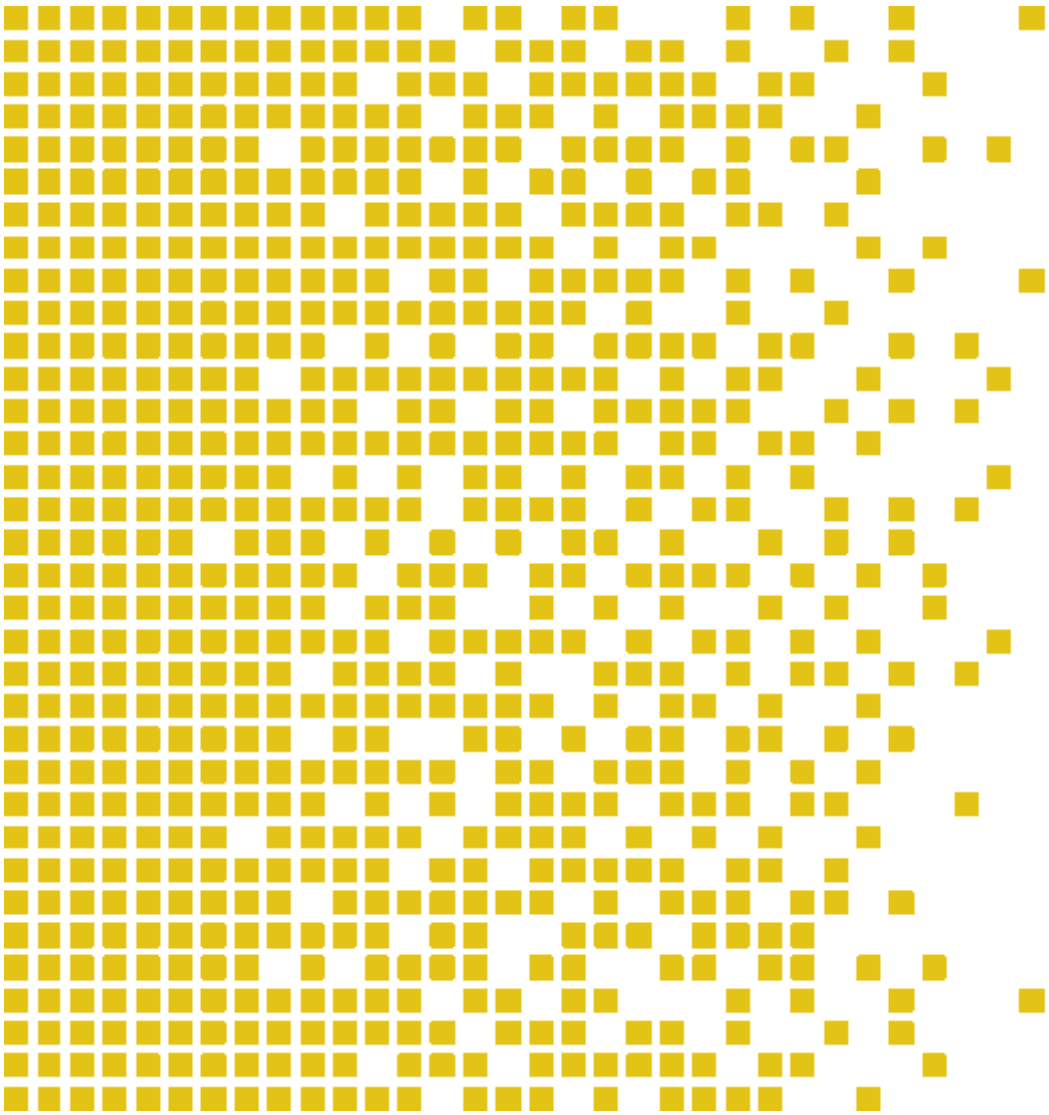
SERTIT-087 CR Certification Report

Issue 1.0 07 April 2017

Huawei NE40E&CX600&ME60&NE20E Router V800R008C10SPC945T



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Mutual recognition under SOGIS MRA applies to components up to EAL 4.

Contents

1 Certification Statement

Huawei Technology Co. Ltd. Huawei NE40E&CX600&ME60&NE20E Router is a series of routers that have large capacity and high performance, and are developed to meet the requirement of carrier-class reliability. .

Huawei NE40E&CX600&ME60&NE20E Router version V800R008C10SPC945T have been evaluated under the terms of the Norwegian Certification Scheme for IT Security and have met the Common Criteria Part 3 (ISO/IEC 15408) augmented requirements of Evaluation Assurance Level EAL 2 augmented with ALC_FLR.2 for the specified Common Criteria Part 2 (ISO/IEC 15408) conformant functionality in the specified environment when running on the platforms specified in Annex A.

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Date approved	07 April 2017

2 Abbreviations

AES	Advanced Encryption Standard
CC	Common Criteria for Information Technology Security Evaluation (ISO/IEC 15408)
CCRA	Arrangement on the Recognition of Common Criteria Certificates in the Field of Information Technology Security
CEM Evaluation	Common Methodology for Information Technology Security
CF	Compact Flash
CLC	Cluster Line-card Chassis
CLI	Command Line Interface
DSA	Digital Signature Algorithm
EAL	Evaluation Assurance Level
EOR	Evaluation Observation Report
ETH	Ethernet
ETR	Evaluation Technical Report
EVIT	Evaluation Facility under the Norwegian Certification Scheme for IT Security
EWP	Evaluation Work Plan
GUI	Graphical User Interface
IS-IS	Intermediate System to Intermediate System
LMT	Local Maintenance Terminal
LPU	Line Process Unit
MD5	Message-Digest Algorithm 5
MPU	Main Process Unit
NE	NetEngine
NMS	Network Management Sub-system
OFC	Optical Flexible Card
POC	Point of Contact
QP	Qualified Participant
RMT	Remote Maintenance Terminal
RSA	Rivest Shamir Adleman

SERTIT	Norwegian Certification Authority for IT Security
SFE	Switch Fabric Extend unit
SFR	Security Functional Requirement
SFU	Switching Fabric Unit
SPM	Security Policy Model
SPU	Service Process Unit
ST	Security Target
TOE	Target of Evaluation
TSF	TOE Security Functions
TSP	TOE Security Policy

3 References

[1] Huawei NE40E&CX600&ME60&NE20E Router V800R008 - Security Target, version 1.51, 22 November 2016

[2] Common Criteria Part 1, CCMB-2012-09-001, Version 3.1 R4, September 2012.

[3] Common Criteria Part 2, CCMB-2012-09-002, Version 3.1 R4, September 2012.

[4] Common Criteria Part 3, CCMB-2012-09-003, Version 3.1 R4, September 2012.

[5] The Norwegian Certification Scheme, SD001E, Version 9.0, 2 April 2013.

[6] Common Methodology for Information Technology Security Evaluation, Evaluation Methodology, CCMB-2012-09-004, Version 3.1 R4, September 2012.

[7] Common Criteria Security Evaluation – Certified Configuration v1.5, 2016-11-22.

[8] Evaluation Technical Report Common Criteria EAL2+ Evaluation of Huawei NE40E&CX600&ME60&NE20E Router V800R008, V1.0, 2017-01-03.

[9] NE40E V800R008 C10 Product Manual, V01, 2016-09-30

[10] CX600 V800R008C10 Product Manual, V01, 2016-09-30

[11] NE20E-S V800R008C10 Product Manual, V01, 2016-09-30

[12] ME60 V800R008C10 Product Manual, V01, 2016-09-30

4 Executive Summary

4.1 Introduction

This Certification Report states the outcome of the Common Criteria security evaluation of Huawei NE40E&CX600&ME60&NE20E Router version V800R008C10SPC945T to the Sponsor, Huawei Technology Co. Ltd., and is intended to assist prospective consumers when judging the suitability of the IT security of the product for their particular requirements.

Prospective consumers are advised to read this report in conjunction with the Security Target[1] which specifies the functional, environmental and assurance evaluation requirements.

4.2 Evaluated Product

The version of the product evaluated was Huawei NE40E&CX600&ME60&NE20E Router and version V800R008C10SPC945T.

These products are also described in this report as the Target of Evaluation (TOE). The developer was Huawei Technologies.

Huawei NE40E&CX600&ME60&NE20E Router V800R008, the TOE, which has large capacity and high performance, is developed to meet the requirement of carrier-class reliability.

The Huawei NetEngine40E Universal Service Router (NE40E) is a high-end network product developed by Huawei. It is deployed at the edge of IP backbone networks, IP metropolitan area networks (MANs), and other large-scale IP networks.

The Huawei CX600 Metro Services Platform (hereinafter referred to as the CX600) is a high-end device with 100 Gbit/s interfaces designed for core and backbone networks. The CX600 is positioned as the edge or convergence router on the IP backbone network.

The NE20E-S4&NE20E-S8/16(hereinafter referred to as the NE20E-S4&NE20E-S8/16) are a high-end network product used to access, converge, and transmit carrier-class Ethernet services on Fixed-Mobile Convergence (FMC) Metropolitan Area Networks (MANs).

The Huawei ME60 is high-end network products used to access, aggregate, and transmit carrier-class Ethernet services on Fixed-Mobile Convergence (FMC) Metropolitan Area Networks (MANs). ME60 Multiservice Control Gateway (hereinafter referred to as the ME60), as an MSCG developed to meet the requirement for transformation, ensures security, reliability, and QoS for various telecommunication services.

At the core of each chassis is the Versatile Routing Platform (VRP), the software for managing and running the router’s networking functionality. VRP provides extensive security features. These features include assigning different privileges to administration users with different privilege levels; enforcing authentications

prior to establishment of administrative sessions with the TOE; auditing of security-relevant management activities; as well as the correct enforcement of routing decisions to ensure that network traffic gets forwarded to the correct interfaces. Details of the evaluated configuration, including the TOE's supporting guidance documentation, are given in Annex A.

An overview of the TOE's security architecture can be found in Annex B.

4.3 TOE scope

The TOE scope is described in the ST Huawei NE40E&CX600&ME60&NE20E Router V800R008 - Security Target, version 1.51, 22 November 2016, chapter 1.4.2 and 1.4.3.

4.4 Protection Profile Conformance

The Security Target[1] did not claim conformance to any protection profile.

4.5 Assurance Level

The Security Target[1] specified the assurance requirements for the evaluation. The assurance incorporated predefined evaluation assurance level EAL 2, augmented by ALC_FLR.2. Common Criteria Part 3[4] describes the scale of assurance given by predefined assurance levels EAL1 to EAL7. An overview of CC is given in CC Part 1[2].

4.6 Security Policy

There are no Organizational Security Policies or rules with which the TOE must comply.

4.7 Security Claims

The Security Target[1] fully specifies the TOE's security objectives, the threats which these objectives counter and security functional requirements and security functions to elaborate the objectives. All of the SFR's are taken from CC Part 2[3]; use of this standard facilitates comparison with other evaluated products.

4.8 Threats Countered

- T.UnwantedNetworkTraffic

  Unwanted network traffic sent to the TOE will not only consume the TOE's processing capacity for incoming network traffic thus fails to process traffic expected to be processed, but an internal traffic jam might happen when those traffic are sent to MPU from LPU within the TOE. This may cause denial of service of TOE.

This may further cause the TOE fails to respond to system control and security management operations.

Routing information exchanged between the TOE and peer routes may also be affected due to the traffic overload.

- T.UnwantedNetworkTraffic

  A user who is not a user of the TOE gains access to the TOE.

- T.UnauthorizedAccess

  A user of the TOE authorized to perform certain actions and access certain information gains access to commands or information he is not authorized for. This threat also includes data leakage to non-intended person or device

- T.Eavesdrop

  An eavesdropper (remote attacker) in the management network served by the TOE is able to intercept, and potentially modify or re-use information assets that are exchanged between TOE and LMT/RMT.

4.9 Threats Countered by the TOE's environment

There are no threats countered by the TOE's environment.

4.10 Threats and Attacks not Countered

No threats or attacks that are not countered are described.

4.11 Environmental Assumptions and Dependencies

It is assumed that the TOE (including any console attached, access of CF card) is protected against unauthorized physical access.

The environment is supposed to provide supporting mechanism to the TOE:

- A Radius server or TACACS+ server for external authentication/authorization decisions;
- NMS, logging server and SNMP trapserver used for administration of the TOE

In addition, it is assumed the Radius server, and TACACS+ server, and the NMS are all trusted and will not be used to attack the TOE.

- Peer router(s) for the exchange of dynamic routing information;
- A remote entities (PCs) used for administration of the TOE.

It is assumed that the ETH interface on MPU in the TOE will be accessed only through sub-network where the TOE hosts. The sub-network is separate from the application (or, public) networks where the interfaces on LPU in the TOE are accessible.

The authorized users will be competent, and not careless or wilfully negligent or hostile, and will follow and abide by the instructions provided by the TOE documentation.

4.12 IT Security Objectives

The following objectives must be met by the TOE:

- O. DeviceAvail
  The TOE shall ensure its own availability.
- O.UserAvail
  The TOE shall ensure authorized users can access network resources through the TOE.
- O. DataFilter
  The TOE shall ensure that only allowed traffic goes through the TOE.
- O.Communication
  The TOE must implement logical protection measures for network communication between the TOE and LMT/RMT from the operational environment.
- O.Authorization
  The TOE shall implement different authorization levels that can be assigned to administrators in order to restrict the functionality that is available to individual administrators.
- O.Authentication
  The TOE must authenticate users of its user access.
- O.Audit
  The TOE shall provide functionality to generate audit records for security-relevant administrator actions.

4.13 Non-IT Security Objectives

- OE.NetworkElements:
  The operational environment shall provide securely and correctly working network devices as resources that the TOE needs to cooperate with. Behaviors of such network devices provided by operational environment shall be also secure and correct. For example, other routers for the exchange of routing information, PCs used for TOE administration, and Radius and TACACS+ servers for obtaining authentication and authorization decisions.
- OE.Physical:
  The TOE (i.e., the complete system including attached peripherals, such as a console, and CF card inserted in the MPU) shall be protected against unauthorized physical access.
- OE.NetworkSegregation:
  The operational environment shall provide segregation by deploying the Ethernet interface on MPU in TOE into a local sub-network, compared to the interfaces on LPU in TOE serving the application (or public) network.

- OE.Person:
  Personnel working as authorized administrators shall be carefully selected for trustworthiness and trained for proper operation of the TOE.

4.14 Security Functional Requirements

- FAU_GEN.1 Audit data generation
- FAU_GEN.2 User identity association
- FAU_SAR.1 Audit review
- FAU_SAR.3 Selectable audit review
- FAU_STG.1 Protected audit trail storage
- FAU_STG.3 Action in case of possible audit data loss
- FCS_COP.1/AES Cryptographic operation
- FCS_COP.1/3DES Cryptographic operation
- FCS_COP.1/RSA Cryptographic operation
- FCS_COP.1/MD5 Cryptographic operation
- FCS_COP.1/HMAC-MD5 Cryptographic operation
- FCS_COP.1/DHKeyExchange Cryptographic operation
- FCS_COP.1/DSA Cryptographic operation
- FCS_CKM.1/AES Cryptographic key generation
- FCS_CKM.1/3DES Cryptographic key generation
- FCS_CKM.1/RSA Cryptographic key generation
- FCS_CKM.1/HMAC_MD5 Cryptographic key generation
- FCS_CKM.1/DHKey Cryptographic key generation
- FCS_CKM.1/DSA Cryptographic key generation
- FCS_CKM.4/3DES-AES Cryptographic key destruction
- FCS_CKM.4/RSA Cryptographic key destruction
- FCS_CKM.4/HMAC_MD5 Cryptographic key destruction
- FCS_CKM.4/DHKey Cryptographic key destruction
- FCS_CKM.4/DSA Cryptographic key destruction
- FDP_ACC.1 Subset access control
- FDP_ACF.1 Security attribute based access control
- FDP_DAU.1 Basic Data Authentication

- FDP_IFC.1(1) Subset information flow control- CPU-defend
- FDP_IFC.1(2) Subset information flow control- Data plane traffic control
- FDP_IFF.1(1) Simple security attributes - CPU-defend
- FDP_IFF.1(2) Simple security attributes – Data plane traffic control
- FIA_AFL.1 Authentication failure handling
- FIA_ATD.1 User attribute definition
- FIA_SOS.1 Verification of secrets
- FIA_UAU.1 Timing of authentication –Administrator Authentication
- FIA_UAU.5 Multiple authentication mechanisms
- FIA_UID.1 Timing of identification – Administrator Identification
- FMT_MOF.1 Management of security functions behaviour
- FMT_MSA.1 Management of security attributes
- FMT_MSA.3 Static attribute initialization
- FMT_SMF.1 Specification of Management Functions
- FMT_SMR.1 Security roles
- FPT_STM.1 Reliable time stamps
- FTA_SSL.3 TSF-initiated termination
- FTA_TSE.1 TOE session establishment
- FTP_TRP.1 Trusted path
- FTP_ITC.1 Trusted channel

4.15 Security Function Policy

At the core of each chassis is the Versatile Routing Platform (VRP), the software for managing and running the router's networking functionality. VRP provides extensive security features. These features include assigning different privileges to administration users with different privilege levels; enforcing authentications prior to establishment of administrative sessions with the TOE; auditing of security-relevant management activities; as well as the correct enforcement of routing decisions to ensure that network traffic gets forwarded to the correct interfaces.

The Main Processing Units (MPU) integrate the main control unit and the system maintenance unit. The MPU controls and manages the system in a centralized way and is responsible for data exchange.

The Line Processing Units (LPU) are the actual hardware providing network traffic processing capacity. Network traffic is processed and forwarded according to routing decisions downloaded from VRP.

Besides the MPUs and LPUs, there are other types of boards on TOE, such as Switch Fabric Unit (SFU). Only MPU and LPU are security relevant.

4.16 Evaluation Conduct

The evaluation was carried out in accordance with the requirements of the Norwegian Certification Scheme for IT Security as described in SERTIT Document SD001[5]. The Scheme is managed by the Norwegian Certification Authority for IT Security (SERTIT). As stated on page 2 of this Certification Report, SERTIT is a member of the Arrangement on the Recognition of Common Criteria Certificates in the Field of Information Technology Security (CCRA), and the Senior Officials Group Information Systems Security (SOGIS) and the evaluation was conducted in accordance with the terms of these Arrangements and the evaluation was conducted in accordance with these terms of this Arrangement.

The purpose of the evaluation was to provide assurance about the effectiveness of the TOE in meeting its Security Target[1], which prospective consumers are advised to read. To ensure that the Security Target[1] gave an appropriate baseline for a CC evaluation, it was first itself evaluated. The TOE was then evaluated against this baseline. Both parts of the evaluation were performed in accordance with CC Part 3[4] and the Common Evaluation Methodology (CEM)[6].

SERTIT monitored the evaluation which was carried out by the Brightsight B.V IT-Security Evaluation Facility (EVIT). The evaluation was completed when the EVIT submitted the final Evaluation Technical Report (ETR)[8] to SERTIT in 03 January 2017. SERTIT then produced this Certification Report.

4.17 General Points

The evaluation addressed the security functionality claimed in the Security Target[1] with reference to the assumed operating environment specified by the Security Target[1]. The evaluated configuration was that specified in Annex A. Prospective consumers are advised to check that this matches their identified requirements and give due consideration to the recommendations and caveats of this report.

Certification does not guarantee that the IT product is free from security vulnerabilities. This Certification Report and the belonging Certificate only reflect the view of SERTIT at the time of certification. It is furthermore the responsibility of users (both existing and prospective) to check whether any security vulnerabilities have been discovered since the date shown in this report. This Certification Report is not an endorsement of the IT product by SERTIT or any other organization that recognizes or gives effect to this Certification Report, and no warranty of the IT product by SERTIT or any other organization that recognizes or gives effect to this Certification Report is either expressed or implied.

5 Evaluation Findings

The evaluators examined the following assurance classes and components taken from CC Part 3[4]. These classes comprise the EAL 2 assurance package augmented with ALC_FLR.2.

Assurance class	Assurance components	
Development	ADV_ARC.1	Security architecture description
	ADV_FSP.2	Functional specification with complete summary
	ADV_TDS.1	Architectural design
Guidance documents	AGD_OPE.1	Operational user guidance
	AGD_PRE.1	Preparative procedures
Life-cycle support	ALC_CMC.2	Production support, acceptance procedures and automation
	ALC_CMS.2	Problem tracking CM coverage
	ALC_DEL.1	Delivery procedures
	ALC_FLR.2	Flaw reporting procedures
Security Target evaluation	ASE_CCL.1	Conformance claims
	ASE_ECD.1	Extended components definition
	ASE_INT.1	ST introduction
	ASE_REQ.2	Derived security requirements
	ASE_SPD.1	Security problem definition
	ASE_OBJ.2	Security objectives
	ASE_TSS.1	TOE summary specification
Tests	ATE_COV.1	Analysis of coverage
	ATE_FUN.1	Functional testing
	ATE_IND.2	Independent testing - sample
Vulnerability assessment	AVA_VAN.2	Vulnerability analysis

All assurance classes were found to be satisfactory and were awarded an overall “pass” verdict.

5.1 Introduction

The evaluation addressed the requirements specified in the Security Target[1]. The results of this work were reported in the ETR[8] under the CC Part 3[4] headings. The following sections note considerations that are of particular relevance to either consumers or those involved with subsequent assurance maintenance and re-evaluation of the TOE.

5.2 Delivery

On receipt of the TOE, the consumer is recommended to check that the evaluated version has been supplied, and to check that the security of the TOE has not been compromised in delivery.

5.3 Installation and Guidance Documentation

Installation of the TOE must be performed completely in accordance with the guidance listed in the ST[1] chapter 1.4.2 and Preparative Procedures documents [9][10][11][12] provided by the developer. The Common Criteria Security Evaluation – Certified Configuration [7] describes all necessary steps to configure the TOE in the certified configuration.

These documents are a collection of all security relevant operations and settings that must be observed to ensure that the TOE operates in a secure manner.

5.4 Misuse

There is always a risk of intentional and unintentional misconfigurations that could possibly compromise confidential information. The user should always follow the guidance for the TOE in order to ensure that the TOE operates in a secure manner.

The guidance documents adequately describe the mode of operation of the TOE, all assumptions about the intended environment and all requirements for external security. Sufficient guidance is provided for the consumer to effectively use the TOE's security functions.

5.5 Vulnerability Analysis

The Evaluators' vulnerability analysis was based on both public domain sources and the visibility of the TOE given by the evaluation process.

The TOE are substantially similar to other router/switches on the market. This technology is well-established. The technology and possible vulnerabilities are described in a series of public documents.

The evaluators assessed all possible vulnerabilities found during evaluation. Potential vulnerabilities were found but only two turned out to be possibly exploitable. The developer has updated the guidance to enhance the secure configuration of the TOE, and as a result this issue has become moot.

5.6 Developer's Tests

The developer test plan consists of 12 different categories of tests of 90 tests. The categories are based on major groupings of security functionalities, and, in combination with all SFRs and TSFIs.

5.7 Evaluators' Tests

For independent testing, the evaluator has chosen to perform some additional testing although the developer's testing was extensive but some additional assurance could be gained by additional testing.

For independent testing, the evaluator has made a sample of penetration tests performed by the developer.

6 Evaluation Outcome

6.1 Certification Result

After due consideration of the ETR[8], produced by the Evaluators, and the conduct of the evaluation, as witnessed by the Certifier, SERTIT has determined that Huawei NE40E&CX600&ME60&NE20E Router version V800R008C10SPC945Tmeet the Common Criteria Part 3 augmented requirements of Evaluation Assurance Level EAL 2 augmented with ALC_FLR.2 for the specified Common Criteria Part 2 conformant functionality in the specified environment, when running on platforms specified in Annex A.

6.2 Recommendations

Prospective consumers of Huawei NE40E&CX600&ME60&NE20E Router version V800R008C10SPC945T should understand the specific scope of the certification by reading this report in conjunction with the Security Target[1]. The TOE should be used in accordance with a number of environmental considerations as specified in the Security Target.

Only the evaluated TOE configuration should be installed. This is specified in Annex A with further relevant information given above under Section 4.3 “TOE Scope” and Section 5 “Evaluation Findings”.

The TOE should be used in accordance with the supporting guidance documentation included in the evaluated configuration.

The above “Evaluation Findings” include a number of recommendations relating to the secure receipt, installation, configuration and operation of the TOE.

Annex A: Evaluated Configuration

TOE Identification

The TOE consists of:

Hardware

There are eleven types of chassis of an NE40E chassis as shown in Table 1.

The following boards will be covered during this evaluation:

Product Name	Board Name for Order	Description
NE40E-X16A	CR5P16BASD76	NE40E-X16A Basic Configuration (Including NE40E-X16A Chassis, 2 MPUs, 4 SFUs(480G),7 DC Power,4 Fan Tray, without Software Charge and Document)
	CR5P16BASA76	NE40E-X16A Basic Configuration (Including NE40E-X16A Chassis, 2 MPUs, 4 SFUs(480G), 10 AC Power,4 Fan Tray, without Software Charge and Document)
	CR5P16BASD77	NE40E-X16A Basic Configuration (Including NE40E-X16A Chassis, 2 MPUs, 4 SFUs(1T), 10 DC Power,6 Fan Tray,without Software Charge and Document)
	CR5P16BASA77	NE40E-X16A Basic Configuration (Including NE40E-X16A Chassis, 2 MPUs, 4 SFUs(1T), 14 AC Power,6 Fan Tray, without Software Charge and Document)
	CR5B0BKP1673	NE40E-X16A Integrated DC Chassis ComponentsE40E-X16A Chassis, 2 MP
	CR5B0BKP1674	NE40E-X16A Integrated AC Chassis Components Integrate 4 Fan Traya
	CR5D0MPUB570	Main Processing Unit B5
	CR5DSFUIM07B	480Gbps Switch Fabric Unit B(SFUI-480-B)

	CR5DSFUIU07B	1Tbps Switch Fabric Unit B(SFUI-1T-B)
NE40E-X8A	CR5P08BASD76	NE40E-X8A Basic Configuration (Including NE40E-X8A Chassis,2 SRUs,2 SFUs(480G),4 DC Power,2 Fan Tray, without Software Charge and Document)
	CR5P08BASA76	NE40E-X8A Basic Configuration (Including NE40E-X8A Chassis,2 SRUs,2 SFUs(480G),6 AC Power,2 Fan Tray,without Software Charge and Document)
	CR5P08BASD77	NE40E-X8A Basic Configuration (Including NE40E-X8A Chassis,2 SRUs,2 SFUs(1T),6 DC Power,3 Fan Tray,without Software Charge and Document)
	CR5P08BASA77	NE40E-X8A Basic Configuration (Including NE40E-X8A Chassis,2 SRUs,2 SFUs(1T),8 AC Power,3 Fan Tray,without Software Charge and Document)
	CR5B0BKP0871	NE40E-X8A Integrated Chassis DC ComponentsE40E-X8A Chassis,2 SRUs
	CR5B0BKP0872	NE40E-X8A Integrated Chassis AC ComponentsE40E-X8A Chassis,2 SRUs
	CR5D0SRUA870	Switch and Route Processing Unit A8
	CR5DSFUIM07C	480Gbps Switch Fabric Unit C(SFUI-480-C)
	CR5D0SRUA970	Switch and Route Processing Unit A9
	CR5DSFUIU07C	1Tbps Switch Fabric Unit C(SFUI-1T-C)
NE40E-X3A	CR5P03BASD75	NE40E-X3A Basic Configuration (Including NE40E-X3A Chassis,2 MPUs, 2 DC Power,without Software Charge and Document)

	CR5P03BASA75	NE40E-X3A Basic Configuration (Including NE40E-X3A Chassis,2 MPUs, 2 AC Power,without Software Charge and Document)
	CR5D0MPUD470	Main Processing Unit D4
	CR5B0BKP0373	NE40E-X3A Integrated DC Chassis Components, Including Dual DC Power
	CR5B0BKP0374	NE40E-X3A Integrated AC Chassis Components, Including Dual AC Power
NE40E-X16	CR5P16BASD74	NE40E-X16 Basic Configuration (Including NE40E-X16 Chassis, 2 MPUs, 4 SFUs(200G), 8 DC Power, without Software Charge and Document)
	CR5P16BASA74	NE40E-X16 Basic Configuration (Including NE40E-X16 Chassis, 2 MPUs, 4 SFUs(200G), 8 AC Power, without Software Charge and Document)
	CR5P16BASD71	NE40E-X16 Basic Configuration (Including NE40E-X16 Chassis, 2 MPUs, 4 SFUs(200G), 8 DC Power, without Software Charge and Document)
	CR5P16BASA71	NE40E-X16 Basic Configuration (Including NE40E-X16 Chassis, 2 MPUs, 4 SFUs(200G), 8 AC Power, without Software Charge and Document)
	CR5B0BKP1670	NE40E-X16 Integrated Chassis Components (Including 8 DC Power)
	CR5D0MPUB460	Main Processing Unit B4
	CR5D0MPUB570	Main Processing Unit B5
	CR5DSFUIE07B	200Gbps Switch Fabric Unit B(SFUI-200-B)
NE40E-X8	CR5P08BASD71	NE40E-X8 Basic Configuration (Including NE40E-X8 Chassis, 2+1 Redundant 200G SRU/SFU, 4 DC

		Power, without Software Charge and Document)
	CR5P08BASA71	NE40E-X8 Basic Configuration (Including NE40E-X8 Chassis, 2+1 Redundant 200G SRU/SFU,4 AC Power, without Software Charge and Document)
	CR5B0BKP0870	NE40E-X8 Integrated Chassis Components (Including 4 DC Power)
	CR5D0SRUA570	Switch and Route Processing Unit A5
	CR5DSFUIE07C	200Gbps Switch Fabric Unit C(SFUI-200-C)
NE40E-X3	CR52-BKPE-4U-DC	Integrated DC Chassis Components(NE40E-X3)-4U,Including Dual DC Power
	CR5B0BKP0370	NE40E-X3 Integrated AC Chassis Components, (Including Dual AC Power)
	CR5D0MPUD170	Main Processing Unit D2(Including 2G Memory and 2G USB)
	CR5P03BASD71	NE40E-X3 Basic Configuration (Include NE40E-X3 Chassis,2 MPUs, 2 DC Power,without Software Charge and Document)
	CR5P03BASA72	NE40E-X3 Basic Configuration (Include NE40E-X3 Chassis,2 MPUs, 2 AC Power(2200W),without Software Charge and Document)
	CR5D0MPUD270	Main Processing Unit D3(Including 4G Memory and 2G USB)
	CR5P03BASD73	NE40E-X3 Basic Configuration (Include NE40E-X3 Chassis,2 MPUs, 2 DC Power,without Software Charge and Document)
	CR5P03BASA73	NE40E-X3 Basic Configuration (Include NE40E-X3 Chassis,2 MPUs, 2 AC Power(2200W),without Software Charge and Document)

NE40E-X1-M4	CR5P01BASD71	NE40E-X1-M4 Basic Configuration (Includes NE40E-X1-M4 Chassis,2*MPUK,2*DC Power,without Software Charge and Document)
	CR5P01BASA71	NE40E-X1-M4 Basic Configuration (Includes NE40E-X1-M4 Chassis,2*MPUK,AC Power,without Software Charge and Document)
	CR5P01BASA72	NE40E-X1-M4 Basic Configuration (Includes NE40E-X1-M4 Chassis,2*MPUK,2*AC Power,without Software Charge and Document)
	CR5P01BASD73	NE40E-X1-M4 Basic Configuration (Includes NE40E-X1-M4 Chassis,2*MPUK1,2*DC Power,without Software Charge and Document)
	CR5P01BASA73	NE40E-X1-M4 Basic Configuration (Includes NE40E-X1-M4 Chassis,2*MPUK1,2*AC Power,without Software Charge and Document)
	CR5B0BKP0171	NE40E-X1-M4 Integrated Chassis Components
	CR5B0BKP0172	NE40E-X1-M4 Integrated AC Chassis Components
	CR5D00MPUK70	Main Processing Unit K
	CR5D0MPUK170	Main Processing Unit K1
	CR5M001FBX71	NE40E-X1-M4 Fan Box
NE40E-X2-M8	CR5P02BASD71	NE40E-X2-M8 Basic Configuration (Includes NE40E-X2-M8 Chassis,2*MPUK,2*DC Power,without Software Charge and Document)
	CR5P02BASA71	NE40E-X2-M8 Basic Configuration (Includes NE40E-X2-M8 Chassis,2*MPUK,2*AC Power,without Software Charge and

		Document)
	CR5P02BASD73	NE40E-X2-M8 Basic Configuration (Includes NE40E-X2-M8 Chassis,2*MPUK1,2*DC Power,without Software Charge and Document)
	CR5P02BASA73	NE40E-X2-M8 Basic Configuration (Includes NE40E-X2-M8 Chassis,2*MPUK1,2*AC Power,without Software Charge and Document)
	CR5P02BASD75	NE40E-X2-M8 Basic Configuration (Includes NE40E-X2-M8 Chassis,2*MPUK,2*DC Power,without Software Charge and Document)
	CR5B0BKP0271	NE40E-X2-M8 Integrated DC Chassis Components
	CR5B0BKP0274	NE40E-X2-M8 Integrated DC Chassis Components
	CR5B0BKP0273	NE40E-X2-M8 Integrated AC Chassis Components
	CR5D00MPUK70	Main Processing Unit K
	CR5D0MPUK170	Main Processing Unit K1
	CR5M002FBX71	NE40E-X2-M8 DC Fan Box
	CR5M002FBX73	X2-M8 AC Fan Box
	CR5M002FBX74	NE40E-X2-M8 DC Fan Box
NE40E-X2-M16	CR5P02BASD72	NE40E-X2-M16 Basic Configuration (Includes NE40E-X2-M16 Chassis,2*MPUK,2*DC Power,without Software Charge and Document)
	CR5P02BASA72	NE40E-X2-M16 Basic Configuration (Includes NE40E-X2-M16 Chassis,2*MPUK,2*AC Power,without Software Charge and Document)
	CR5P02BASD74	NE40E-X2-M16 Basic Configuration

		(Includes NE40E-X2-M16 Chassis,2*MPUK1,2*DC Power,without Software Charge and Document)
	CR5P02BASA74	NE40E-X2-M16 Basic Configuration (Includes NE40E-X2-M16 Chassis,2*MPUK1,2*AC Power,without Software Charge and Document)
	CR5B0BKP0272	NE40E-X2-M16 Integrated Chassis Components
	CR5D00MPUK70	Main Processing Unit K
	CR5D0MPUK170	Main Processing Unit K1
	CR5M002FBX72	X2-M16 Fan Box
NE40E-M2E	CR5PM2EBAS70	NE40E-M2E Basic Configuration (Includes NE40E-M2E Chassis,2*10GE-SFP+ and 24GE-SFP fixed interface,2*DC Power,Fan Box,without Software Charge and Document)
	CR5PM2EBAS71	NE40E-M2E Basic Configuration (Includes NE40E-M2E Chassis,2*10GE-SFP+ and 24GE-SFP fixed interface,2*AC Power,Fan Box,without Software Charge and Document)
	CR5M0M2FBX70	Fan Box
	CR5B0BKP0371	NE40E-M2E Integrated Chassis Components
	CR5B2PWRDC00	DC Power Supply Unit
	CR5B2PWRAC00	AC Power Supply Unit 500W
NE40E-M2F	CR5PM2FBAS70	NE40E-M2F Basic Configuration (Includes NE40E-M2F Chassis,4*10GE-SFP+ and 40GE-SFP fixed interface,2*DC Power,Fan Box,without Software Charge and Document)
	CR5PM2FBAS71	NE40E-M2F Basic Configuration (Includes NE40E-M2F

		Chassis,4*10GE-SFP+ and 40GE-SFP fixed interface,2*AC Power,Fan Box,without Software Charge and Document)
	CR5M0M2FBX70	Fan Box
	CR5B0BKP0372	NE40E-M2F Integrated Chassis Components
	CR5B2PWRDC00	DC Power Supply Unit
	CR5B2PWRAC00	AC Power Supply Unit 500W

Table 1 List of boards

There are eleven types of chassis of an CX600 chassis as shown in Table 2.

The following boards will be covered during this evaluation:

Product Name	Board Name for Order	Description
CX600-X16A	CX6P16BASD76	CX600-X16A Basic Configuration (Including CX600-X16A Chassis, 2 MPUs, 4 SFUs(480G),7 DC Power,4 Fan Tray, without Software Charge and Document)
	CX6P16BASA76	CX600-X16A Basic Configuration (Including CX600-X16A Chassis, 2 MPUs, 4 SFUs(480G), 10 AC Power,4 Fan Tray, without Software Charge and Document)
	CX6P16BASD77	CX600-X16A Basic Configuration (Including CX600-X16A Chassis, 2 MPUs, 4 SFUs(1T), 10 DC Power,6 Fan Tray,without Software Charge and Document)
	CX6P16BASA77	CX600-X16A Basic Configuration (Including CX600-X16A Chassis, 2 MPUs, 4 SFUs(1T), 14 AC Power,6 Fan Tray, without Software Charge and Document)
	CX6B0BKP1670	CX600-X16A Integrated DC Chassis ComponentsX600-X1ing 4 Fan Tray）

	CX6B0BKP1671	CX600-X16A Integrated AC Chassis ComponentsX600-X1ing 4 Fan Tray0-
	CX6D0MPUB570	Main Processing Unit B5
	CX6DSFUIM07B	480Gbps Switch Fabric Unit B(SFUI-480-B)
	CX6DSFUIU07B	1Tbps Switch Fabric Unit B(SFUI-1T-B)
CX600-X8A	CX6P08BASD76	CX600-X8A Basic Configuration (Including CX600-X8A Chassis,2 SRUs,2 SFUs(480G),4 DC Power,2 Fan Tray, without Software Charge and Document)
	CX6P08BASA76	CX600-X8A Basic Configuration (Including CX600-X8A Chassis,2 SRUs,2 SFUs(480G),6 AC Power,2 Fan Tray,without Software Charge and Document)
	CX6P08BASD77	CX600-X8A Basic Configuration (Including CX600-X8A Chassis,2 SRUs,2 SFUs(1T),6 DC Power,3 Fan Tray,without Software Charge and Document)
	CX6P08BASA77	CX600-X8A Basic Configuration (Including CX600-X8A Chassis,2 SRUs,2 SFUs(1T),8 AC Power,3 Fan Tray,without Software Charge and Document)
	CX6B0BKP0870	CX600-X8A Integrated DC Chassis ComponentsX600-X8A Chassis,2 SRUs
	CX6B0BKP0871	CX600-X8A Integrated AC Chassis ComponentsX600-X8A Chassis,2 Sy）
	CX6D0SRUA870	Switch and Route Processing Unit A8
	CX6DSFUIM07C	480Gbps Switch Fabric Unit C(SFUI-480-C)
	CX6D0SRUA970	Switch and Route Processing Unit A9

	CX6DSFUIU07C	1Tbps Switch Fabric Unit C(SFUI-1T-C)
CX600-X3A	CX6P03BASD75	CX600-X3A Basic Configuration (Including CX600-X3A Chassis,2 MPUs, 2 DC Power,without Software Charge and Document)
	CX6P03BASA75	CX600-X3A Basic Configuration (Including CX600-X3A Chassis,2 MPUs, 2 AC Power,without Software Charge and Document)
	CX6D0MPUD470	Main Processing Unit D4
	CX6B0BKP0373	CX600-X3A Integrated DC Chassis Components, Including Dual DC Power
	CX6B0BKP0374	CX600-X3A Integrated AC Chassis Components, Including Dual AC Power
CX600-X16	CX6P16BASD70	CX600-X16 Basic Configuration (Including CX600-X16 Chassis, 2 MPUs, 4 SFUs(200G), 8 DC Power, without Software Charge and Document)
	CX6P16BASA70	CX600-X16 Basic Configuration (Including CX600-X16 Chassis, 2 MPUs, 4 SFUs(200G), 8 AC Power, without Software Charge and Document)
	CX6P16BASD11	CX600-X16 Basic Configuration (Including CX600-X16 Chassis, 2 MPUs, 4 SFUs(200G), 8 DC Power, without Software Charge and Document)
	CX6P16BASA11	CX600-X16 Basic Configuration (Including CX600-X16 Chassis, 2 MPUs, 4 SFUs(200G), 8 AC Power, without Software Charge and Document)
	CX6B0BKP1610	CX600-X16 Integrated Chassis Components (Including 8 DC Power)
	CX6D0MPUB410	Main Processing Unit B4

	CX6D0MPUB570	Main Processing Unit B5
	CX6DSFUIE01B	200Gbps Switch Fabric Unit B(SFUI-200-B)
CX600-X8	CX6P08BASD11	CX600-X8 Basic Configuration (Including CX600-X8 Chassis, 2+1 Redundant 200G SRU/SFU, 4 DC Power, without Software Charge and Document)
	CX6P08BASA11	CX600-X8 Basic Configuration (Including CX600-X8 Chassis, 2+1 Redundant 200G SRU/SFU,4 AC Power, without Software Charge and Document)
	CX6B0BKP0810	CX600-X8 Integrated Chassis Components (Including 4 DC Power)
	CX6D0SRUA510	Switch and Route Processing Unit A5
	CX6DSFUIE01C	200Gbps Switch Fabric Unit C(SFUI-200-C)
CX600-X3	CX61-BKPE-4U-DC	Integrated DC Chassis Components(CX600-X3)-4U,Including Dual DC Power
	CX6B0BKP0370	CX600-X3 Integrated AC Chassis Components, (Including Dual AC Power)
	CX6D0MPUD170	Main Processing Unit D2(Including 2G Memory and 2G USB)
	CX6P03BASD70	CX600-X3 Basic Configuration (Include CX600-X3 Chassis,2 MPUs, 2 DC Power,without Software Charge and Document)
	CX6P03BASA72	CX600-X3 Basic Configuration (Include CX600-X3 Chassis,2 MPUs,2 AC Power(2200W),without Software Charge and Document)
	CX6D0MPUD270	Main Processing Unit D3(Including 4G Memory and 2G USB)
	CX6P03BASD73	CX600-X3 Basic Configuration (Include CX600-X3 Chassis,2 MPUs,

		2 DC Power,without Software Charge and Document)
	CX6P03BASA73	CX600-X3 Basic Configuration (Include CX600-X3 Chassis,2 MPUs,2 AC Power(2200W),without Software Charge and Document)
CX600-X1-M4	CX6P01BASD71	CX600-X1-M4 Basic Configuration (Includes CX600-X1-M4 Chassis,2*MPUK,2*DC Power,without Software Charge and Document)
	CX6P01BASA71	CX600-X1-M4 Basic Configuration (Includes CX600-X1-M4 Chassis,2*MPUK,AC Power,without Software Charge and Document)
	CX6P01BASA72	CX600-X1-M4 Basic Configuration (Includes CX600-X1-M4 Chassis,2*MPUK,2*AC Power,without Software Charge and Document)
	CX6P01BASD73	CX600-X1-M4 Basic Configuration (Includes CX600-X1-M4 Chassis,2*MPUK1,2*DC Power,without Software Charge and Document)
	CX6P01BASA73	CX600-X1-M4 Basic Configuration (Includes CX600-X1-M4 Chassis,2*MPUK1,2*AC Power,without Software Charge and Document)
	CX6B0BKP0171	CX600-X1-M4 Integrated Chassis Components
	CX6B0BKP0172	CX600-X1-M4 Integrated AC Chassis Components
	CX6D00MPUK70	Main Processing Unit K
	CX6D0MPUK170	Main Processing Unit K1
	CX6M001FBX71	CX600-X1-M4 Fan Box
CX600-X2-M8	CX6P02BASD71	CX600-X2-M8 Basic Configuration (Includes CX600-X2-M8 Chassis,2*MPUK,2*DC

		Power,without Software Charge and Document)
	CX6P02BASA71	CX600-X2-M8 Basic Configuration (Includes CX600-X2-M8 Chassis,2*MPUK,2*AC Power,without Software Charge and Document)
	CX6P02BASD73	CX600-X2-M8 Basic Configuration (Includes CX600-X2-M8 Chassis,2*MPUK1,2*DC Power,without Software Charge and Document)
	CX6P02BASA73	CX600-X2-M8 Basic Configuration (Includes CX600-X2-M8 Chassis,2*MPUK1,2*AC Power,without Software Charge and Document)
	CX6B0BKP0271	CX600-X2-M8 Integrated DC Chassis Components
	CX6B0BKP0273	CX600-X2-M8 Integrated AC Chassis Components
	CX6D00MPUK70	Main Processing Unit K
	CX6D0MPUK170	Main Processing Unit K1
	CX6M002FBX71	CX600-X2-M8 DC Fan Box
	CR5M002FBX73	X2-M8 AC Fan Box
CX600-X2-M16	CX6P02BASD72	CX600-X2-M16 Basic Configuration (Includes CX600-X2-M16 Chassis,2*MPUK,2*DC Power,without Software Charge and Document)
	CX6P02BASA72	CX600-X2-M16 Basic Configuration (Includes CX600-X2-M16 Chassis,2*MPUK,2*AC Power,without Software Charge and Document)
	CX6P02BASD74	CX600-X2-M16 Basic Configuration (Includes CX600-X2-M16 Chassis,2*MPUK1,2*DC Power,without Software Charge and

		Document)
	CX6P02BASA74	CX600-X2-M16 Basic Configuration (Includes CX600-X2-M16 Chassis,2*MPUK1,2*AC Power,without Software Charge and Document)
	CX6B0BKP0272	CX600-X2-M16 Integrated Chassis Components
	CX6D00MPUK70	Main Processing Unit K
	CX6D0MPUK170	Main Processing Unit K1
	CR5M002FBX72	X2-M16 Fan Box
CX600-M2E	CX6PM2EBAS70	CX600-M2E Basic Configuration (Includes CX600-M2E Chassis,2*10GE-SFP+ and 24GE-SFP fixed interface,2*DC Power,Fan Box,without Software Charge and Document)
	CX6PM2EBAS71	CX600-M2E Basic Configuration (Includes CX600-M2E Chassis,2*10GE-SFP+ and 24GE-SFP fixed interface,2*AC Power,Fan Box,without Software Charge and Document)
	CX6M0M2FBX70	Fan Box
	CX6B0BKP0371	CX600-M2E Integrated Chassis Components
	CR5B2PWRDC00	DC Power Supply Unit
	CR5B2PWRAC00	AC Power Supply Unit 500W
CX600-M2F	CX6PM2FBAS70	CX600-M2F Basic Configuration (Includes CX600-M2F Chassis,4*10GE-SFP+ and 40GE-SFP fixed interface,2*DC Power,Fan Box,without Software Charge and Document)
	CX6PM2FBAS71	CX600-M2F Basic Configuration (Includes CX600-M2F Chassis,4*10GE-SFP+ and 40GE-SFP fixed interface,2*AC Power,Fan Box,without Software Charge and

		Document)
	CX6M0M2FBX70	Fan Box
	CX6B0BKP0372	CX600-M2F Integrated Chassis Components
	CR5B2PWRDC00	DC Power Supply Unit
	CR5B2PWRAC00	AC Power Supply Unit 500W

Table 2 List of boards

There are five types of chassis of an ME60 chassis as shown in Table 3.

The following boards will be covered during this evaluation:

Product Name	Board Name for Order	Description
ME60-X16	ME0P16BASD70	ME60-X16 Basic Configuration (Including ME60-X16 Chassis, 2 MPUs, 4 SFUs(200G),8 DC Power, without Software Charge and Document)
	ME0P16BASA70	ME60-X16 Basic Configuration (Including ME60-X16 Chassis, 2 MPUs, 4 SFUs(200G), 8 AC Power, without Software Charge and Document)
	ME0P16BASD72	ME60-X16 Basic Configuration (Including ME60-X16 Chassis, 2 MPUs, 4 SFUs(100G), 8 DC Power, without Software Charge and Document)
	ME0P16BASA72	ME60-X16 Basic Configuration (Including ME60-X16 Chassis, 2 MPUs, 4 SFUs(100G), 8 AC Power, without Software Charge and Document)
	ME0B0BKP1630	ME60-X16 Integrated Chassis Components (Including 8 DC Power)
	ME0D0MPUB470	ME60-X16 Main Processing Unit B4
	ME0DSFUIE07B	200Gbps Switch Fabric Unit B(SFUI-200-B)

	ME0DSFUIE07D	100Gbps Switch Fabric Unit E(SFUI-100-E)
	ME0P16SFUE71	ME60-X16 100G SFU Bundle Configuration(Including 4*SFUI-100-E)
	ME0P16SFUE70	ME60-X16 200G SFU Bundle Configuration(Including 4*SFUI-200-B)
ME60-X8	ME0P08BASD70	ME60-X8 Basic Configuration (Including ME60-X8 Chassis, 2+1 Redundant 200G SRU/SFU,4 DC Power, without Software Charge and Document)
	ME0P08BASA70	ME60-X8 Basic Configuration (Including ME60-X8 Chassis, 2+1 Redundant 200G SRU/SFU,4 AC Power, without Software Charge and Document)
	ME0P08BASD72	ME60-X8 Basic Configuration (Including ME60-X8 Chassis, 2+1 Redundant 100G SRU/SFU, 4 DC Power, without Software Charge and Document)
	ME0P08BASA72	ME60-X8 Basic Configuration (Including ME60-X8 Chassis, 2+1 Redundant 100G SRU/SFU, 4 AC Power, without Software Charge and Document)
	ME0B0BKP0830	ME60-X8 Integrated Chassis Components (Including 4 DC Power)
	ME0D0SRUA570	Switch and Route Processing Unit A5
	ME0DSFUIE07C	200Gbps Switch Fabric Unit C(SFUI-200-C)
	ME0P08SFUE70	ME60-X8 200G SFU Bundle Configuration(Including 2*SRUA5 and 1*SFUI-200-C)
	ME0D0SRUA770	Switch and Route Processing Unit A7

	ME0DSFUIA07D	100Gbps Switch Fabric Unit D(SFUI-100-D)
	ME0P08SFUF70	ME60-X8 100G SFU Bundle Configuration(Including 2*SRUs,1*SFU)
ME60-X3	ME0P03BASD70	ME60-X3 Basic Configuration (Include ME60-X3 Chassis, 2 MPUs, 2 DC Power, without Software Charge and Document)
	ME0B0BKPD330	Integrated DC Chassis Components(ME60-X3)
	ME0D00MPUD71	Main Processing Unit D2
	ME0B0BKPA331	ME60-X3 Integrated AC Chassis Components, (Including Dual AC Power)
	ME0P03BASA31	ME60-X3 Basic Configuration (Include ME60-X3 Chassis,2 MPUs, 2 AC Power(2200W),without Software Charge and Document)
	ME0D00MPUD72	Main Processing Unit D3
	ME0P03BASD71	ME60-X3 Basic Configuration (Include ME60-X3 Chassis, 2 MPUs, 2 DC Power, without Software Charge and Document)
	ME0P03BASA71	ME60-X3 Basic Configuration (Include ME60-X3 Chassis,2 MPUs, 2 AC Power(2200W),without Software Charge and Document)
ME60-X2-M8	ME0P02BASD73	ME60-X2-M8 Basic Configuration (Includes ME60-X2-M8 Chassis,2*MPUK1,2*DC Power,without Software Charge and Document)
	ME0P02BASA73	ME60-X2-M8 Basic Configuration (Includes ME60-X2-M8 Chassis,2*MPUK1,2*AC Power,without Software Charge and Document)
	ME0B0BKP0271	ME60-X2-M8 Integrated DC Chassis

		Components
	ME0B0BKP0273	ME60-X2-M8 Integrated AC Chassis Components
	ME0D0MPUK171	Main Processing Unit K1
	ME0M002FBX71	ME60-X2-M8 DC Fan Box
	ME0M002FBX73	X2-M8 AC Fan Box
ME60-X2-M16	ME0P02BASD74	ME60-X2-M16 Basic Configuration (Includes ME60-X2-M16 Chassis,2*MPUK1,2*DC Power,without Software Charge and Document)
	ME0P02BASA74	ME60-X2-M16 Basic Configuration (Includes ME60-X2-M16 Chassis,2*MPUK1,2*AC Power,without Software Charge and Document)
	ME0B0BKP0272	ME60-X2-M16 Integrated Chassis Components
	ME0D0MPUK171	Main Processing Unit K1
	ME0M002FBX72	X2-M16 Fan Box

Table 3 List of boards

There are five types of chassis of an NE20E chassis as shown in Table 4.

The following boards will be covered during this evaluation:

Product Name	Board Name for Order	Description
NE20E-S4	CR2M04BASD01	NE20E-S4 DC Basic Configuration (Includes NE20E-S4 Chassis,1*MPUE,2*DC Power,Power cord,without Software Charge and Document)
	CR2M04BASD02	NE20E-S4 DC Basic Configuration (Includes NE20E-S4 Chassis,2*MPUE,2*DC Power,Power cord,without Software Charge and Document)

	CR2M04BASA01	NE20E-S4 AC Basic Configuration (Includes NE20E-S4 Chassis,1*MPUE,2*AC Power,Power cord,without Software Charge and Document)
	CR2M04BASA02	NE20E-S4 AC Basic Configuration (Includes NE20E-S4 Chassis,2*MPUE,2*AC Power,Power cord,without Software Charge and Document)
	CR2M04BASD11	NE20E-S4 DC Basic Configuration (Includes NE20E-S4 Chassis,1*MPUE1,2*DC Power,Power cord,without Software Charge and Document)
	CR2M04BASD12	NE20E-S4 DC Basic Configuration (Includes NE20E-S4 Chassis,2*MPUE1,2*DC Power,Power cord,without Software Charge and Document)
	CR2M04BASA11	NE20E-S4 AC Basic Configuration (Includes NE20E-S4 Chassis,1*MPUE1,2*AC Power,Power cord,without Software Charge and Document)
	CR2M04BASA12	NE20E-S4 AC Basic Configuration (Includes NE20E-S4 Chassis,2*MPUE1,2*AC Power,Power cord,without Software Charge and Document)
	CR2B0BKP0410	NE20E-S4 Integrated Chassis Components
	CR2B0BKP0411	NE20E-S4 Integrated AC Chassis Components
	CR2D00MPUE10	Main Processing Unit E
	CR2D0MPUE110	Main Processing Unit E1
	CR2M004FBX10	NE20E-S4 Fan Box
NE20E-S8	CR2M08BASD02	NE20E-S8 DC Basic Configuration (Includes NE20E-S8 Chassis,2*MPUE,2*DC Power,Power

		cord,without Software Charge and Document)
	CR2M08BASA02	NE20E-S8 AC Basic Configuration (Includes NE20E-S8 Chassis,2*MPUE,2*AC Power,Power cord,without Software Charge and Document)
	CR2M08BASD12	NE20E-S8 DC Basic Configuration (Includes NE20E-S8 Chassis,2*MPUE1,2*DC Power,Power cord,without Software Charge and Document)
	CR2M08BASA12	NE20E-S8 AC Basic Configuration (Includes NE20E-S8 Chassis,2*MPUE1,2*AC Power,Power cord,without Software Charge and Document)
	CR2B0BKP0810	NE20E-S8 Integrated DC Chassis Components
	CR2B0BKP0811	NE20E-S8 Integrated AC Chassis Components
	CR2D00MPUE10	Main Processing Unit E
	CR2D0MPUE110	Main Processing Unit E1
	CR2M008FBX10	NE20E-S8 DC Fan Box
	CR2M008FBX11	NE20E-S8 AC Fan Box
NE20E-S16	CR2M16BASD02	NE20E-S16 DC Basic Configuration (Includes NE20E-S16 Chassis,2*MPUE,2*DC Power,Power cord,without Software Charge and Document)
	CR2M16BASA02	NE20E-S16 AC Basic Configuration (Includes NE20E-S16 Chassis,2*MPUE,2*AC Power,Power cord,without Software Charge and Document)
	CR2M16BASD12	NE20E-S16 DC Basic Configuration (Includes NE20E-S16 Chassis,2*MPUE1,2*DC Power,Power cord,without Software

		Charge and Document)
	CR2M16BASA12	NE20E-S16 AC Basic Configuration (Includes NE20E-S16 Chassis,2*MPUE1,2*AC Power,Power cord,without Software Charge and Document)
	CR2B0BKP1610	NE20E-S16 Integrated Chassis Components
	CR2D00MPUE10	Main Processing Unit E
	CR2D0MPUE110	Main Processing Unit E1
	CR2M016FBX10	NE20E-S16 Fan Box
NE20E-S2E	CR2P2EBASD10	NE20E-S2E Basic Configuration (Includes NE20E-S2E Chassis,2*10GE-SFP+ and 24GE-SFP fixed interface,2*DC Power,Fan Box,Power cord,without Software Charge and Document)
	CR2P2EBASA10	NE20E-S2E Basic Configuration (Includes NE20E-S2E Chassis,2*10GE-SFP+ and 24GE-SFP fixed interface,2*AC Power,Fan Box,Power cord,without Software Charge and Document)
	CR2M002FBX10	Fan Box
	CR2B0BKP0210	NE20E-S2E Integrated Chassis Components
	CR5B2PWRDC00	DC Power Supply Unit 600W
	CR5B2PWRAC00	AC Power Supply Unit 500W
NE20E-S2F	CR2P2FBASD10	NE20E-S2F Basic Configuration (Includes NE20E-S2F Chassis,4*10GE-SFP+ and 40GE-SFP fixed interface,2*DC Power,Fan Box,Power cord,without Software Charge and Document)
	CR2P2FBASA10	NE20E-S2F Basic Configuration (Includes NE20E-S2F Chassis,4*10GE-SFP+ and 40GE-SFP fixed interface,2*AC Power,Fan Box,Power cord,without Software

		Charge and Document)
	CR2M002FBX10	Fan Box
	CR2B0BKP0211	NE20E-S2F Integrated Chassis Components
	CR5B2PWRDC00	DC Power Supply Unit 600W
	CR5B2PWRAC00	AC Power Supply Unit 500W

Table 4 List of boards

Software

Type	Name	Version
Software	Product software	V800R008C10SPC945T
	VRP	Version 8 Release 12
	Linux	Version: WRlinux4.3.0.0(CR5D0MPUB570,CR5D0SRUA870,CR5D0SRUA970,CR5D0MPUD470,CX6D0MPUB570,CX6D0SRUA870,CX6D0SRUA970,CX6D0MPUD470) /WRlinux4.1.0.0(CR5D0MPUB460,CR5D0SRUA570,CR5D0MPUD170,CR5D0MPUD270,CR5D00MPUK70,CR5D0MPUK170,CX6D0MPUB410,CX6D0SRUA510,CX6D0MPUD170,CX6D0MPUD270,CX6D00MPUK70,CX6D0MPUK170,ME0D0MPUB470,ME0D0SRUA570,ME0D0SRUA770,ME0D00MPUD71,ME0D00MPUD72,ME0D0MPUK171,CR2D00MPUE10,CR2D0MPUE110)

Table 5 List of Software

TOE Documentation

The supporting guidance documents evaluated were:

[a] NE40E V800R008 C10 Product Manual, V01, 2016/09/30

[b] CX600 V800R008C10 Product Manual, V01, 2016/09/30

[c] NE20E V800R008C10 Product Manual, V01, 2016/09/30

[d] ME60 V800R008C10 Product Manual, V01, 2016/09/30

[e] Common Criteria Security Evaluation – Certified Configuration, V1.5

[Further discussion of the supporting guidance material is given in Section 5.3 "Installation and Guidance Documentation".]

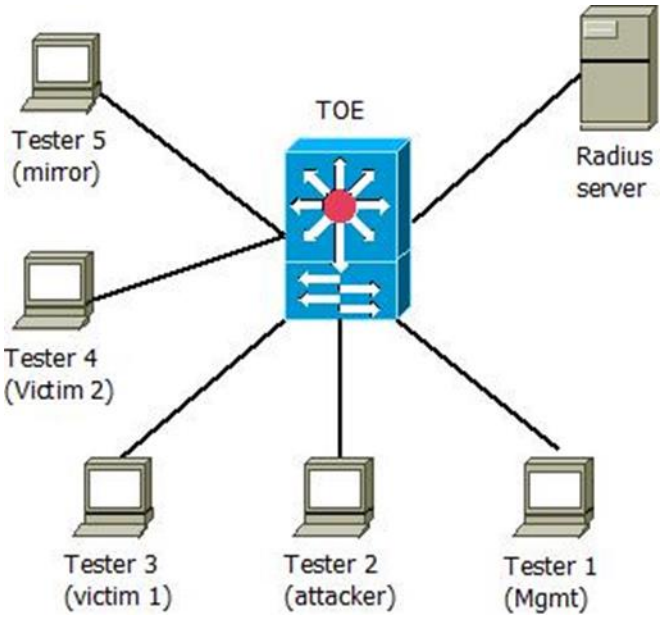
TOE Configuration

The following configuration was used for testing:

ITEM	IDENTIFIER
HARDWARE	One of the hardware models from each series listed in section TOE Identification
SOFTWARE	Product software version V800R008C10SPC945T, VRP Version 8 Release 12, WRLinux 4.3.0.0 / WRLinux 4.1.0.0, configured according to [7].
MANUALS	NE40E V800R008 C10 Product Manual, V01, 2016/09/30 CX600 V800R008C10 Product Manual, V01, 2016/09/30 NE20E V800R008C10 Product Manual, V01, 2016/09/30 ME60 V800R008C10 Product Manual, V01, 2016/09/30 Common Criteria Security Evaluation – Certified Configuration, V1.5

Environmental Configuration

The TOE is tested in the following test setups:



Certificate

The IT product identified in this certificate has been evaluated at the Norwegian evaluation facility described on this certificate using Common Methodology for IT Security Evaluation, according to the version number described on this certificate, for conformance to the Common Criteria for IT Security Evaluation according to the version number described on this certificate. This certificate applies only to the specific version and release of the product in its evaluated configuration and in conjunctionwith the complete Certification report. The evaluation has been conducted in accordance with the provisions of The Norwegian Certification Authority for IT Security (SERTIT) and the conclusions of the evaluation technical report are consistent with the evidence adduced. Certification does not guarantee that the IT product is free from security vulnerabilities. This certificate only reflects the view of SERTIT at the time of certification. It is furthermore the responsibility of users (both existing and prospective) to check whether any security vulnerabilities have been discovered since the date shown of this certificate. This certificate is not an endorsement of the IT product by SERTIT or by any other organization that recognizes or gives effect to this certificate, and no warranty of the IT product by SERTIT or by any other organization that recognizes or gives effect to this certificate, is either expressed or implied.

Product Manufacturer: Huawei Technology Co. Ltd.

Product Name: Huawei NE-Series Router

Type of Product: Routers

Version and Release Numbers: Versions are detailed in the Certification Report

Assurance Package: EAL 2 augmented with ALC_FLR.2

Evaluation Criteria: Common Criteria v. 3.1 R4

Name of IT Security Evaluation Facility: Brightsight B.V.

Name of Certification Body: SERTIT

Certification Report Identifier: SERTIT-087 CR Issue 1.0, 7. April 2017

Certificate Identifier: SERTIT-087 C

Date Issued: 7. April 2017

Kjartan Jæger Kvassnes
Certifier

Arne Høye Rage
Quality Assurance

Kristian Bae
Head of SERTIT

SERTIT
Norwegian Certification Authority for IT Security

CCRA recognition for components up EAL 2 and ALC_FLR only.

SOGIS MRA recognition for components up to EAL 4.