

# Signaling System (SS7) Fundamentals



<b>Course Length</b>	1 day
<b>Course Code</b>	NFSSS71
<b>Prerequisites</b>	None, however an Introduction to Data technologies course is extremely helpful.
<b>Course Overview:</b>	This course gives an overview of SS7 technology and standards. All SS7 equipment, links, protocols, and service parameters are discussed.

\*This course can be customized or combined to meet specific requirements

\*Second day can be added for extensive hands-on applications

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## Course Outline

### Signaling Overview

- Purpose of Signaling
- In-Band Signaling
- Out-of-Band Signaling
- Common Channel Signaling (CCS)
- Background of SS7
- Comparison to other technologies
- Industry Trends
- Standards

### SS7 Overview

- The Intelligent Network (IN)
- Technology overview
- Features
- Benefits

### SS7 Equipment

- SSP
- STP
- SCP
- Links



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## **SS7 Protocols**

- MTP (1, 2, 3)
- ISUP
- SNM
- SCCP/TCAP

## **SS7 Maintenance**

- Link Monitoring
- Message Analysis
- Call Tracing

## **SS7 Messages/Terms**

- FISU, MSU, LSSU
- FCS/CRC
- ACM, IAM, ANM, RLC, REL
- DPC/OPC
- Cause Codes

## **SS7 in the Future**

- Next Steps for Intelligent Signaling Networks
- Interaction w/ VoIP