



Communications
Security Establishment

Centre de la sécurité
des télécommunications

CANADIAN CENTRE FOR **CYBER SECURITY**

COMMON CRITERIA CERTIFICATION REPORT

Veritas NetBackup™ 8.2 and NetBackup

5240 Appliance Release 3.2

Veritas Technologies

28 February 2020

383-4-494

V1.0

FOREWORD

This certification report is an UNCLASSIFIED publication, issued under the authority of the Chief, Communications Security Establishment (CSE).

The Information Technology (IT) product identified in this certification report, and its associated certificate, has been evaluated at an approved evaluation facility established under the Canadian Centre for Cyber Security (CCCS). This certification report, and its associated certificate, applies only to the identified version and release of the product in its evaluated configuration. The evaluation has been conducted in accordance with the provisions of the Canadian CC Scheme, and the conclusions of the evaluation facility in the evaluation report are consistent with the evidence adduced. This report, and its associated certificate, are not an endorsement of the IT product by Canadian Centre for Cyber Security, or any other organization that recognizes or gives effect to this report, and its associated certificate, and no warranty for the IT product by the Canadian Centre for Cyber Security, or any other organization that recognizes or gives effect to this report, and its associated certificate, is either expressed or implied.

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OVERVIEW

The Canadian Common Criteria Scheme provides a third-party evaluation service for determining the trustworthiness of Information Technology (IT) security products. Evaluations are performed by a commercial Common Criteria Evaluation Facility (CCEF) under the oversight of the Certification Body, which is managed by the Canadian Centre for Cyber Security.

A CCEF is a commercial facility that has been approved by the Certification Body to perform Common Criteria evaluations; a significant requirement for such approval is accreditation to the requirements of ISO/IEC 17025, the General Requirements for the Competence of Testing and Calibration Laboratories.

By awarding a Common Criteria certificate, the Certification Body asserts that the product complies with the security requirements specified in the associated security target. A security target is a requirements specification document that defines the scope of the evaluation activities. The consumer of certified IT products should review the security target, in addition to this certification report, in order to gain an understanding of any assumptions made during the evaluation, the IT product's intended environment, the evaluated security functionality, and the testing and analysis conducted by the CCEF.

The certification report, certificate of product evaluation and security target are listed on the Certified Products list (CPL) for the Canadian CC Scheme and posted on the Common Criteria portal (the official website of the International Common Criteria Project).



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EXECUTIVE SUMMARY

The Veritas NetBackup™ 8.2 and NetBackup 5240 Appliance Release 3.2 (hereafter referred to as the Target of Evaluation, or TOE), from Veritas Technologies, was the subject of this Common Criteria evaluation. A description of the TOE can be found in Section 1.2. The results of this evaluation demonstrate that the TOE meets the requirements of the conformance claim listed in Section 1.1 for the evaluated security functionality.

EWA-Canada is the CCEF that conducted the evaluation. This evaluation was completed on 28 February 2020 and was carried out in accordance with the rules of the Canadian Common Criteria Scheme.

The scope of the evaluation is defined by the Security Target, which identifies assumptions made during the evaluation, the intended environment for TOE, and the security functional/assurance requirements. Consumers are advised to verify that their operating environment is consistent with that specified in the security target, and to give due consideration to the comments, observations and recommendations in this Certification Report.

The Canadian Centre for Cyber Security, as the Certification Body, declares that this evaluation meets all the conditions of the Arrangement on the Recognition of Common Criteria Certificates and that the product is listed on the Certified Products list (CPL) for the Canadian CC Scheme and the Common Criteria portal (the official website of the International Common Criteria Project).

1 IDENTIFICATION OF TARGET OF EVALUATION

The Target of Evaluation (TOE) is identified as follows:

Table 1: TOE Identification

TOE Name and Version	Veritas NetBackup™ 8.2 and NetBackup 5240 Appliance Release 3.2
Developer	Veritas Technologies

1.1 COMMON CRITERIA CONFORMANCE

The evaluation was conducted using the Common Methodology for Information Technology Security Evaluation, Version 3.1 Revision 5, for conformance to the Common Criteria for Information Technology Security Evaluation, Version 3.1 Revision 5.

The TOE claims the following conformance:

EAL 2+ ALC_FLR.2

1.2 TOE DESCRIPTION

The TOE is an Enterprise data backup and recovery solution. It provides cross-platform backup functionality for a variety of Windows and Linux operating systems. TOE administrators can set up periodic or calendar-based schedules to perform automatic, unattended backups for clients across a network. An administrator can carefully schedule backups to achieve systematic and complete backups over a period, and optimize network traffic during off-peak hours.

1.3 TOE ARCHITECTURE

A diagram of the TOE architecture is as follows:

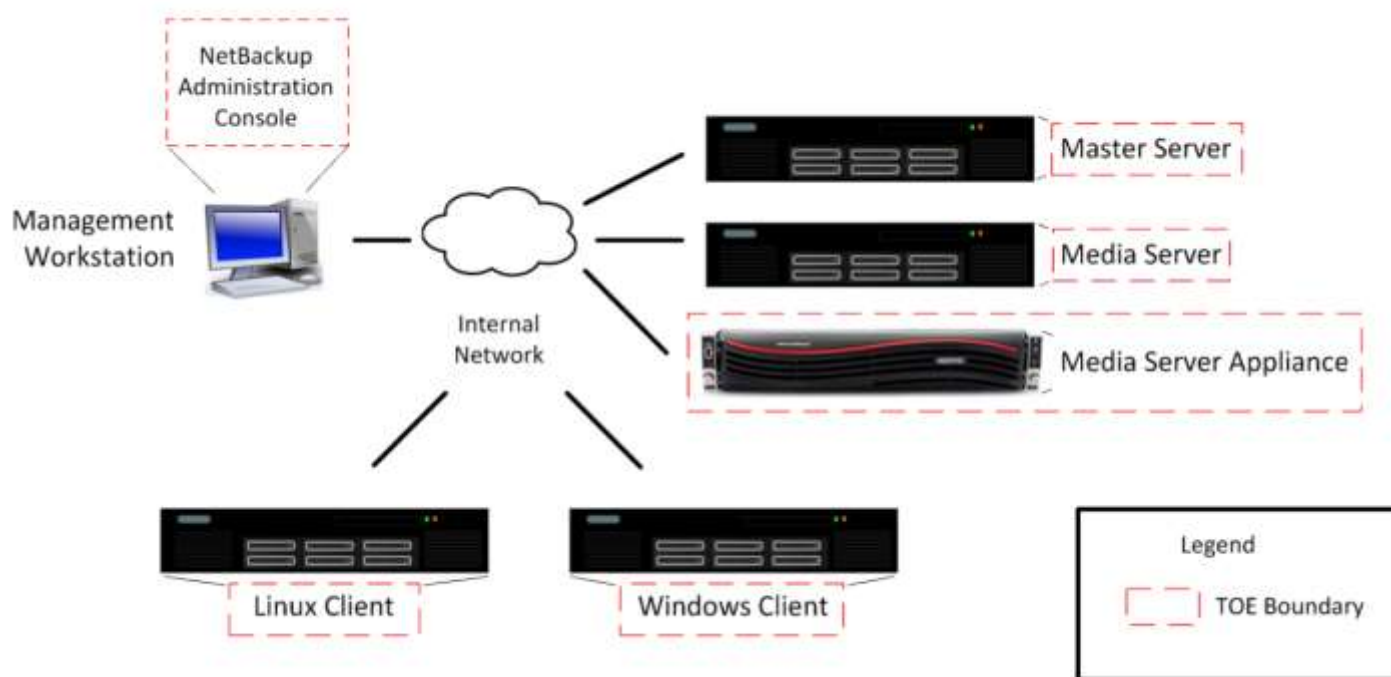


Figure 1: TOE Architecture

2 SECURITY POLICY

The TOE implements policies pertaining to the following security functional classes:

- Security Audit
- Cryptographic Support
- User Data Protection
- Identification and Authentication
- Security Management
- Protection of the TSF

Complete details of the security functional requirements (SFRs) can be found in the Security Target (ST) referenced in section 8.2.

2.1 CRYPTOGRAPHIC FUNCTIONALITY

The following cryptographic implementation has been evaluated by the CMVP and is used by the TOE:

Table 2: Cryptographic Implementation(s)

Cryptographic Module/Algorithm	Certificate Number
Veritas NetBackup Cryptographic Module v1.0	CMVP #2340

3 ASSUMPTIONS AND CLARIFICATION OF SCOPE

Consumers of the TOE should consider assumptions about usage and environmental settings as requirements for the product's installation and its operating environment. This will ensure the proper and secure operation of the TOE.

3.1 USAGE AND ENVIRONMENTAL ASSUMPTIONS

The following assumptions are made regarding the use and deployment of the TOE:

- The TOE components and their hosts are installed on an internal network, which protects the data from disclosure and modification, by untrusted systems or users.
- The hardware and software critical to TOE security policy enforcement will be protected from unauthorized physical access.

3.2 CLARIFICATION OF SCOPE

The Master Server and Media Server can be installed on Linux or Windows, or the NetBackup appliance. Although there are many installation options, the evaluated configuration is limited to the Master Server on RHEL 7.6, one Media Server on Windows Server 2012 and a Media Server Appliance.

The descriptions of Role Based Access Control refer to Root users, since the Master Server is installed on RHEL. These access controls would apply equally to Windows Administrators where the Master Server is installed on a Windows Server. However, this functionality was not assessed in the evaluated configuration.

4 EVALUATED CONFIGURATION

The evaluated configuration for the TOE comprises:

- The TOE software (8.2) running on;
 - A Master Server (GPC running Red Hat Enterprise Linux 7.6)
 - A Media Server (GPC running Windows Server 2012 R2)
- A Media Server NetBackup 5240 appliance v3.2
- Linux client Veritas NetBackup 8.2 software for Red Hat Enterprise Linux 7.6
- Windows Client Veritas NetBackup 8.2 software for Windows Server 2012

4.1 DOCUMENTATION

The following documents are provided to the consumer to assist in the configuration and installation of the TOE:

- a) Veritas NetBackup™ Administrator's Guide, Volume I, UNIX, Windows, and Linux, Release 8. 2, Last updated: 2019-07-01
- b) Veritas NetBackup™ Security and Encryption Guide, UNIX, Windows, and Linux, Release 8. 2, Last updated: 2019-06-28
- c) NetBackup™ Web UI Security Administrator's Guide Release 8. 2, Last updated: 2019-06-28
- d) Veritas Appliance Management Guide NetBackup Appliance 3.2 (AMS 1.3), 2020
- e) Veritas NetBackup™ 52xx Appliance Initial Configuration Guide, Release 3.2, 2019
- f) Veritas NetBackup™ Appliance Security Guide Release 3.2, 2019
- g) Veritas NetBackup™ Installation Guide UNIX and Windows Release 8.2
- h) NetBackup™ Web UI Backup Administrator's Guide Release 8.2
- i) Veritas NetBackup™ Commands Reference Guide UNIX, Windows, and Linux Release 8.2
- j) Veritas NetBackup™ Status Codes Reference Guide UNIX, Windows, and Linux Release 8.2
- k) Veritas NetBackup™ 8.2 Common Criteria Guidance Supplement, Version 1.0

5 EVALUATION ANALYSIS ACTIVITIES

The evaluation analysis activities involved a structured evaluation of the TOE. Documentation and process dealing with Development, Guidance Documents, and Life-Cycle Support were evaluated.

5.1 DEVELOPMENT

The evaluators analyzed the documentation provided by the vendor; they determined that the design completely and accurately describes the TOE security functionality (TSF) interfaces and how the TSF implements the security functional requirements. The evaluators determined that the initialization process is secure, that the security functions are protected against tamper and bypass, and that security domains are maintained.

5.2 GUIDANCE DOCUMENTS

The evaluators examined the TOE preparative user guidance and operational user guidance and determined that it sufficiently and unambiguously describes how to securely transform the TOE into its evaluated configuration and how to use and administer the product. The evaluators examined and tested the preparative and operational guidance, and determined that they are complete and sufficiently detailed to result in a secure configuration.

Section 4.1 provides details on the guidance documents.

5.3 LIFE-CYCLE SUPPORT

An analysis of the TOE configuration management system and associated documentation was performed. The evaluators found that the TOE configuration items were clearly marked.

The evaluators examined the delivery documentation and determined that it described all of the procedures required to maintain the integrity of the TOE during distribution to the consumer.

6 TESTING ACTIVITIES

Testing consists of the following three steps: assessing developer tests, performing independent functional tests, and performing penetration tests.

6.1 ASSESSMENT OF DEVELOPER TESTS

The evaluators verified that the developer has met their testing responsibilities by examining their test evidence, and reviewing their test results, as documented in the Evaluation Test Report (ETR). The correspondence between the tests identified in the developer's test documentation and the functional specification was complete.

6.2 CONDUCT OF TESTING

The TOE was subjected to a comprehensive suite of formally documented, independent functional and penetration tests. The detailed testing activities, including configurations, procedures, test cases, expected results and observed results are documented in a separate Test Results document.

6.3 INDEPENDENT FUNCTIONAL TESTING

During this evaluation, the evaluator developed independent functional tests by examining design and guidance documentation.

All testing was planned and documented to a sufficient level of detail to allow repeatability of the testing procedures and results. The following testing activities were performed:

- a. Repeat of Developer's Tests: The evaluator repeated a subset of the developer's tests;
- b. Cryptographic Implementation Verification: The evaluator verified that the claimed cryptographic implementation is present in the TOE;
- c. Security Management: The evaluator verified that only administrators can manage the TOE and review the audit log;
- d. Manual Backup and Restore: The evaluator verified that administrators are able to manually backup and restore their own files;
- e. Audit Review: The evaluator verified that security events are logged and can be reviewed via CLI and GUI; and
- f. Encryption Policy Management: The evaluator verified that administrators can set the encryption policy on the TOE.

6.3.1 FUNCTIONAL TEST RESULTS

The developer's tests and the independent functional tests yielded the expected results, providing assurance that the TOE behaves as specified in its ST and functional specification.

6.4 INDEPENDENT PENETRATION TESTING

Subsequent to the independent review of public domain vulnerability databases and all evaluation deliverables, limited independent evaluator penetration testing was conducted. The penetration tests focused on:

- a) Use of automated vulnerability scanning tools to discover potential network, platform and application layer vulnerabilities such as Heartbleed, Shellshock, FREAK, POODLE, and GHOST;
- b) Information Leakage: The evaluator attempted to capture sensitive information by monitoring the TOE during Start-up and Shutdown; and
- c) Concurrent Login: The evaluator attempted to compromise the authentication mechanism of the TOE by logging in concurrently as the same user.

6.4.1 PENETRATION TEST RESULTS

The independent penetration testing did not uncover any exploitable vulnerabilities in the intended operating environment.



7 RESULTS OF THE EVALUATION

This evaluation has provided the basis for the conformance claim documented in Table 1. The overall verdict for this evaluation is **PASS**. These results are supported by evidence in the ETR.

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The evaluation has been conducted in accordance with the provisions of the Canadian Common Criteria Scheme and the conclusions of the evaluation facility in the evaluation report are consistent with the evidence adduced. This is not an endorsement of the IT product by CCCS or by any other organization that recognizes or gives effect to this certificate, and no warranty of the IT product by CCCS or by any other organization that recognizes or gives effect to this certificate, is expressed or implied.

7.1 RECOMMENDATIONS/COMMENTS

It is recommended that all guidance outlined in Section 4.1 be followed to configure the TOE in the evaluated configuration.

8 SUPPORTING CONTENT

8.1 LIST OF ABBREVIATIONS

Term	Definition
CAVP	Cryptographic Algorithm Validation Program
CCEF	Common Criteria Evaluation Facility
CM	Configuration Management
CMVP	Cryptographic Module Validation Program
CSE	Communications Security Establishment
CCCS	Canadian Centre for Cyber Security
EAL	Evaluation Assurance Level
ETR	Evaluation Technical Report
GC	Government of Canada
IT	Information Technology
ITS	Information Technology Security
PP	Protection Profile
SFR	Security Functional Requirement
ST	Security Target
TOE	Target of Evaluation
TSF	TOE Security Function

8.2 REFERENCES

Reference
Common Criteria for Information Technology Security Evaluation, Version 3.1 Revision 5, April 2017.
Common Methodology for Information Technology Security Evaluation, CEM, Version 3.1 Revision 5, April 2017.
Security Target Veritas NetBackup™ 8.2 and NetBackup 5240 Appliance Release 3. 2, v1.2, 27 February 2020.
Evaluation Technical Report Veritas NetBackup™ 8.2 and NetBackup 5240 Appliance Release 3. 2, v1.2, 28 February 2020.