

# SURPASS hiE 9200

## Highest performance for your network

### Your Customers

will enjoy new IP-based applications and services with highest reliability and performance.

### Your Business

will keep growing with new services and applications and high OPEX and CAPEX savings.

### Your Investment

is protected, as you can easily migrate your existing EWSD / SURPASS hiE 9200 into future proven NGN.

### Your Future

is safe, as new services can be easily deployed based on our modular SURPASS hiE 9200 NGN Softswitch.

#### Highlights at a glance

The SURPASS hiE 9200 is a softswitch that lets you seamlessly unite state-of-the-art next generation soft-switching and classical TDM switching, to offer carrier-class Voice over IP services and applications:

- Full NGN support, giving your customers new services and features
- Top performance and reliability for maximum availability and customer satisfaction
- Support for a large number of signaling variants, connecting you to any carrier in any country
- Open, standard interfaces for applications allowing you to open new revenue streams
- full CLASS 4 and CLASS 5 feature set for TDM as well as IP to gain customer satisfaction and additional revenues
- Comprehensive support of regulatory features like Number Portability and Lawful Interception, meeting regulatory and governmental requirements
- Migration from EWSD to IP-based NGN, protecting your investment by reusing deployed infrastructure.

The SURPASS hiE 9200 is the perfect launch pad for new and innovative IP-based services. You can offer IP CENTREX services, connect DSL and Ethernet Voice over IP subscribers and use IP-based applications from our Lifeworks@Com program. Moreover, while doing so, you can easily consolidate your network by reducing the

amount of switches, network entities and transit layers in your network.

#### Future-proof investment

The SURPASS hiE 9200 offers all features on a future-proof and modular platform, enabling easy and fast implementation of new services and features for your subscribers.

#### The ultimate solution to open the door to Next Generation Networks

The SURPASS hiE 9200 fits smoothly into your TDM or next generation network, offering all the necessary interfaces and features to connect TDM and NGN subscribers and trunks.

#### IP control

Like CPGs/IADs, IP phones or IP PBXs, IP subscribers are controlled by the SURPASS hiE 9200 via MGCP or H.323 independently of the broadband connection used. IP subscribers controlled via SIP are integrated via application servers. Access gateways providing all types of different interfaces such as POTS, ISDN or V5.2 can be placed anywhere in the network using H.248/MEGACO or Siemens optimized ACP. Media gateways are used to mediate between the TDM and IP world, providing top speech quality controlled via MGCP or H.248/MEGACO. Connections to other softswitches are realized using BICC or SIP-I. A SIP interface is also provided to inter-operate with application servers.

# SIEMENS

Global network of innovation



IN- application servers placed anywhere in the network can use the SURPASS hiE 9200 resources to provide new and innovative services that communicate via INAP.

### TDM connection

TDM subscribers can be connected directly to the SURPASS hiE 9200 using standard TDM interfaces such as ISDN, R2, POTS and V5.x. Trunk connections using SS7, R2, No. 5, etc., are terminated at the SURPASS hiE 9200, which provides local, transit and international connection capabilities. The Remote Switching Unit (RSU) can serve more than 50,000 subscribers as an integral part of the SURPASS hiE 9200, significantly reducing the amount of managed network elements.

### All features for all subscribers

You can offer your customers the full range of CLASS 5 subscriber features including IP CENTREX whether they are connected to the TDM or NGN. SURPASS hiE 9200 offers more than 100 subscriber features including:

- CLIP, CLIR
- Call Forwarding
- Call Waiting
- Call Rejection
- Call Completion on Busy

Network features give you all the flexibility of state-of-the-art next generation networks to fully utilize your infrastructure:

- Call Routing
- Traffic Measurement
- Charging based on CDRs
- Number Portability
- Lawful Interception

### One Platform for new NGN deployments

On the one hand SURPASS hiE 9200 allows you to migrate your existing TDM network

while keeping all features. This includes reuse of EWSD infrastructure to protect your investments. On the other hand, you can build up a new NGN overlay network without touching the TDM network for introduction of NGN services. The SURPASS hiE 9200 softswitch can be deployed as a 100% TDM-less, footprint-optimized hardware mainly based on commercial platforms.

### Flexible management

You can simplify your network operation tasks with the SURPASS hiE 9200 using our NetManager™ state-of-the-art network management system. With NetManager™ your network operation is simple and effective, and covers all necessary tasks, as the NetManager™ supports NGN and TDM networks simultaneously.

### Highest reliability

The SURPASS hiE 9200 combines the carrier-class availability known from TDM with state-of-the-art NGN services and features. It provides 99.999 % or even better availability for both the SURPASS hiE 9200 Softswitch and its TDM extension. The hardware is based on a modular design with full hardware redundancy. Software updates can be introduced on the fly without interruption of service or loss of calls.

### SURPASS hiE 9200 building blocks.

The SURPASS hiE 9200 consists of a central subsystem and IP subsystems and can be optionally extended by a TDM switching subsystem. The central components provide call and features control for the whole system, independently of whether IP or TDM is used to provide services. The SS7 control terminates SS7 connections based on IP or TDM. The IP subsys-

tems perform connection control for voice or multimedia connections in the IP network. State-of-the-art protocols such as SIP or H.248/MEGACO are used to control subscribers or gateways and to connect to application servers and other softswitches. The TDM subsystems offer TDM trunk and subscriber interfaces interconnected via a non-blocking TDM switching network.

### Key features

- Up to 16 million BHCA
- Up to 240,000 Next Generation Network or TDM trunk ports
- Scalable up to 1.000.000 TDM or Next Generation Network subscribers ports
- SS7 message throughput up to 500,000 MSU/s, up to 1,500 signaling links
- SS7 Global Title Translation: up to 100,000 GTT/s
- Total system availability: 99.999%

### Key protocols

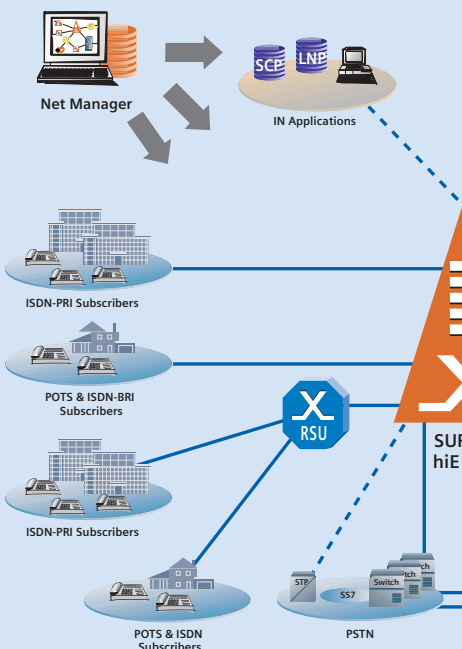
- ISUP (more than 100 variants supported)
- SCCP, TCAP
- SCTP, M3UA, IUA
- INAP
- H.323
- MGCP, H.248/MEGACO, ACP
- BICC\*, SIP-I, SIP
- ISDN, R2
- V5.x, No. 5

### Interfaces

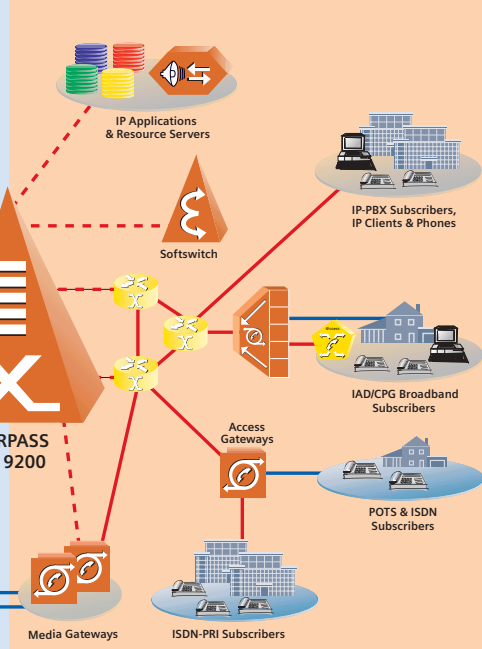
- Ethernet 10/100 BaseT
- E1, T1, STM-1 (for TDM applications)

**The SURPASS hiE 9200 is the full-featured Softswitch that will let you open up new revenue streams while at the same time migrating to NGN.**

## TDM



## Next Generation Network



Please contact us to learn more

[www.siemens.com/surpass](http://www.siemens.com/surpass)

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