

CNESM and Master CNESM Programs: Participant's Guide

The following guide describes Novell's CNE and Master CNE programs and provides information for the prospective CNE or Master CNE. Information is also provided for CNEs and ECNEs certified under the old programs who are considering migration to either of the certification programs within Novell's new systems certification suite. The new CNE and Master CNE programs discussed in this guide open for certification on September 30, 1995.

Overview

Novell's CNE and Master CNE programs are technical assessment and validation programs requiring candidates to demonstrate knowledge in one or more selected technical threads by passing a series of rigorous computer based exams. Each exam yields a predetermined number of certification credits. Candidates must earn and maintain 19 credits in their first area of CNE certification. Additional CNE certifications may be earned by passing non-redundant exams in any of the other available CNE specializations or "majors". Candidates must earn and maintain 10 additional credits to obtain the Master CNE certification.

All CNEs and Master CNEs are rigorously tested in Core concepts as taught in Novell Education's Networking Technologies and Service and Support courses. CNE candidates then choose from 4 different target curriculum suites depending on their technical support needs and areas of interest. Each of the 4 specializations or CNE "majors" consists of several exams, assessing the certification candidate on an entire technical thread including administration, installation and configuration, upgrade and integration, etc. With the exception of UnixWare specialists, all CNEs must demonstrate knowledge in NetWare 4 concepts assuring familiarity with NetWare Directory Services (NDS). All CNE candidates also demonstrate proficiency in a CNE eligible advanced technology chosen from one of three defined elective pools; Network Management, Infrastructure and Advanced Access or GroupWare Integration. Certification at the CNE level is the first step toward earning Novell's Master CNE credential. CNEs specializing in any of the three Network Operating System (NOS) CNE certifications may choose from either the Network Management or Infrastructure and Advanced Access Masters programs while GroupWare CNEs are offered the GroupWare Integration Master CNE option.

Prerequisites

CNEs and Master CNEs are trained in threads of technologies, providing them exposure to basic through advanced networking concepts. Candidates should possess a working knowledge of fundamental information technology concepts including Microcomputer platform environments, local operating system concepts (MS-DOS) and Microsoft Windows concepts. Further, though Novell's CNE and Master CNE programs do not specify prerequisite academic experience, the most successful candidates possess formal academic degrees as well as field experience in one or more information technologies fields such as personal and micro-computer networks or mini and/or main-frame environments.

CNE Specializations

A Novell CNE has demonstrated knowledge in a defined curriculum of study. CNEs add value to their organizations by performing planning, installation, configuration, troubleshooting and upgrade services. CNEs are tested in an entire "thread" of a technology ranging from basics through advanced concepts. CNEs may choose specializations in Network Operating Systems including NetWare 3, NetWare 4 or UnixWare; or in GroupWare. CNEs may earn certification in multiple CNE categories. Additional CNE areas of specialization may be added to Novell's CNE program as business needs

dictate.

The following diagram illustrates CNE areas of specialization.

CNE Areas of Specialization

C N E	Network Operating Systems			GroupWare
	CNE-NetWare 3	CNE-NetWare 4	CNE-UnixWare	CNE-GroupWare

CNESM Progress Chart

Certification Requirements

CNE Certification Requirements

CNE candidates sign an agreement and pass a series of certification exams. The CNE program currently requires candidates to earn 19 credits broken down as follows:

Target credits. Each track is designed to focus on a specific technology. Target credits align with the technology of focus. CNE candidates are required to earn 9 specialty specific, pre-defined target credits.

Core credits. Core credits are earned by passing tests of fundamental base knowledge required of all CNEs and Master CNEs. Every CNE earns 3 Core CNE credits by passing the Networking Technologies test and 5 Core CNE credits by passing the Service and Support test.

Elective credits. CNE candidates must earn 2 elective credits. If you are pursuing the CNE-3, CNE-4 or CNE-U certifications, electives must be chosen from the Network Management or Infrastructure and Advanced Access CNE/ Master CNE elective pool. If you are pursuing the CNE-GW certification, electives must be chosen from the GroupWare Integration CNE/Master CNE elective pool (see page 3).

CNE Track Requirements, Supporting Course, Test Numbers and Credits

9ddd dd@ddd dd@9

CNE	CNE-3 19	CNE-4 19	CNE-U 19	CNE-GW 19
Pre	Sign CNE Agreement after taking first test (This must be done prior to certification. If you wish to pursue multiple certifications, only sign one form. Agreements are available through faxback at 800-233-EDUC or 801-429-5363. Order document #1445.)			
Target	508 NetWare 3.1x Admin Test 50-130* 3 cr.	520 NetWare 4.1 Admin Test 50-152* 3 cr.	220 Unix OS Fundamentals Test 50-107 2 cr.	520 NetWare 4.1 Admin Test 50-152* 3 cr.
Target	518 NetWare 3.1x Adv. Admin	525 NetWare 4.1 Adv. Admin	678 UnixWare Install	325 GroupWise 4 Admin

	Test 50-131* 2 cr.	Test 50-161* 2 cr.	& Config. Test 50-149* 2 cr.	Test 50-154 3 cr.
Target	802 NetWare 3 Install & Config. Test 50-132* 2 cr.	804 NetWare 4.1 Install & Config. Test 50-163* 2 cr.	680 UnixWare Admin Test 50-150 3 cr.	326 GroupWise 4 Async Gtwy & Remote Client Support Test 50-155 1 cr.
Target	526 NetWare 3 to NetWare 4.1 Update Test 50-162* 2 cr.	**532 NetWare 4.1 Design & Implementation Test 50-601* 2 cr.	685 UnixWare Adv. Admin Test 50-151* 2 cr.	328 GroupWise 4 Adv Admin Test 50-604 2 cr.
Core	200 Networking Technologies Test 50-147* 3 cr.			
Core	801 Service and Support Test 50-153* 5 cr.			
Elect	2 credits needed. Network Operating Systems CNEs choose from Network Management or Infrastructure and Advanced Access CNE/Master CNE elective pool, GroupWare CNEs choose from GroupWare Integration CNE/Master CNE elective pool.			

*Many of these tests have replaced old tests and some have redundancies such as the 3.1x to 4.x Update with the 4.x Admin. Therefore, they have limitations of credits. Please read through the Limitations of Credits Matrix and Removed Test Matrix in Appendix A carefully to determine if a test you have taken has a limitation with another test or if a test you have taken has an expiration date. Note that the NW 4.0 exams can count in place of the NW 4.1 exams. Not all of the 4.1, UnixWare or GroupWise exams are available at this time.

**Test 50-125 NetWare 4 Directory Services Design (NDS) can be used in place of test 50-601 NetWare 4.1 Design and Implementation.

CNESM Progress Chart (cont.)

CNE/Master CNE Elective Pools

9ddd0Cd@ddd0Cd@9

Elective options for CNE-3, CNE-4 or CNE-U						Elective options for CNE-GW		
Network Management			Infrastructure and Advanced Access			GroupWare Integration		
Course Name &	Exam	Cr	Course Name &	Exam	Cr	Course Name &	Exam	Cr

Number	#		Number	#		Number	#	
Printing with NetWare (535)	50-137	2	LAN WPlace for Dos 4.1 (601)	50-104	2	Soft Solutions 4 Admin (345)	50-158	3
NW Navigator (550)	50-138	2	NW TCP/IP Transport (605)	50-86	2	Soft Solutions 4 Adv. Admin (348)	50-159	2
NW Expert for NMS (730C)	50-205	2	NW NFS (610)	50-87	2	InForms 4 Admin & Form Design (335)	50-156	3
LANalyzer for Win. (1125)	50-105	1	NW NFS Gateway (625)	50-119	1	InForms 4 Adv. Admin & Form Design (338)	50-157	2
			NW IP (630)	50-139	1			
			NW NFS Services: Mgt & Printing - NW 4 Ed. (640)**	50-160	2			
			NW NFS Services: File Sharing - NW 4 Ed. (645)**	50-160	2			
			NW Connect (718)	50-114*	3			
			NW for SAA (720)	50-148*	2			
			NW for LAT (725)	50-140				
			NW Global MHS (750)	50-108				

*These tests have limitations associated with them. Please note the Limitations of Credits matrix found in Appendix A.

**Indicates two courses for one test. If you take test 50-160, please make sure that you understand concepts in both the 640 and 645 courses.

Additional elective tests may be added to either elective pool as business needs dictate.

All tests for the GroupWare CNE and the GroupWare Integration Master CNE will be available within the 1995 calendar year. Candidates for these certifications may begin testing prior to the entire test suite being released, however, will not be certified until all required tests are passed.

Equivalent Certified Novell Instructor and the following Certified Novell Administrator tests will also count toward your CNE certification: CNA test 50-394 or 50-391 for 50-152 or 50-122, 50-390 for 50-130, 50-395 for 50-154, and 50-392 for 50-134. Also note that the former WordPerfect CSE Office 4.0 test 50-375 will count in place of the GroupWise 4.1 Administration test 50-154.

Recommended order of test completion.

CNE candidates may take assessment exams in whatever order they deem appropriate. Many individuals find that beginning with an administration exam such as NetWare 4 Administration followed by more technically challenging exams such as Networking Technologies works best for them. Others prefer the theoretical background offered by Networking Technologies first followed by administrative and hands on areas such as the NetWare Installation and Configuration or the Service and Support exams. Please consult with your local Novell Authorized Education Center (NAEC) to determine the most appropriate path for you.

If you have taken a course or purchased self-study materials, please take the corresponding test within six weeks to ensure test objectives match course/material objectives.

CNE/Master CNE requirements are subject to change without notice. For current information about these programs, call (800)233-EDUC or (801)222-7800.

In UK call +44 1932 821 226

Other European countries call +49 211 5631 3688

Australasia call 61 2 925 3000

Latin America North call 525 728 3521

Latin America South call 55 11 844 4938

Multiple CNE Certifications

Candidates may earn multiple CNE certifications by earning and maintaining all non-redundant target credits (or equivalent) in additional CNE tracks. The following matrix describes tests to be taken in order for an existing CNE to earn additional CNE certifications.

Please note that electives from the Network Management and Infrastructure and Advanced Access elective pools yield no credit for GroupWare CNEs and electives from the GroupWare Integration elective pool yield no credit for NOS CNEs. Consequently GroupWare CNEs seeking NOS certification in NetWare 3, NetWare 4 or UnixWare must select an elective exam from either the Network Management or the Infrastructure and Advanced Access elective pools, and NOS CNEs seeking GroupWare certification must select an eligible elective from the GroupWare Integration elective pool.

CNE Cross Certifications Matrix

Existing Certification	Desired Additional Area of Specialization				
	CNE	CNE-3	CNE-4	CNE-U	CNE-GW
CNE-OLD	3 to 4.x update or N4 Admin or UX Admin (2.0)	N3 Admin N3 Adv Admin N3 I&C *N3 to N4 update Qualifying NM or IA elective	[N4 Admin and N4 Adv Admin or *NW3 to NW4] N4 I&C N4 D&I Qualifying NM or IA elective	UX Fund UX Admin UX Adv. Admin UX I&C Qualifying NM or IA elective	GW Admin GW Adv. Admin GW Remote N4 Admin or *N3 to N4 Update Qualifying GI elective
CNE-3	X	X	N4 I&C N4 D&I	UX Fund UX Admin UX Adv. Admin UX I&C	GW Admin GW Adv. Admin GW Remote GI elective
CNE-4	X	N3 Admin N3 Adv Admin N3 I&C	X	UX Fund UX Admin UX Adv. Admin UX I&C	GW Admin GW Adv. Admin GW Remote GI elective
CNE-U	X	N3 Admin N3 Adv Admin N3 I&C N3 to N4 update	N4 Admin N4 Adv Admin N4 I&C N4 D&I	X	N4 Admin GW Admin GW Adv. Admin GW Remote GI elective
CNE-GW	X	N3 Admin N3 Adv Admin	[N4 Adv Admin or NW 3 to NW	UX Fund UX Admin UX Adv.	X

		N3 I&C NM or IA elective	4] N4 I&C N4 D&I NM or IA elective	Admin UX I&C NM or IA elective	
--	--	--------------------------------	--	---	--

*Note: If you have already passed the NetWare 4.x Administration and the NetWare 4.x Advanced Administration, you may use these tests in place of the NetWare 3.x to 4.x update. If you have already passed the NetWare 3.x Administration, the NetWare 3.x Advanced Administration and the NetWare 3.x to 4.x Update, you may use the NetWare 3.x to 4.x update in place of the NetWare 4 Administration and NetWare 4 Advanced Administration.

Master CNESM Progress Chart

Master CNE Certification Requirements

Master CNEs are CNEs in good standing who have completed a series of mandatory and selected Master CNE tests. Master CNEs may specialize in Network Management, Infrastructure and Advanced Access or GroupWare Integration. Master CNE candidates pursuing the Network Management or the Infrastructure and Advanced Access track must first become a CNE in NetWare 3, NetWare 4 or UnixWare. These candidates then earn and maintain 6 predefined Master CNE Core credits, 2 target Master CNE credits and 2 Master CNE elective credits chosen from the appropriate elective pool. Master CNE candidates pursuing the GroupWare Integration track must first become a CNE in GroupWare. These candidates then earn 6 predefined Master CNE Core credits and an additional 4 GroupWare Integration elective credits. Though initially three areas of specialization are offered, additional areas may be created and offered in the future. Requirements are subject to change without notice. For current information call 800-233-EDUC.

Core Master CNE Credits

All Master CNE candidates must earn 6 Core Master CNE credits. Core credits are earned by passing the three specified Master CNE Core exams. (Master CNE candidates having completed the CNE NetWare 4 track will have already passed the D&I test and consequently will have earned 2 of the required 6 Master CNE Core credits.)

Target/Elective

Master CNE candidates must earn an additional 4 Master CNE credits within the Network Management, the Infrastructure and Advanced Access or the GroupWare Integration area of specialization. **Note that the elective used to gain CNE certification yields no credit toward the Master CNE areas of specialization.**

Master CNE Track Requirements

Master CNE	Network Management 10	Infrastructure and Advanced Access 10	GroupWare Integration 10
Core	CNE in Good Standing (NetWare 3, NetWare 4 or UnixWare)		CNE GroupWare
	532 NetWare 4.1 Design and Implementation Test 50-601* 2 cr.		
	XXX Fundamentals of Network Management Test 50-xxx 2 cr.		
XXX Fundamentals of Internetworking Test 50-xxx* 2 cr.			
Target	XXX Network Management Using NetWare ManageWise Test 50-xxx 2 cr.	740 Internetworking w/NetWare Multi Protocol Router Test 50-142* 2 cr.	No target required. Four elective credits needed
Elective	Any combination of NM electives adding up to 2 credits. 2 cr.	Any combination of I&A electives adding up to 2 credits. 2 cr.	Any combination of GI electives totaling 4 or more elective credits. 4 cr.

CNE/Master CNE Elective Pools

Network Management			Infrastructure and Advanced Access			GroupWare Integration		
Course Name & Number	Exam #	Cr	Course Name & Number	Exam #	Cr	Course Name & Number	Exam #	Cr
Printing with NetWare (535) NW Navigator (550) NW Expert for NMS (730C) LANalyzer for Win. (1125)	50-137	2	LAN WPlace for Dos	50-104	2	Soft Solutions 4	50-158	3
	50-138	2	4.1 (601)	50-86	2	Admin (345)	50-159	2
	50-205	2	NW TCP/IP	50-87	2	Soft Solutions 4		
	50-105	1	Transport (605)	50-119	1	Adv. Admin (348)	50-156	3
			NW NFS (610)	50-139	1	InForms 4 Admin &		
			NW NFS Gateway (625)	50-160	2	Form Design (335)	50-157	2
			NW IP (630)	50-160	2	InForms 4 Adv.		
			NW NFS Services:			Admin & Form		
			Mgt & Printing - NW	50-	2	Design (338)		
			4 Ed. (640)**	114*	3			
			NW NFS Services:	50-	2			
			File Sharing - NW 4	148*	2			
			Ed. (645)**	50-140				
			NW Connect (718)	50-108				
			NW for SAA (720)					
		NW for LAT (725)						
		NW Global MHS (750)						

*These tests have limitations associated with them. Please note the Limitations of Credits matrix found in Appendix A.

**Indicates two courses for one test. If you take test 50-160, please make sure that you understand concepts in both 640 and 645 courses.

Additional tests may be added to elective pools as business needs dictate. Equivalent CNI exams will also count toward your Master CNE certification.

If you have taken a course or purchased self-study materials, please take the corresponding test within six weeks to ensure test objectives match course/material objectives.

Getting Started

Novell recommends that you work closely with a Novell Authorized Education Center (NAEC) or Novell Education Academic Partner (NEAP) to plan out your curriculum and prepare for the tests. NAECs offer Novell-developed courses at Novell-authorized sites. NEAPs are education institutions which offer Novell-developed courses to the matriculated student. The courses are taught by Certified Novell Instructors (CNIs). Not all courses or tests are offered at all NAECs or NEAPs; you may need to work with more than one NAEC or NEAP to cover your selected curriculum. Contact your local NAEC or NEAP to obtain information about costs, courses and training options.

To obtain a listing of NAECs and NEAPs in your area and their course offerings, either by fax or by phone, in the United States and Canada, call 1-800-233-EDUC. In UK call +44 1932 821 226. In other European countries call +49 211 5631 3688. In Asia Pacific call +61 2 413 3077. In Latin America North call 525 728 3521. In Latin America South call 55 11 844 4938. In all other areas, call 1-801-222-7800 or contact your local Novell office.

Training Options

Most NAECs and NEAPs offer a number of training options designed to suit your needs.

Instructor-Led Courses. Instructor-led courses are designed, developed and approved by Novell. Offered through NAECs and NEAPs, they are taught by CNIs.

Self-Study Options. Three self-study options are available: student kits, self-study workbooks and technology-based training (TBT) materials. These options are described below.

1. *Student Kits.* If you elect not to take instructor-led courses or would like to study course materials on your own, you can order a Student Kit. The Student Kits are developed for instructor-led environments; however, if you have a background in DOS, microcomputer hardware or any of the required technical or conceptual areas covered in a CNE or Master CNE test suite, these materials may be adequate to help you prepare for the tests. You can order student kits from your local NAEC. (Note: The self-study option may not be offered in all regions outside the United States and Canada.)

2. *Self-Study Workbooks.* Some prerequisites and proficiency tests have corresponding workbooks that cover most of the information on the tests. You can order these workbooks from your local NAEC.

3. *Technology-Based Training (TBT) Materials.* A limited number of Computer-Based Training (CBT) and Video-Based Training (VBT) materials are available. You can order TBT materials from your local NAEC, Novell authorized resellers or through Novell Sales and Customer Services at 1-800-346-7177.

If you have taken a course or purchased self-study materials, please take the corresponding test within six weeks to ensure test objectives match course/material objectives.

Testing

To register for CNE or Master CNE tests in the United States and Canada, call 1-800-233-EDUC or 801-222-7800. For all other countries, contact your local Drake Regional Service Center, Sylvan Technology Center or your local Novell office.

Various CNE/Master CNE tests are available in Spanish, German, French, Italian, Portuguese, Finnish and Swedish.

Appendix A

Limitations of Credits Matrix: Only one of the tests in each box may count toward certification. * Indicates the most current test.

50-46 Service & Support 50-118 Service & Support *50-153 Service & Support	50-85 NetWare for SAA 50-141 NetWare for SAA 1.3b *50-148 NetWare for SAA 1.3b	50-122 NW 4.0 Admin 50-124 3.11 to 4.0 Update *50-152 NW 4.1 Admin. *50-162 NW 3 to NW 4 Update	50-135 UW Adv. System Adm. *50-151 UW Adv. System Admin.
50-80 Networking Technologies *50-147 Networking Technologies	50-106 Fund. of Internetwork & Management Design *50-xxx Fundamentals of Internetworking	50-123 NW 4.0 Adv. Admn 50-124 3.11 to 4.0 Update *50-161 NW 4.1 Adv. Admin *50-162 NW 3 to NW 4 Update	50-133 UW Install & Config. *50-149 UW Install & Config.
50-82 3.11 Adv. Sys Mgr. *50-131 3.1x Adv. Admin.	50-112 Dial-In/Dial-Out *50-114 NetWare Connect	50-125 NW 4 Directory Services *50-601 NW 4.1 Design & Implementation	
50-91 3.11 Sys. Mgr. *50-130 3.1x Admin.	50-117 NetWare Internetworking Products *50-142 Internetworking with MultiProtocol Router	50-126 NW 4 Install & Config. *50-163 NW 4.1 Install & Config.	

Removed Test Matrix (These tests will count for certification through the following dates.)

Test #	Name	Counts through	Test #	Name	Counts through
50-85 50-112	NetWare for SAA Dial-in/Dial-Out	10/7/95	50-118	Service and Support	3/2/96
50-46	Service and Support	12/5/95	50-91 50-82	3.11 System Manager (For 50-130 3.1x Admin) 3.11 Adv. System Mgr. (For 50-131 3.1x Adv. Admin)	Indefinitely

50-141	NetWare for SAA	12/30/95	50-122 50-123 50-124 50-125	4.0 Administration (For 50-152 4.1 Admin) 4.0 Advanced Admin. (For 50-161 4.1 Advanced) 3.11 to 4.0 Update (For 50-162 NW 3 to NW 4 Update) NW 4 Directory Srvs Design (For 50-601 Design & Impl.)	Indefinitely
50-80	Networking Technologies	2/3/96	50-135 50-149	UW Adv. System Admin. (For 50-151 UW Adv. Admn) UW Install & Config (For 50-149 UW Install & Config)	Indefinitely

CNE/Master CNE requirements are subject to change without notice. For current information about these programs, call (800)233-EDUC or (801)222-7800.

In UK call +44 1932 821 226

Other European countries call +49 211 5631 3688

Australasia call 61 2 925 3000

Latin America North call 525 728 3521

Latin America South call 55 11 844 4938