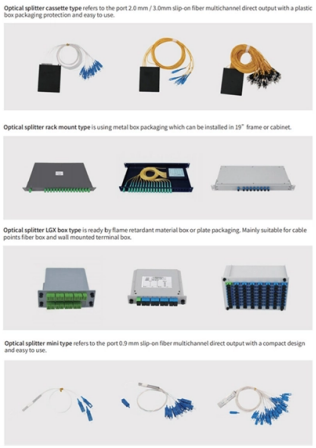
# Mobile Subscriber Access Switch




## Overview

Part A: Mobile Subscriber Equipment equipment include a network access switch for wire subscribers, automatic switching service for wire and mobile subscri.

## Key Takeaways

A Mobile Subscriber Access Switch is a key component of the Mobile Subscriber Equipment (MSE) network that provides automatic switching and connectivity for mobile and static subscribers across tactical communication networks.

## Overview

The Mobile Subscriber Access Switch functions as part of the Node Center Switch (NCS) backbone in the MSE system, which was designed to provide secure, automatic voice, data, and facsimile communications for U. S. Army units from battalion to corps level.

It enables mobile subscribers, such as those using Mobile Subscriber Radiotelephone Terminals (MSRTs), to connect seamlessly to the network through Radio Access Units (RAUs), while static subscribers connect via wireline extensions.

## Structure and Components

The access switch is typically housed in shelters mounted on High Mobility Multipurpose Wheeled Vehicles (HMMWVs), allowing rapid deployment and mobility. It consists of: Switching Shelter: Provides external interfaces, circuit switching, and routing functions. Operations Shelter: Contains central processing units and operator interfaces for network management.

*© 2026 EXF OPTICAL NETWORKS - All rights reserved*

Power Supply: Trailer-mounted diesel generators (PU-753) supply power to the switch assemblies.

### Network Integration

The access switch connects to Large Extension Nodes (LENs) and Small Extension Nodes (SENs), which serve as local call switching centers for command posts and brigade-level units.

### The RA

Us link mobile subscribers to these nodes, allowing automatic handoff as users move between coverage areas without dropping calls. The system uses flood search routing, which dynamically selects the optimal path for each call, avoiding congested or failed routes.

### Capabilities

Supports voice, data, and facsimile communications for thousands of subscribers. Provides automatic call routing and directory services. Integrates with other tactical networks, including TRI-TAC and SINCGARS, for extended communication capabilities.

Can serve a corps-level network with up to 26,100 subscribers, including digital voice, mobile radio, and data terminals.

### Summary

The Mobile Subscriber Access Switch is a centralized yet mobile switching hub that ensures reliable, secure, and automatic connectivity for both mobile and static users in a tactical environment. By linking RAUs, LENs, SENs, and the NCS, it forms the backbone of the MSE network, enabling seamless communication across large operational areas.

## Article Content

Part A: Mobile Subscriber Equipment

equipment include a network access switch for wire subscribers, automatic switching service for wire and mobile subscribers, secure digital voice orderwire, and interface for combat net radio

Mobile Subscriber Equipment — Grokipedia

The core components of Mobile Subscriber Equipment (MSE) form a modular, transportable infrastructure designed for tactical battlefield communications, integrating digital switching, radio

MOBILE SUBSCRIBER EQUIPMENT (MSE)

*© 2026 EXF OPTICAL NETWORKS - All rights reserved*

The system supports both mobile and wire subscribers with the means to exchange communications, data, and intelligence information in a dynamic tactical environment.

Mobile Subscriber Equipment (MSE) Operations

MSE provides voice and data communications on an automatic, discrete-addressed, fixed-directory basis using the flood search routing technique. MSE supports mobile and wire subscribers with a

MOBILE SUBSCRIBER EQUIPMENT (MSE)

The MSE system will provide users with a means of communicating throughout the battlefield, regardless of location, in either a static or mobile situation. The system will significantly reduce the

Mobile Subscriber Equipment

MSE, produced by General Telephone and Electronics (GTE), was a fully automatic, secure radiotelephone switching system that could be used by both mobile and static subscribers.

FM 11-55 CHAPTER 1

MSE is a common-user, switched communications system of linked switching nodes. The nodes form a grid that provides the force with an area common-user system (ACUS). It is one of the major...

Network switching subsystem

It is owned and deployed by mobile phone operators and allows mobile devices to communicate with each other and telephones in the wider public switched telephone network (PSTN).

Introduction To GSM GSM Network Components Mobile Services

It describes the Mobile Services Switching Centre (MSC) which performs call switching and controls mobility management.

Public switched telephone network

Automation introduced pulse dialing between the telephone and the exchange so that each subscriber could directly dial another subscriber connected to the same exchange, but long-distance calling

What Is a Mobile Switching Center? | emnify Blog

A Mobile Switching Center is a component of 2G and 3G cellular networks that approves or rejects communications from one device to another.

*© 2026 EXF OPTICAL NETWORKS - All rights reserved*

MOBILE SUBSCRIBER EQUIPMENT (MSE)

Throughout the maneuver area, subscribers connect to local call switching centers by radio or wire. These switches, or extension nodes provide access to the network by connecting to the

Home | Best Prepaid, Postpaid Plans, WiFi Connection

Jio is India''s largest telecom network for customers and businesses. Jio offers Postpaid and Prepaid Connections, WiFi plans, Jioapps, & more. Join us today!

MOBILE SUBSCRIBER EQUIPMENT (MSE)

MOBILE SUBSCRIBER EQUIPMENT (MSE) SYNOPSIS: MSE SYSTEM WILL INTEGRATE THE FUNCTIONS OF THE USER TERMINAL EQUIPMENT, SWITCHING, RADIO TRANSMISSION,

Cellular Concepts

The GSM network is divided into four major systems − The switching system also called as Network and Switching System (NSS), is responsible for performing call processing and subscriber-related functions.

About the Visitor Location Register (VLR)

About the Visitor Location Register (VLR) The Visitor Location Register (VLR) forms a vital part in mobile telecommunications networks. It serves as a temporary database that stores subscriber information

HLR and VLR in Mobile Networks: A Reference Guide

6. HLRs are used by the Mobile Switching Centers (MSCs) to originate and deliver arriving mobile calls. HLR Redundancy When a single HLR fails, all subscribers with records in that HLR will not be able

Mobile Subscriber Equipment | Military Wiki | Fandom

The Mobile Subscriber Equipment (MSE) system was a pioneering tactical telephony system for mobile users, somewhat akin to today''s mobile telephony systems, created by General Dynamics for the

*© 2026 EXF OPTICAL NETWORKS - All rights reserved*

## Contact Us

Continue your research online:

Website: https://explosivefunctions.co.za
Technical inquiry: https://explosivefunctions.co.za/contact.html
EU project coordination: Parque das Nações, Lisbon, Portugal

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

© 2026 EXF OPTICAL NETWORKS - All rights reserved