

# Detailed Revision History: Basic Telecommunications (v6.0P)

This detailed revision history document identifies the differences between Basic Telecommunications version 5.1P (released June 2002) and Basic Telecommunications version 6.0P (released May 2003).

## Detailed Revision History

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### All Lessons

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Added: Errata

Added: Course Assessment materials (Instructor Guide)

Added: All new Figures

Revised: All content changed to reflect current technologies

Revised: All Figures named and numbered

Added: Lesson 10: Application Analysis

### Lesson 1

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#### Objectives

Revised: *Lesson Objectives*

#### Lesson 1: Overview

Removed: Content

Added: Updated Content, including new Pre-Assessment questions, new Figures, new Tech Terms, new Lesson Summary, new Review Questions, new Instructor Section material

### Lesson 2

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Renamed: Lesson renamed *Customer Premise Equipment (CPE)* from *Business Systems*

#### Objectives

Revised: *Lesson Objectives*

Updated: Pre-Assessment Questions

### Station Sets

Updated: Content

Updated: Tech Term *Station Set, On-hook, Off-hook,*

Removed: Tech Term *Pulse Code Modulation (PCM)*

Added: Sections *Transmission Functions, Signaling Functions, Signaling on Analog Station Sets, Signaling on Digital Station Sets and Operation of Sophisticated Station Sets*

Added: Tech Terms *Touch-tone, in-band signaling, out-band signaling, voice band, message-oriented signaling and stimulus signaling*

Removed: Section *Centrex and the Telco*

### Key Systems

Added: Content from Lesson 3: *Customer Premise Equipment (CPE)*

Updated: Content

Added: Tech Term *Key Telephone System (KTS), Hybrid Key System*

Renamed: *Private Branch Exchange* to *Private Branch Exchange (PBX)*

### Private Branch Exchange (PBX)

Updated: Content

Added: Tech Term *Private Branch Exchange (PBX)*

Added: Sections *Outbound Calling Features and Inbound Calling Features*

Removed: Tech Terms *Automated Call Distribution (ACD) and Station Message Detail Recording (SMDR)*

Added: Section *Centrex—Virtual PBX*

Removed: Section *Key and Hybrid Systems*

Removed: Section *Comparison of Services*

Removed: Section *ISDN*

Updated: Lesson Summary, Lesson Review and Instructor materials

## Lesson 3

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Renamed: Lesson renamed *Services* from *Customer Premise Equipment (CPE)*

### Objectives

Revised: *Lesson Objectives*

Updated: Pre-Assessment Questions

Moved: Content from Lesson 4: *Services* to Lesson 3

## Introduction

Updated: Content

Added Tech Terms *Flat Rate Local Service, Measured Rate Local Service, Message Rate Local Service, Zoned Billing Local Service, Flat Rate Toll Billing and Access Charge*

Added: Sections *Calling the United Kingdom, Making International Phone Calls, Placing A Long Distance Call From The United Kingdom and Placing A Long Distance Call From North America*

## Service Basics

Updated: Content

Added: Tech Terms *Translation Table, Combo Trunk, Listed Directory Number (LDN), Direct Outward Dialing (DOD), Outdial, Switched Access, Dedicated Access and Competitive Access Provider (CAP)*

Added: Line and Trunk Features

## Dedicated Services

Updated: Content

Added: Section *E-Carrier Speeds*

## Service Providers

Updated: Content

Added: Tech Terms *Point Of Presence (POP) and Multiplexer*

Added: Specialized Services

Updated: Lesson Summary, Lesson Review and Instructor material

## Lesson 4

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Renamed: Lesson renamed *Analog Concepts* from *Services*

Moved: Content from Lesson 5: *Analog Concepts* to Lesson 4

### The Voice Signal

Updated: Content

Added: Tech Term *Transduction*

### Transmission Variables

Updated: Content

### Multiplexing

Updated: Content

### FDM

Updated: Content

Instructor Section (Instructor Guide only)

Renamed: *Activity 5-1: Analog Concepts Critical Thinking Questions* to *Activity 4-1: Reviewing Analog concepts*

## Lesson 5

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Renamed: Lesson renamed *Digital Concepts* from *Analog Concepts*

Moved: Content from Lesson 6: *Digital Concepts* to Lesson 5

Advantages of Digital Technology

Updated: Content

Digital Transmission

Updated: Content

Pulse Code Modulation

Updated: Content

Added: Table 5-1 to Section

Digital Voice Transport

Updated: Content

Added Tech Term *Time Division Multiplexing (TDM)*

Added: *Time Division Multiplexing* Section

Optical Standards

Updated: Content

Added: Sections *Synchronous Digital Hierarchy (SDH)* and *Measuring SONET, SDH and Optical Carrier (OC) Speeds*

Instructor Section (Instructor Guide only)

Renamed: *Activity 6-1: Digital Concepts Critical Thinking Questions* to *Activity 4-1: Reviewing Digital concepts*

## Lesson 6

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Renamed: Lesson renamed *Networks* from *Digital Concepts*

Objectives

Revised: *Lesson Objectives*

Updated: Pre-Assessment Questions

Moved: Content from Lesson 7: *Networks* to Lesson 6

Telecommunications Networks

Updated: Content

The Flexibility Of Computer Technology

Updated: Content

Current Network Structure

Updated: Content

Renamed: Tech term *IntraLATA Calls* to *IntraLATA*

The Exchange/Central Office

Updated: Content

Cellular Networks

Updated: Content

Internet Telephony

Updated: Content

Renamed: Tech Term *TCP/IP* to *Transmission Control Protocol/Internet Protocol (TCP/IP)*

Added: Section *Voice Over Cable Application*

Instructor Section (Instructor Guide only)

Renamed: *Activity 7-1: Networks Critical Thinking Questions* to *Activity 6-1: Reviewing Telecommunications Network*

## Lesson 7

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Renamed: Lesson renamed *Transmission* from *Networks*

Objectives

Revised: *Lesson Objectives*

Updated: Pre-Assessment Questions

Moved: Content from Lesson 8: *Transmission* to Lesson 7

A Simple Transmission Network

Updated: Content

What Are Transmission Media?

Updated: Content

Added: Tech Term *Full-Duplex*

Renamed: *Two-Channel Media* to *Two-Wire Analog Media*

Two-Wire Analog Media  
Updated: Content

Renamed: *Multicircuit Media* to *Multicircuit Media and Systems*

Multicircuit Media and Systems  
Updated: Content  
Added Tech Terms *Alternate Mask Inversion (AMI)*, *2-binary*, *1-quaternary (2B1Q)*,  
*Baud* and *Baud Rate*

Removed: Sections *The Voice Signal* and *Digital Signals*

Instructor Section (Instructor Guide only)  
Renamed: *Activity 8-1: Transmissions Critical Thinking Questions* to *Activity 7-1:  
Reviewing Telecommunications Transmission*

## Lesson 8

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Renamed: Lesson renamed *Signaling* from *Transmission*

Objectives  
Revised: *Lesson Objectives*

Moved: Content from Lesson 9: *Signaling* to Lesson 8

Basic Types Of Signaling  
Updated: Content

Removed: *Signal Transmission*

Supervisory Signaling  
Updated: Content  
Added Tech Terms *E&M Lead Signaling*

Removed: Sections *In-Band Interswitch Signaling*, *Digital Process*, *Address Signaling*, *Out-of-Band Signaling*,

Added: Sections *Start-Dial Signals*, *Address Signaling*, *Incoming Call Indication* and *Common Channel Signaling*

Renamed: *SS7* to *Signaling System 7*

Signaling System 7  
Updated: Content

Added: Section *Identifying the Signaling Interface*

Instructor Section (Instructor Guide only)

Renamed: *Activity 9-1: Signaling Critical Thinking Questions* to *Activity 8-1: Reviewing Telecommunications Signaling*

## Lesson 9

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Renamed: Lesson renamed *Switching* from *Signaling*

Moved: Content from Lesson 10: *Switching* to Lesson 9

Added: Section *Introduction To Switching*

Analog Switches

Updated: Content

Time-Division Switching

Updated: Content

CO Digital Switches

Updated: Content

Added: Table 9-1

Renamed: *Optical Signals* to *Optical Signal Switching*

Optical Signal Switching

Updated: Content

Instructor Section (Instructor Guide only)

Renamed: *Activity 10-1: Switching Critical Thinking Questions* to *Activity 9-1: Reviewing Telecommunications Switching*