



Release Notes

DBL® v3.1.6 software, version 3.1.6

October 4, 2019

Summary

The DBL® v3.1.6 software release is available for ARC Series C-Class network adapter users. The purpose of these Release Notes is to address the following :

- New Features and Enhancements
- Bug fixes

These Release Notes are an aggregation of individual features, enhancements, bug fixes, limitations, and known issues. We recommend that users migrate to this release at their earliest convenience.

For more information, refer to the [DBLv3.1.6 User Guide](#).

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DBLv3.1.6 Product Description

DBL version 3.1.6 software (DBLv3.1.6) is an optional, user-level software interface for accelerating applications whose performance benefits from improved network latency, reduced jitter, and consumed data at higher message rates.

Applications benefitting from DBLv3.1.6 include:

- Voice over internet protocol (VoIP)
- Online gaming engines
- Applications where reduced network latency is essential

DBLv3.1.6 software and the ARC Series C network adapters leverage user-level, kernel-bypass, messaging techniques – originally developed for high performance computing (HPC) applications – and apply these techniques to IP communication over Ethernet in a multicast and/or unicast environment. DBLv3.1.6 is interoperable and wire-compatible with all standard TCP and UDP implementations.

IP communication offers a full set of IP networking services to hundreds of user application threads, but at the cost of latency in the protocol stack. DBLv3.1.6, on the other hand, takes advantage of kernel-bypass capabilities in ARC Series network adapters to allow high-priority user threads to send and receive IP frames directly.

The kernel-bypass approach improves performance to several metrics:

- DBLv3.1.6 user-level read latency (the amount of time it takes a packet to travel from source to destination) on modern hosts is less than one microsecond.

Software Support Notice

- This release is compatible only with ARC Series adapters, C-class or earlier (10G-PCIE2-8C2-2S, 10G-PCIE2-8B-S).

For more information, go to:

<https://www.ariacybersecurity.com/network-adapters>

- Linux Support
 - CentOS 7.7 is recommended.
 - For non-RPM-based Linux distributions, a TGZ driver is provided and supported up to Linux kernel version 5.2.
- Windows Support (64-bit)
 - Windows Server 2016 is recommended.
 - Windows Server 2012 R2 is supported.
 - Windows 7 and 10 are supported. For best performance Windows Server versions are recommended.

For more information on DBLv3.1.6, refer to the [DBLv3.1.6 User Guide](#).

New Features and Enhancements

1. (ID# 517) Added support for building on CentOS 7.7, CentOS 8.0, Ubuntu 18.04, and Linux kernels up to version 5.2.

Bug Fixes

1. (ID# 517) Increased DBL_VERSION_API from 0x0003 to 0x0004 to match feature that was previously implemented. DBL_VERSION_API 0x0004 adds buflen to dbl_rcv_info.

Limitations

- Refer to the Appendix 3: *DBLv3.1.6 Driver Restrictions and Limitations* of the [DBLv3.1.6 User Guide](#) for more information.

Known Issues

- Refer to the Appendix 3: *DBLv3.1.6 Driver Restrictions and Limitations* of the [DBLv3.1.6 User Guide](#) for more information.

Technical Support

DBLv3.1.6 software documentation, technical support, and downloads are available from the ARIA Cybersecurity Solutions website at <https://www.ariacybersecurity.com/network-adapters/c-class/>.

If there are problems installing or using ARIA Cybersecurity Solutions products, or if any bugs or possible enhancements are noticed, contact Technical Support via the ARIA Customer Portal * <https://www.ariacybersecurity.com/support>

ARIA email support at ARIA_support@ariacybersecurity.com

Before you contact our technical support staff, have the following information available:

- Your name, title, company name, phone number, and email address
- Operating system and version number
- Product name and release version
- Problem description

* Follow the instructions on the ARIA Customer Portal website to register for an ARIA Customer Support account