Section 1: About This Document

These are the Release Notes for the Broadcom Network Switching Software Development Kit, Release 5.10.1

This document provides a general description of the release and its new features. It also describes the chips supported by the release, BCM/BCMX API additions or changes, resolved issues, and any relevant open issues.

Section 2: Product Documentation

The following documents are available through Broadcom's Customer Support Portal, http://support.broadcom.com. They are the primary source of information and should be referenced when using this release:

Table 1: Product Documentation

Document	Description
56XX-PG624-R	BCM and BCMX API Reference Guide.
	This manual describes the theory of operations of the API and all existing BCM and BCMX APIs for this release.
[**56XX-PG704-R]	Stacking Software Guide
	This guide describes how to use the discovery and stacking applications provided in this release.
56XX-PG812-R	Platform Guide
	This guide describes the SDK source and Makefile structure, abstraction and porting layers, device specific interactions, and the platform/operating system specific features of the SDK. If this is your first time working with the SDK, start with this document.

Section 3: Release Media

The Software Development Kit is released as a gzipped tar file on the Broadcom Customer Support Portal, http://support.broadcom.com. The Network Switching Software Platform Guide, also available on the Customer Support Portal, provides documentation on the various components, the source directory layout, how to build the release for various platforms, and how to customize and port the software to new platforms.

Section 4: Support

Questions, feedback, and/or suggestions should be sent to your Broadcom FAE.

Section 5: New in this Release

This section describes feature and device support that is introduced in this release.

THINGS TO NOTE

NEW DEVICES AND SYSTEMS

For any given SDK release, support for certain devices may be provided in Preview or Supported status. Devices in preview status are provided to allow early integration of the customer's application with the SDK APIs that support that device. This software has not been tested on the physical target device and should not be expected to fully function.

Devices in "Supported" status have completed the full QA process and are intended for use in production systems. It is expected that customers would integrate the version of the SDK which provides "Supported" status for their use on actual development or production systems.

Table 2: PHYs

Device	Driver Family	Support Status	Description
`BCM84834_B0`	8481	Quad 10GBASE-T Transceiver. Firmware version 1.25 (Preview)	
`BCM54380_B0`	54380	Octal 1000/100/10BASE-T Gigabit Ethernet Transceiver (Needs additional software component)	
`BCM54382_B0`	54380	Octal 1000/100/10BASE-T Gigabit Ethernet Transceiver (Needs additional software component)	

Table 3: CPU and Operating System Combinations

CPU Subsystem	Operating System	Description
BCM5360X	VxWorks 5.5	BSP Provided
BCM5360X	VxWorks 6.6	BSP Provided
BCM5360X	Linux 2.6.21	Available through WindRiver Linux 2.0
BCM5360X	Linux 2.6.27	Available through WindRiver Linux 3.x

SUMMARY OF BCM AND BCMX API CHANGES

This section summarizes BCM and BCMX API changes in this release. Complete documentation is available in the Network Switching Software Programmer's Guide [**56XX-PG609-R]. (See section 2 earlier in this document for availability).

Unless otherwise mentioned, any newly defined or changed BCM API will have equivalent changes in the BCMX APIs.

Some of the API recently introduced in 5.10.0GA have been changed. The new signature and the description of these changed APIs are listed in the sections below.

1. Field

bcm_field_stat_id_get

Get stat counter id associated with given field group.

Syntax

```
#include <bcm/field.h>
int
bcm_field_stat_id_get(
    int                 unit,
    bcm_field_group_t group,
    uint32              stat_id,
    uint32              *stat_counter_id);
```

Parameters

unit	(IN) Unit number.
group	(IN) Group number.
stat_id	(IN) Statistics entity ID
stat	(IN) Type of the counter to retrieve
stat_counter_id	(OUT) Stat Counter ID

Description

This API will provide stat counter ids associated with given field group.

Returns

BCM_E_xxx

2. MPLS

bcm_mpls_port_stat_counter_get

Get counter statistic values for specific vpn and gport

Syntax

```
#include <bcm/mpls.h>
int
bcm_mpls_port_stat_counter_get(
    int                unit,
    bcm_vpn_t          vpn,
    bcm_gport_t        port,
    bcm_mpls_stat_t    stat,
    uint32             num_entries,
    uint32             *counter_indexes,
    bcm_stat_value_t *counter_values);
```

Parameters

unit	(IN) Unit number.
vpn	(IN) VPN ID
port	(IN) MPLS Gport
stat	(IN) Type of the counter to retrieve
num_entries	(IN) Number of counter Entries
counter_indexes	(IN) Pointer to Counter indexes entries
counter_values	(OUT) Pointer to counter values

Description

This API will retrieve set of counter statistic values for specific vpn and gport.

Returns

BCM_E_xxx

bcm_mpls_port_stat_counter_set

Set counter statistic values for specific vpn and gport

Syntax

```
#include <bcm/mpls.h>
int
bcm_mpls_port_stat_counter_set(
    int                 unit,
    bcm_vpn_t           vpn,
    bcm_gport_t         port,
    bcm_mpls_stat_t     stat,
    uint32              num_entries,
    uint32              *counter_indexes,
```

```
    bcm_stat_value_t      *counter_values);
```

Parameters

unit	(IN) Unit number.
vpn	(IN) VPN ID
port	(IN) MPLS Gport
stat	(IN) Type of the counter to set
num_entries	(IN) Number of counter Entries
counter_indexes	(IN) Pointer to Counter indexes entries
counter_values	(IN) Pointer to counter values

Description

This API will counter statistic values for specific vpn and gport.

Returns

BCM_E_xxx

bcm_mpls_port_stat_id_get

Get stat counter id associated with given mpls gport and vpn.

Syntax

```
#include <bcm/mpls.h>
int
bcm_mpls_port_stat_id_get(
    int                 unit,
    bcm_vpn_t           vpn,
    bcm_gport_t         port,
    bcm_mpls_stat_t     stat,
    uint32              *stat_counter_id);
```

Parameters

unit	(IN) Unit number.
vpn	(IN) VPN ID
port	(IN) MPLS Gport
stat	(IN) Type of the counter
stat_counter_id	(OUT) Stat Counter ID

Description

This API will provide stat counter ids associated with given mpls gport and vpn.

Returns

BCM_E_xxx

bcm_mpls_label_stat_counter_get

Get counter statistic values for specific MPLS label and gport

Syntax

```
#include <bcm/mpls.h>
int
bcm_mpls_label_stat_counter_get(
    int                 unit,
    bcm_mpls_label_t    label,
    bcm_gport_t         port,
    bcm_mpls_stat_t     stat,
    uint32              num_entries,
    uint32              *counter_indexes,
    bcm_stat_value_t    *counter_values);
```

Parameters

unit	(IN) Unit number.
label	(IN) MPLS Label
port	(IN) MPLS Gport
stat	(IN) Type of the counter to retrieve
num_entries	(IN) Number of counter Entries
counter_indexes	(IN) Pointer to Counter indexes entries
counter_values	(OUT) Pointer to counter values

Description

This API will retrieve set of counter statistic values for specific MPLS label and gport.

Returns

BCM_E_xxx

bcm_mpls_label_stat_counter_set

Set counter statistic values for specific MPLS label and gport

Syntax

```
#include <bcm/mpls.h>
int
bcm_mpls_label_stat_counter_set(
    int                 unit,
    bcm_mpls_label_t    label,
    bcm_gport_t         port,
    bcm_mpls_stat_t     stat,
    uint32              num_entries,
    uint32              *counter_indexes,
    bcm_stat_value_t    *counter_values);
```

Parameters

unit	(IN) Unit number.
label	(IN) MPLS Label
port	(IN) MPLS Gport
stat	(IN) Type of the counter to set
num_entries	(IN) Number of counter Entries
counter_indexes	(IN) Pointer to Counter indexes entries
counter_values	(IN) Pointer to counter values

Description

This API will set counter statistic values for specific MPLS label and gport.

Returns

BCM_E_xxx

---

bcm_mpls_label_stat_id_get

Get stat counter id associated with given mpls label and gport.

Syntax

```
#include <bcm/mpls.h>
int
bcm_mpls_label_stat_id_get(
    int                 unit,
    bcm_mpls_label_t    label,
    bcm_gport_t         port,
    bcm_mpls_stat_t     stat,
    uint32              *stat_counter_id);
```

Parameters

unit	(IN) Unit number.
label	(IN) MPLS Label
port	(IN) MPLS Gport
stat	(IN) Type of the counter
stat_counter_id	(OUT) Stat Counter ID

Description

This API will provide stat counter ids associated with mpls label and gport.

Returns

BCM_E_xxx

RESOLVED ISSUES FOR 5.10.1

The following issues are resolved in version 5.10.1 of the SDK.

Table 4:

Number	Release Notes For 5.10.1
SDK-24850	For entries in Lookup stage with counters attached to it, `BCM_FIELD_COUNTER_MODE_DEFAULT` counter mode must be used for bcmFieldActionUpdateCounter action. `bcm_field_entry_install()` API will return `BCM_E_CONFIG` error when entries with invalid hardware counter mode is detected. It is recommended to use `bcm_field_stat_xxx()` APIs instead of counter APIs, as for all newer devices only STATs APIs are supported.
SDK-32065	The "intr" diag command was giving an error. This issue has been fixed.
SDK-33252	Fix MODID assignment on BCM5684x.
SDK-33384	Added proper error check when calling mmap from Linux user mode BDE.
SDK-33417	Update Linux module bcm-net to support Linux kernel 2.6.27 and newer.
SDK-33748	Repaired `bcm_cosq_gport_discard_set/get` functions in BCM56820-only compilation.
SDK-33963	Fixed error in trunk destination handling in `bcm_mirror_port_get`.
SDK-34013	`bcm_cosq_gport_statistic_multi_get()` was failing for certain types of logical ports on BCM88230 devices.
SDK-34018	The GE PHY `master_get()` routines now obtain the master / slave status from the GE stataus register (reg. 0xa) instead of the GE control register (0x9).
SDK-34097	Fix an assertion due to out of range VLAN class id.
SDK-34120	Enable CR4 mode (for DFE) support between 56843 & 84740
SDK-34121	`bcm_port_fault_get()` now supports HG and XE ports on BCM88230 devices.
SDK-34167	Added additional link status tests for removable PHY devices to ensure that the proper link status is reported when a PHY is removed.
SDK-34177	API `bcm_vlan_translate_action_range_traverse` should now work correctly for BCM5684x Switches
SDK-34185	Fixed L3 egress object retrieval for `bcm_tunnel_switch_get` API.
SDK-34254	Test case (`AT_mpls_326`) added to provide API usage for VPWS Software-based Failover/protection mechanism. Fixed invalid memory access introduced as a result of earlier checkins.
SDK-34265	QE2000 easy reload bugfix for memory access on initialization.
SDK-34337 SDK-35385 SDK-35378	Turned `soc_feature_tunnel_dscp_trust` 'on' for BCM `56218_a0`, `56224_a0`, `56224_b0`, `53314_a0`, `53324_a0`, `56800_a0`, `56820_a0` and `56725_a0`.
SDK-34350	`bcm_mpls_tunnel_initiator_create` API may be used to create `Explicit_NULL` label. User may create multiple of these labels with the same EXP and TTL values and different L3 Interfaces. In such a scenario, each L3 Interface should point to the same MPLS-Tunnel entry.

Table 4:

Number	Release Notes For 5.10.1
SDK-34352	For L3-VPN egress into MPLS-Tunnel, `EGR_L3_NEXT_HOP.ENTRY_TYPE` =1. When `ENTRY_TYPE` is modified to 1, then Entry-0 index gets assigned to `EGR_L3_NEXT_HOP.VC_AND_SWAP_INDEX`. Entry-0 of `EGR_MPLS_VC_AND_SWAP_LABEL_TABLE` is reserved for default-entry with `LABEL_ACTIONf = RESERVED`. This is to ensure that Entry-0 is not re-assigned with Valid `Label_action`.
SDK-34421	Fixed MIIM C45 functions to properly use CMICm.
SDK-34427	Support the `bcm_field_stat_create_id()` function for ROBO chips.
SDK-34466	Add the support to configure the untagged packets mapping of the functions, `bcm_port_vlan_priority_map_set/get()`, for ROBO chips.
SDK-34483	Fixed occasional Linux kernel `skb_over_panic` when KNET kernel module is used in default receive mode (`use_rx_skb=0`).
SDK-34524	Improved parameter validation in `bcm_cosq_gport_attach_get()` on BCM88230 devices.
SDK-34525	`bcm_cosq_gport_delete()` might cause an existing shaper on other queues to not function properly on BCM88230 devices
SDK-34532	Program the correct value in RPE field for Vlan Translation Table.
SDK-34537	For scenarios where MPLS label is same but EXP and TTL are different, index to `EGR_VC_AND_SWAP_LABEL_TABLE` must be different. This issue is fixed.
SDK-34539	Only during request for physical statistics will the call getting a physical interface number be accessed.
SDK-34541	Fix diag shell show counter output display names for unicast queue drop counter and multicast queue drop counter on BCM5684x.
SDK-34547	Remove unsupported `bcm_robo_stat_custom_get/set` APIs for ROBO chips.
SDK-34564	CINT functions could not access global variables if called from an enclosing block scope in the interpreter.
SDK-34596	Eliminated warnings when compiling CINT with GCC 4.6.0
SDK-34598	"stktask tx" diag shell subcommand was not returning calculated return code.
SDK-34600	Fix `bcm_rate_set` API when applying different limit setting for different types of traffic on the same port in packet mode.
SDK-34615	`EP_DEST_PORT_MAP` is no longer configured by SDK on BCM88230 devices when the configuration property `"fabric_egress_setup"` is set to 0.
SDK-34627	Sirius: Remove unwanted condition check from loop that builds the 'other' paths for higig 'raw' replication, preventing it automatically trying to rebuild the one provided by the caller.
SDK-34633	allow `bcm_cosq_gport_add` to not allocate sysport on bcm88230
SDK-34637	The common C idiom to 'loop forever', "for(;;)", executes no statements in body.
SDK-34661	Memory leak was happening for LP ports while creating a trunk. This was fixed by properly releasing the memory allocated for LP ports in `pkt_addr_resole()` API of sdk/src/bcmx/tx.c
SDK-34677	Copy the 'priority' and 'class id' onto the route structure while setting defip route info.
SDK-34678 SDK-35099	Fixed improper initialization of `bcm_l3_egress_t` structure.
SDK-34694 SDK-35279	`bcm_field_qualify_data()` parameters were being serialized over RPC as expected.
SDK-34695	CES related DPCs are cleaned up via the `bcm_esw_ces_detach()` method is called via the diag command "ces off". The cleanup call has been added to the rc.soc file.
SDK-34724	Correct invalid data access in subport module on BCM56820/BCM56720 devices.

Table 4:

Number	Release Notes For 5.10.1
SDK-34728	HiGig ports on BCM88230 devices now support auto equalization through "phy" Diag shell commands. For example "phy control hg1 retune"
SDK-34741	enable `soc_feature_field_action_redirect_nexthop` for bcm56334.
SDK-34763	Use syntonized time instead of synchronized time when calculating toggle time to get rid of previous offset value.
SDK-34770	Fixed `bcm_vlan_control_port_set` for MPLS Gport
SDK-34792	Clear the Warm Boot stable cache bookkeeping records when attaching a new device to the driver.
SDK-34793	Added proper help support for dynamic CLI commands.
SDK-34813	SOC property for demand scale should ideally not be used. The defect is usage of SOC property is fixed (in case some application is still using it)
SDK-34819	The default VLAN should now switch packets properly for BCM5684x
SDK-34820 SDK-35233	Fixed issue with reuse of of `EGR_MPLS_VC_AND_SWAP_LABEL_TABLE` entry.
SDK-34834	Show counters now also checks for XE ports.
SDK-34860	Improved internal boundary checks in `bcm_multicast_egress_add()` on BCM88230 devices in order to limit the encapID chain to 256. However the defined limit was a s/w constraint. There is no need to impose a s/w constraint. Thus this s/w constraint is now removed.
SDK-34893 SDK-34887	Eliminated magic number in Linux user mode BDE interface.
SDK-34898	Pass -1 for trill port resolve to indicate DVP next hop egress encap id
SDK-34905	Fixed system halt when loading linux-bcm-core.ko kernel module on Keystone CPU platforms.
SDK-34911	Fixed Trunk ID validation check in `bcm_field_qualify_SrcTrunk/ DstTrunk` qualifier APIs for Trident device. Trident device can support up to 1024 front panel trunk groups.
SDK-34978	Added support for VLAN OOB filter in BCM KNET API.
SDK-34997	fixed serdes and trunk issue with certain bringup API sequence on bm9600
SDK-35014	Added diag shell command for WAN "stretch" mode.
SDK-35030	1. Set T bit at appropriate bit position in SGLP field of `L3_ENTRY_IPV4_UNICAST` LMEP 2. Program `OFFSET_VALID` bit in `ING_SERVICE_PRI_MAP`. 3. Set correct RX reason code to reflect OamLMDM.
SDK-35054	Expanded parameter checks in `bcm_l3_egress_create` to prevent invalid register access.
SDK-35089	Adjust Warpcore serdes Tx clock PPM to address EMI failure issue.
SDK-35108	Fixed error in `_bcm_tr_mpls_match_key_recover` during recover of MPLS match keys from appropriate `MPLS_ENTRY` entries.
SDK-35116	Corrected error in 'while' loop.
SDK-35132	Support OAM Loss Measurement/Delay Measurement MEPs created on trunk.
SDK-35156	Enabled MSI interrupt in `CMIC_CMC0_PCIE_MISCEL` register.
SDK-35161	Clear MMU back pressure status when disabling PFC transmit. This is to ensure MMU to stop transmitting pause frame if it was in XOFF state before disabling PFC.

Table 4:

Number	*Release Notes For 5.10.1*
SDK-35165	Updated `bcm_field_entry_prio_set()` API to use slice size while determining the target slice index value. This fix is applicable to devices that have physical slices of different sizes i.e Trident and Scorpion device.
SDK-35168	Field qualifiers init routine for Scorpion device has been updated to select the source class ID value for bcmFieldQualifySrcClassL2 and bcmFieldQualifySrcClassL3 qualifiers.
SDK-35177	Enforced the use of value 1 used to indicate TRUE in the phy8481.c driver.
SDK-35213	fixed `bcm_cosq_gport_attach` API failure when certain detach/attach API sequence is done on bcm88230
SDK-35288	Fixed `bcm_field_stat_set()` API internal implementation for Lookup stage.
SDK-35296	Change to allow `bcm_rate_` API to configure higher packet rate [40Gbps].
SDK-35328	Fixed the `bcm_tx()` with callback function in pkt->callback field would cause TX task hang on ROBO chips.
SDK-35339	Expanded parameter checks in `bcm_mpls_tunnel_initiator_set` to prevent invalid register access.
SDK-35393	Array types that used a macro to specify the array size (such as `bcm_vlan_vector_t)` were treated as a scalar type.

RESOLVED ISSUES FOR 5.10.0

The following issues are resolved in version 5.10.0 of the SDK.

Table 5:

Number	*Release Notes For 5.10.0*
BSP-158	Discarding the received packets that corrupted when the RX overflow event happened of Keystone GMAC core.
SDK-25142	Added support for out of band HCFC support for BCM88230 devices
SDK-25188	Added CINT function `cint_timer_get()` to get the current value of the CINT timer. Changed CINT functions `cint_timer_start()` and `cint_timer_stop()` to provide a more useful programming interface.
SDK-28627	For small memory configuration, allocate 1/4 of counter capacity to egress counters.
SDK-28797	Implemented performance optimization for LPM route operations.
SDK-29933	`bcm_stat_multi_get()` and `bcm_stat_multi_get32()` are now supported on appropriate XCORE devices.
SDK-30232	Added multipath shaper support for BCM88230 devices
SDK-30612	BCM 88025: Added support for PSC message transmission and reception in micro-code. Burst and slow-rate modes supported for TX. A hold-down timer is implemented on RX to silently drop all but the first received packet in a burst.
SDK-30698	Use hardware `L2_BULK` operation for matching mac or virtual port destination instead of software traverse on BCM5684x.

Table 5:

Number	Release Notes For 5.10.0
SDK-30775	Customer may configure `RETURN_VALUE` during SwitchControl Set operation: `bcm_switch_control_set(0, bcmSwitchL3HostAsRouteReturnValue, customer_specified_RVAL);` 1. `bcm_l3_host_add` API return "`customer_specified_RVAL`" when HOST entry is added to ROUTE. 2. `bcm_l3_host_delete` API return "`customer_specified_RVAL`" when HOST entry is deleted from ROUTE. 3. `bcm_l3_host_add` API with `flag=BCM_L3_REPLACE` return "`customer_specified_RVAL`" when ROUTE entry gets migrated to HOST
SDK-30870	Add `bcm_cosq_gport_mapping_set/get` API for internal priority to cos queue mapping.
SDK-30935	Updated `bcm_field_data_packet_format_t` structure members variables `fibre_chan_outer` and `fibre_chan_inner` from `uint8` to `uint16` type. To fix compilation warning when these variables are assigned `BCM_FIELD_DATA_FORMAT_FIBRE_CHAN_ANY` (0xffff) value.
SDK-31175	Add packet buffer drop counter to statistics calculations for XGS3 devices.
SDK-31219	Add MMU config variables for BCM5684x.
SDK-31253	Added configuration property `spn_QE_LAG_UC_REDIST` that can be used to operate BCM88230 devices in a mode where BCM88230 replicates unicast across aggregates and squelches locally, effectively overriding frame distribution on aggregates so LBID maps round-robin to member targets.
SDK-31427	Added bcmPortControlPFCRefreshTime for configuring and retreiving PFC refresh timer.
SDK-31453	A new configuration property, "`qe_thresh_drop_limit`", now controls initialization of the `eg_fd_fifo_thresh` table on BCM88230 devices. A value of 0-8 will automatically set the dynamic bit to 1 and the `FIFO_THRESH` field to the value of the soc property. A value of 9-0x7fff will leave the dynamic bit set to 0 and set the `FIFO_THRESH` to the value of the soc property. Any other value will result in the dynamic bit set to 0 and the `FIFO_THRESH` field set to 0x7fff.
SDK-31507	`BCM_COSQ_GPORT_ATTACH_ID_SYSPORT_SET(attach_id,sysport)` will now create an `attach_id` using a sysport on BCM88230 devices.
SDK-31727	Added new API to expose Flexible Service counters
SDK-31749	Added documentation for PortControl PFCRefreshTime.
SDK-31752	added PFC support for sirius C0 and B0
SDK-32013	Added `cint_interpreter_initialize_register()`, `cint_interpreter_initialize_unregister()` to allow the addition of custom CINT initialization code.
SDK-32030	IPMC code no longer keeps L3 entry h/w index cached with it and instead keeps s/w copies of the key data along with getting hit bit info from the L3 interface as needed.
SDK-32053	Updated `_field_xx_action_params_check()` routine in SDK to return error when Invalid egress object ID parameter value is passed for bcmFieldActionL3ChangeVlan, bcmFieldActionL3ChangeMacDa and bcmFieldActionL3Switch actions.
SDK-32071	Release Notes
SDK-32085	Corrected several Typos in API guide and platforms guide
SDK-32100	Counter collection in XGS devices is accelerated by caching some memory decoding information during driver initialization to streamline the accumulation of flexible statistics and FP counters.
SDK-32103	`bcm_oam_endpoint_create()` API can now support CCM RX enabled endpoint creation over Trunks for Enduro and Chariot devices.
SDK-32187	L2 Multicast packets matching the OUI 01-00-5E was incorrectly marked as an Ipv4 packet. This is fixed now.
SDK-32215	Added support for `fabric_control_set/get` API to control number of ingress schedulers and ingress scheduler update intervals on each level for BCM88230 devices.
SDK-32353	Added support for VLAN tag priority and cfi fields actions in BCM56840.
SDK-32493	BCM88130 initialization code was adjusted to power up the relevant internal blocks if the device was configured to operate as a pure crossbar device.

Table 5:

Number	Release Notes For 5.10.0
SDK-32565	Enhanced `bcm_cosq_gport_attach_get()` to be able to retrieve data for egress schedulers on BCM88230 family of devices even when operating in 176 port mode
SDK-32700	New BCMX field qualifier APIs: `bcmx_field_qualify_SrcVirtualPortValid()` `bcmx_field_qualify_SrcVirtualPortValid_get()`
SDK-32701	Added new qualifier bcmFieldQualifySrcVirtualPortValid and related apis `bcm_field_qualify_SrcVirtualPortValid()` and `bcm_field_qualify_SrcVirtualPortValid_get()` for Trident device.
SDK-32703	Added support for new field qualifier API `bcm_field_qualify_SrcVirtualPortValid()` and `bcm_field_qualify_SrcVirtualPortValid_get()` for Trident device.
SDK-32712	Added new KNET APIs for data structure initialization.
SDK-32748	When BCM88130 is used in crossbar-only mode, don't access tables that are not needed.
SDK-32757	QE-2000 egress shaper might be left in blocking state during shaper removal under certain conditions.
SDK-32782	`bcm_init()` could fail on BCM88130 devices in some system designs due to time out in BCM88130 serdes MDIO write operations.
SDK-32843	Added `bcm_st_current_db_get(void)` and `bcm_st_discovery_db_get(void)` to return consistent copies of the stktask current and discovery CPU databases.
SDK-32849	With Per-Port MPLS-Label-scope, multiple next-hops with different out-vlan can have the same Tunnel-label. In such a scenario, multiple `EGR_L3_INTF` can point to the same `EGR_MPLS_TUNNEL` entry. Added reference count for `Egress_Tunnel_Labels` that have per-port MPLS label-scope. The `tunnel_entry` can be deleted only when it's `reference_count` = 0;
SDK-32901	Added bcmCosqControlFlowControlState in `bcm_cosq_control_set()` to allow application to set flow control state manually for BCM88230 family of devices
SDK-32998	BCM88025 `LU_RTC_SUB_NS_INC` hardcoded for HPP 375 mhz operation.
SDK-33006	BCM 88025, The register, `LU_RTC_SUB_NS_INC` will be initialized based on HPP frequency. This fixes an issue with incorrect Delay Measure (DMR & 1DM) calculations.
SDK-33050	Added 'phy prbs' command support to CLI for QE2000 device. To use, enable PRBS at far end Polaris device via command 'phy prbs sfi set mode=hc' then at near end QE2000 'phy prbs sfi set' then use get command on both ends to check PRBS status.
SDK-33053	Fix `bcm_l2_cache` API on BCM5684x.
SDK-33068	`bcm_bm9600_ability_matching_speed_set` didn't properly derive node from port.
SDK-33125	Missing break statement in switch {} block in `phy_combo65_adv_local_set`
SDK-33265	RC load for ROBO chips is now mandatory
SDK-33322	The configuration of non-local mirror tunnel destinations on BCM5684x was incorrect. The configuration is now fixed, and the mirror module documentation has been updated to describe the API behavior for BCM5684x-only vs. mixed device stacked systems.
SDK-33326	Within L3IngressInterfaceMapSet mode fixed `bcm_vlan_control_vlan_set/get` API to block the setting of `L3_IIF.VRF`
SDK-33472	Added support for `BCM_TRUNK_MEMBER_UNICAST_EGRESS_DISABLE` flag on XGS3 devices.
SDK-33474	Added support for `BCM_TRUNK_MEMBER_UNICAST_EGRESS_DISABLE` flag on XGS3 devices.
SDK-33569	During `bcm_l2_addr_freeze/thaw` operations, do not cache or restore the virtual port CML information if no virtual ports are presently configured on the device.
SDK-34427	Support the `bcm_field_stat_create_id()` function for ROBO chips.
SDK-34563	Improved parameter validation in `bcm_cosq_gport_statistic_get/set()` functions to avoid potential segmentation faults when an illegal variable configuration is used on BCM88230 devices.

DEVICE AND PLATFORM SUPPORT

The section describes all devices, platforms, and operating systems that are supported by this release.

3. Switch Devices

Table 6: Switch Devices

Family	Devices	Description
BCM5324	BCM5324 A0	Single-Chip L2+ Managed Switch with 24 10/100 Ports + 2 GbE Ports
	BCM5324 A1	
	BCM5324 A2	
BCM5347	BCM5347 A0	Managed Switch with 24 10/100 Ports + Four GbE Ports
	BCM5347 A1	
BCM5348	BCM5348 A0	Single-Chip L2+ Managed Switch with 48 10/100 Ports + Four GbE Ports
	BCM5348 A1	
BCM5389	BCM5389 A0	8-Port GbE Switch with Integrated SerDes
	BCM5389 A1	
BCM5395	BCM5395 A0	Multiport Gigabit Ethernet Switch
BCM5396	BCM5396 A0	16-Port GbE Switch with Integrated SerDes
BCM5397	BCM5397 A0	6-Port GbE Switch With 5 Integrated PHYs and LoopDTech
BCM5398	BCM5398 A0	9-Port GbE Switch With 8 Integrated PHYs and LoopDTech
BCM53101	BCM53101 A0	5-Port Fast Ethernet Managed Switch + 1 Fast Ethernet WAN port
	BCM53101 B0	
BCM53115	BCM53115 A0	5-Port GbE Managed Switch + 1 Gigabit WAN port with integrated serdes
	BCM53115 A1	
	BCM53115 B0	
	BCM53115 B1	
	BCM53115 C0	
BCM53118	BCM53118 A0	8-Port Gigabit Ethernet Switch
	BCM53118 B0	
	BCM53118 B1	
BCM53125	BCM53125 A0	5-Port Gigabit Ethernet Switch with 1 Gigabit WAN port and 8051 processor
	BCM53125 B0	
BCM53128	BCM53128 A0	8-Port Gigabit Ethernet Switch with embedded 8051 processor
	BCM53128 B0	
BCM53242	BCM53242 A0	Managed Switch with 24 FE Ports + 2 GbE Interface
	BCM53242 B0	
	BCM53242 B1	
	BCM53262 A0	Managed Switch with 24 FE Ports + 4 GbE Interface
	BCM53262 B0	

Table 6: Switch Devices

Family	Devices	Description
	BCM53262 B1	
BCM53280	BCM53282 A0	8-Port Fast Ethernet + 2-Port Gigabit Ethernet Multilayer Switch
	BCM53282 B0	
	BCM53282 B1	
	BCM53282 B2	
	BCM53283 A0	16-Port Fast Ethernet + 2-Port Gigabit Ethernet Multilayer Switch
	BCM53283 B0	
	BCM53283 B1	
	BCM53283 B2	
	BCM53284 A0	24-Port Fast Ethernet + 2-Port Gigabit Ethernet Multilayer Switch
	BCM53284 B0	
	BCM53284 B1	
	BCM53284 B2	
	BCM53286 A0	24-Port Fast Ethernet + 4-Port Gigabit Ethernet Multilayer Switch
	BCM53286 B0	
	BCM53286 B1	
	BCM53286 B2	
	BCM53288 A0	24-Port Fast Ethernet + 2-Port Gigabit Ethernet Multilayer Switch with one 2.5GbE Uplink Port
	BCM53288 B0	
	BCM53288 B1	
	BCM53288 B2	
BCM53300	BCM53300 A0	Managed 24-port L2 Switch
	BCM53300 A1	
	BCM53301 A0	Managed 16-port L2 Switch
	BCM53301 A1	
	BCM53302 A0	Managed 24-port L2 Switch
	BCM53302 A1	
BCM53310	BCM53312 A0	BCM53312 Integrated Multilayer Switch and CPU
	BCM53312 B0	
	BCM53313 A0	BCM53313 Integrated Multilayer Switch and CPU
	BCM53313 B0	
	BCM53314 A0	BCM53314 Integrated Multilayer Switch and CPU
	BCM53314 B0	
BCM53320	BCM53322 A0	BCM53322 Integrated Multilayer Switch and CPU

Table 6: Switch Devices

Family	Devices	Description
	BCM53323 A0	BCM53323 Integrated Multilayer Switch and CPU
	BCM53324 A0	BCM53324 Integrated Multilayer Switch and CPU
BCM53600	BCM53602 A0	8-Port Fast Ethernet + 3-Port Gigabit Ethernet Switch with one 1/2G-EPON ONU MAC/SerDes and embedded 600MHz MIPS32 74K processor
	BCM53603 A0	16-Port Fast Ethernet + 3-Port Gigabit Ethernet Switch with one 1/2G-EPON ONU MAC/SerDes and embedded 600MHz MIPS32 74K processor
	BCM53604 A0	24-Port Fast Ethernet + 3-Port Gigabit Ethernet Switch with one 1/2G-EPON ONU MAC/SerDes and embedded 600MHz MIPS32 74K processor
	BCM53606 A0	24-Port FE with S3MII interface + 3-Port Gigabit Ethernet Switch with one 1/2G-EPON ONU MAC/SerDes and embedded 600MHz MIPS32 74K processor
BCM53710	BCM53714 A0	BCM56714 Integrated Multilayer Switch and CPU
	BCM53714 A1	
	BCM53714 A2	
	BCM53716 A0	BCM56716 Integrated Multilayer Switch and CPU
	BCM53716 A1	
	BCM53716 A2	
	BCM53718 A0	BCM56718 Integrated Multilayer Switch and CPU
	BCM53718 A1	
	BCM53718 A2	
BCM53720	BCM53724 A0	Managed 24-port L2 Switch with Integrated CPU
	BCM53724 B0	
	BCM53726 A0	Managed 24-port L2 Switch with Integrated CPU
	BCM53726 B0	
BCM5650	BCM5650 A0	24-Port BCM5650 Integrated Multi-Layer Switch
	BCM5650 B0	
	BCM5650 C0	
	BCM5655 A0	48-Port BCM5655 Integrated Multi-Layer Switch
	BCM5655 B0	
BCM5665	BCM5665 A0	48-Port BCM5665 Integrated Multi-Layer Switch
	BCM5665 B0	
BCM5670	BCM5670 A0	BCM5670 8-Port, 160 Gbps Switch Fabric
	BCM5670 A1	
	BCM5671 A0	BCM5671 4-Port, 80-Gbps Switch Fabric
	BCM5671 A1	
	BCM5671 A2	
BCM5673	BCM5673 A0	10 Gigabit Ethernet/HiGig Multilayer Switch

Table 6: Switch Devices

Family	Devices	Description
	BCM5673 A1	
	BCM5673 A2	
BCM5674	BCM5674 A0	Multilayer 2-Port 10 Gigabit Ethernet and HiGig+ Switch
BCM5675	BCM5675 A0	8-Port, 192-Gbps Switch Fabric
	BCM5675 A1	
	BCM5676 A0	4-Port, 96-Gbps Switch Fabric
	BCM5676 A1	
BCM5690	BCM5690 A0	Scalable 12-Port Gigabit Ethernet MultiLayer Switch
	BCM5690 A1	
	BCM5690 A2	
	BCM5691 A0	12-Port Gigabit Ethernet MultiLayer Switch
	BCM5691 A1	
	BCM5691 A2	
	BCM5692 A0	Scalable 12-Port Gigabit Ethernet Layer 2 Switch
	BCM5692 A1	
	BCM5692 A2	
	BCM5693 A0	12-Port Gigabit Ethernet Layer 2 Switch
	BCM5693 A1	
	BCM5693 A2	
BCM5695	BCM5695 A0	MultiLayer 12-Port Gigabit Ethernet Stackable Switch
	BCM5695 A1	
	BCM5695 B0	
	BCM5696 A0	Multilayer 12-Port Gigabit Ethernet Switch
	BCM5696 A1	
	BCM5696 B0	
	BCM5697 A0	12-Port Gigabit Ethernet Stackable Layer 2+ Switch
	BCM5697 A1	
	BCM5697 B0	
	BCM5698 A0	12-Port Gigabit Ethernet Layer 2+ Switch
	BCM5698 A1	
	BCM5698 B0	
BCM56010	BCM56014 A0	24-Port Integrated Multilayer Switch and CPU
	BCM56014 A1	
	BCM56014 A2	

Table 6: Switch Devices

Family	Devices	Description
	BCM56018 A0	48-Port Integrated Multilayer Switch and CPU
	BCM56018 A1	
	BCM56018 A2	
	BCM56018 A1	48-Port Integrated Multilayer Switch and CPU
BCM56020	BCM56024 A0	24-Port Integrated Multilayer Switch and CPU
	BCM56024 B0	
	BCM56025 A0	24-Port Integrated L2 Switch and CPU
	BCM56025 B0	
	BCM56026 A0	24-Port Integrated L2 Switch and CPU
	BCM56026 B0	
BCM56100	BCM56100 A0	24-Port Fast Ethernet and 2-Port Gigabit Ethernet Multilayer Switch
	BCM56100 A1	
	BCM56101 A0	24-Port Fast Ethernet and 2-Port Gigabit Ethernet Multilayer Switch with One 10-Gigabit Ethernet/HiGig Port
	BCM56101 A1	
	BCM56102 A0	24-Port Fast Ethernet and 2-Port Gigabit Ethernet Multilayer Switch with Two 10-Gigabit Ethernet/HiGig Ports
	BCM56102 A1	
	BCM56105 A0	24-Port Fast Ethernet and 2-Port Gigabit Ethernet Layer 2 Switch
	BCM56105 A1	
	BCM56106 A0	24-Port Fast Ethernet and 2-Port Gigabit Ethernet Layer 2 Switch with One 10-Gigabit Ethernet/HiGig Port
	BCM56106 A1	
	BCM56107 A0	24-Port Fast Ethernet and 2-Port Gigabit Ethernet Layer 2 Switch with Two 10-Gigabit Ethernet/HiGig Ports
	BCM56107 A1	
BCM56110	BCM56110 A0	24-Port Fast Ethernet and 2-Port Gigabit Ethernet Multilayer Switch
	BCM56111 A0	24-Port Fast Ethernet and 2-Port Gigabit Ethernet Multilayer Switch with One 10-Gigabit Ethernet/HiGig Port
	BCM56112 A0	24-Port Fast Ethernet and 2-Port Gigabit Ethernet Multilayer Switch with Two 10-Gigabit Ethernet/HiGig Ports
	BCM56115 A0	24-Port Fast Ethernet and 2-Port Gigabit Ethernet Layer 2 Switch
	BCM56116 A0	24-Port Fast Ethernet and 2-Port Gigabit Ethernet Layer 2 Switch with One 10-Gigabit Ethernet/HiGig Port
	BCM56117 A0	24-Port Fast Ethernet and 2-Port Gigabit Ethernet Layer 2 Switch with Two 10-Gigabit Ethernet/HiGig Ports
BCM56130	BCM56132 A0	24-Port Fast Ethernet Multilayer Switch with Two 10-GbE/HiGig2 and Two 1G/2.5Gb Uplink Ports
	BCM56132 B0	
	BCM56134 A0	24-Port Fast Ethernet Multilayer Switch with four 1G/2.5Gb Uplink Ports

Table 6: Switch Devices

Family	Devices	Description
	BCM56134 B0	
BCM56140	BCM56140 A0	24-Port Gigabit Ethernet/6-Port SGMII GbE Multilayer switch with combination of two/four 1G/2.5/HiGig2 Uplink Ports
	BCM56142 A0	24-Port Gigabit Ethernet Multilayer switch with combination of two/four 1G/2.5/HiGig2 Uplink Ports
	BCM56143 A0	24-Port Gigabit Ethernet Multilayer switch with combination of two/four 1G/2.5/HiGig2 Uplink Ports
	BCM56144 A0	16-Port Gigabit Ethernet Multilayer switch with four 1G/2.5HG Uplink Ports
	BCM56146 A0	24-Port Fast-Ethernet Multilayer switch with four 2.5HG Uplink Ports
	BCM56147 A0	24-Port Fast-Ethernet Multilayer switch with combination of one/two/four 1G/2.5G/10/12/13HG Uplink Ports
BCM56210	BCM56212 A0	
	BCM56212 A1	
	BCM56212 A2	
	BCM56213 A0	
	BCM56213 A1	
	BCM56213 A2	
	BCM56214 A0	BCM56214 Integrated Multilayer Switch and CPU
	BCM56214 A1	
	BCM56214 A2	
	BCM56215 A0	
	BCM56215 A1	
	BCM56215 A2	
	BCM56216 A0	BCM56216 Integrated Multilayer Switch and CPU
	BCM56216 A1	
	BCM56216 A2	
	BCM56217 A0	
	BCM56217 A1	
	BCM56217 A2	
	BCM56218 A0	BCM56218 Integrated Multilayer Switch and CPU
	BCM56218 A1	
	BCM56218 A2	
	BCM56219 A0	BCM56219 Integrated Multilayer Switch and CPU
	BCM56219 A1	
	BCM56219 A2	
BCM56220	BCM56224 A0	24 GbE + 4 x 1 Gb/2.5 Gb, L3/L2+

Family	Devices	Description
	BCM56224 B0	24 GbE + 4 x 1 Gb/2.5 Gb, L3/L2+
	BCM56225 A0	24 GbE + 4 x 1 Gb/2.5 Gb, L2+
	BCM56225 B0	24 GbE + 4 x 1 Gb/2.5 Gb, L2+
	BCM56226 A0	16 GbE + 4 x 1 Gb/2.5 Gb, L3/L2+
	BCM56226 B0	16 GbE + 4 x 1 Gb/2.5 Gb, L3/L2+
	BCM56227 A0	16 GbE + 4 x 1 Gb/2.5 Gb, L2+
	BCM56227 B0	16 GbE + 4 x 1 Gb/2.5 Gb, L2+
	BCM56228 A0	8 GbE + 4 x 1 Gb/2.5 Gb, L3/L2+
	BCM56228 B0	8 GbE + 4 x 1 Gb/2.5 Gb, L3/L2+
	BCM56229 A0	8 GbE + 4 x 1 Gb/2.5 Gb, L2+
	BCM56229 B0	8 GbE + 4 x 1 Gb/2.5 Gb, L2+
BCM56300	BCM56300 A0	24-Port Gigabit Ethernet Multilayer Switch
	BCM56300 A1	
	BCM56300 B0	
	BCM56300 B1	
	BCM56301 A0	Four 10-Gigabit Ethernet/HiGig+ Ports
	BCM56301 A1	
	BCM56301 B0	
	BCM56301 B1	
	BCM56302 A0	24-Port Gigabit Ethernet Multilayer Switch with Two 10-Gigabit Ethernet/HiGig+ Ports
	BCM56302 A1	
	BCM56302 B0	
	BCM56302 B1	
	BCM56303 A0	24-Port Gigabit Ethernet Multilayer Switch with Three 10 Gigabit Ethernet/HiGig+ Ports
	BCM56303 A1	
	BCM56303 B0	
	BCM56303 B1	
	BCM56304 A0	24-Port Gigabit Ethernet Multilayer Switch with Four 10-Gigabit Ethernet/HiGig+ Ports
	BCM56304 A1	
	BCM56304 B0	
	BCM56304 B1	
	BCM56305 A0	24-Port Gigabit Ethernet Multilayer Switch
	BCM56305 A1	

Table 6: Switch Devices

Family	Devices	Description
	BCM56305 B0	
	BCM56305 B1	
	BCM56306 A0	16 Port Gigabit Ethernet Switch
	BCM56306 A1	
	BCM56306 B0	
	BCM56306 B1	
	BCM56307 A0	24-Port GE L2 Switch with Two 10 GE/HiGig+ Ports
	BCM56307 A1	
	BCM56307 B0	
	BCM56307 B1	
	BCM56308 A0	24-Port GE L2 Switch with Three 10 GE/HiGig+ Ports
	BCM56308 A1	
	BCM56308 B0	
	BCM56308 B1	
	BCM56309 A0	24-Port GE L2 Switch with Four 10 GE/HiGig+ Ports
	BCM56309 A1	
	BCM56309 B0	
	BCM56309 B1	
BCM56310	BCM56310 A0	BCM56310 Series 24-Port GbE Multilayer Switch with Four 10-GbE/HiGig+ Uplink Ports
	BCM56311 A0	Four 10-Gigabit Ethernet/HiGig+ Ports
	BCM56312 A0	24-Port Gigabit Ethernet Multilayer Switch with Two 10-Gigabit Ethernet/HiGig+ Ports
	BCM56313 A0	24-Port Gigabit Ethernet Multilayer Switch with Three 10-Gigabit Ethernet/HiGig+ Ports
	BCM56314 A0	24-Port Gigabit Ethernet Multilayer Switch with Four 10-Gigabit Ethernet/HiGig+ Ports
	BCM56315 A0	BCM56310 Series 24-Port GbE Layer 2 Switch with Four 10-GbE/HiGig+ Uplink Ports
	BCM56316 A0	Four 10-Gigabit Ethernet/HiGig+ Ports
	BCM56317 A0	24-Port Gigabit Ethernet Layer 2 Switch with Two 10-Gigabit Ethernet/HiGig+ Ports
	BCM56318 A0	24-Port Gigabit Ethernet Layer 2 Switch with Three 10-Gigabit Ethernet/HiGig+ Ports
	BCM56319 A0	24-Port Gigabit Ethernet Layer 2 Switch with Four 10-Gigabit Ethernet/HiGig+ Ports
BCM56320	BCM56320 A0	24-Port GbE Multilayer Switch with Four 10-GbE/HiGig2 Uplink Ports
	BCM56320 B0	
	BCM56321 A0	24-Port GbE Multilayer Switch with Four 10-GbE/HiGig2 Uplink Ports
	BCM56321 B0	

Table 6: Switch Devices

Family	Devices	Description
BCM56330	BCM56331 A0	24-Port GbE Multilayer Switch with Four 2.5GbE Uplink Ports
	BCM56331 B0	
	BCM56333 A0	16-Port GbE Multilayer Switch
	BCM56333 B0	
	BCM56334 A0	24-Port GbE Multilayer Switch with Four 10-GbE/HiGig2 Uplink Ports
	BCM56334 B0	
	BCM56338 A0	8-Port GbE Multilayer Switch with two 10-GbE/HiGig2 Uplink Ports
	BCM56338 B0	
BCM56440	BCM56440 A0	24-Port GbE Multilayer Switch with Four 10-GbE/Hig2 Uplink ports
	BCM56441 A0	8-Port GbE Multilayer Switch with Two 10-GbE/Hig2 Uplink ports
	BCM56442 A0	16-Port GbE Multilayer Switch
	BCM56443 A0	8-Port 2.5GbE Multilayer Switch with Two 10-GbE/Hig2 Uplink ports
	BCM56445 A0	24-Port GbE Multilayer Switch with Four 10-GbE/Hig2 Uplink ports pin compatible with BCM56334
	BCM56446 A0	8-Port GbE Multilayer Switch with Two 10-GbE/Hig2 Uplink ports pin compatibe with BCM56338
	BCM56447 A0	16-Port GbE Multilayer Switch pin compatible with BCM56333
	BCM56448 A0	24-Port GbE Multilayer Switch with Four 1GbE/ One 2.5G Uplink ports
BCM56500	BCM56500 A0	24-Port Gigabit Ethernet Multilayer Switch
	BCM56500 A1	
	BCM56500 B0	
	BCM56500 B1	
	BCM56500 B2	
	BCM56501 A0	Four 10-Gigabit Ethernet/HiGig+ Ports
	BCM56501 A1	
	BCM56501 B0	
	BCM56501 B1	
	BCM56501 B2	
	BCM56502 A0	24-Port GbE Multilayer Switch with Two 10-GbE/HiGig+ Ports
	BCM56502 A1	
	BCM56502 B0	
	BCM56502 B1	
	BCM56502 B2	
	BCM56503 A0	24-Port GbE Multilayer Switch with Three 10-GbE/HiGig+ Ports
	BCM56503 A1	

Family	Devices	Description
	BCM56503 B0	
	BCM56503 B1	
	BCM56503 B2	
	BCM56504 A0	24-Port GbE Multilayer Switch with Four 10-GbE/HiGig+ Ports
	BCM56504 A1	
	BCM56504 B0	
	BCM56504 B1	
	BCM56504 B2	
	BCM56505 A0	24-Port GbE Layer 2 Switch
	BCM56505 A1	
	BCM56505 B0	
	BCM56505 B1	
	BCM56505 B2	
	BCM56506 A0	Four 10-Gigabit Ethernet/HiGig+ Ports
	BCM56506 A1	
	BCM56506 B0	
	BCM56506 B1	
	BCM56506 B2	
	BCM56507 A0	24-Port GbE Layer 2 Switch with Two 10-GbE/HiGig+ Ports
	BCM56507 A1	
	BCM56507 B0	
	BCM56507 B1	
	BCM56507 B2	
	BCM56508 A0	24-Port GbE Layer 2 Switch with Three 10-GbE/HiGig+ Ports
	BCM56508 A1	
	BCM56508 B0	
	BCM56508 B1	
	BCM56508 B2	
	BCM56509 A0	24-Port GbE Layer 2 Switch with Four 10-GbE/HiGig+ Ports
	BCM56509 A1	
	BCM56509 B0	
	BCM56509 B1	
	BCM56509 B2	
BCM56510	BCM56510 A0	24-Port Gigabit Ethernet Multilayer Switch

Family	Devices	Description
	BCM56511 A0	Four-Port 10-GbE/HiGig+ Multilayer Switch
	BCM56512 A0	24-Port GbE Multilayer Switch With Two 10-GbE/HiGig+ Ports
	BCM56513 A0	24-Port GbE Multilayer Switch With Three 10-GbE/HiGig+ Ports
	BCM56514 A0	24-Port GbE Multilayer Switch With Four 10-GbE/HiGig+ Ports
BCM56520	BCM56520 A0	24-Port GbE Multilayer Switch
	BCM56520 B0	
	BCM56522 A0	24-Port GbE Multilayer Switch with Two 10-GbE/HiGig2 Uplink Ports
	BCM56522 B0	
	BCM56524 A0	24-Port GbE Multilayer Switch with Four 10-GbE/HiGig2 Uplink Ports
	BCM56524 B0	
	BCM56526 A0	28-Port GbE Multilayer Switch with Six 10-GbE/HiGig2 Uplink Ports
	BCM56526 B0	
BCM56530	BCM56534 B0	24-Port GbE Multilayer Switch with Four 10-GbE/HiGig2 Uplink Ports
	BCM56538 B0	48-Port GbE Multilayer Switch with Four 10-GbE/HiGig2 Uplink Ports
BCM56580	BCM56580 A0	16 x 2.5 GbE + 4 x 10 GbE Ethernet Multilayer Switch
BCM56600	BCM56600 A0	12 x GbE High-Feature Ethernet Multilayer Switch
	BCM56600 B0	
	BCM56600 C0	
	BCM56601 A0	12 x GbE High-Feature Ethernet Multilayer Switch With HiGig+ Uplink
	BCM56601 B0	
	BCM56601 C0	
	BCM56602 A0	10-GbE High-Feature Ethernet Multilayer Switch With HiGig+ Uplink
	BCM56602 B0	
	BCM56602 C0	
	BCM56603 A0	HG+ High-Feature Ethernet Multilayer Proxy
	BCM56603 B0	
	BCM56603 C0	
	BCM56605 A0	12 x GbE High-Feature Ethernet Multilayer Switch
	BCM56605 B0	
	BCM56605 C0	
	BCM56606 A0	12 x GbE High-Feature Ethernet Multilayer Switch With HiGig+ Uplink
	BCM56606 B0	
	BCM56606 C0	
	BCM56607 A0	10-GbE High-Feature Ethernet Multilayer Switch With HiGig+ Uplink

Table 6: Switch Devices

Family	Devices	Description
	BCM56607 B0	
	BCM56607 C0	
	BCM56608 A0	HG+ High-Feature Ethernet Multilayer Proxy
	BCM56608 B0	
	BCM56608 C0	
BCM56620	BCM56620 A0	
	BCM56620 A1	
	BCM56620 B0	
	BCM56620 B1	
	BCM56624 A0	49 port 1-GbE Multilayer Ethernet Switch with 4 x 10-GbE/HiGig2 Uplink ports and External Table Expansion
	BCM56624 A1	
	BCM56624 B0	
	BCM56624 B1	
	BCM56624 B2	
	BCM56626 A0	25 port 1-GbE Multilayer Ethernet Switch with 6 x 10-GbE/HiGig2 Uplink ports and External Table Expansion
	BCM56626 A1	
	BCM56626 B0	
	BCM56626 B1	
	BCM56626 B2	
	BCM56628 A0	8 port 10-GbE/HiGig2 Multilayer Ethernet Switch with External Table Expansion
	BCM56628 A1	
	BCM56628 B0	
	BCM56628 B1	
	BCM56628 B2	
	BCM56629 B0	25 port 1-GbE Multilayer Ethernet Switch with 8 x 10-GbE/HiGig2 Uplink ports and External Table Expansion
	BCM56629 B1	
BCM56630	BCM56630 A0	24-Port GbE Multilayer Switch with Four 10-GbE/HiGig2 Uplink Ports
	BCM56630 B0	
	BCM56634 A0	48-Port GbE Multilayer Switch with Four 10-GbE/HiGig2 Uplink Ports
	BCM56634 B0	
	BCM56636 A0	24-Port GbE + 2-Port 10-GbE Multilayer Switch with Four 10-GbE/HiGig2 Uplink Ports
	BCM56636 B0	

Table 6: Switch Devices

Family	Devices	Description
	BCM56638 A0	4-Port 10-GbE Multilayer Switch with Four 10-GbE/HiGig2 Uplink Ports
	BCM56638 B0	
	BCM56639 A0	24-Port GbE + 4-Port 10-GbE Multilayer Switch with Four 10-GbE/HiGig2 Uplink Ports
	BCM56639 B0	
BCM56680	BCM56680 A0	25 port 1-GbE/2.5GbE Multilayer Ethernet Switch with 4 x 10-GbE/HiGig2 Uplink ports
	BCM56680 A1	
	BCM56680 B0	
	BCM56680 B1	
	BCM56684 A0	24 port 1-GbE/2.5GbE Multilayer Ethernet Switch with 4 x 10-GbE/HiGig2 Uplink ports
	BCM56684 A1	
	BCM56684 B0	
	BCM56684 B1	
BCM56685	BCM56685 A0	24-Port GbE Multilayer Switch with Four 10-GbE/HiGig2 Uplink Ports
	BCM56685 B0	
	BCM56689 A0	24-Port GbE Multilayer Switch with Four 10-GbE/HiGig2 Uplink Ports
	BCM56689 B0	
BCM56700	BCM56700 A0	16-Port, 192-Gbps Lossless Switch Fabric
	BCM56701 A0	12-Port, 144-Gbps Lossless Switch Fabric
BCM56720	BCM56720 A0	16 Port, 16-Gbps HiGig2 Switch Fabric
	BCM56721 A0	12 Port, 16-Gbps HiGig2 Switch Fabric
BCM56725	BCM56725 A0	8 Port, 20-Gbps + 4 Port, 16-Gbps HiGig2 Switch Fabric
BCM56740	BCM56743 A0	480 Gbps Switch fabric
	BCM56743 A1	
	BCM56743 A2	
	BCM56743 A3	
	BCM56743 A4	
	BCM56743 B0	
	BCM56743 B1	
	BCM56745 A0	640 Gbps Switch fabric
	BCM56745 A1	
	BCM56745 A2	
	BCM56745 A3	
	BCM56745 A4	

Family	Devices	Description
	BCM56745 B0	
	BCM56745 B1	
`BCM56740_PLUS`	BCM56744 A0	480 Gbps Switch fabric
	BCM56744 A1	
	BCM56746 A0	640 Gbps Switch fabric
	BCM56746 A1	
BCM56800	BCM56800 A0	20-Port 10-Gigabit Ethernet Multilayer Switch
	BCM56801 A0	10-Port 10-Gigabit Ethernet and 8-Port HiGig2/10GbE Multilayer Switch
	BCM56802 A0	16-Port 10-GbE/HiGig2 Multilayer Switch
	BCM56803 A0	12 Port 10GE/HiGig2 Multilayer Switch
BCM56820	BCM56820 A0	24 x 10-GbE + 4 x 1-GbE Multilayer Ethernet Switch
	BCM56820 B0	
	BCM56821 A0	12 x 10-GbE + 8 x HiGig2 + 4 x 1-GbE Multilayer Ethernet Switch
	BCM56821 B0	
	BCM56822 A0	12 x 10-GbE + 4 x 20-Gbps HiGig2 + 4 x 1-GbE Multilayer Ethernet Switch
	BCM56822 B0	
	BCM56823 A0	8 x 10-GbE + 4 x 20-Gbps HiGig2 + 4 x 1-GbE Multilayer Ethernet Switch
	BCM56823 B0	
	BCM56825 B0	16 x 10-GbE + 8 x 20-Gbps HiGig2 + 1 x 1-GbE Multilayer Ethernet Switch
BCM56740	BCM56743 A0	480 Gbps Switch fabric
	BCM56743 A1	
	BCM56743 A2	
	BCM56743 A3	
	BCM56743 A4	
	BCM56743 B0	
	BCM56743 B1	
	BCM56745 A0	640 Gbps Switch fabric
	BCM56745 A1	
	BCM56745 A2	
	BCM56745 A3	
	BCM56745 A4	
	BCM56745 B0	
	BCM56745 B1	
`BCM56740_PLUS`	BCM56744 A0	480 Gbps Switch fabric

Family	Devices	Description
	BCM56744 A1	
	BCM56746 A0	640 Gbps Switch fabric
	BCM56746 A1	
BCM56840	BCM56841 A0	320 Gbps Ethernet Multilayer Switch
	BCM56841 A1	
	BCM56841 A2	
	BCM56841 A3	
	BCM56841 A4	
	BCM56841 B0	
	BCM56841 B1	
	BCM56843 A0	480 Gbps Ethernet Multilayer Switch
	BCM56843 A1	
	BCM56843 A2	
	BCM56843 A3	
	BCM56843 A4	
	BCM56843 B0	
	BCM56843 B1	
	BCM56845 A0	640 Gbps Ethernet Multilayer Switch
	BCM56845 A1	
	BCM56845 A2	
	BCM56845 A3	
	BCM56845 A4	
	BCM56845 B0	
	BCM56845 B1	
BCM56840_PLUS	BCM56842 A0	320 Gbps Ethernet Multilayer Switch
	BCM56842 A1	
	BCM56844 A0	480 Gbps Ethernet Multilayer Switch
	BCM56844 A1	
	BCM56846 A0	640 Gbps Ethernet Multilayer Switch
	BCM56846 A1	
BCM88020	BCM88020 A0	XGS Core (XCore/SBX) Fully Programmable Carrier Packet Processor with 24 GbE Ports, 2 10GbE Ports and 2 SPI Interfaces
	BCM88020 A1	
	BCM88020 A2	

Table 6: Switch Devices

Family	Devices	Description
BCM88025	BCM88025 A0	XGS Core (XCore/SBX) Fully Programmable Carrier Packet Processor with 24 GbE Ports, 2 10GbE Ports and 2 SPI Interfaces
BCM88130	BCM88130 A0	XGS Core (XCore/SBX) 630 Gbps Bandwidth Manager and Switching Engine
	BCM88130 A1	
BME-3200	BME-3200 A0	XGS Core (XCore/SBX) Fabric Bandwidth Manager with 32 SCI control ports and up to 40 SFI data ports
	BME-3200 B0	
QE-2000	QE-2000 A1	XGS Core (XCore/SBX) Fabric Queueing Engine with 49 SPI 4.2 subports
	QE-2000 A2	
	QE-2000 A3	
	QE-2000 A4	
BCM88230	BCM88230 A0	XGS Core (XCore/SBX) Fabric Queueing Engine with Integrated Traffic Management with 4 HiGig2 ports, 50Gbps
	BCM88230 B0	
	BCM88235 A0	XGS Core (XCore/SBX) Fabric Queueing Engine with Integrated Traffic Management with 4 HiGig2 ports, 80Gbps
	BCM88235 B0	
	BCM88231 A0	XGS Core (XCore/SBX) Traffic Manager with 4 HiGig2 ports, 50Gbps
	BCM88231 B0	
	BCM88236 A0	XGS Core (XCore/SBX) Traffic Manager with 4 HiGig2 ports, 80Gbps
	BCM88236 B0	
BCM56930	BCM56931 A0	XGS pass-through and standalone Traffic Manager, 4 HiGig2 ports, 50Gbps
	BCM56931 B0	
	BCM56936 A0	XGS pass-through and standalone Traffic Manager, 4 HiGig2 ports, 80Gbps
	BCM56936 B0	

Warm boot Supported devices

Note: There is no warm boot support for External table expansion in BCM56620 and BCM56630 device family.

Table 7: Switch Devices that support Warm boot

Family	Devices	Description
BCM5675	BCM5675 A0	8-Port, 192-Gbps Switch Fabric
	BCM5675 A1	
	BCM5676 A0	4-Port, 96-Gbps Switch Fabric
	BCM5676 A1	
BCM56020	BCM56024 A0	24-Port Integrated Multilayer Switch and CPU
	BCM56024 B0	

Table 7: Switch Devices that support Warm boot

Family	Devices	Description
	BCM56025 A0	24-Port Integrated L2 Switch and CPU
	BCM56025 B0	
	BCM56026 A0	24-Port Integrated L2 Switch and CPU
	BCM56026 B0	
BCM56130	BCM56132 A0	24-Port Fast Ethernet Multilayer Switch with Two 10-GbE/HiGig2 and Two 1G/2.5Gb Uplink Ports
	BCM56132 B0	
	BCM56134 A0	24-Port Fast Ethernet Multilayer Switch with four 1G/2.5Gb Uplink Ports
	BCM56134 B0	
BCM56220	BCM56224 A0	24 GbE + 4 x 1 Gb/2.5 Gb, L3/L2+
	BCM56224 B0	24 GbE + 4 x 1 Gb/2.5 Gb, L3/L2+
	BCM56225 A0	24 GbE + 4 x 1 Gb/2.5 Gb, L2+
	BCM56225 B0	24 GbE + 4 x 1 Gb/2.5 Gb, L2+
	BCM56226 A0	16 GbE + 4 x 1 Gb/2.5 Gb, L3/L2+
	BCM56226 B0	16 GbE + 4 x 1 Gb/2.5 Gb, L3/L2+
	BCM56227 A0	16 GbE + 4 x 1 Gb/2.5 Gb, L2+
	BCM56227 B0	16 GbE + 4 x 1 Gb/2.5 Gb, L2+
	BCM56228 A0	8 GbE + 4 x 1 Gb/2.5 Gb, L3/L2+
	BCM56228 B0	8 GbE + 4 x 1 Gb/2.5 Gb, L3/L2+
	BCM56229 A0	8 GbE + 4 x 1 Gb/2.5 Gb, L2+
	BCM56229 B0	8 GbE + 4 x 1 Gb/2.5 Gb, L2+
BCM56330	BCM56331 A0	24-Port GbE Multilayer Switch with Four 2.5GbE Uplink Ports
	BCM56331 B0	
	BCM56333 A0	16-Port GbE Multilayer Switch
	BCM56333 B0	
	BCM56334 A0	24-Port GbE Multilayer Switch with Four 10-GbE/HiGig2 Uplink Ports
	BCM56334 B0	
	BCM56338 A0	8-Port GbE Multilayer Switch with two 10-GbE/HiGig2 Uplink Ports
	BCM56338 B0	
BCM56500	BCM56500 A0	24-Port Gigabit Ethernet Multilayer Switch
	BCM56500 A1	
	BCM56500 B0	
	BCM56500 B1	
	BCM56500 B2	
	BCM56501 A0	Four 10-Gigabit Ethernet/HiGig+ Ports

Table 7: Switch Devices that support Warm boot

Family	Devices	Description
	BCM56501 A1	
	BCM56501 B0	
	BCM56501 B1	
	BCM56501 B2	
	BCM56502 A0	24-Port GbE Multilayer Switch with Two 10-GbE/HiGig+ Ports
	BCM56502 A1	
	BCM56502 B0	
	BCM56502 B1	
	BCM56502 B2	
	BCM56503 A0	24-Port GbE Multilayer Switch with Three 10-GbE/HiGig+ Ports
	BCM56503 A1	
	BCM56503 B0	
	BCM56503 B1	
	BCM56503 B2	
	BCM56504 A0	24-Port GbE Multilayer Switch with Four 10-GbE/HiGig+ Ports
	BCM56504 A1	
	BCM56504 B0	
	BCM56504 B1	
	BCM56504 B2	
	BCM56505 A0	24-Port GbE Layer 2 Switch
	BCM56505 A1	
	BCM56505 B0	
	BCM56505 B1	
	BCM56505 B2	
	BCM56506 A0	Four 10-Gigabit Ethernet/HiGig+ Ports
	BCM56506 A1	
	BCM56506 B0	
	BCM56506 B1	
	BCM56506 B2	
	BCM56507 A0	24-Port GbE Layer 2 Switch with Two 10-GbE/HiGig+ Ports
	BCM56507 A1	
	BCM56507 B0	
	BCM56507 B1	
	BCM56507 B2	

Table 7: Switch Devices that support Warm boot

Family	Devices	Description
	BCM56508 A0	24-Port GbE Layer 2 Switch with Three 10-GbE/HiGig+ Ports
	BCM56508 A1	
	BCM56508 B0	
	BCM56508 B1	
	BCM56508 B2	
	BCM56509 A0	24-Port GbE Layer 2 Switch with Four 10-GbE/HiGig+ Ports
	BCM56509 A1	
	BCM56509 B0	
	BCM56509 B1	
	BCM56509 B2	
BCM56510	BCM56510 A0	24-Port Gigabit Ethernet Multilayer Switch
	BCM56511 A0	Four-Port 10-GbE/HiGig+ Multilayer Switch
	BCM56512 A0	24-Port GbE Multilayer Switch With Two 10-GbE/HiGig+ Ports
	BCM56513 A0	24-Port GbE Multilayer Switch With Three 10-GbE/HiGig+ Ports
	BCM56514 A0	24-Port GbE Multilayer Switch With Four 10-GbE/HiGig+ Ports
BCM56520	BCM56520 A0	24-Port GbE Multilayer Switch
	BCM56520 B0	
	BCM56522 A0	24-Port GbE Multilayer Switch with Two 10-GbE/HiGig2 Uplink Ports
	BCM56522 B0	
	BCM56524 A0	24-Port GbE Multilayer Switch with Four 10-GbE/HiGig2 Uplink Ports
	BCM56524 B0	
	BCM56526 A0	28-Port GbE Multilayer Switch with Six 10-GbE/HiGig2 Uplink Ports
	BCM56526 B0	
BCM56530	BCM56534 B0	24-Port GbE Multilayer Switch with Four 10-GbE/HiGig2 Uplink Ports
	BCM56538 B0	48-Port GbE Multilayer Switch with Four 10-GbE/HiGig2 Uplink Ports
BCM56620	BCM56620 A0	
	BCM56620 A1	
	BCM56620 B0	
	BCM56620 B1	
	BCM56624 A0	49 port 1-GbE Multilayer Ethernet Switch with 4 x 10-GbE/HiGig2 Uplink ports and External Table Expansion
	BCM56624 A1	
	BCM56624 B0	
	BCM56624 B1	
	BCM56624 B2	

Family	Devices	Description
	BCM56626 A0	25 port 1-GbE Multilayer Ethernet Switch with 6 x 10-GbE/HiGig2 Uplink ports and External Table Expansion
	BCM56626 A1	
	BCM56626 B0	
	BCM56626 B1	
	BCM56626 B2	
	BCM56628 A0	8 port 10-GbE/HiGig2 Multilayer Ethernet Switch with External Table Expansion
	BCM56628 A1	
	BCM56628 B0	
	BCM56628 B1	
	BCM56628 B2	
	BCM56629 B0	25 port 1-GbE Multilayer Ethernet Switch with 8 x 10-GbE/HiGig2 Uplink ports and External Table Expansion
	BCM56629 B1	
BCM56630	BCM56630 A0	24-Port GbE Multilayer Switch with Four 10-GbE/HiGig2 Uplink Ports
	BCM56630 B0	
	BCM56634 A0	48-Port GbE Multilayer Switch with Four 10-GbE/HiGig2 Uplink Ports
	BCM56634 B0	
	BCM56636 A0	24-Port GbE + 2-Port 10-GbE Multilayer Switch with Four 10-GbE/HiGig2 Uplink Ports
	BCM56636 B0	
	BCM56638 A0	4-Port 10-GbE Multilayer Switch with Four 10-GbE/HiGig2 Uplink Ports
	BCM56638 B0	
	BCM56639 A0	24-Port GbE + 4-Port 10-GbE Multilayer Switch with Four 10-GbE/HiGig2 Uplink Ports
	BCM56639 B0	
BCM56680	BCM56680 A0	25 port 1-GbE/2.5GbE Multilayer Ethernet Switch with 4 x 10-GbE/HiGig2 Uplink ports
	BCM56680 A1	
	BCM56680 B0	
	BCM56680 B1	
	BCM56684 A0	24 port 1-GbE/2.5GbE Multilayer Ethernet Switch with 4 x 10-GbE/HiGig2 Uplink ports
	BCM56684 A1	
	BCM56684 B0	
	BCM56684 B1	
BCM56685	BCM56685 A0	24-Port GbE Multilayer Switch with Four 10-GbE/HiGig2 Uplink Ports
	BCM56685 B0	

Table 7: Switch Devices that support Warm boot

Family	Devices	Description
	BCM56689 A0	24-Port GbE Multilayer Switch with Four 10-GbE/HiGig2 Uplink Ports
	BCM56689 B0	
BCM56700	BCM56700 A0	16-Port, 192-Gbps Lossless Switch Fabric
	BCM56701 A0	12-Port, 144-Gbps Lossless Switch Fabric
BCM56720	BCM56720 A0	16 Port, 16-Gbps HiGig2 Switch Fabric
	BCM56721 A0	12 Port, 16-Gbps HiGig2 Switch Fabric
BCM56725	BCM56725 A0	8 Port, 20-Gbps + 4 Port, 16-Gbps HiGig2 Switch Fabric
BCM56800	BCM56800 A0	20-Port 10-Gigabit Ethernet Multilayer Switch
	BCM56801 A0	10-Port 10-Gigabit Ethernet and 8-Port HiGig2/10GbE Multilayer Switch
	BCM56802 A0	16-Port 10-GbE/HiGig2 Multilayer Switch
	BCM56803 A0	12 Port 10GE/HiGig2 Multilayer Switch
BCM56820	BCM56820 A0	24 x 10-GbE + 4 x 1-GbE Multilayer Ethernet Switch
	BCM56820 B0	
	BCM56821 A0	12 x 10-GbE + 8 x HiGig2 + 4 x 1-GbE Multilayer Ethernet Switch
	BCM56821 B0	
	BCM56822 A0	12 x 10-GbE + 4 x 20-Gbps HiGig2 + 4 x 1-GbE Multilayer Ethernet Switch
	BCM56822 B0	
	BCM56823 A0	8 x 10-GbE + 4 x 20-Gbps HiGig2 + 4 x 1-GbE Multilayer Ethernet Switch
	BCM56823 B0	
	BCM56825 B0	16 x 10-GbE + 8 x 20-Gbps HiGig2 + 1 x 1-GbE Multilayer Ethernet Switch
BCM56840	BCM56841 A0	320 Gbps Ethernet Multilayer Switch
	BCM56841 A1	
	BCM56841 A2	
	BCM56841 A3	
	BCM56841 A4	
	BCM56841 B0	
	BCM56841 B1	
	BCM56843 A0	480 Gbps Ethernet Multilayer Switch
	BCM56843 A1	
	BCM56843 A2	
	BCM56843 A3	
	BCM56843 A4	
	BCM56843 B0	
	BCM56843 B1	
	BCM56845 A0	640 Gbps Ethernet Multilayer Switch

Table 7: Switch Devices that support Warm boot

Family	Devices	Description
	BCM56845 A1	
	BCM56845 A2	
	BCM56845 A3	
	BCM56845 A4	
	BCM56845 B0	
	BCM56845 B1	
`BCM56840_PLUS`	BCM56842 A0	320 Gbps Ethernet Multilayer Switch
	BCM56842 A1	
	BCM56844 A0	480 Gbps Ethernet Multilayer Switch
	BCM56844 A1	
	BCM56846 A0	640 Gbps Ethernet Multilayer Switch
	BCM56846 A1	

Table 8: Switch Device Codenames

Product Family	Architecture	Codename
BCM5650	StrataXGS	-
BCM5665	StrataXGS	-
BCM5670	StrataXGS	-
BCM5673	StrataXGS	-
BCM5674	StrataXGS II	-
BCM5675	StrataXGS II	-
BCM5690	StrataXGS	-
BCM5695	StrataXGS II	-
BCM53310	StrataXGS III	Hawkeye
BCM53710	StrataXGS III	Raptor
BCM53720	StrataXGS III	Raven
BCM56010	StrataXGS III	Raptor
BCM56020	StrataXGS III	Tropicana
BCM56100	StrataXGS III	Felix
BCM56110	StrataXGS III	Felix+
BCM56140	StrataXGS IV	Hurricane
BCM56210	StrataXGS III	Raptor
BCM56220	StrataXGS III	Raven
BCM56300	StrataXGS III	Helix
BCM56310	StrataXGS III	Helix+
BCM56320	StrataXGS IV	Helix3
BCM56330	StrataXGS IV	Enduro

Table 8: Switch Device Codenames

Product Family	Architecture	Codename
BCM56130	StrataXGS IV	Stardust
BCM56440	StrataXGS IV	Katana
BCM56500	StrataXGS III	Firebolt
BCM56510	StrataXGS III	Firebolt2
BCM56520	StrataXGS IV	Apollo
BCM56530	StrataXGS IV	Firebolt3
BCM56580	StrataXGS III	Goldwing
BCM56600	StrataXGS III	Easyrider
BCM56620	StrataXGS IV	Triumph
BCM56629	StrataXGS IV	Triumph
BCM56630	StrataXGS IV	Triumph2
BCM56680	StrataXGS IV	Valkyrie
BCM56685	StrataXGS IV	Valkyrie2
BCM56700	StrataXGS III	Humv
BCM56720	StrataXGS IV	HUMV+
BCM56725	StrataXGS IV	Conqueror
BCM56740	StrataXGS IV	Titan
BCM56744	StrataXGS IV	Titan+
BCM56800	StrataXGS IV	Bradley
BCM56820	StrataXGS IV	Scorpion
BCM56825	StrataXGS IV	Sco320G
BCM56840	StrataXGS IV	Trident
BCM56840_PLUS	StrataXGS IV	Trident+
BCM88020	XGS Core	Caladan FE-2000
BCM88025	XGS Core	Caladan2
BCM88130	XGS Core	Polaris
BCM88230	XGS Core	Sirius
BCM88235	XGS Core	Sirius+
BCM88231	XGS Core	Sirius TM
BCM88236	XGS Core	Sirius+ TM
BCM56931	XGS Core	Sportster
BCM56936	XGS Core	Sportster+
BCM53101	ROBO	Lotus
BCM53115	ROBO	Vulcan
BCM53118	ROBO	Blackbird
BCM53125	ROBO	Starfighter
BCM53128	ROBO	Blackbird2
BCM53242	ROBO	Harrier
BCM53280	ROBO	Thunderbolt
BCM53600	ROBO	Voyager

4. PHYs

Table 9: PHYs

Device	Driver Family	Description
BCM5218	522x	10/100Base-TX/FX Octal-PHY(tm) Transceiver
BCM5220	522x	10/100BASE-TX/FX Mini-F(tm) Transceiver
BCM5221	522x	10/100BASE-TX/FX Mini-F(tm) Transceiver
BCM5226	522x	10/100 BASE- TX/FX Hex-PHY(tm) Transceiver
BCM5228	522x	10/100BASE-TX/FX Octal-F(tm) Transceiver
BCM5238	522x	10/100BASE-TX OCTAL-f(tm) Transceiver
BCM5248	522x	10/100BASE-TX Octal-F(tm) Transceiver
BCM52681E A1	54680	Octal 10/100 Ethernet Transceiver
BCM5401	5401	10/100/1000BASE-T Gigabit Copper Transceiver
BCM5402	5402	10/100/1000BASE-T Gigabit Copper Transceiver
BCM5404	5404	Quad-Port 10/100/1000BASE-T Gigabit Copper Transceiver
BCM5424	5424	Quad 10/100/1000BASE-T Gigabit Ethernet Transceiver
BCM5434	5424	Quad 10/100/1000BASE-T Gigabit Ethernet Transceiver
BCM5411	5411	10/100/1000BASE-T Gigabit Copper Transceiver
BCM5421	5421S	10/100/1000BASE-T Gigabit Copper Transceiver
BCM5421S	5421S	10/100/1000BASE-T Gigabit Copper Transceiver with SerDes
BCM5461	5464	10/100/1000BASE-T Gigabit Ethernet Transceiver
BCM5464	5464	Quad-Port 10/100/1000BASE-T Gigabit Copper Transceiver
BCM5464R	5464	Quad-Port 10/100/1000BASE-T Gigabit Copper Transceiver
BCM5464S	5464	Quad-Port Gigabit Copper Transceiver with Copper/Fiber Media Interface
BCM5464SR	5464	Quad-Port Gigabit Copper Transceiver with Copper/Fiber Media Interface
BCM5466	5464	Quad-Port 10/100/1000BASE-T Gigabit Copper Transceiver
BCM5466R	5464	Quad-Port 10/100/1000BASE-T Gigabit Copper Transceiver
BCM5466S	5464	Quad-Port Gigabit Copper Transceiver with Copper/Fiber Media Interface
BCM5466SR	5464	Quad-Port Gigabit Copper Transceiver with Copper/Fiber Media Interface
BCM5482	5482	Dual-Port 10/100/1000BASE-T Gigabit Ethernet Transceiver
BCM5488	5464	Octal 1000/100/10BASE-T Gigabit Ethernet Transceiver
BCM54380_B0	54380	Octal 1000/100/10BASE-T Gigabit Ethernet Transceiver (Needs additional software component)
BCM54382_B0	54380	Octal 1000/100/10BASE-T Gigabit Ethernet Transceiver (Needs additional software component)
BCM54616_A0	54616	Single-Chip 10/100/1000BASE-T Gigabit Ethernet Transceiver
BCM54640	54640	Quad-Port Gigabit Copper Transceiver with Copper/Fiber Media Interface
BCM54640E_A1	54640	Quad-Port Gigabit Copper Transceiver with Copper/Fiber Media Interface
BCM54640E B0	54640	Quad-Port Gigabit Copper Transceiver with Copper/Fiber Media Interface
BCM54680_A0	54680	Octal-Port 10/100/1000BASE-T Gigabit Ethernet Transceiver
BCM54680E_A1	54680	Octal-Port 10/100/1000BASE-T Gigabit Ethernet Transceiver

Table 9: PHYs

Device	Driver Family	Description
BCM54680E_B0	54680	Octal-Port 10/100/1000BASE-T Gigabit Ethernet Transceiver
BCM54682E_A1	54682	Octal-Port 10/100/1000BASE-T Gigabit Ethernet Transceiver with 2 Copper/Fiber Media Interface
BCM54682E_B0	54682	Octal-Port 10/100/1000BASE-T Gigabit Ethernet Transceiver with 2 Copper/Fiber Media Interface
BCM54684_D0	54684	Octal-Port 10/100/1000BASE-T Gigabit Ethernet Transceiver
BCM54684E B0	54682	10/100/1000 Octal (65nm) QSGMII-Copper/Fiber(2) with EEE
BCM54685	54682	Octal QSGMII to 10/100/1000BaseT or Fiber Ethernet Transceiver
BCM54685E_A1	54682	Octal-Port 10/100/1000BASE-T Gigabit Ethernet Transceiver with Copper/Fiber Media Interface
BCM54810_A0	54880	BroadR-Reach Single-Port 10/100/1000BASE-T Gigabit Ethernet Transceiver
BCM54880_A0	54880	Octal-Port 10/100/1000BASE-T Gigabit Ethernet Transceiver with BroadR-Reach support
BCM54880_B0	54880	Octal-Port 10/100/1000BASE-T Gigabit Ethernet Transceiver with BroadR-Reach support
BCM54880E_A1	54680	Octal-Port 10/100/1000BASE-T Gigabit Ethernet Transceiver
BCM54880E_B0	54680	Octal-Port 10/100/1000BASE-T Gigabit Ethernet Transceiver
BCM54881_B0	54880	Octal 10/100Base/Tx Ethernet BroadReach Transceiver
BCM54980_B2	54980	Octal 1000/100/10BASE-T Gigabit Ethernet Transceiver
BCM54980_C0	54980	Octal 1000/100/10BASE-T Gigabit Ethernet Transceiver
BCM54980_C1	54980	Octal 1000/100/10BASE-T Gigabit Ethernet Transceiver
BCM8040_A2	8040	Eight-Channel Multirate 1-Gbps - 3.2-Gbps Retimer/Switch
BCM8073_A0	8072	Dual-Channel Serial 10-GbE BASE-KR to XAUI Transceiver. Firmware version d502.
BCM8074_A0	8072	Quad-Channel Serial 10-GbE BASE-KR to XAUI Transceiver. Firmware version 010C.
BCM8704	8703	Serial 10-Gigabit Ethernet/Fibre Channel Transceiver with XAUI Interface
BCM8705	8705	Serial 10-Gigabit Ethernet/Fibre Channel Transceiver with WIS Layer and XAUI Interface
BCM8725	8705	Dual Serial 10-Gigabit Ethernet/Fibre Channel Transceiver with WIS Layer and XAUI Interface
BCM8726_A0	8706	Dual Serial 10-Gigabit Ethernet/Fibre Channel Transceiver with XAUI Interface
BCM8726_B1	8706	Dual Serial 10-Gigabit Ethernet/Fibre Channel Transceiver with XAUI(TM) Interface. Firmware version 0x0127
BCM8727_B0	8706	Dual Serial 10-Gigabit Ethernet/Fibre Channel Transceiver with XAUI Interface. Firmware version 0406.
BCM8727_C0	8706	Dual Serial 10-Gigabit Ethernet/Fibre Channel Transceiver with XAUI Interface. Firmware version 050D.
BCM8728_A0	8706	Dual-Channel 10-GbE SFI-to-XAUI(TM) Transceiver with EDC. Firmware version 0511. (Preview)
BCM8742	8706	Quad-Channel 10-GbE SFI-to-XAUI(TM) Transceiver. Firmware version 0511.
BCM8747_A0	8706	Quad-Channel 10-GbE SFI-to-XAUI(TM) Transceiver with EDC. Firmware version 0511.
BCM8750_A0	8750	Dual-Channel 10 GbE SFI-to-XFI PHY with EDC
BCM8752_A0	8750	Dual-Channel 10 GbE SFI-to-XFI PHY with EDC
BCM8754_A0	8750	Quad-Channel 10 GbE SFI-to-XFI PHY with EDC. Firmware version 0411.

Table 9: PHYs

Device	Driver Family	Description
BCM8481_B0	8481	10GBASE-T Transceiver (Firmware version B0 02.10)
BCM8481_C0	8481	10GBASE-T Transceiver (Firmware version C0 02.13)
BCM84812_A0	8481	Dual 10GBASE-T Transceiver. Firmware version 2.13
BCM84821_A0	8481	10GBASE-T Transceiver. Firmware version 2.13 (Preview)
BCM84822_A0	8481	Dual 10GBASE-T Transceiver. Firmware version 3.02
BCM84823_A0	8481	Dual 10GBASE-T Transceiver. Firmware version 3.02
BCM84823_B0	8481	Dual 10GBASE-T Transceiver. Firmware version 4.02
BCM84823_B1	8481	Dual 10GBASE-T Transceiver. Firmware version 4.02
BCM84833_B0	8481	Dual 10GBASE-T Transceiver. Firmware version 1.25 (Preview)
BCM84834_B0	8481	Dual 10GBASE-T Transceiver. Firmware version 1.25 (Preview)
BCM84740 A0	84740	40 GbE PPI-to-XLAUI PHY with EDC. Firmware version D102.
BCM84753 A0	84740	Quad-Channel 10 GbE SFI-to-XFI PHY with EDC. Firmware version D102.
BCM84754 A0	84740	Quad-Channel 10 GbE SFI-to-XFI PHY with EDC. Firmware version D102.
BCM84064 A0	84740	Quad 10G-KR-to-XFI or 40G-KR4-to-XLAUI Transceiver. Firmware version D102.

5. Operating Systems

The SDK provides the SAL and BDE abstraction implementations necessary for running the SDK on the following operating systems. See the Platform Guide (56XX-PG810-R) for instructions on porting the SDK to another platform.

Table 10: Operating Systems

Operating System
VxWorks 5.5
VxWorks 6.2
VxWorks 6.4
VxWorks 6.5
VxWorks 6.6
Linux 2.4.20 User Mode
Linux 2.4.20 Kernel Resident Mode
Linux 2.6.14 User Mode
Linux 2.6.14 Kernel Resident Mode
Linux 2.6.21 User Mode
Linux 2.6.21 Kernel Resident Mode
Linux 2.6.25 User Mode
Linux 2.6.25 Kernel Resident Mode
Linux 2.6.27 User Mode
Linux 2.6.27 Kernel Resident Mode
POSIX Compliant (SAL ONLY)

6. CPU Subsystems

Table 11: CPU Subsystems

CPU Subsystem	Description
BCM95836	CPCI 32-bit MIPS with BCM5836 Processor
BCM98245	CPCI 32-bit PPC with Motorola 8245 Processor
BCM91125	CPCI 32/64-bit MIPS with BCM1125 SiByte Processor
BCM98548XMC	XMC 32-bit PPC with Freescale 8548 Processor
BCM953003C	XMC 32-bit MIPS with BCM53003 Processor
BCM5621X	Integrated MIPS CPU on BCM5621X Switch Devices
BCM5622X	Integrated MIPS CPU on BCM5622X Switch Devices
BCM5331X	Integrated MIPS CPU on BCM5331X Switch Devices

7. CPU and Operating System Combinations

The following CPU and Operating System combinations are supported by the SDK (in addition to the above):

Table 12: CPU and Operating System Combinations

CPU Subsystem	Operating System	Description
BCM95836	VxWorks 5.5	BSP Provided
BCM95836	Linux 2.4.20	Available through MontaVista 3.1 Preview kit
BCM95836	Linux 2.6.14	Available through Windriver Linux 1.5
BCM95836	Linux 2.6.21	Available through WindRiver Linux 2.0
BCM98245	VxWorks 5.5	BSP Provided
BCM98245	VxWorks 6.2	BSP Provided
BCM98245	Linux 2.4.20	Available through MontaVista 3.1 Preview kit
BCM98245	Linux 2.6.14	Available through WindRiver Linux 1.4/1.5
BCM98245	Linux 2.6.21	Available through WindRiver Linux 2.0
BCM91125	VxWorks 5.5	BSP Provided
BCM91125	VxWorks 6.2	BSP Provided
BCM91125	VxWorks 6.4	BSP Provided
BCM91125	Linux 2.4.20	Available through MontaVista 3.1 Preview kit
BCM91125	Linux 2.6.10	Available through MontaVista 4.0 Professional
BCM91125	Linux 2.6.14	Available through WindRiver Linux 1.5
BCM91125	Linux 2.6.21	Available through WindRiver Linux 2.0
BCM5621X	VxWorks 5.5	BSP Provided
BCM5621X	VxWorks 6.4	BSP Provided
BCM5621X	Linux 2.6.14	Available through WindRiver Linux 1.5 `bcm_ntswics`
BCM5621X	Linux 2.6.21	Available through WindRiver Linux 2.0 `bcm_ntswics`
BCM5331X	VxWorks 5.5	BSP Provided
BCM5331X	VxWorks 6.4	BSP Provided
BCM5331X	Linux 2.6.14	Available through WindRiver Linux 1.5 `bcm_ntswics`
BCM5331X	Linux 2.6.21	Available through WindRiver Linux 2.0 `bcm_ntswics`
BCM98548XMC	VxWorks 6.4	BSP Provided
BCM98548XMC	VxWorks 6.5	BSP Provided
BCM98548XMC	Linux 2.6.21	Available through WindRiver Linux 2.0

Table 12: CPU and Operating System Combinations

CPU Subsystem	Operating System	Description
BCM98548XMC	Linux 2.6.27	Available through WindRiver Linux 3.0. Note: Additional patches for issues WIND00172598 and WIND00161649 are required. Contact your WindRiver support personnel for these patches and other WindRiver information.
BCM5300X	VxWorks 5.5	BSP Provided
BCM5300X	VxWorks 6.6	BSP Provided
BCM5300X	Linux 2.6.21	Available through WindRiver Linux 2.0
BCM5300X	Linux 2.6.27	Available through WindRiver Linux 3.x
BCM5360X	VxWorks 5.5	BSP Provided
BCM5360X	VxWorks 6.6	BSP Provided
BCM5360X	Linux 2.6.21	Available through WindRiver Linux 2.0
BCM5360X	Linux 2.6.27	Available through WindRiver Linux 3.x
Generic X86	Linux 2.6.25/2.6.27	

8. Reference Designs

The following Switch Reference Designs are available from Broadcom and are supported in the SDK.

Table 13: Reference Designs

Platform	Description
BCM95324R24GM	24-port FE + 2-port GE 5324 SW Ref. Design
BCM95347R24M	24-port FE + 4 GE 5347 - 5836 CPU Managed Switch Ref. Design
BCM95348R48M	48-port FE + 4 GE 5348 - 5836 CPU Managed Switch Ref. Design
BCM95395R5GM	5-port GE 5395 Switch Ref Design - Managed (BCM5836)
BCM95396R16GM	16-port GE + 1-port FE(SFP) 5396 Switch Ref Design - Managed (BCM5836)
BCM953001R24M	24-port FE + 2-port GE 53242 SW Ref. Design with BCM53001 Processor
BCM953115R5GM	5-port GE + 1-port serdes 53115 Ref. Design
BCM953125RM	5-port GE 53125 Ref. Design
BCM95324R24GM	24-port FE + 2-port GE 5324 SW Ref. Design
BCM953242R24M	24-port FE + 2-port GE 53242 SW Ref. Design
BCM953262R24M	24-port FE + 4-port GE 53262 SW Ref. Design
BCM953284R	24-port FE + 2-port GE 53284 SW Ref. Design
BCM953284MDU	24-port FE 53284 SW Ref. Design with TK3715 EPON ONU MAC/Serdes
BCM953286R	24-port FE + 4-port GE 53286 SW Ref. Design
BCM953300	24-port GE 53300 Switch Ref Design
BCM953302	48-port GE 53302 Switch Ref Design
BCM953314K	24-port GE - 53314 System Verification Kit
BCM953314R24GS	24-port GE - 53314 Switch Ref Design
BCM953604R	24-port FE + 1-port 1/2G EPON ONU MAC/SerDes Reference Design
BCM956018K48T	48-port FE + 2-port GE + 2-port HGL(CAT 7) - 56018 SVK
BCM956024K24T	24-port FE + 4-port HGL(CAT 7) - 56024 SVK
BCM956102R48XS	48-port FE + 4 port GE 56102 SW Ref Design w/2-HiGig/10GE
BCM956112R48XS-02	48-port FE + 4 port GE 56112 SW Ref Design w/2-HiGig/10GE - PPC8245
BCM956132K	24-port FE 56132 SW SVK Design w/ two 10GE/HiGig2 and two 1G/2.5Gb Uplink Ports
BCM956214R26T	26-port GE (2 TX/SX) + 2-port HGL(CAT 7) - 56214 Reference Design
BCM956219K50T	50-port GE + 2-port HGL(CAT 7) - 56218 - PPC8245 SVK
BCM956218K50T	50-port GE + 2-port HGL(CAT 7) - 56218 System Verification Kit
BCM956224K24T	24-port GE + 4-port HGL(CAT 7) - 56224 SVK
BCM956224R24F	24-port GE + 4-port GE SFP - BCM56224 Reference board.
BCM956300R24	24-port GE 56300 Switch Ref Design
BCM956304R24XS	24-port GE (2 TX/SX) 56304 SW Ref Des w/2-HiGig + 2-10GE
BCM956314R24ST	24-port GE + 4 HiGig/2.5GE(CAT 7) 56314 Ref Design
BCM956314R24XST	24-port GE + 4 10GE/HiGig/2.5GE(CX4) - 56314 Ref Design

Table 13: Reference Designs

Platform	Description
BCM956334K_02/BCM956334K_03	24xGE + 4x10G/13HG (iPass) with BCM56334 switch
BCM956500R24	24-port GE 56500 Switch Ref Design
BCM956504R24XS	24-port GE (2 TX/SX) 56504 SW Ref Des w/2-HiGig + 2-10GE
BCM956504R48XSP	48-port GE (12 w/POE) 56504 Switch Ref Design 4 - HiGig/10GE
BCM95650K24	24-port FE + 4 port GE Switch Development Kit
BCM95650R24	24-port FE + 4 port GE (TX or SFP) Reference Design
BCM956514R24XST	24-port GE + 4 10GE/HiGig/2.5GE(CX4) - 56514 Ref Design
BCM956514R48XSP	48-port GE (12 w/POE) 56514 Switch Ref Design 4 - HiGig/10GE
BCM956580K16TXS	16-port 2.5G SFP Fibre + 4 HiGig/10GE 56580 SDK
BCM956601K12D	12-port GE + 1-HiGig 56601 DDR SDRAM SDK
BCM956601K12N	12-port GE + 1-HiGig 56601 Netlogic TCAM SDK
BCM956602KXSN	1-HiGig + 1-10GE 56602 Netlogic TCAM SDK
BCM95665K48	48-port FE + 4 port GE TX/SX + 1HiGig Switch Development Kit
BCM956700K16S	16-port HiGig CX4 56700 SDK
BCM95670K8	8-port 5670 GE Switch Development Kit
BCM95673K2S	2 x 5673 10-GE + HiGig Switch Development Kit
BCM95673R8	8-port 5673 10 GE XFP Switch Reference Design
BCM95673R8CX4	8-port 5673 10 GE CX4 Switch Reference Design
BCM95675K8	8-port 5675 GE Switch Development Kit
BCM95675K8U	8-port 5675 GE Switch Development Kit - PPC8245
BCM956800K20X	20-port 10 GE CX4 56800 SDK
BCM95690K24S	24-port 5690 GE Switch Development Kit w/2HiGig
BCM95690K24	24-port 5690 GE Switch Development Kit
BCM95690P24REF	24-port 5690 GE + 5671 w/2HiGig Ports Reference Design
BCM95690R24	24-port 5690 GE Ports Reference Design
BCM95690R24S	24-port 5690 GE + 5671 w/2HiGig Ports Reference Design
BCM95690R48S	48-port 5690 GE + 5670 w/4HiGig Ports Reference Design
BCM95690R48X2S	48-port 5690 GE + 5670 w/2-HiGig Ports + 2-10-GE Ports Ref. Design
BCM95691K12	12-port 5691 GE Switch Development Kit
BCM95695K24	24-port 5695 GE Switch Development Kit
BCM95695R24S	24-port 5695 GE + 5671 w/2HiGig Ports Reference Design
BCM95695R24X2S	24-port 5695 GE + 2-port 5675 HiGig + 2-port 5674 10GE CX4
BCM95695R48X2S	48-port 5695 GE + 5670 w/2-HiGig Ports + 2-10-GE Ports Ref. Design
BCM91125CFM16	BCM956010CS Dual 5675 Fabric + 1125H CPU
BCM91125CFM8	BCM956006CS Single 5675 Fabric + 1125H CPU
BCM956501LM	12-port 10GE CX4 56501/5675 Line Module
BCM956504LM	48-port GE 56504 Line Module
BCM956700CFM16	16-HiGig 56700 Fabric + BCM1125 CPU Module
BCM95674LM	6-port 10GE CX4 5674/5675 Line Module
BCM956802LM	12-port 10GE CX4 56802 Line Module

Table 13: Reference Designs

Platform	Description
BCM95695LM	48-port GE 5695/5675 Line Module
BCM956802CFM8	BCM956006CS 56802 Fabric + 8 10GE + 1125H CPU
BCM956680K24TS_02/BCM956680K24TS_05	25 port 1-GbE/2.5GbE Multilayer Ethernet Switch with 4 x 10-GbE/HiGig2 Uplink ports SVK
BCM956624K49TS_02/ BCM956624K49TS_05	49 port 1-GbE Multilayer Ethernet Switch with 4 x 10-GbE/HiGig2 Uplink ports and External Table Expansion SVK
BCM956624R49S_02	49 port 1-GbE Multilayer Ethernet Switch with 4 x 10-GbE SFP+ Uplink ports BCM56624 reference board
BCM956634K49S_02	49xGE + 4 x XAUI/HG (iPass) with BCM56634 switch
BCM956636K25S_02	24x1GE + 2x12HG + 4x16HG (iPass) with BCM56636 switch
BCM956638K8XS_02	4x12HG + 4x16HG (iPass) with BCM56638 switch
BCM956639K25S_02	24x1GE + 8x10G (iPass) with BCM56639 switch
BCM956526K29S_02	28x1GE + 6x12HG (iPass) with BCM56526 switch
BCM956685K24TS_02	24 port 1-GbE/2.5GbE Multilayer Ethernet Switch with 4 x 10-GbE/HiGig2 Uplink ports SVK
BCM956820K24XG_02/BCM956820K24XG_05	24 x 10-GbE + 4 x 1-GbE Multilayer Ethernet Switch SVK
BCM956820R24XG_02	24 x 10-GbE + 4 x 1-GbE BCM56820 Multilayer Ethernet Switch Reference board with SFP+ interface.
BCM956825K24XG_02	16 x 10-GbE + 8 x 20-Gbps HG2 + 1 x 1-GbE Multilayer Ethernet Switch Reference board.
BCM956720K16S_02/BCM956720K16S_05	16-Port, 256-Gbps Switch Fabric + 4 x 1-GbE SVK
BCM956725K16S_02/BCM956725K16S_05	8-Port (20Gbps) + 4-port (16Gbps) Switch Fabric + 4 x 1-GbE SVK
BCM988020QSK24X2	Carrier Ethernet 24-port GE + 2-port 10GbE Reference Design (also known as Metrocore)
BCM988130FK24X2	Carrier Ethernet 24-port GE + 2-port 10GbE Reference Design (also known as Polaris Line card)
BCM988025QSK24X2	Carrier Ethernet 24-port GE + 2-port 10GbE Reference Design (also known as C2 SVK)
BCM988130K_02	BCM88130 SVK with 96 fabric serdes connections (24 iPass ports)
BCM988235K_02	BCM88235 SVK with 4 HiGig2 ports (4 iPass), 2 flow control ports (2 iPass)
BCM953724R26WS	26-Port, 26-Gbps Integrated Multilayer Switch and CPU
BCM956628K8TS	8 port 10-GbE/HiGig2 Multilayer Ethernet Switch with External Table Expansion
BCM956620K24TS	24 port 1-GbE Multilayer Ethernet Switch with 4 x 10-GbE/HiGig2 Uplink ports
BCM956684K24TS	24 port 1-GbE/2.5GbE Multilayer Ethernet Switch with 4 x 10-GbE/HiGig2 Uplink ports
BCM956725K16S	8 Port, 20-Gbps + 4 Port, 16-Gbps HiGig2 Switch Fabric
BCM956626K8TS	25 port 1-GbE Multilayer Ethernet Switch with 6 x 10-GbE/HiGig2 Uplink ports and External Table Expansion
BCM956629K24S	25 port 1-GbE Multilayer Ethernet Switch with 8 x 10-GbE/HiGig2 Uplink ports and External Table Expansion
BCM956224R50T	50-port GE + 2-port HGL(CAT 7) - 2 X BCM56224
BCM956024R50T	48-port FE + 2-port GE + 2-port HGL(CAT 7) - 2 X BCM56024

Table 13: Reference Designs

Platform	Description
BCM956524K24S_02	24xGE + 4 x XAUI/HG (iPass) with BCM56524 switch
BCM956521K_02	24-Port GbE Multilayer Switch with 10 GbE/HiGig2 Uplink Ports
BCM956740K_02	480/640 Gbps Switch fabric
BCM956743K_02	480/640 Gbps Switch fabric
BCM956840K_02	320/480/640 Gbps Ethernet Multilayer Switch
BCM956845K_02	320/480/640 Gbps Ethernet Multilayer Switch
BCM956846KQ	320/480/640 Gbps Ethernet Multilayer Switch
BCM98727MC	16 port Ipass to SFP+ Media Converter
BCM956534K24TS	24xGE + 4 x XAUI/HG (iPass) with BCM56534 switch
BCM956538K49S	48-Port GbE Multilayer Switch with Four 10-GbE/HiGig2 Uplink Ports SVK

Note: The flash sizes of some old BCM53XX platforms are 4 MBytes only. As the code size of SDK increases, the 4 MB flash is not enough for this release. Replace the flash to 8 MB or above for those reference designs.

Section 6: SDK Externally Licensed Software Components

SDK contains a number of third-party externally licensed software components. This appendix contains information regarding these components, the license for each of these components, and where these components are used in SDK.

Table 14: EXTERNALLY LICENSED SOFTWARE COMPONENTS

Component	Origin	Location in source tree	License terms and conditions
EDITLINE	/afs/athena.mit.edu/contrib/ sipb/src/editline	src/sal/appl/editline	See (EDITLINE License terms and conditions) (page 53)
CINT	http://www.gnu.org/software/ bison/	src/appl/cint/ cint_parser.[ch]	See (CINT parser license terms and conditions) (page 55)
CES Driver	BATM Advanced Communications Ltd	src/soc/ces/ nemo_driver/ *.[ch], src/soc/ces/ clsbuilder/*.[ch]	See (Circuit Emulation Service (CES) Driver terms and conditions) (page 56)

EDITLINE LICENSE TERMS AND CONDITIONS

```
This package was obtained from the following location, and was modified
for purposes of inclusion into the SOC diagnostics shell.

Removed files:
        MANIFEST Make.os9 Makefile os9.h sysos9.c testit.c unix.h

Added files:
        sysvxworks.c Makefile

Changed functionality:
        Merged unix.h into editline.h
        M-P and M-N now behave like tcsh.
        list_history(count) routine displays history
        Commented out completion
        Changed rl_complete and rl_list_possib into caller-settable
                global functions
        Don't ring bell on TAB if word is already complete


-------------------------------------------------------------------------------


Index of /afs/athena.mit.edu/contrib/sipb/src/editline

[     ] Name                    Last modified    Size  Description
   -------------------------------------------------------------------------

 [DIR]   Parent Directory        11-May-99 03:40      -
 [   ]   MANIFEST                07-Jul-97 11:20     1k
 [   ]   Make.os9                07-Jul-97 11:20     1k
 [   ]   Makefile                01-Sep-97 00:34     2k
```

```
[   ]   complete.c            07-Jul-97 11:20      4k
[   ]   editline.3            07-Jul-97 11:20      5k
[   ]   editline.c            07-Jul-97 11:20      25k
[   ]   editline.h            07-Jul-97 11:20      2k
[   ]   os9.h                 07-Jul-97 11:20      1k
[   ]   sysos9.c              07-Jul-97 11:20      1k
[   ]   sysunix.c             07-Jul-97 11:20      3k
[   ]   testit.c              07-Jul-97 11:20      1k
[   ]   unix.h                07-Jul-97 11:20      1k
```

$Revision: 1.3.102.2 $

This is a line-editing library. It can be linked into almost any
program to provide command-line editing and recall.

It is call-compatible with the FSF readline library, but it is a
fraction of the size (and offers fewer features). It does not use
standard I/O. It is distributed under a "C News-like" copyright.

Configuration is done in the Makefile. Type "make testit" to get
a small slow shell for testing.

This contains some changes since the posting to comp.sources.misc:
    -   Bugfix for completion on absolute pathnames.
    -   Better handling of M-n versus showing raw 8bit chars.
    -   Better signal handling.
    -   Now supports termios/termio/sgttyb ioctl's.
    -   Add M-m command to toggle how 8bit data is displayed.
The following changes, made since the last public release, come from
J.G. Vons <vons@cesar.crbca1.sinet.slb.com>:
    -   History-searching no longer redraws the line wrong
    -   Added ESC-ESC as synonym for ESC-?
    -   SIGQUIT (normally ^) now sends a signal, not indicating EOF.
    -   Fixed some typo's and unclear wording in the manpage.
    -   Fixed completion when all entries shared a common prefix.
    -   Fixed some meta-char line-redrawing bugs.

Enjoy,
        Rich $alz
        <rsalz@osf.org>

explicit claim or by omission. Since few users ever read sources,
credits must appear in the documentation.
3. Altered versions must be plainly marked as such, and must not be
   misrepresented as being the original software. Since few users
   ever read sources, credits must appear in the documentation.
4. This notice may not be removed or altered.

CINT PARSER LICENSE TERMS AND CONDITIONS

The C code for the parser CINT was generated by using GNU Bison parser
generator from the file cint_grammar.y   CINT is an optional diagnostic
tool that can be included in your system by adding CINT to the
FEATURE_LIST in SDK compilation flags.

Removed files:
        None

Added files:
        None

Changed functionality:
        None

/* A Bison parser, made by GNU Bison 2.4.1. */

/* Skeleton implementation for Bison's Yacc-like parsers in C

      Copyright (C) 1984, 1989, 1990, 2000, 2001, 2002, 2003, 2004, 2005, 2006
   Free Software Foundation, Inc.

   This program is free software: you can redistribute it and/or modify
   it under the terms of the GNU General Public License as published by
   the Free Software Foundation, either version 3 of the License, or
   (at your option) any later version.

   This program is distributed in the hope that it will be useful,
   but WITHOUT ANY WARRANTY; without even the implied warranty of
   MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the
   GNU General Public License for more details.

   You should have received a copy of the GNU General Public License
   along with this program. If not, see <http://www.gnu.org/licenses/>. */

/* As a special exception, you may create a larger work that contains
   part or all of the Bison parser skeleton and distribute that work
   under terms of your choice, so long as that work isn't itself a
   parser generator using the skeleton or a modified version thereof
   as a parser skeleton. Alternatively, if you modify or redistribute
   the parser skeleton itself, you may (at your option) remove this
   special exception, which will cause the skeleton and the resulting
   Bison output files to be licensed under the GNU General Public
   License without this special exception.

```
   This special exception was added by the Free Software Foundation in
   version 2.2 of Bison.  */

/* C LALR(1) parser skeleton written by Richard Stallman, by
   simplifying the original so-called "semantic" parser.  */
```

CIRCUIT EMULATION SERVICE (CES) DRIVER TERMS AND CONDITIONS

```
The Circuit Emulation Services (CES) driver code provided herewith is provided
by BATM Advanced Communications Ltd (BATM) and is subject to licensing agreement
between BATM and Broadcom Corporation.
```