NATO Communications and Information Agency
Agence OTAN d'information et de communication

COMBINED NISP ICC SYSTEM ADMINISTRATOR COURSE SYLLABUS

Version 7.0

Authority Page

Course Name: Combined NISP ICC System Administrator Course

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Operating System: Solaris 10

Software Version: NISP 3.6.2, ICC 3.0.0

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Version	Reason	Pages Affected
1.0	Initial Release	All
6.0	Annual review and format for new corporate identity	All
7.0	ICC 3.0.0 update	All

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1 Introduction

1.1 Aim of the Course

The aim of the course is to enable personnel with little or no experience to install, maintain and modify a Solaris 10 system with a basic Solaris 10 installation and a set of administrator tools, the product being called NISP 3.6., and to install, maintain and modify an ICC-Server, the product being called ICC .

1.2 Summary of Training Requirements

The Combined NISP ICC System Administrator course for the baseline NISP 3.6./ICC is a single standing course, not necessarily linked to other NPC Courses.

1.3 Eligibility

Applicants for this course are not required to have any knowledge about UNIX, Solaris and Oracle, however this knowledge is desirable. If the course is oversubscribed SHAPE will set priorities.

1.4 Duration

The course duration is 10 days.

a. Training Day : 0900 – 1600
b. Breaks: Coffee 1000-1020 and 1500-1520
Lunch: 1230-1330

1.5 Security Classification

The course is delivered within a NATO Secret environment; therefore, the students must provide a copy of their Security Clearance before entering the NCIA Glons premises. Without a Security Clearance the students will not be able to attend the course.

Course contents are the following classification:

- Slides: NATO UNCLASSIFIFIED
- Network: NATO CONFIDENTIAL
- Classroom: NATO CONFIDENTIAL
- Media: NATO UNCLASSIFIFIED
- Discussion Topics: NATO CONFIDENTIAL

1.6 Sponsor

The overall sponsor of the Combined NISP ICC System Administrator Course is the head of the AirC2 Training Group.

1.7 Training Executive

The person with overall responsibility for the training at the NCIA Glons is the Chief Individual Training. This responsibility can be delegated when required.

1.8 Class Size

The maximum numbers of students is set to 14 due to workstation and instructor availability. Seats for observers, with no workstation, are available.

NCIA Glons reserve the right to cancel any course if the number of students is less than 4.

1.9 Review Date

To ensure that the course is effective and current the AirC2 Training Group aim to do a full review of course material annually. Parts of the course can be updated before this time if needed.

1.10 Additional Information

1.10.1 Location

This course is run at NCIA Glons in the classroom B12/B13.

1.10.2 How to Apply

Students apply by using the Course Application Form available on the NCIA webpage.

1.10.3 Certification

Students who successfully complete this course will receive a certificate indicating that they have participated in the Combined NISP ICC System Administrator Course.

2 Time Allocation

Table 1 - Time Allocation (Days 1 to 5)

Topic	Detail	Day 1	Day 2	Day 3	Day 4	Day 5	Total
TMS Introduction	Briefing about NCIA Glons, security, safety and facilities	30					**30**
Introduction	Briefing about the product, the changes to other baselines and general information	30					**30**
Server Installation	Installation of a fresh ICC Server on Solaris	120					**120**
Server Configuration	Configuration of the preinstalled elements of the ICC Solaris Server	140					**90**
Solaris Basics	Basic Solaris commands for NISP/ICC System Administrators		60				**60**
	Basic Solaris system administration		255				**255**
	The VI Editor			60			**60**
	Access permissions			120			**120**
Getting to know the system	Files and directories in ICC			90			**90**
	Booting in different scenarios			45			**45**
Intermediate Solaris/NISP	NISP specific scripts				60		**60**
	Root account specifics				60		**60**
	Rescue routines for ICC				60		**60**
Oracle installation	Administrator tasks				90		**90**
	Oracle database installation				45		**45**
Lecture by Test Director						60	**60**
Additional installation	MIMI installation					60	**60**
	ICCLink installation					60	**60**

Table 2 - Time Allocation (Days 6 to 10)

Topic	Detail	Day 6	Day 7	Day 8	Day 9	Day 10	Total
Start working with ICC	COSI	60					**60**
	DBAdmin Tool	120					**120**
Start working with ICC	ICC client installation	90					**90**
	Ldap Admin GUI	45					**45**
Start working with ICCInitial	TAdmin		60				**60**
	Initial Database Permissions		60				**60**
	Network printer		60				**60**
	Backup/recovery		90				**90**
	core/crash dumps		45				**45**
Advanced solaris commands	Share/mount			60			**60**
	Crontab/ at job			120			**120**
	ssh			90			**90**
	Performance tools			45			**45**
Other administrators tasks	Configuring ICCLink				120		**60**
	Jumpstart				60		**120**
Other administrators tasks	Troubleshoot the ICC applications in different environments				90		**90**
Other administrators tasks	Execute different Administrator tasks				45		**45**
Lecture from the Customer Service Desk						30	**30**
End of Course Test						30	**30**
Server down test	Troubleshoot a server manipulated by the instructor					100	**100**
Certificates						20	**20**

3 Course Content Summary

Table 3 - Course Content Summary

Training Objective	Obj Nos	Enabling Objectives	Time Breakdown		
			Theory	Practical	Total
TMS Briefing	1.1	Brief the students about the NPC facility, Security and Safety Regulations, POCs, Cafeteria and RIS.	30		**30**
Introduction	1.2	Cover NISP/ICC Products, changes to other baselines and general hardware and software prerequisites.	20		**20**
Server Installation	2.1	Ability to install a fresh NISP-ICC-Server with the assistance of a SIP and the respective software. They are able to identify and troubleshoot and fix installation problems.	20	100	**120**
Server Configuration	2.2	Know how to configure the pre-installed elements of NISP-ICC, create the first admin user accounts and analyse the installed software in accordance with SIP and SAM.	20	70	**90**
	2.3	Ability to modify, customize and use the different desktop systems, use shells and terminals, and use the Nested Admin Session within the desktop environment.			
Solaris Basics	3.1	Use the basic Solaris commands for the file system, files and directories.	300	235	**535**
	3.2	Perform the basic system administration of a fully installed Solaris server, modify, copy, move and delete files, work with directories, create visible and hidden files, sort directory outputs and create pipes.			
	3.3	Utilise the VI File Editor, know the basic editing, saving, deleting and modifying commands.			
	3.4	Ability to decide on access permissions, perform access management and memorise the access permissions used for ICC.			
Getting to know the System	4.1	Know the files and their locations for ICC, ability to modify these files and troubleshoot problems. Backup and restore corrupt files and analyse file structures.	35	100	**135**
	4.2	Apply the different booting scenarios for single-user mode, reconfiguration, basic multiple-user mode and utilize the different tools available in these environments. Troubleshoot network configurations and work with the VI Editor to modify system files.			

Training Objective	Obj Nos	Enabling Objectives	Time Breakdown		
			Theory	Practical	Total
Intermediate Solaris/NISP	5.1	Cover the location of the NISP specific scripts, apply the scripts in the right context and correctly troubleshoot server problems.	20	160	**180**
	5.2	Cover the specifics of the root account, ability to troubleshoot login problems and how to protect the root account.			
	5.3	Ability to identify situations which require server rescue, know about server rescue strategies and apply the available tools in an appropriate manner.			
Advanced working with ICC	6.1	Perform administrator tasks on an ICC Server. Know the ICC file locations and the structure.		135	**135**
	6.2	Install the Demo Database, know the function of the Demo Database and have a general overview of the DBAdmin Tool and its functions.			
Lecture by the Test Director for ICC	7.1	Knowledge of the history and operational function of ICC, identify user needs, and receive an overview of the future of ICC.	60		**60**
DBAdmin Tool	8.1	Ability to use the DBAdmin Tool Functions, identify problems with ICC databases, create, copy, modify, delete and upgrade databases, troubleshoot errors.	20	100	**120**
	8.2	Perform user management of the ICC database, change the permissions of the first user and unlock the database to the first user.			
Configuring ICC	9.1	Identify the site wide configuration needs. Know the location of files and structure of the Site-Wide-Configuration Editor.	20	160	**180**
	9.2	Work with the Configuration Editor, know the individual elements of site-wide-configuration and test their configuration changes. Know the difference between application, admin and user settings and locate the respective files.			
Database Management	10.1	Perform commands using the SQL Plus Tool to modify databases and server settings, change passwords and start/stop the Oracle server environment. Know the Database file locations.		135	**135**
	10.2	Use the backup and recovery routines of the Recovery Manager. Know the prerequisites of a successful			

Training Objective	Obj Nos	Enabling Objectives	Time Breakdown		
			Theory	Practical	Total
		backup and recovery and ability to recover the databases after a simulated crash.			
Advanced Solaris Commands for NISP ICC System Admins	11.1	Identify Coredumps and Crashdumps, analyze the issues and work with the appropriate Solaris tools..	30	285	**315**
	11.2	Mount external file systems, decide on permission issues, modify and edit the respective configuration files.			
	11.3	Apply the crontab routines, use the SSH tools and ability to perform remote logins to maintain clients and servers.			
Other admin tasks	13.1	jumpstart		180	**180**
	13.2	Configure Tomcat Server and ICCLink application, set up links and troubleshoot problems.			
ICC NISP Troubleshooting	14.1	Identify error messages (created by instructor modification) without further guidance except their notes, SIPs and SAMs, correct the errors and test the applications for their functionality.		90	**90**
	14.2	Identify system problems (created by instructor) and correct them without further guidance except their notes, SIPs and SAMs.			
Lecture by Customer Service Desk	15.1	Know the tasks, hours of operation and statistics of the customer service desk and which procedures are necessary to request assistance.	60		**60**
End of Course Test	16.1	Test of theoretical knowledge about all aspects of the NISP ICC Server and Client system.	30		**30**
Server down exercise	17.1	Experience a complete server down and apply knowledge to bring it up again.		100	**100**
Certificates	18.1	Students receive their certificates.			**20**

4 Publications, Equipment and Resources

Table 4 - Publications, Equipment and Resources

Serial Nos	Type	Equipment	Qty
1	Hardware	Projector	1

2	Hardware	Windows Computer for Instructor	1
3	Hardware	Solaris Computer for Instructor	1
4	Hardware	Workstations	13
5	Hardware	Monitors	13
6	Hardware	Hub	1
7	Hardware	Router	1
8	Course Media	NISP 3.6. Bootable Media ICC ISO immages Solaris 10 Media and Documents Oracle Media	15
9	Paper copies	NISP SIP	15
		NISP SAM	15
		ICC SIP	
		ICC SAM	
		Installation Plan Checklist	15
10	Paper copies	Printouts of slides	15

5 Assessment

5.1 Prerequisites

The students do not require any formal background.

5.2 Learning Assessment

This Combined NISP ICC System Administrator Course is based on learning by doing. Assessment of whether the student has reached the training objectives is performed in an active dialog between student and instructor, mainly during the practical exercises and labs, and by the student performing a multiple choice test.

6 Administration

6.1 Dress Code

Dress code is duty uniform in accordance with national rules for military personnel. For civilians casual office style is to be worn.

6.2 Security Clearance

All students must provide valid Security Clearance.

6.3 Accommodation

Students must arrange their own accommodation.

6.4 Transportation

Students must arrange their own transportation. There are no resources available at NCIA Glons to perform airport pickups etc.

6.5 Food and Drink

The cafeteria at NCIA Glons will be open for all students during their stay at NCIA Glons. They serve coffee, cakes or a hot meal during the lunch break. No breakfast or dinner is served at the NCIA Glons.

6.6 TAX Free Shopping

Students can use the NCIA Glons Ration Item Store during their visit providing that they provide a valid NATO Travel Order and they are at NCIA Glons for a minimum of 8 working days.

Annex A Acronyms

Acronyms used in this course include:

ACCS	Air Command and Control System
ASE	Aegis Site Emulator
CORBA	Common Object Request Broker Architecture
COSI	CORBA Service for ICC
GUI	Graphical User Interface
ICC	Integrated Command and Control
ISP	Interactive Simulation Package
LAN	Local Area Network
LDAP	Lightweight Directory Access Protocol
NADGE	NATO Air Defence Ground Environment
NATO	North Atlantic Treaty Organisation
NIS+	Network Information System Plus
NISP	NATO Integrated Solaris Platform
NIRIS	NATO Interoperable RASP Information System
NPC	NATO Programming Centre
SAM	System Administration Manual
SIP	Software Installation Plan
SRV	Server
TDL	Tactical Date Link
WAN	Wide Area Network