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Global Signaling System Number Seven (SS7) Market 2025 by Company, Regions, Type and Application, Forecast to 2031

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Abstracts

According to our (Global Info Research) latest study, the global Signaling System Number Seven (SS7) market size was valued at US$ million in 2024 and is forecast to a readjusted size of USD million by 2031 with a CAGR of %during review period.

Signaling System Number Seven (SS7) is a set of telephony signaling protocols that are used to set up most of the world's public switched telephone network (PSTN) telephone calls. SS7 primarily sets up and tears down telephone calls, but other uses include number translation, prepaid billing mechanisms, local number portability, short message service (SMS), and a variety of mass-market services.

The global Signaling System Number Seven (SS7) market refers to the telecommunications infrastructure and protocols used for signaling and communication between network elements in a telecommunication network. SS7 is a set of signaling protocols that enable the exchange of control information for establishing connections, routing calls, and delivering value-added services in a telecommunication network.

Here are some key insights into the global SS7 market:

Market Size and Growth: The SS7 market has been growing steadily due to the increasing demand for reliable and secure signaling systems in telecommunication networks. With the growth of mobile communications, voice-over-IP (VoIP) services, and the transition to 5G networks, the need for efficient and robust signaling protocols has become even more crucial. The market is expected to continue growing as telecom operators and service providers invest in upgrading their network infrastructure.

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SS7 Network Components: The SS7 network consists of several key components that facilitate signaling and communication between network elements. These components include:

Signaling Points (SP) or Signal Transfer Points (STP): These are network elements responsible for routing and relaying signaling messages between various nodes in the telecommunication network. STPs play a crucial role in ensuring efficient and secure signaling between different networks.

Service Control Points (SCP): SCPs are databases that store subscriber and service-related information. They enable advanced services such as intelligent call routing, prepaid billing, number portability, and services like short message service (SMS) and multimedia messaging service (MMS).

Service Switching Points (SSP): SSPs are responsible for the actual switching or routing of voice calls and other services within the telecommunication network. They use SS7 signaling to establish and manage connections between different SSPs in the network.

Home Location Register (HLR) and Visitor Location Register (VLR): HLR and VLR are databases that store subscriber-related information, including location information, roaming status, and authentication data. They are used for managing subscriber mobility and authentication in mobile networks.

Media Gateway Control Function (MGCF): MGCF is responsible for interfacing between SS7-based signaling networks and IP-based networks, such as VoIP networks or 4G/5G networks. It enables the seamless transition between circuit-switched and packet-switched networks.

Use Cases and Applications: SS7 technology is used in various applications within telecommunication networks, including:

Call routing and setup: SS7 facilitates the establishment of voice calls by signaling the necessary information between network elements, including calling and called party identification, call routing preferences, and service requirements.

Roaming and mobility management: SS7 enables subscriber mobility between different networks and facilitates the seamless execution of services, such as roaming, handovers between cells, and location updates.

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Value-added services: SS7 supports the provision of advanced services, including intelligent call routing, prepaid billing, number portability, caller ID, and SMS/MMS services.

Security and fraud prevention: SS7 protocols are used to implement security mechanisms, such as authentication, encryption, and signaling message validation to mitigate the risk of fraud and unauthorized access to network resources.

Interconnection between networks: SS7 ensures interoperability and signaling compatibility between different telecommunication networks, allowing for efficient interconnection and seamless communication between operators.

Emergency services: SS7 plays a critical role in facilitating emergency calls by providing signaling information, location data, and priority handling to emergency service centers.

Emerging Trends: The SS7 market is evolving to address emerging trends and challenges in the telecommunications industry. Some notable trends include:

Signaling System Number 7 over IP (SIGTRAN): SIGTRAN is an evolution of SS7 that enables the transport of SS7 signaling messages over IP networks. It allows for the convergence of circuit-switched and packet-switched networks and enables the transition to next-generation networks (NGNs) and all-IP networks.

Security enhancements: As SS7 vulnerabilities and the risk of signaling attacks have become more prominent, there is a growing focus on implementing security measures, such as firewall protection, signaling monitoring systems, and encryption technologies, to safeguard against unauthorized access and fraud.

Diameter signaling: Diameter is a successor to SS7 and is used in 4G and 5G networks for signaling and authentication purposes. The market is witnessing increased adoption of Diameter-based solutions and interfaces to support the growth of mobile broadband and the Internet of Things (IoT).

Network Function Virtualization (NFV) and Software-Defined Networking (SDN): NFV and SDN technologies are being employed to virtualize and automate SS7 network components, making it more flexible, scalable, and cost-effective to deploy and manage signaling infrastructure.

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Enhanced services and convergence: The market is witnessing the development of new services and solutions that integrate SS7 signaling with other technologies, such as VoIP, cloud-based communications, and messaging platforms, to offer more seamless and integrated communication experiences.

The global SS7 market is expected to continue growing as telecommunication networks evolve to support advanced services, higher network capacities, and increased security requirements. As the industry transitions to 5G networks and beyond, SS7 will continue to play a crucial role in enabling reliable, secure, and efficient signaling for a wide range of telecommunications applications.The global Signaling System Number Seven (SS7) market refers to the telecommunications infrastructure and protocols used for signaling and communication between network elements in a telecommunication network. SS7 is a set of signaling protocols that enable the exchange of control information for establishing connections, routing calls, and delivering value-added services in a telecommunication network.

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This report is a detailed and comprehensive analysis for global Signaling System Number Seven (SS7) market. Both quantitative and qualitative analyses are presented by company, by region & country, by Type and by Application. As the market is

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constantly changing, this report explores the competition, supply and demand trends, as well as key factors that contribute to its changing demands across many markets. Company profiles and product examples of selected competitors, along with market share estimates of some of the selected leaders for the year 2025, are provided.

Key Features:

Global Signaling System Number Seven (SS7) market size and forecasts, in consumption value ($ Million), 2020-2031

Global Signaling System Number Seven (SS7) market size and forecasts by region and country, in consumption value ($ Million), 2020-2031

Global Signaling System Number Seven (SS7) market size and forecasts, by Type and by Application, in consumption value ($ Million), 2020-2031

Global Signaling System Number Seven (SS7) market shares of main players, in revenue ($ Million), 2020-2025

The Primary Objectives in This Report Are:

To determine the size of the total market opportunity of global and key countries
To assess the growth potential for Signaling System Number Seven (SS7)
To forecast future growth in each product and end-use market
To forecast future factors affecting the marketplace

This report profiles key players in the global Signaling System Number Seven (SS7) market based on the following parameters - company overview, revenue, gross margin, product portfolio, geographical presence, and key developments. Key companies covered as a part of this study include Oracle Corporation, Mitel Networks Corporation, Tieto, NetNumber Inc, Ribbon Communications, Ericsson AB, Dialogic Corporation, Huawei Technologies Co. Ltd, TNS Inc, PCCW Global, etc.

This report also provides key insights about market drivers, restraints, opportunities, new product launches or approvals.

Market segmentation

Signaling System Number Seven (SS7) market is split by Type and by Application. For

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the period 2020-2031, the growth among segments provides accurate calculations and forecasts for Consumption Value by Type and by Application. This analysis can help you expand your business by targeting qualified niche markets.

Market segment by Type

Solution

SS7 Firewall

Market segment by Application

Public Switched Telephone Network

Cellular Networks

Market segment by players, this report covers

Oracle Corporation

Mitel Networks Corporation

Tieto

NetNumber Inc

Ribbon Communications

Ericsson AB

Dialogic Corporation

Huawei Technologies Co. Ltd

TNS Inc

PCCW Global

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Market segment by regions, regional analysis covers
North America (United States, Canada and Mexico)
Europe (Germany, France, UK, Russia, Italy and Rest of Europe)
Asia-Pacific (China, Japan, South Korea, India, Southeast Asia and Rest of Asia-Pacific)
South America (Brazil, Rest of South America)
Middle East & Africa (Turkey, Saudi Arabia, UAE, Rest of Middle East & Africa)

The content of the study subjects, includes a total of 13 chapters:

Chapter 1, to describe Signaling System Number Seven (SS7) product scope, market overview, market estimation caveats and base year.

Chapter 2, to profile the top players of Signaling System Number Seven (SS7), with revenue, gross margin, and global market share of Signaling System Number Seven (SS7) from 2020 to 2025.

Chapter 3, the Signaling System Number Seven (SS7) competitive situation, revenue, and global market share of top players are analyzed emphatically by landscape contrast.

Chapter 4 and 5, to segment the market size by Type and by Application, with consumption value and growth rate by Type, by Application, from 2020 to 2031

Chapter 6, 7, 8, 9, and 10, to break the market size data at the country level, with revenue and market share for key countries in the world, from 2020 to 2025.and Signaling System Number Seven (SS7) market forecast, by regions, by Type and by Application, with consumption value, from 2026 to 2031.

Chapter 11, market dynamics, drivers, restraints, trends, Porters Five Forces analysis.

Chapter 12, the key raw materials and key suppliers, and industry chain of Signaling System Number Seven (SS7).

Chapter 13, to describe Signaling System Number Seven (SS7) research findings and conclusion.

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