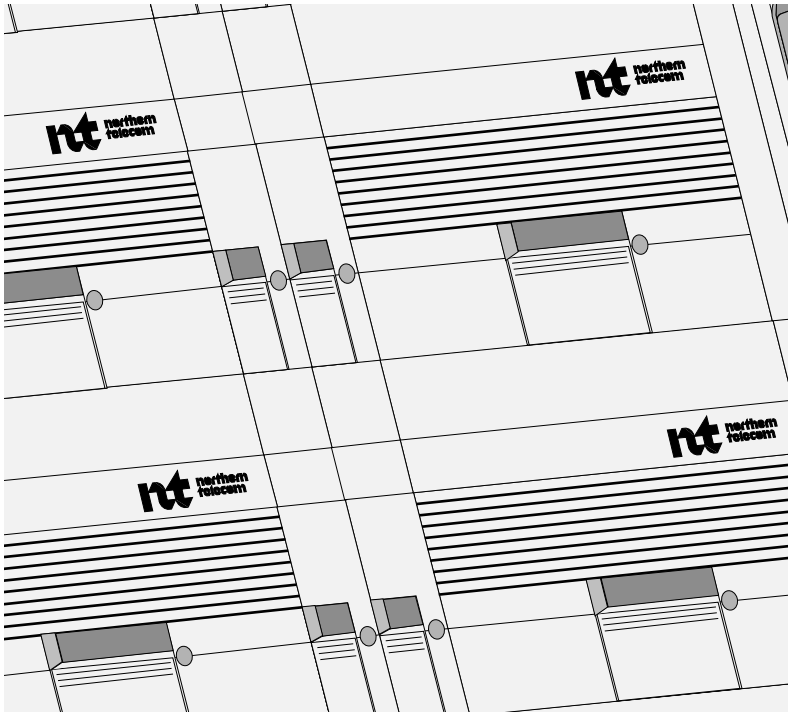
P0911072

SONET Products

AccessNode

Process Overview

Issue 1.0 October 1999



NORTEL NETWORKS™

SONET Products

AccessNode

Process Overview

Document release: Issue 1.0
Date: October 1999

Copyright © 1999 Nortel Networks, All Rights Reserved.

Printed in Canada

All information contained in this document is subject to change without notice. Nortel Networks reserves the right to make changes to equipment design or program components, as progress in engineering, manufacturing methods, or other circumstances may warrant.

ACCESSNODE, NORTEL, and NORTEL NETWORKS are trademarks of Nortel Networks Corporation.

Title page

Publication history

October 1999

AN17.20 Standard release of the document, Issue 1.0.

Contents

AccessNode Process Overview **1**
Step 1 Engineer the system 2
Step 2 Install the system 5
Step 3 Commission the system 7
Step 4 Provision the system 9
Step 5 Expand the system 12
Step 6 Maintain the system 13

AccessNode Process Overview

This guide helps you get your AccessNode system up and running by referencing related information in the Nortel Networks system of publications. The process has six major steps as follows:

1 ***Engineering*** — Plan the type of system that best suits your needs.

2 ***Installation*** — Install the system and connect the cables.

3 ***Commissioning*** — Start up the equipment.

4 ***Provisioning*** — Add the facility and equipment options and make sure they are functioning.

5 ***Expansion*** — Add, remove, upgrade, or transfer equipment or functions to customize your system.

6 ***Maintenance*** — Keep the system in operating condition.

Each step is described in detail on the following pages. Turn the page to get started.

Step 1 Engineer the system		
To do this task …	**Find information on …**	**In this publication …**
Determine the type of system you want: • VTBM • DFA • point-to-point • single-ended	Types of systems, topology, applications, and interfaces with host switches	*Configuration and Equipment Description*, 323-3001-100, in Volume 2A *AN17 Planning Guide*, NTR410LA, A0778676 (orderable)
	Installation, planning, site prerequisites	*Site Installation and Special Services Engineering*, 323-3001-200, in Volume 1
	Technical specifications	*System Specifications*, 323-3001-180, in Volume 2B *Line Card Specifications*, 323-3001-181, in Volume 2B
	Feature and application descriptions	*Protection Switching Description*, 323-3001-103, in Volume 2A *Alarms and Surveillance Description*, 323-3001-104, in Volume 2A *Performance Monitoring Description*, 323-3001-105, in Volume 2A *Line and Loop Testing Overview*, 323-3001-115, in Volume 2B
Choose an equipment packaging option: • ABM or TBM bay frame • modular business package (MBP) and modular power package (MPP) cabinets • Series 800A outside plant cabinet • modular cabinet (ModCab)	Hardware packaging (overview)	*Configuration and Equipment Description*, 323-3001-100, in Volume 2A

Step 1 Engineer the system (continued)		
To do this task …	**Find information on …**	**In this publication …**
Choose an equipment packaging option (continued)	Equipment shelves	*Signal Flow and Circuit Pack Description,* 323-3001-102, in Volume 2A
	Bay configurations	*Bay in Central Office Installation Manual—ABM,* 323-3001-201, P0911128 (spiral-bound) *Bay in Central Office Installation—TBM*, 323-3001-202, P0887754 (spiral-bound) *AccessNode Multiple ABMs in a Bay (NT4K03CA) QRC*, P0891391 (orderable)
	MBP cabinets	*Modular Business Package Description,* 323-3001-110, P0887756 (orderable) *MBP Site Installation Planning and Engineering,* 323-3001-200 Addendum 1, P0911127 (orderable) *MBP VTBM Ring Installation Guide*, P0887758 (orderable)
	Series 800A cabinets	*Series 800A Outside Plant Cabinet Description,* 323-3001-118, P0887760 (orderable)
	ModCab features, planning, and installation	*Modular Cabinet Description*, 323-3001-119, P0887762 (orderable) *Modular Cabinet Installation Guide*, 323-3001-211, P0887761 (orderable)
	Line card requirements	*Line Card Application and Special Services Engineering,* 323-3001-155, in Volume 1

Step 1 Engineer the system (continued)		
To do this task …	**Find information on …**	**In this publication …**
Plan the installation of a new AccessNode system or expansion of an existing system	Network traffic engineering cabinet requirements	*Traffic and Bandwidth Engineering Information,* 323-3001-152, P0904247 (spiral-bound) ***Note:*** Traffic tool information is located on the Helmsman and Multimedia CD-ROMs.
	Planning DS1, DS3, STS-1, OC-3, and OC-12 mapper locations	*Mapper Layouts Planning Guide,* 323-3001-154, in Volume 1 *Group and Slot Quick Reference Card*, P0887751 (in most binders)
Order a new AccessNode system or spare parts for an existing system	Ordering information and parts lists	*Engineering and Ordering Information,* 323-3001-032, in Volume 1

Step 2 Install the system		
To do this task …	**Find information on …**	**In this publication …**
Install a new AccessNode system	ABM installation	*Bay in Central Office Installation Manual—ABM,* 323-3001-201, P0911128 (spiral-bound) *ABM Bay Cable Connection Quick Reference Guide*, P0887749 (orderable) *AccessNode Multiple ABMs in a Bay (NT4K03CA) Quick Reference Card*, P0891391 (orderable)
	TBM installation	*Bay in Central Office Installation Manual—TBM,* 323-3001-202, P0887754 (spiral-bound)
	MBP installation	*Modular Business Packaging Installation Manual,* 323-3001-206, P0887757 (orderable) *MBP VTBM Ring Installation Guide*, P0887758 (orderable) *MBP VTBM Ring User Guide*, P0904244 (orderable) *AT&T Local Services Modular Business Package Installation Quick Reference Card*, P0887585 (orderable)
	Series 800A outside plant cabinet installation	*Series 800A Outside Plant Cabinet Installation Manual,* 323-3001-210, P0887761 (orderable)
	Modular Cabinet description and installation	*Modular Cabinet Description*, 323-3001-119, P0887762 (orderable) *Modular Cabinet Installation Guide*, 323-3001-211, P0887763 (orderable)

Step 2 Install the system (continued)		
To do this task …	**Find information on …**	**In this publication …**
Install a new AccessNode system (continued)	AN2016 outside plant cabinet installation	*AN2016 Cabinet User Guide*, P0905277 (orderable)
	Step-in outside plant cabinet installation	*Step-in Cabinet User Guide*, P0905278 (orderable)

Step 3 Commission the system		
To do this task …	**Find information on …**	**In this publication …**
Set up: • Commissioning • Initial provisioning • Initial testing	Setting up a VTBM system	*Setting Up Your System: VTBM,* 323-3001-230, in Volume 3A (spiral-bound)
	Setting up a DFA system	*Setting Up Your System: DFA,* 323-3001-235, in Volume 3A (spiral-bound)
	Setting up a Point-to-point system	*Setting Up Your System: Point-to-Point,* 323-3001-240, in Volume 3A (spiral-bound)
	Setting up a Single-ended system	*Setting Up Your System: Single-Ended,* 323-3001-245, in Volume 3A (spiral-bound) *MCOT to ABM Commissioning Reference Guide*, P0903573 (orderable)

Step 3 Commission the system (continued)		
To do this task …	**Find information on …**	**In this publication …**
Test the facility and equipment commissioned	Installing and testing MPP rectifiers, OPC software on a remote OPC; OPC Ethernet ports; and optional commissioning procedures	*Optional Commissioning Procedures,* 323-3001-220, in Volume 3B
	Testing one NE	*Site Testing Procedures,* 323-3001-221, in Volume 3B
	Testing a system	*System Testing Procedures,* 323-3001-222, in Volume 3B
	Line/loop testing systems	*Line Test Interface Commissioning Procedures,* 323-3001-223, in Volume 3B
	Testing a DFA system	*DS1 Feeder Testing Procedures,* 323-3001-225, in Volume 3B
	Testing line cards	*Line Card Testing Procedures,* 323-3001-316, in Volume 4B
	Technicians' quick guide	*Bay Quick Reference Guide,* NT4K00KG/A0746248 (orderable)

Step 4 Provision the system		
To do this task …	**Find information on …**	**In this publication …**
Provision a VTBM, DFA, point-to-point, or single-ended system	Initial provisioning (as part of commissioning)	Refer to setup guides in "3 Commissioning" above
	System administration	*System Administration Procedures,* 323-3001-302, in Volume 4A
	OPC databases	*Data Administration Procedures,* 323-3001-304, in Volume 4A
	Protection switching	*Protection Switching Procedures,* 323-3001-311, in Volume 4B
	Line card services	*Line Card Provisioning Procedures,* 323-3001-315, in Volume 4B *Line Card Testing Procedures,* 323-3001-316, in Volume 4B
	Quick reference	*Provisioning Quick Reference Guide*, P0887750 (spiral-bound)
	Associations between group numbers and slots, and mappers and I/O cards	*Group and Slot Quick Reference Card*, P0887751
	Using the TL1 interface	*TL1 Interface Description*, 323-3001-190, P0904250 (spiral-bound) *TL1 Commands at the Command Line Quick Reference Card*, P0904352 (orderable) *TL1 Enhanced Security Quick Reference Guide*, P0909010 (spiral-bound)
	Using the Network Element user interface	*Network Element User Interface Description*, 323-3001-300, in Volume 4A
	Using the OPC user interface	*OPC User Interface Description*, 323-3001-301, in Volume 4A

Step 4 Provision the system (continued)		
To do this task …	**Find information on …**	**In this publication …**
Provision a VTBM, DFA, point-to-point, or single-ended system (continued)	Connections at the OPC, line card services, log and alarm setting modifications, OC-12 rings, OPC	*Provisioning and Operations Procedures,* 323-3001-310, in Volume 4B: Ch 2 Setting Up Point-to-Point Configurations Ch 3 Setting Up VTBM Ring Configurations Ch 12 Setting Up Connections at the OPC
	Timing and synchronization	*Provisioning and Operations Procedures,* 323-3001-310, in Volume 4B: Ch 4 Timing Reference and Synchronization Procedures
	Provisioning equipment and facilities	*Provisioning and Operations Procedures,* 323-3001-310, in Volume 4B: Ch 5 Provisioning and Deprovisioning Equipment Ch 6 Provisioning and Deprovisioning a Facility Ch 7 Displaying and Querying Equipment Parameters Ch 8 Displaying and Querying Facility Parameters *Nodal Connection Manager Quick Reference Guide*, P0905495 (orderable) *Mix and Match DFA Reconfiguration Quick Reference Guide*, P0911073 (orderable)

Step 4 Provision the system (continued)		
To do this task …	**Find information on …**	**In this publication …**
Provision a VTBM, DFA, point-to-point, or single-ended system (continued)	Public switching telephone network (PSTN) & line adjustment (LNADJ) command interpreter (CI) tools	*Provisioning and Operations Procedures,* 323-3001-310, in Volume 4B: Ch 9 Using the PSTNCI Tool Ch 10 Using the LNADJCI Tool
	Hosts for a remote fiber terminal (RFT)	*Provisioning and Operations Procedures,* 323-3001-310, in Volume 4B: Ch 11 Provisioning Hosts for a Remote Fiber Terminal
	Alarms	*Provisioning and Operations Procedures,* 323-3001-310, in Volume 4B: Ch 13 Provisioning OPC Alarms Ch 15 Monitoring Alarms
	VTBM configuration data	*Provisioning and Operations Procedures,* 323-3001-310, in Volume 4B: Ch 14 Managing VTBM Ring Configurations
	Equipment & facility in-service & out-of-service states	*Provisioning and Operations Procedures,* 323-3001-310, in Volume 4B: Ch 16 Changing Operating States

Step 5 Expand the system		
To do this task …	**Find information on …**	**In this publication …**
Test the facility and equipment provisioned	Testing a new system	Refer to testing documents listed in "3 Commission the System," above
Add, remove, upgrade, or transfer features, elements, or equipment in the system	Additions/removals in DS1, DS3, and STS-1; system conversions; packaging; and ESI cards	*System Expansion Procedures,* 323-3001-324, in Volume 4C (spiral-bound)
	OPC span of control consolidation	*Span of Control Consolidation*, P0887941, in Volume 4C (spiral-bound)
	Nodes in a VTBM ring	*Addition of AN Nodes in a VTBM Ring*, P0887942, in Volume 4C (spiral-bound) *Removal of AN Nodes in a VTBM Ring*, P0887943, in Volume 4C (spiral-bound)
	Incremental software delivery	*AccessNode Incremental Software Delivery Quick Reference Guide*, P0904353

Note: When upgrading your system, contact your Nortel Networks representative for the latest version of the appropriate Change Application Procedure (CAP).

Step 6 Maintain the system		
To do this task …	**Find information on …**	**In this publication …**
Perform system maintenance	Network surveillance	*Network Surveillance Procedures,* 323-3001-510, in Volume 5C
	Performance monitoring	*Performance Monitoring Procedures,* 323-3001-520, in Volume 5C
	Clearing alarms and trouble reports	*Alarm and Trouble Clearing Procedures,* 323-5001-543, in Volume 5A
	Manual and automatic system recovery	*Recovery Procedures,* 323-3001-545, in Volume 5C
	Routine maintenance	*Routine Maintenance Procedures,* 323-3001-546, in Volume 5C *MBP VTBM Ring User Guide*, P0904244 (orderable)
	Replacing modules	*Module Replacement Procedures,* 323-3001-547, in Volume 5C
	Circuit testing	*Circuit Testing from the OPC User Interface,* 323-3001-548, in Volume 5C *Installing or Replacing the Digital Test Access Pair Quick Reference Card*, P0904831
	Log reports	*Log Report Manual,* 323-3001-840, in Volume 5B
	Technical support	*Technical Support Reference Card*, P0887752 (in most binders)

SONET Products

AccessNode

Process Overview

Copyright © 1999 Nortel Networks, All Rights Reserved.

All information contained in this document is subject to change without notice. Nortel Networks reserves the right to make changes to equipment design or program components, as progress in engineering, manufacturing methods, or other circumstances may warrant.

ACCESSNODE, NORTEL, and NORTEL NETWORKS are trademarks of Nortel Networks Corporation.

Document release: Issue 1.0

Date: October 1999

Printed in Canada

NORTEL NETWORKS™