



D6432 PROGRAMMABLE SWITCH



Product Overview

The Inventec D6432 is a high-performance network switching device supporting up to 32 x 400GbE, or 64 x 200GbE, or 128 x 100GbE switch ports. It is designed to address performance, capacity and service requirements for next-generation data center and cloud computing environments. The switch hardware provides the high availability features required for data center operation, including redundant, hot-swappable PSU; fan with 5+1 redundant fan modules; and front-to-rear or rear-to-front airflow options.

The D6432 offers a new unique benefit for runtime programmability that allows high-level protocols, forwarding behavior, telemetry frameworks and other function to be updated while the switch is in operation, with no down time, and no dropped packets.

This open network switch is loaded with the Open Network Install Environment (ONIE), which supports the installation of compatible Network Operating System software.

Key Features

- Cost-effective, bare-metal switch infrastructure for data center fabric
- 32 x QSFP-DD switch ports, each supporting 1 x 400 GbE or 1 x 100 GbE, or via breakout cables 4 x 100 GbE or 4 x 25 GbE.
- Incorporates Broadcom Trident 4 switch series silicon for non-blocking line rate performance
- High-performance Intel Broadwell-DE series Processor CPU
- 1 RU form factor
- Supports front-to-rear and rear-to-front airflow SKUs
- All ports on front; PSUs and fans accessible from rear
- 1+1 hot-swappable, load-sharing, redundant PSUs
- 5+1 redundant, hot-swappable fan modules
- Management: Ethernet and console RJ-45 ports; USB storage port
- Flexibility to implement advanced network functionality such as DDoS protection, application load balancing, and large-scale NAT
- Advanced instrumentation including programmable in-band and streaming telemetry
- Bare-metal hardware switch pre-loaded with diagnostics software and with Open Network Install Environment (ONIE) for automated loading of compatible open source and commercial NOS
- Compatible with Open Network Linux (ONL), the open-source, OCP reference
- Compatible with SONiC open source network software



Category	Description	Specification
Physical	Form Factor	1RU Fixed
	Dimensions (D x W x H)	549.9D x 440W x 43.18H mm (21.65D x 17.32W x 1.7H inches)
	Weight	10 kg (22lbs)
	Interfaces	32 x 400 GbE QSFP-DD or 64 x 200 GbE or 128 x 100 GbE
	Power Supplies	2 (1+1) Hot swappable & Redundant
	Power Connector	IEC320-C13
	Fans	6 (5+1) Hot-Swappable & Redundant
	System Memory	8 GB-16 GB
	Flash Storage	8-128 GB
	External I/O	1 x USB
	MGMT Port	1 x GE RJ-45
	Console Port	1 x RJ45 (RS-232)
	Reset	1 x Reset Button (Front Panel Mounted)
	Status LEDs	System Health Status/ Fan Status
Activity LEDs	Link Activity/ Status	
Optics and Cables		
Performance and Scalability	Forwarding	8 Bpps
	Throughput	25.6 Tbps Bi-directional
	Latency	Average 500 ns
	Layer 2	384K L2 MACs
	Layer 3	640K L3 Hosts
	Redundancy	8K ECMP Groups, 64K ECMP Members
	Buffer	132 MB Maximum
	Memory	8 GB
Power	Type	AC
	Input Voltage	100~240 VAC
	Input Frequency	50/60 Hz
	Typical/Max Power Draw	630 W/ 1300 W
Cooling	Front to Back Airflow	Yes
	Back to Front Airflow	Yes
Environmental	Operating Temperature	0~40 ° C
	Storage Temperature	-40~70 ° C
	Relative Humidity	10~90 %
	Altitude	0~3000 m (0~10,000 ft)
Compliance	EMI	CISPR-22/FCC Part 15 IEC61000-3-2/3 IEC61000-4-2/3/4/5/6/11
	Safety	CB: IEC60950-1 (2nd) CCC: GB 4943.1-2011
	RoHS	RoHS-6
	Security	Supports Trusted Platform Module with Secure Boot

ABOUT INVENTEC

Inventec Enterprise Business Group (EBG) was established in 1998 and has been focusing on the design and manufacturing of server systems. Inventec EBG is the key server system supplier of the global branding clients.

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* Standards and RFC Compliance

RFC 1112	Host extensions for IP multicasting	RFC 4271	A Border Gateway Protocol 4 (BGP-4)
RFC 1256	ICMP router discovery messages	RFC 4291	Addressing Architecture for IPv6
RFC 1321	Message digest algorithm	RFC 4443	ICMPv6
RFC 1519	CIDR	RFC 4456	BGP Route Reflectors
RFC 1765	OSPF database overflow	RFC 4486	Subcodes for BGP Cease Notification Message
RFC 1812	Requirements for IPv4 routers	RFC 4541	IGMP snooping
RFC 1981	Path MTU for IPv6	RFC 4760	Multiprotocol Extensions for BGP-4
RFC 1997	BGP Communities Attribute	RFC 5171	Unidirectional Link Detection (UDLD) Protocol
RFC 2131	DHCP relay	RFC 5340	OSPF for IPv6
RFC 2236	IGMP v2	RFC 5492	Capabilities Advertisement with BGP-4
RFC 2328	OSPFv2	RFC 6164	Using 127-Bit IPv6 Prefixes on Inter-Router Links
RFC 2365	Administratively scoped boundaries	RFC 6583	Operational Neighbor Discovery Problems
RFC 2370	The OSPF Opaque LSA Option	RFC 6860	Hiding Transit-Only networks in OSPF
RFC 2385	Protection of BGP Sessions via the TCP MD5 Signature Option	RFC 826	Ethernet ARP
RFC 2460	IPv6 Protocol Specification	RFC 894	Transmission of IP datagrams over Ethernet networks
RFC 2461	Neighbor Discovery	RFC 896	Congestion control in IP/TCP networks
RFC 2462	Stateless Autoconfiguration	RFC3810	MLDv2
RFC 2464	IPv6 over Ethernet	RFC3973	PIM-DM
RFC 2474	Definition of the differentiated services field (DS Field) in the IPv4 and IPv6 headers	RFC4601	PIM-SM
RFC 2475	An architecture for differentiated services	ANSI/TIA-1057	LLDP-MED
RFC 2545	BGP-4 Multiprotocol Extensions for IPv6 Inter-Domain Routing	Draft-ietf-idmr-dvmrp-v3-10	DVMRP
RFC 2597	Assured forwarding PHB group	Draft-ietf-magma-igmp-proxy-06.txt	IGMP/MLD- based multicast forwarding (IGMP/MLD proxying)
RFC 2710	MLDv1	Draft-ietf-magma-igmpv3-and-routing-05.txt	IGMPv3 and multicast routing protocol interaction
RFC 2711	IPv6 Router Alert	IEEE 802.1AB	Link level discovery protocol
RFC 2918	Route Refresh Capability for BGP-4	IEEE 802.1D	Spanning tree
RFC 3021	Using 31 -Bit Prefixes on IPv4 Point-to-Point Links	IEEE 802.1p	Ethernet priority with user provisioning and mapping
RFC 3046	DHCP/BOOTP relay	IEEE 802.1Q	Virtual LANs w/ port-based VLANs
RFC 3056	Connection of IPv6 Domains via IPv4 Clouds	IEEE 802.1s	Multiple spanning tree
RFC 3101	The OSPF "Not So Stubby Area" (NSSA) option	IEEE 802.1w	Rapid spanning tree
RFC 3137	OSPF Stub Router Advertisement	IEEE 802.1x	Port-based authentication
RFC 3246	An expedited forwarding PHB (Per-Hop Behavior)	IEEE 802.3ac	VLAN tagging
RFC 3260	New terminology and clarifications for DiffServ	IEEE 802.3ad	Link aggregation
RFC 3315	Dynamic Host Configuration Protocol for IPv6 (DHCPv6)	IEEE 802.3x	Flow control
RFC 3376	IGMPv3		
RFC 3484	Default Address Selection for IPv6		
RFC 3493	Basic Socket Interface for IPv6		
RFC 3513	Addressing Architecture for IPv6		
RFC 3542	Advanced Sockets API for IPv6		
RFC 3587	IPv6 Global Unicast Address Format		
RFC 3623	Graceful OSPF Restart		
RFC 3633	IPv6 Prefix Options for Dynamic Host Configuration Protocol (DHCP) version 6		
RFC 3736	Stateless DHCPv6		
RFC 3768	Virtual Router Redundancy Protocol(VRRP)		
RFC 4213	Basic Transition Mechanisms for IPv6		

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