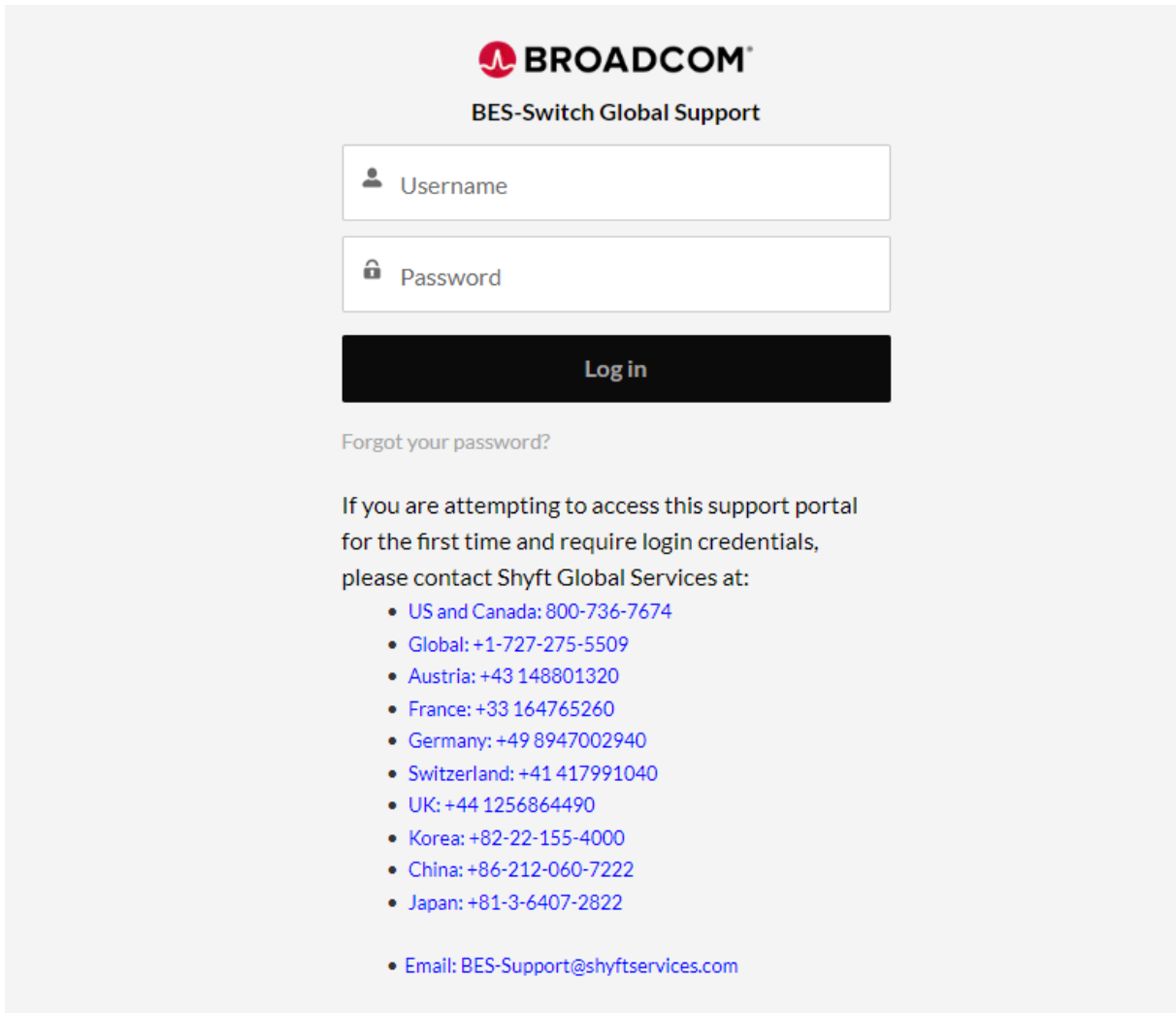
3.5 Trouble Ticket Case Creation

Service Provider allows customers to access the Service Provider TAC directly with three convenient options:

Support Type	Contact
Phone Support	US and Canada: 1-800-736-7674 Global: +1-727-275-5509 Austria: +43-148801320 France: +33-164765260 Germany: +49-894 700 2940 Switzerland: +41 417991040 UK: +44 125686 4490 Korea: +82-2-2155-4000 China: +86-212-060-7222 Japan: +81-3-6407-2822
Web Support Portal	Global Access: https://www.broadcom.com/support/bes-switch (contains link to below secure user site) Secure Customer Access: https://sigtech.my.site.com/BESSwitch/s/login/
Email Support	BES-Support@shyftservices.com

The Service Provider TAC is open 24/7 for ticket creation. Customer Support Contract service level will dictate response times from the technical staff. For 8x5 agreements Technical Support will be in local time from 8:00am to 5:00pm, 5 day business week, but case creation can happen around the clock.

Following is the login screen of the case support portal as accessed by the provided link at <https://www.broadcom.com/support/bes-switch> or directly at <https://sigtech.my.site.com/BESSwitch/s/login/>



BROADCOM
BES-Switch Global Support

Username

Password

Log in

[Forgot your password?](#)

If you are attempting to access this support portal for the first time and require login credentials, please contact Shyft Global Services at:

- [US and Canada: 800-736-7674](#)
- [Global: +1-727-275-5509](#)
- [Austria: +43 148801320](#)
- [France: +33 164765260](#)
- [Germany: +49 8947002940](#)
- [Switzerland: +41 417991040](#)
- [UK: +44 1256864490](#)
- [Korea: +82-22-155-4000](#)
- [China: +86-212-060-7222](#)
- [Japan: +81-3-6407-2822](#)

• [Email: BES-Support@shyftservices.com](mailto:BES-Support@shyftservices.com)

Please note, you will need user credentials to access the portal shown above. To gain user credentials, email request to BES-Support@shyftservices.com.

Please check the website for the latest in local phone numbers.

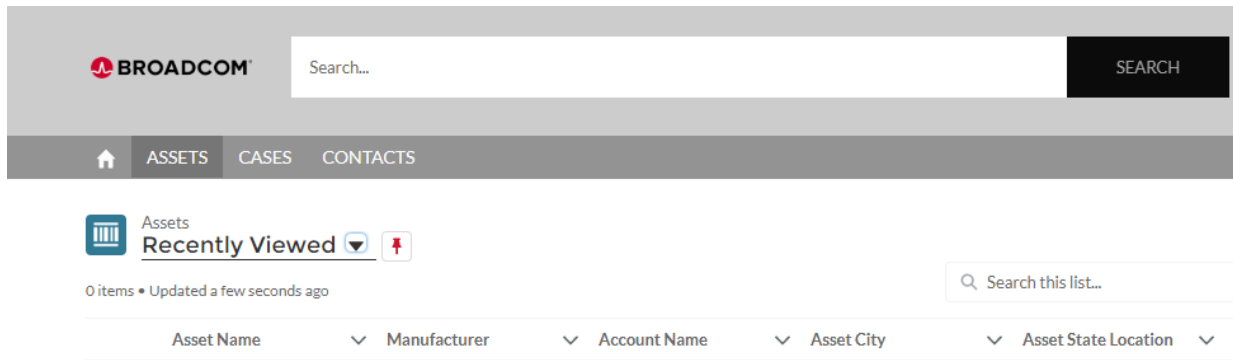
Sample of home page after login:



DOWNLOADS

- Firmware Download
- BES-50248 Installation Guide
- BES-50248 Supported Optics
- EPOS3X-CLI Command Reference
- BES-50248 Data Sheet
- [View All \(11\)](#)

Sample of Asset characteristics:



3.6 Issue Severity Levels

Service Provider will provide the resources to assist the problem solving in a timely manner. In order to prioritize the effort and provide a high level of service to each customer, severity levels are assigned to different types of issues. Make sure that you are relaying the appropriate severity to the Service Provider TAC when creating your case. The following chart provides the severity levels and general descriptions to assist in making that determination:

Severity Level	Severity Definition	Expected Response Times
S1: Critical*	System is not serving data. Performance degradation to the point that system is unusable. Critical business impact	30 minutes
S2: High	System is serving data, but there is a meaningful impact on business operations.	2 hours

Severity Level	Severity Definition	Expected Response Times
S3: Medium	Experiencing an anomaly or unexpected behavior that leads to inconvenience with little to no operational impact	12 hours
S4: Low	How to questions, technical inquires, cosmetic issues with no bearing on operation	1 day
S5: RFE	Maintenance windows and other services including Requests for Enhancements (RFE)	2 days

*Severity 1 cases require that all parties are committed to work on the issue in full cooperation around the clock until a solution or acceptable workaround is in place.

3.7 Priority and Escalations

Case creation is available by phone, support portal or email, and can be created or requested by customers, partners/VARs, or other Service Provider employees. Most cases are assigned case owners in the Service Provider TAC. Our objective is to quickly resolve customer problems using the most appropriate support resources and developed methodology for case management.

Should you wish to escalate the severity of the issue, please contact the Service Desk and request escalation. The Service Desk team will immediately engage with the Level 2 support team and manage the issue as required in accordance with the support contract SLA.

NOTE For escalations due to a change in severity (such as change of a case to S1) and related urgency, it is advisable to use phone support, as recommendations and case changes can be made immediately. (Section 3.5 lists applicable Service Provider TAC phone numbers)

3.8 Service Provider Support Network

Service Provider will move swiftly to involve necessary engineering teams to assist in resolving complex issues. Our technicians are trained to be able to identify issues that require escalation and can share case records so that continuity in the troubleshooting process is maintained.

Chapter 4: Service Support Agreements

4.1 How To Obtain Additional Product Support

Service Provider offers a variety of support options depending on the criticality of the system uptime and customer self-serve capabilities. Customers will purchase one of the Support Level contracts through their VAR or re-seller with the associated Serial Number of the switch. Service Provider will enter the Serial Number supported under the specific contract, to be able to determine the appropriate service entitlement.

4.2 Service Provider Support Agreements

The following offers are available to be purchased to provide additional and/or extended support for the products purchased:

Coverage Type SLA	Remote Call Back and Active Support	Parts Support*	Onsite Tech*
24x7xNBD Onsite - (NDO)	24x7	NBD	NBD
24x7x4HR Onsite - (4OS)	24x7	4HR	4HR
24x7xNBD parts only - (NDP)	24x7	NBD	None
24x7x4HR parts only - (4P)	24x7	4HR	None
8x5xNBD Onsite - (85OS)	8x5	NBD	NBD
8x5xNBD parts only - (85P)	8x5	NBD	None

The Service Provider TAC is open 24/7 for case creation. Your service level will dictate response times from our technical staff. For 8x5 agreements Technical Support will be in local time from 8:00am-5:00pm, but case creation can happen around the clock.

*Parts support SLA is based on the time the Service Provider TAC determines that a replacement part is needed until the time replacement part arrives onsite. In the case of next business day, determination of part replacement needs to occur by 13:00 local site time.

Support SLA availability is dependent on where the asset is installed. If a customer's BES-Switch is relocated, it is the responsibility of the customer to proactively notify the Service Provider. Service Provider will notify the customer if a new location impacts support availability or SLAs. Incorrect information reported by the customer including issues, contact person, contact address etc., may result in support delays and penalties (including monetary fines) imposed on the customer. If a customer's switch is relocated and the Service Provider is not notified in advance, any new support cases may be subject to a best effort SLA. The Service Provider may also need up to 30 days to activate support in the new location before the contracted SLA can be met.

4.3 Support Agreement Definitions

4.3.1 4-hour Onsite (4OS)

Provides 4-hour response for onsite parts and labor from the time the Service Provider TAC has determined a replacement is required and confirmed dispatch with the customer. The onsite technician with the assistance from the customer will ensure the switch contains the appropriate firmware and will restore any port licenses previously installed on

the failed switch. Customer obligation is to provide necessary access to the support personnel including their online access to download the appropriate software and allowing them to speak to the Service Provider TAC as needed. 4OS is subject to customer providing Support with accurate information regarding the description of the repair problem, the part number, the serial number, and the return address. 4OS is offered in most major metropolitan areas worldwide and is available 24/7. Customer is responsible to ensure that the replaced part is returned to the Service Provider by following the instructions in the case. See section 0 for details on onsite support.

4.3.2 4-hour Parts (4P)

Provides 4-hour response for parts replacement from the time Support has determined a replacement is required and confirmed dispatch with the customer. 4P is subject to customer providing Support with accurate information regarding the description of the repair problem, the part number, the serial number, and the return address. Physical installation of the replacement part and defective product return shall be performed by the customer. 4P is offered in most major metropolitan areas worldwide and is available 24/7. Customer is responsible for working with the Service Provider TAC to download the appropriate software and bring up port licensing to the required level.

4.3.3 Next-business-Day Onsite (NDO)

Provides next-business-day response for onsite parts and labor on replacement parts from the time Support has determined a replacement is required and confirmed dispatch with the customer. The onsite technician will ensure the switch contains the appropriate firmware and will restore any port licenses previously installed on the failed switch. Customer obligation is to provide necessary access to the support personnel including their online access to download the appropriate software and allowing them to speak to the Service Provider TAC as needed. NDO is subject to customer providing Support with accurate information regarding the description of the repair problem, the part number, the serial number, and the return address. NDO is available in most major metropolitan areas worldwide and is available on business days from 9am-5pm local time to customer site. See section 0 for details on onsite support.

4.3.4 Next-business-Day Parts (NDP)

Provides next-business-day response for parts replacement from the time Support has determined a replacement is required and confirmed dispatch with the customer. NDP is subject to customer providing Support with accurate information regarding the description of the repair problem, the part number, the serial number, and the return address. Physical installation of the replacement part and defective product return shall be performed by the customer. NDP is available in most major metropolitan areas worldwide and is available on business days from 9am-5pm local time to customer site. Customer is responsible for working with the Service Provider TAC to download the appropriate software and bring up port licensing to the required level.

4.4 Parts Only and Onsite Support

Customers with a Parts Only Support SLA receive:

- Access to firmware updates via Broadcom linked customer support portal
- Remote technical support and triage of switch hardware and software
 - Customer must provide remote access and logs, as requested, to enable the Service Provider TAC to diagnose hardware and software issues
- If a hardware failure has been confirmed:
 - Dispatch of replacement part (FRU, switch) per the contract SLA purchased

Customers with an Onsite Support SLA receive:

- Access to firmware updates via Broadcom linked customer support portal
- Remote technical support and triage of switch hardware and software
 - Customer must provide remote access and logs, as requested, to enable the Service Provider TAC to diagnose hardware and software issues

- If all remote options to determine cause of failure have been exhausted, an onsite technician may, at Broadcom's discretion, be dispatched onsite to continue triage efforts
- If a hardware failure has been confirmed:
 - Dispatch of replacement part (FRU, switch) per the contract SLA purchased
 - Technician dispatched onsite to customer location for physical replacement of failed part per the contract SLA purchased
 - Activation of port licenses on replacement device
 - Firmware upgrade/downgrade to existing customer version
- Customer is responsible for:
 - Executing procedure to bring down cluster storage/compute connectivity prior to the arrival of the technician
 - Re-loading of customer specific configuration and bringing up customer specific network topology after part replacement

Onsite Support does not include:

- Troubleshooting of Installation issues
- Onsite triage of HW/SW prior to completing remote efforts (customer must provide access and be willing to engage with the Service Provider TAC during remote triage efforts)
- Onsite triage of the configuration and/or interoperability issues
- Re-loading of customer specific configuration and bringing up customer specific network topology
- Executing procedure to bring down and bring up cluster storage/compute connectivity installed by a third-party
- "Part in Hand" – the technician will not arrive onsite with the replacement part in hand, the part will be dispatched to the customer location in advance of the technician's arrival

4.5 Request for Non-technical Services

To purchase additional switches, field replaceable units, maintenance contracts or licenses, please contact your VAR or reseller or reach out to BroadcomBES@shyftservices.com.

4.6 Software Updates

Customers who purchase maintenance contracts will have access to the BES-Switch online customer support portal located at <https://sigtech.my.site.com/BESSwitch/s/login/> to:

- Open new cases
- Manage existing cases
- Access Switch documentation
- Access drivers/firmware/software downloads

NOTE If no maintenance contract is purchased, customers have 90 days of remote support for software related issues under the standard warranty, from the date hardware is shipped to the customer.

4.7 Customer Data Backup and Customer Specific Configurations

Service Provider does not provide backup of customer specific configurations. Our technical team will work to get the product back to working order, but this may require additional efforts by the customer or VAR to restore unique customer programmed configuration data.

4.8 Switch Return Policy

Customer will work with Service Provider TAC to arrange pick-up of the failed switch:

- Customer must schedule a return of the faulty switch within 15 calendar days of receiving the replacement switch.
- The switch is expected to be returned in a supportable/repairable condition, and not found within a coverage limitation state, as defined in section 5.2.
- If Customer is unresponsive, or if no pick-up is scheduled within the timeframe mentioned above:
 - Support on the replacement switch is suspended until the faulty switch is received.
 - Customer will have no access to support during this duration, including portal access and firmware updates.
 - Upon receipt of the faulty switch, support will be reinstated under the original term and expiration date.
 - If the switch is lost and/or never returned:
 - Customer will be invoiced at the list price for the replacement of the lost switch.
 - Support on replacement switch will remain suspended until payment has been received.

4.9 Security Access Protocols

If customer has specific access requirements for secure or sensitive sites:

- Provider will make a best-effort attempt to comply with security access requirements, but provider cannot guarantee compliance with such requirements, including but not limited to software and/or specific hardware requirements for debug or analysis equipment.
 - Adherence to specific site requirements will be handled on a case-by-case basis and at a best-effort capacity.
 - At the time of notification of requirements, customer will be provided with options regarding provider's ability to comply.
 - In specific instances where provider cannot comply with requirements, customer may be asked by provider to propose alternative accommodations so that the technician can appropriately complete the prescribed action plan. This may include providing the assigned technician with a laptop or other equipment that meets site requirements, or customer completing the assigned activity with guidance from the provider.
 - Customer should be aware that due to efforts made to comply with requirements, the timing of the action plan may be delayed, which may result in extended maintenance windows.

4.10 Renewals and Extended Support

Maintenance contract renewals are sold directly through the Service Provider and are based on the Service Provider's current service price.

Service Provider provides up to five years of service in 12 month increments, and further up to two years of extended support. Contact your OEM supplier or Service Provider directly at BroadcomBES@shyftservices.com for pricing and additional quotes for the remainder of the support agreement.

Chapter 5: Installation Services

Installation services are not included as part of maintenance contracts.

5.1 Spares and Inventory Availability

Service Provider has created a distribution network of spare parts maintained globally. Upon a customer order for maintenance contract, Service Provider will verify and ensure that the necessary spares are available to support the required SLAs, this may take up to 30 days after the Purchase Order for the support contract to be processed. Any hardware failures in this duration will be handled through within the scope of the DOA support model.

In the event of product failure, Service Provider may at its discretion provide parts that have been refurbished or previously used. The part will be in good working order and carry the remainder of the warranty from the replaced/faulty part.

NOTE Due to restricted trade agreements, import/export restrictions, or other reasons, maintenance contracts may not be available in all geographic locations.

5.2 Warranty Coverage Limitations

Coverage does not include:

- Failures caused by negligence, improper use, improper storage or handling, or abuse;
- Failures caused by a casualty or other non-routine event, including fire, flood, wind, hail, tornado, electrical storms, hurricane or other acts of god;
- Failures caused by loss of or faulty power, heating or cooling;
- Failures caused by unusual physical or electrical stress, unusual external or environmental conditions;
- Failures/problems caused by unauthorized third-party hardware or software;
- Failures due to customer unwillingness or inability to provide adequate debug environment and access for support personnel;
- For all Onsite support models, due to sensitive custom network setups, help from the network operator and customer is needed for accurate connectivity

Maintenance Services do not include electrical work external to Covered Equipment.

5.3 Supported Countries List

Support options as stated earlier are in general available for most customer sites. However, in certain regions and cities, some of these options are **not** available. In those cases, support might be limited.

Before you finalize support services and the associated level of support, Service Provider recommends that you confirm that support can be provided at the level requested, based on the customer's equipment location. This step helps avoid gaps in support expectations. If you are uncertain about a specific customer location or if you have questions about the service support for the SLA coverage, email BroadcomBES@shyftservices.com and provide the name of the business entity from which you bought or planning to buy the switch product. Use this email address to confirm support for a specific customer site.

5.4 Summary of Service Levels and Descriptions

Coverage Type	Description
24x7xNBD Onsite - (NDO)	<p>Case creation available seven (7) days a week, twenty- four (24) hours a day.</p> <p>Remote support available seven (7) days a week, twenty- four (24) hours a day.</p> <p>Onsite hardware replacement and remote software maintenance for the Covered Equipment will be performed on the next business day following the date on which Service Provider has performed remote problem diagnosis and determined that onsite service is required, and the service request cannot be resolved by phone.</p>
24x7x4HR Onsite - (4OS)	<p>Case creation available seven (7) days a week, twenty- four (24) hours a day.</p> <p>Remote support available seven (7) days a week, twenty- four (24) hours a day.</p> <p>Onsite hardware replacement and remote software maintenance for the Covered Equipment within four (4) hours of the time Service Provider has performed remote problem diagnosis and determines that onsite service is required, and the service request cannot be resolved by phone.</p>
24x7xNBD parts only - (NDP)	<p>Case creation available seven (7) days a week, twenty- four (24) hours a day.</p> <p>Remote support available seven (7) days a week, twenty- four (24) hours a day.</p> <p>Service Spare delivery for the Covered Equipment will be on the next business day following the date on which part request is approved.</p>
24x7x4HR parts only - (4P)	<p>Case creation available seven (7) days a week, twenty- four (24) hours a day.</p> <p>Remote support available seven (7) days a week, twenty- four (24) hours a day.</p> <p>Service Spare delivery for the Covered Equipment within four (4) hours of the time that the part request is approved.</p>
8x5xNBD Onsite - (85OS)	<p>Case creation available seven (7) days a week, twenty- four (24) hours a day.</p> <p>Remote support available five (5) days a week, nine (9) hours a day (8am to 5pm local time).</p> <p>Onsite hardware and remote software maintenance for the Covered Equipment will be performed on the next business day following the date on which Service Provider has performed remote problem diagnosis and determines that onsite service is required, and the service request cannot be resolved by phone.</p>
8x5xNBD parts only - (85P)	<p>Case creation available seven (7) days a week, twenty-four (24) hours a day.</p> <p>Remote support available five (5) days a week, nine (9) hours a day (8am to 5pm local time).</p> <p>Service Spare delivery for the Covered Equipment will be on the next business day following the date on which part request is approved.</p>
Handling Dead on Arrival (DOA)	<p>DOA (Dead on Arrival) is ascertained when the hardware is determined to have failed upon installation and/or first time use and is typically classified based the provided S/N which corresponds to a shipment date, and type of problem reported. The Service Provider TAC will always troubleshoot the problem prior to approving any failure. DOA is valid only within the first 30 days after product shipment to the customer.</p> <p>Service Provider will provide call support for DOA Switch Product(s) on a 24 x 7 basis. If it is determined that the Switch Product(s) is DOA, Service Provider will dispatch on next business day Switch Product(s) or component stock from the designated central stocking location. Due to variable distances between the delivery location and a central stocking location, Service Provider shall not be required to guarantee a delivery time for any shipment. Only Service Provider shall determine if the product is DOA. DOA replacement will not include onsite support. Service Provider Support Services will not begin until after successful installation of the Switch Product.</p> <p>Customer is required to work with the remote Service Provider TAC to bring the software and port license on the replaced switch to the appropriate level.</p> <p>Customer will follow the established RMA process flow as defined by Service Provider. Service Provider will be responsible for all shipping costs to provide the DOA replacement, including the cost of returning the failed unit back to Service Provider or a facility of Service Provider 's choosing. Replacement Switch Product(s) will be sent to the identified customer location per the information listed on the RMA.</p> <p>Service Provider will be responsible for the Exporter and Importer of Record (EOR/IOR) activity as it relates to servicing a DOA Switch Product.</p>

Coverage Type	Description
Handling Non-DOA Failures Under Maintenance Support Contract	<p>A customer must always verify with Service Provider TAC that an issue is caused by a failed hardware part. The Service Provider TAC will remotely diagnose and be the sole determiner of hardware failure. Service Provider will validate warranty status of the switch based on its Serial Number.</p> <p>It is recommended that the customer troubleshoot the relevant asset, collect pertinent information, and contact Service Provider TAC as soon as problem is recognized. The customer will receive an RMA number, and instruction on how to return the failed part via the Case tracking system. Part replacement will be covered based on the support contract SLA. It takes 30 days to activate the SLA after the support contract is processed.</p>
Hardware Warranty Only Support	<p>Case creation available seven (7) days a week, twenty- four (24) hours a day. Remote support available seven (7) days a week, twenty-four (24) hours a day.</p> <p>Following determination that a Switch Product(s) covered under the standard warranty has failed, Service Provider will provide RMA information to the customer for return to appropriate Service Provider facility. Customer is responsible for all costs to return the Switch Product(s) to the Service Provider facility. Upon receipt of failed Switch Product(s) at the Service Provider facility, Service Provider will facilitate a replacement to the Customer location as a best effort service. Advanced Replacement will not apply to customers who have not purchased a Services Contract, and any replacements are not subject to a specific SLA.</p> <p>Customer without a Service Contract will be responsible for EOR on Switch Product(s) returns to Service Provider as well as IOR responsibilities for all replacements.</p>
Installation Support	<p>Installation support is not covered in any of the Support Services provided by Service Provider. Installation support, if offered, will be provided by the OEM Customer or a third-party system integrator of BES-Switch.</p>

Revision History

BES-Switch_End_User_Support_UserGuide_v1.4; June 2023

Updated portal URL.

BES-Switch_End_User_Support_UserGuide_v1.3; March 2023

Added Shyft Global Services logo, information and email addresses.

Added Switch Return Policy language.

Added Security Access Protocols language.

BES-Switch_End_User_Support_UserGuide_v1.2; March 2021

Added Information on Buying and Renewing Support Contracts.

BES-Switch_End_User_Support_UserGuide_v1.1; February 2021

Added Summary table in Section 11.

BES-Switch_End_User_Support_UserGuide_v1.0; October 2020

Initial document version.

