

# Preface

This document describes the Novell Directory Services™ (NDS™) functional specification. This document defines the functionality provided by NDS and describes how its different functions work.

## Prerequisites

This document assumes that the reader has an in-depth background in C programming, software engineering practices, and database technology. The purpose of this document is to describe the functioning of NDS, not to describe general database concepts or functions. It is written for at least a junior level engineer.

## Document Conventions

All numbers in this document are decimal, unless otherwise specified. Hexadecimal numbers are defined by a trailing 'h' (for example, 0FFh) or a preceding "0x" (for example, 0x0FF). Where bit fields within a byte are specified, bit 0 is assumed to be the low-order bit.

The following data types are defined:

byte	1-byte unsigned integer
char	1-byte ASCII character
offset	4-byte near offset of an Intel 80386/ 80486 address
uint8	1-byte unsigned integer
uint16	2-byte unsigned integer
uint32	4-byte unsigned integer
Ustring	Length-preceded, null-terminated Unicode string

Number fields composed of more than one byte can be in one of two formats: high-low or low-high. Unless otherwise noted, this document assumes an INTEL low-high byte order.

## Document Organization

This document is organized from the general NDS concepts to the more specific NDS concepts. The first four chapters explain general NDS concepts, environment, and architecture. The rest of the document is organized by NDS functionality and describes how NDS manages and accomplishes each of its functions. The following table describes the document organization by task.

<b>If you want to know about:</b>	<b>Look in:</b>	
Authentication		
Basic concepts	Chapter 1	NDS Concepts
Functioning of	Chapter 4	NDS Services
Bindery services		
Basic concept	Chapter 1	NDS Concepts
Functioning of	Chapter 4	NDS Services
Controlling access	Chapter 4	NDS Services
DSRepair	Appendix B	DSRepair Utility
Entries		
Defining	Chapter 1	NDS Concepts
Managing	Chapter 6	Managing Entries
NDS concepts	Chapter 1	NDS Concepts
NDS services	Chapter 4	NDS Services
Partitioning		
Basic concept	Chapter 1	NDS Concepts
Replicas		
Basic concept	Chapter 1	NDS Concepts
Resolving names	Chapter 5	Traversing the NDS Tree
Security	Chapter 4	NDS Services
Schema		<i>NDS Schema Specification</i>
Time synchronization	Chapter 4	NDS Services
Utilities		
DSRepair	Appendix B	DSRepair Utility
DSTrace	Appendix C	DSTrace Utility
Walking the tree	Chapter 5	Traversing the NDS Tree

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