

A black and white photograph of Earth's horizon from space, showing the curvature of the planet and the dark void of space above. The text 'SIP:WISE' is overlaid at the top in white, with a green dot in the colon.

# SIP:WISE

# FACT SHEET

SIP:WISE

C4

**C4**

Modular and highly  
scalable, carrier-grade  
Class 4 switch



# C4 CLASS 4 SOFTSWITCH



## Modular and highly scalable, carrier-grade Class 4 switch

Sipwise C4 is a modular and highly scalable, carrier grade class 4 switch, targeting global markets, from small to large size deployments.



## What the Sipwise class 4 Softswitch Can Do

The design focus is on easy scale and manageability while still offering cutting edge next generation communications technology. The Sipwise C4 platform is designed to provide an all-in-one system for a fast and cost-effective deployment into various IP landscapes, where solid and reliable C4 switching is required. All components of the C4 are compliant with a large number of RFC standards.

# C4 PRODUCT OVERVIEW



## Deployment

The C4 is a carrier grade NGN platform which can be deployed at a single site or as a multi-site, geo-redundant system. In case of node failure, call continuation and Call Detail Record (CDR) consistency are guaranteed via data synchronization over dedicated network links. Voice Peerings can be established either by SIP trunks straight from the C4 or via the SS7/TDM MG towards the PSTN network. With a powerful configuration framework, well documented interfaces and the usage of fully standardized protocols, our platform offers the shortest time to market in the industry.



## Routing

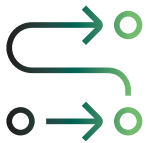
The Sipwise C4 offers state of the art routing capabilities, which can be enhanced by the integration of external routing servers. For that purpose, the C4 offers various protocols like ENUM, SIP redirect and powerful APIs to communicate with external sources. The C4 contains a powerful on-switch LNP routing database which can host 20 million+ routes.





## Key C4 Routing Features

- on-peak/off-peak routing
- LNP lookup with whitelist/blacklist option
- A/B number modification before and after the routing lookup
- Calendar based routing (time of day, day of week, day of month, day of year)
- Peer group selection based on number Prefix
- Peer group selection based on originating SIP domain
- Load sharing based on peer group priority/weight
- LCR
- Header Manipulation



## PSTN/TDM Interconnection

For an integration into the PSTN/TDM world, the Sipwise C4 can be easily extended with the Sipwise Media Gateway. This would allow the usage of a wide range of additional features and protocols like:

- ISDN PRI (FAS and NFAS): NI2, Euro ISDN, DMS 250, 5ESS, JATE/Japan INS-NET1500, ISDN Net 5. Q.699 ISDN to SS7 mapping
- ISDN/SS7 UUI mapping to SIPSS7/C7 ISUP: ITU, ETSI and ANSI variants supported through the Sangoma<sup>®</sup> Programmable Protocol Language (PPL)
- SS7 TCAP for message-waiting-indication (MWI and Caller Name (CNAM) service64 SS7 links in standalone configuration, 128 SS7 links in redundant configuration
- A-links and F-Links supported E1 to DS3 map-ping for third-party multiplexor compatibility
- Delayed ANM for ISUP (triggered by third-party SIP call transfers)
- ISDN and ISUP Multilevel Precedence and Preemption (MLPP)
- ISDN call transfer and bridging via Explicit Call Transfer Two B Channel Transfer, and Release Link Trunking (initiated via SIP REFER), ISUP call transfer and bridging via Explicit Call Transfer (initiated via SIP REFER)



# C4 FEATURES



- **Modularity and Additional Components**

Our C4 platform is an "all-in-one" system with the ability to add further components and modules, providing enhanced features and functionality, like transcoding, SIP header manipulation and SIP traffic capture capabilities.

- **Administrator Web Interface**

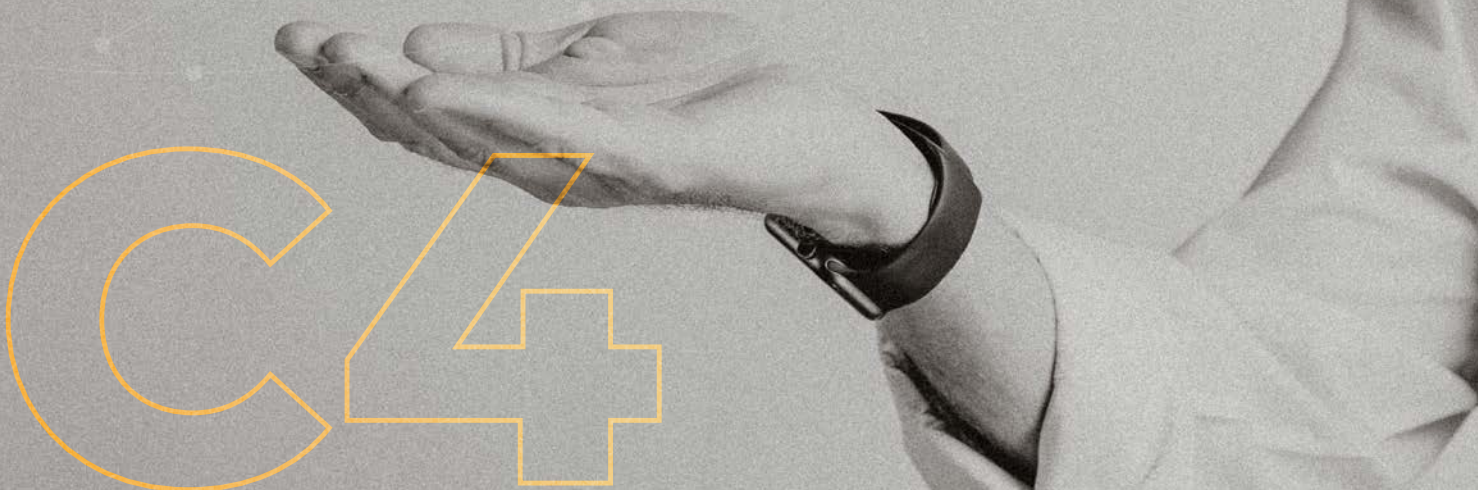
The Administrator Web Interface provides system administrators and customer support agents with access to the platform's configuration and troubleshooting applications through a standard web browser.

- **Billing and Rating Engine**

Accounting processes are simplified by utilizing the SIP routing engine as a data source for the creation of CDRs. For both, prepaid and postpaid billing models, the client can be provided with an up-to-date balance by utilizing the real-time rating engine.

- **Monitoring**

Efficient system monitoring and alerting is critical when providing highly available services to customers. The Sipwise C4 Platform provides an SNMP interface to poll the status of every element and service of the system. Additionally, high-level black-box tests are performed by routing SIP messages via the different subsystems to detect lock-ups and other service failures.





SIPWISE COMPANY

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**Need help?  
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