

ACT AS ONE

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Smartphones are everywhere in our lives. For the past 20 years STREAMWIDE has built software that today powers many of these services and devices. Our software components are used by more than 100 million people worldwide as we have sold them to numerous world class network operators. When it comes to work environment, smartphones have changed the way we do business and interact with each other a great deal.





They give us immediate access to every piece of information we may need, and they also tell continuously and instantly a lot about us, where we are, what we do. Traditional communication tools, IT and desktop environments are gradually transformed in a collection of nomadic, versatile and specialized applications on the cloud that we access individually from our own smartphones. There is a great paradox to this. We are more connected to each other than ever, but this ease of communication and interaction also sets us apart as humans: the more virtually together we can be, the more physically distant and split between different apps we are. In this context it is hard for organizations to keep control as security, privacy, procedures, efficiency and even human factors are simultaneously threatened. The ultimate challenge for demanding missions and jobs is building teams that turn individual contribution into collective achievements.

At STREAMWIDE, we believe technology used the right way can build teams stronger than ever, especially when demanding environments, timeframes and critical missions make real time teamwork in the field a key to success. Five years ago, we decided to turn this vision into software, and we created team on mission and team on the run. By listening to our users, bringing together passionate design teams and state of the art software development experts we have built a unique platform for field teamwork. We successfully deployed team on mission in some of the most demanding SWAT teams and security services in the world, proving that smartphone-based software can help save lives and protect citizens. Because everyday life matters too, we also have brought team on the run to many businesses of all size and improved the way they serve their customers and run their operations smoothly but also deal properly with critical situations. This is just a beginning: we want to take these capabilities to the next level for every mission, every demanding service, connecting technologies and solutions through standards, APIs, SDKs and open platforms so they align exactly with our customers' expectations and enable them to Act as One each in their particular way.





YOUR PARTNER FOR VAS INNOVATION & OTT-LIKE SERVICES

With a comprehensive end-to-end offer ranging from core network solutions to mobile and web applications, STREAMWIDE assists operators and service providers worldwide in facing the challenge from Over-the-Top service providers and shaping their value-added-service innovation. STREAMWIDE next generation software technology, enables legacy system replacement, as well as innovative VAS & OTT-like service launches in the areas of mobile messaging, call completion services, visual voicemail, social telephony, convergent charging, conferencing, virtual contact center solutions, call control and routing. However, that's not all: STREAMWIDE is also developing and refining market-forward solutions for communications, process optimization, and team management that will help partners establish themselves as leaders in digital transformation.

Operating from five continents, STREAMWIDE deploys dedicated teams wherever they are needed to provide professional services, support, and assistance to each customer and business partner. This personalized, regional approach allows STREAMWIDE to tailor each solution for the unique needs of its customers including network, infrastructure, and cultural requirements.

Key Facts

- Incorporated in 2001
- Specialist in carrier grade value-added services and mobile business process solutions for operators and enterprises
- Headquarters in Paris, with subsidiaries in the USA, Romania, Tunisia, China, and Singapore
- Patent-protected software technology

Public company listed on the Alternext (Euronext) stock exchange: ALSTW

Key Figures

- Deployments in 70+ countries 5 continents
- 130+ customers
- 100M+ end users
- 24/7 worldwide operations





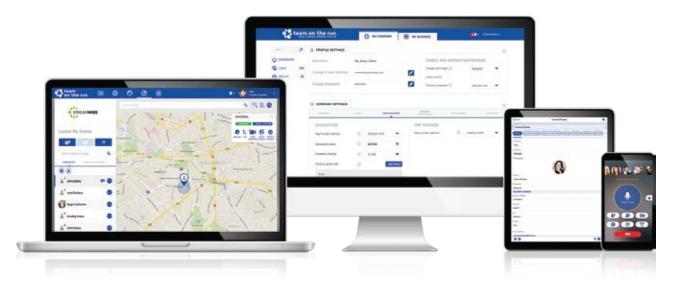
THE ULTIMATE ALL IN ONE APPLICATION

Team on the run

Team on the run is a communication and collaboration platform for the digital transformation of enterprises. It tracks tasks in real time, generates user defined reports, and adapts operational flow to enhance efficiency and is available on PC and on mobile. It empowers organizations to manage field employees and remote workers with a straightforward, secure and reliable mobile messaging service.

Connect your teams with a company secure mobile messenger that strengthens the bond between remote workers and the offices as well as enabling efficient inter team communications. From a simple online dashboard, create users and business groups, decide who can talk to whom, define management levels, etc. The mobile application used by your team will sync up immediately. At the same time, it protects your company data at risk by preventing confidential information be exchanged over public messaging tools. Team on the run allows users to access the service by all means of network include WIFI, Cellular Data (3G/4G/5G) or a private LTE network.

The solution is used in transportation, logistics, construction, hospitality, health, facilities management, smart cities and many other sectors to track, audit and communicate with field teams, crisis management, digitalize paper-based processes and facilitate real-time communication and collaboration among all the staff. It is suitable for all sizes of companies from SME to large global corporations.



The platform can provide an instant enterprise "communication and collaboration" solution with company directory, easy to set up user groups, multimedia functions and geolocation tracking. A global workforce may not be desk bound and not all staff have email (construction workers, maintenance team, service staff). Team on the run can link all your coworkers up, enable a sense of belonging to the company, increase productivity, and establish channels for the management to communicate with all staff and does not leave anyone out of the communication loop.

Team on the run replaces insecure public communications tools, thereby clearly separating private from business communication and preventing data and information leakage while keeping the ease-of-use and efficiency of a messenger app.

The digital workflow module - My Business - enables the digital transformation of your organization based on a secure, stable and well proven business communication and collaboration platform.

My Business allows replacing and automating your existing paper-based workflows, speed up approvals and enhances overall efficiency in your business processes. Forms and workflows can be easily created with intelligent widgets and distributed to the workforce instantly, allowing for agile and continuously improving processes. Clearly defined routing, authorizations, mandatory fields and signatures greatly improve quality and control of your workflows and minimize the chance for human errors.

Through the API, the integrators have no limit to the possible functions, features and workflow and business process improvements and automations.

Team on the run is a business process communication total solution for enterprises with global network connectivity available as a SaaS solution as well as on premises.



THE ALL IN ONE APP FOR CRITICAL COMMUNICATION

Team on mission

Team on mission is the next generation solution to address the challenges of the mission-critical public safety environment – MCPTT, MCData, MCVideo, location services (indoors & outdoors), mission process and workflow management – all in one solution. It enables a smooth transition from PMR to broadband, is deployed on-premises on a large scale or with a tactical bubble connected to LTE and allows integration to specific organizational security and network requirements. Team on mission allows users to access the service by all means of network include Wi-fi, Cellular Data (3G/4G/5G) or a private LTE network.

The application comes with a number of key features:

• **Closed User Group** - A company administrator can add, edit and delete closed user groups on the system and assign users into the groups. Closed user groups are lists of users that are designed to facilitate and accelerate communication between different functional entities within the organization.

• **Encryption** - Messages are encrypted by the Application Server using the TLS encryption format. File transfers are encrypted using the HTTPS encryption protocol.

• Voice and Push-to-Talk (PTT) - Voice functionalities such as One-to-one VoIP (Voice over IP network), One-to-One and Group PTT channels.



The Web Admin Portal, a web-based company administration portal, is the central place where company administrators manage users, communication groups, geolocation features, emergency alerts and other settings and features.

Team on mission is a 3GPP compliant solution. The 3rd Generation Partnership Project (3GPP) is a collaborative project aimed at developing globally acceptable specifications for third generation (3G) mobile systems. Any 3GPP compliant terminal can connect to the solution as demonstrated by the last ETSI plugtest in College Station, USA. Because of its cutting-edge technology, best at fulfilling demanding MCPTT over LTE RFP requests, team on mission has been integrated/distributed by most military and mission critical players on the market.

Digital mission planning can be carried out on the same application. The team can plan on the way to the incident without loss of situation perspective. All the necessary information is shared in real time and digital form without having to physically gather the team from faraway places for a briefing. Upon mission completion, a report can be sent from a mobile device to the command console with a digital signature. All data can be audited.

Team on mission is a communication and mission process power tool for smartphone, tablet and PC. This all-in-one solution provides security, privacy and control. It is used in different industries like Oil and Gas, Mining, Nuclear Power Plants, Utilities and also by the Military and the law enforcement professionals all over the world.



MEETING EACH MARKET'S EXPECTATIONS

Because user experience is key to Operators' success and each market is unique with specific needs for configuration and customization of VAS, STREAMWIDE provides local engineering teams, international localization services and highly customizable solutions.



Leveraging its five Global Offices in USA, France, Romania, China and Tunisia, STREAMWIDE provides presales, delivery and support resources to its customers with the greatest proximity and reactivity.

Our engineers practice many languages, being the main ones: English, Spanish, German, Portuguese, French and Traditional Chinese.

Our dedication to providing total customer satisfaction is evidenced by our commitment to solid delivery procedures and methodologies that are ISO 9001-2015 certified and constantly monitored and enhanced.

Localization, Branding and Customization Services

We offer full services for our customers who need to localize, brand and customize the interfaces their end-users will interact with, whatever the format, telephony, web, or mobile.

Localization services include prompts and web/ apps label translations, voice talent selection, prompt recording, grammar adaptation as well as final quality checks and customized testing.

All of our multimedia interfaces support branding, from simple logo and color adaptations to full label and image adaptation.

The flexibility of our products also enables the STREAMWIDE Engineering teams to easily meet customer specific needs such as call-flow adaptations, third-party component integration or Web or Mobile User Experience modification.



Key Figures

- Live solutions in 15+ languages
- Specific grammar and alphabet support in 25+ languages
- 160,000 words translated and recorded yearly



COMPREHENSIVE VAS & OTT APPLICATION PORTFOLIO...

STREAMWIDE surpasses its competition by offering a comprehensive, custom or off-the-shelf next generation value-added service product line that adapts to all types of core networks, from legacy TDM, to 3G/4G/5G, private LTE, pre-IMS and IMS networks, and serves multiple markets, from online service providers to mobile, landline, business and MVNO operators.

Our Applications Servers are organized by Families of services including:

- Call Completion: Next Generation Call
- Interconnection

• Team on the run: Business process communications and team management platform designed to help business realize true digitalization.

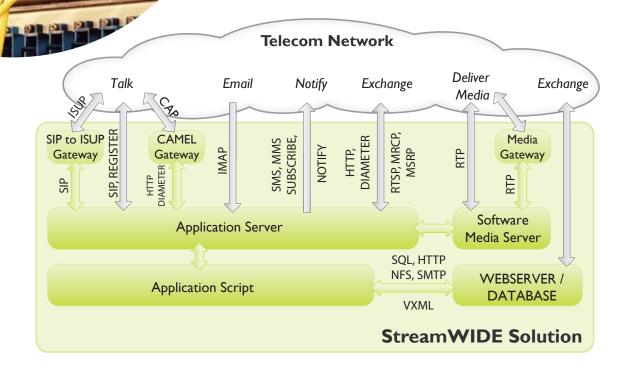
• Team on mission: A secure, on-premises platform for team management providing MCPTT, text, tracking, Voice, video streaming, and dispatching for public safety teams.



TECHNOLOGY TO MOVE AT THE SPEED OF OTT PLAYERS

Since its incorporation in 2001, STREAMWIDE engineers bet on the convergence between telecom and IT technologies, convinced of the terrific value IP could bring in terms of Innovation, Time-to-Market and Total Cost of Ownership for Operators.

The market landscape is changing rapidly, and operators need to build "stickiness" with their clients now more than ever. One of the strongest trends in the 2020 market is the race towards digitalization. STREAMWIDE provides powerful OTT solutions for digitalization that can make operators indispensable.



Highlights

- 100% software solutions
- Application servers run on commercial, off-the-shelf (COTS) Intel-based hardware running Linux[®] or virtual machines
- Cloud-ready architectures
- Proven interoperability with major R4 MSCs, IMS core networks, and NGN soft switch vendors
- Scalable, extensible, highly redundant carrier-grade architectures
- Open APIs for provisioning and integration with third-party components
- SIP & DIAMETER interconnectivity (IETF / 3GPP IMS) through proprietary stacks

Operator Benefits

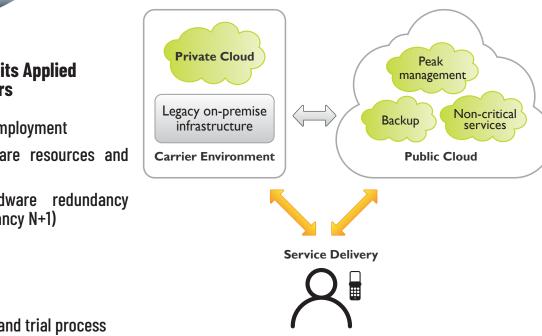
- Build stickiness by providing an invaluable "one stop shop" service to customers
- Proactive innovation without heavy infrastructure investment
- Deploy VAS solutions at the speed of OTT's
- Communications services such as VoIP calling and PTT that complement your offerings
- Device agnostic platform keeps you front-of-mind with the customer
- Opportunities for White Labelling



AGILITY TO OVERCOME COMPETITION!

Leverage the Cloud to Trial & Deploy Faster

Thanks to its 100% software model, STREAMWIDE application servers can be deployed with equal performances and reliability whether on a physical server or on a virtual machine. As a result, operators can virtualize their telecom services platforms and enjoy same benefits than the ones experienced on IT systems.



Most operators will choose to run their virtualized service platforms within the boundaries of a "private cloud", where physical machines belong to the network and a pool of applications are running simultaneously on virtualized servers. However, different approaches can be considered, including the following use cases:

• **Private Cloud for multi-VAS architecture:** Different VAS share the same hardware infrastructure. Servers are vir tualized which enables related services to seamlessly request more capacity whenever they experience traffic surge.

• **Public Cloud for VAS peaks management:** VAS liable to experience traffic peaks are duplicated within a public cloud environment. Whenever traffic is stable, public cloud isn't activated and costs stay close to zero; at peak occurrences, traffic is redirected to the public cloud. Service downtime is avoided, and on-premise infrastructure is sized according to average traffic levels.

• Public Cloud for Applications Beta Testing: Operators can now consider beta-testing or soft-launching new VAS without investing into new hardware by leveraging public cloud.

"We are excited to see STREAMWIDE offering their customers the opportunity to move voice applications to AWS. By moving to the cloud STREAMWIDE is offering their customers a secure, high quality, pay as you go alternative to on-premise telecoms installations."

Terry Wise, Director of Strategic Partnerships at Amazon Web Services

Virtualization Benefits Applied to Network Operators

- Faster application employment
- Savings on hardware resources and maintenance
- Savings on hardware redundancy mechanisms (redundancy N+1)
- Energy savings
- Smaller footprint
- Improved scalability
- Streamlined testing and trial process



CALL COMPLETION Visual Voicemail

Visual Voicemail for iOS, Android, Windows Phone and BlackBerry

STREAMWIDE Visual Voicemail (VVM) provides an enhanced user experience through a visual display of voice messages on the terminal screen. This service requires the following three components: a back-end voicemail platform (such as STREAMWIDE Messaging), a visual voicemail gateway, and a mobile client on the handset. For maximum flexibility, STREAMWIDE makes these components available separately or as a bundle. STREAMWIDE Visual Voicemail solutions runs on iOS, Android, Windows Phone and BlackBerry devices.

Visual Voicemail Gateway

• Secure exchanges between voicemail back-end and applications

- Manages client's notifications and application wake-up (SMS, APNs $^{\odot}$ and other manufacturers Push mechanisms)

- Manages protocol adaptations: IMAP, HTTP, XML-RPC, SMS/Text, APNs^ $^{\odot}$

- Compliant with <code>iPhone^</code> and <code>Windows^</code> Visual Voicemail clients

• Compatible with STREAMWIDE or third-party voicemail

• Supports VVM for wireline (read fixed messages on a mobile or tablet)

* APNs is a trademark of Apple Inc., registered in the U.S. and other countries. RIM name and logo are the property of Research In Motion Limited and are registered and/or used in the U.S. and countries around the world. Windows is a trademark of Microsoft Inc registered in the U.S. and other countries. Android is a trademark of Google Inc. Use of this trademark is subject to Google Permissions.

Large set of visual messaging use cases

• Voicemail to email (notification-based or IMAP-based)

- Voicemail on web portals Voicemail on TV
- Cloud-ready architectures
- Proven interoperability with major R4 MSCs, IMS core networks, and NGN soft switch vendors
- Voicemail to MMS/Multimedia
- Direct Messages

• Visual Voicemail applications for smartphones and tablets





CALL COMPLETION

"STREAMWIDE met its commitment, delivered on time and within the budget [...]" Dan Boyette, VP IP Services, GCI

In-house Light Applications

- Lighter features set for quicker time-to-market
- For all data-equipped smartphones and tablets
- Browser-based navigation
- Optional notifications through proprietary operating system (OS) push protocols
- Customizable colors and themes

In-house Native Applications

 For AndroidTM, iPhone[®], iPad[®] and BlackBerry[®] devices

- Notification of new messages
- Seamless messages and missed call display
- Callbacks, reply by SMS/Text/e-mail local address book interaction
- Compatible with voicemail-to-text services
- Rich settings and greetings capabilities
- Offline mode support
- Customizable colors and themes
- Preloaded on the handset or downloaded from application store

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Service Provider Benefits

• Provide the Visual Voicemail experience to all your smartphones and tablets subscribers

• Generate more call backs and terminating calls, sell premium features and launch higher packages

• Differentiate, increase subscribers' satisfaction and reduce churn





NEXT GENERATION VOICEMAIL

IP-based Convergent Voicemail for Fixed and Mobile Operators

Calls that terminate at voicemail comprise a significant portion of voice-related revenues for operators. However, as networks converge and market pressure intensifies, operators now expect voicemail systems to exceed basic functionalities and become active differentiation and loyalty-driving devices. To fulfill these requirements, the voicemail component of STREAMWIDE Messaging is a convergent, multimedia, multi-language, end-to-end solution that is easily adapted to high-end innovations such as visual voicemail, fixed-mobile convergence, and voice-to-text services.

Flexible Mailbox Management

• Numerous mailbox access methods: telephony, video, TV, web, handset

- Multiple notification types: call, SMS/Text, MMS/Multimedia, MWI, e-mail with attachment
- Multilanguage interfaces
- Time Zones management

Simplified operations

- Auto-provisioning
- Web-based operations console Dynamic Mailboxes capabilities
- Scalable cloud ready architecture for very large deployments

Service Provider Benefits

• Get a market leading Next Generation voicemail platform at a fraction of legacy systems' operating costs

 Increase call completion and revenues with advanced residential and business features

• Simplify your voicemail operations with a robust, reliable system that is easy to operate and support

 Virtualize your voicemail and enjoy the benefits of cloud-based architectures

Convergent & Multimedia

- Support for fixed-mobile convergent mailboxes
- Convergent call flows for families or businesses
- Natively multimedia: voice, video, fax

Advanced Capabilities

• Advanced greetings: caller & time-dependent greetings, dynamic greetings, holiday greetings, international greeting

• Advanced services: voicemail-to-text support, voice command, call blast, caller screening, find me/follow me

High definition audio/video codecs

Multi-tenant capabilities for virtual operators and MVNOs





CALL COMPLETION

By deploying STREAMWIDE Voice SMS service to 5+ million mobile and fixed line subscribers, a major telecom operator in North Africa enlarged its portfolio of premium communication services and generated a new stream of revenue.

Voice SMS

A Powerful Solution Offering Simplicity of SMS to Voice Messaging

The Voice SMS component of STREAMWIDE messaging is a simplified voice messaging application that blends the benefits of voicemail with the simplicity of the SMS/Text business model. With this module, a caller can dial a specific number, pay a fixed price, and leave a voice message. The called party is then notified and can listen to the message for free.

Voice Message Deposit Methods

- Call a specific number
- Dial a prefix followed by the called party's number
- Same functionality as voicemail: record, re-record, and review capabilities
- Multi-language support: the caller can choose the language of the primary menu
- Ability to transfer voice message to another phone number
- Meaningful security through the creation of a unique access code for each called party

Service Provider Benefits

• Generate new revenue with a premium service by applying the SMS/Text business model to a voice messaging service

Offer customers an alternative communication service

• Reap the benefits of a cost-effective system with quick network integration, no provisioning, and use of temporary mailboxes

Called Party Notification Methods

- Call
- SMS/Text
- MMS/Multimedia
- E-mail

Message Storage and Format

- Use of temporary mailboxes
- Extensive set of high definition audio codecs
- Video SMS/Text support
- Voicemail-to-text integration





Voicemail Integration

- Native integration with STREAMWIDE voicemail
- API for integration with legacy voicemail

Advanced Capabilities

- Availability management: time or number-based call rejection settings
- Privacy and filtering features: denial lists, do not disturb function
- Self-Care smartphone app
- Support for USSD self-care for features phones
- Virtual HLR capabilities (optional)

Service Provider Benefits

- Increase revenues by delivering a premium privacy protection service
- Differentiate with an innovative legacy telephony service

CALL COMPLETION

A Premium Call Reception and Routing Solution for the Business Sector

STREAMWIDE Business voicemail combines all the benefits of STREAM-WIDE standard voicemail service with an Auto-attendant including advanced call hunting and call screening features. Companies looking to enhance caller experiences and reduce missed calls can take advantage of the business voicemail features to implement efficient call routing to the appropriate employees or departments.

Full Call Completion suite for Businesses

- Full STREAMWIDE Voicemail Service
- Rich customized greetings
- Auto-Attendant service
- Call Hunting (Call Blast, follow me Find me)
- Call Screening services
- Record calls
- Denial Lists

Auto-Attendant Specific Features

- Multiple IVR menu levels
- Time-dependent menus
- Call Recording
- Dial by extension
- Greeting scheduling
- Callers Interaction through DTMF or Voice
 Command
- Transfer to a person, to a company directory or to voicemail
- Multiple voicemail consultation menu

Service Provider Benefits

• Increase revenues with a premium suite of business services

- Improve call completion rate for business calls
- Challenge Over-The-Top business offerings



Local Number for visited country

- Second "Virtual" MSISDN Number enablement on one single device
- Second MSISDN belongs to visited country plan
- Support for MOC/MTC, SMS MO/MT use cases
- Prefix-based calls/SMS origination in visited country
- Roaming use cases management
- CAMEL/MAP Front-end for integration in any Mobile Network
- SIP Interface for integration with IMS Service Brokers
- Native integration with STREAMWIDE voicemail
- API for integration with legacy voicemail

Advanced Capabilities

- Availability management: time or number-based call rejection settings
- Filtering features: denial lists, do not disturb function
- Self-Care smartphone app
- Support for USSD self-care for features phones





Service Provider Benefits

- Complement international low rate call service & Credit transfer service offers
- Increase termination revenues & ARPU
- Win market shares abroad without need for physical brand presence
- Compete against OTT international communication offers



Filtering & Screening Features

- MOC/MTC barring
- FSMS MO/MT barring
- SMS MO/MT delivery differ
- Filtering rules priorities management
- Acceptance and denial lists
- Filters by number, range of numbers or prefix
- Time or calendar-based filters
- Behavior-based filters
- SMS Notifications



Call Screening & Filtering

STREAMWIDE Call Screening is a network-based solution enabling operators to offer privacy protection services to consumers and businesses segments. Using filters such as acceptance or denial lists, time or calendar-based filters or behavior-based filters, solution enables blocking or delaying incoming and outgoing voice, video calls and SMS communications. Thanks to APIs, customers can easily manage their options through web, SMS, USSD or smartphone apps.

Carrier-Grade Network-based solution

- Network-based Application Server-driven solution
- CAMEL/MAP Front-end for integration in any mobile network
- APIs for service activation and self-care (IVR, USSD, web, apps)
- SOAP, XML-RPC, and JSON-RPC API for provisioning and integration
- Multi-language support



Service Provider Benefits

- Increase revenues by delivering a premium privacy protection service
- Differentiate with an innovative legacy telephony service



CHARGING

Convergent Charging and Billing for a Connected World

Emerging and developed markets are experiencing deep changes in the way subscribers consume telephony services. Whilst North American market is turning prepaid, emerging markets see massive increase of smartphones users and related surge in mobile broadband traffic. Overall, decrease in voice and SMS volumes and prices, users' expectations for real-time bundles activation along with everyday higher requirements for data-based mobile services drives operator's investment in network and provides new requirement for fully convergent billing systems. Operators need flexible charging platforms able to evolve with this changing environment and enable increased marketing creativity in telephony plans definition.

Within STREAMWIDE Charging product line you will find a comprehensive set of carrier-grade real-time billing components to achieve deeper billing convergence, differentiate from the competition, improve prepaid and postpaid users loyalty and streamline your existing infrastructure:

- Online Charging System
- Voucher System
- Convergent Real-time Rating
- Account Information and Refill
- Calling cards





Account and Balance Management

- Real-time account charging
- Unlimited balances
- Money transfer/street reselling

Rating and Promotions

- Real-time Voice, SMS/Text, MMS/Multimedia and data rating
- Rating by MO/MT, location, destination, time, resource, and balance
- Integration with DPI for advanced content charging segmentation
- Telescopic charging
- User-friendly rating GUI and promotions engine

Connectivity

- USSD/SMS/Text customer care
- Portability database

Online Charging System

Next Generation, Convergent, Real-Time Charging

STREAMWIDE Online Charging System is a carrier grade, next generation, convergent, real-time charging solution for fixed and mobile operators who deliver convergent voice, SMS/Text, MMS/Multimedia and data services to mass-market, business, Machine-to-Machine Wi-Fi or call/internet shop prepaid users. The system includes a comprehensive set of modules embedded in an integrated solution that helps operators build attractive telephony offers, develop customer loyalty, promote high recharging rates, and analyze offer success rates and Return on Investment.

Convergent Online Charging

• SIP, DIAMETER or CAMEL-based call control Built-in SMS/Text, MMS/Multimedia, event and data mediation layers

• Diameter and Gy and Sy interface for LTE networks



Service Provider Benefits

- Replace or complement legacy IN systems with a next generation real-time convergent charging platform
- Achieve prepaid/postpaid, fixed/mobile, services and networks convergence
- Accelerate your marketing with highest rating engine flexibility and rich segmentation capabilities
- Open to new markets: M2M (Machine to Machine)



Maximized Security

- Private/public key encryption
- Customizable PIN lengths
- Encryption exporting
- Scratch card attempts monitoring
- Scratch card deletion monitoring
- Customizable money transfer rules

Customization and Flexibility

- Customizable validity time
- User-friendly web GUI

Next-Gen E-Voucher Center

- Flexible distribution tree, unlimited levels, configurable restrictions
- Powerful commission rules, CoS & per distributor
- Multi-language brandable notifications
- USSD self-care, open APIs
- Per distributor real-time reporting

Voucher System

High-Performance and Secure Voucher Production

STREAMWIDE Voucher System provides a carrier grade voucher management system that enables service providers to generate vouchers through batch processes, to export vouchers to external BSS systems, and to control physical voucher inventory. When integrated with our prepaid self-care IVR solution and/or the SMS/Text and USSD interfaces offered by our partners, this voucher system turns into a mandatory component for any billing platform that manages prepaid customers.

Support for Multiple Distribution Channels

- On-demand vouchers
- Printed scratch cards
- E-Vouchers



Service Provider Benefits

- · Securely create vouchers for your prepaid activity
- Implement a cost-efficient solution with a software licensing model and standard hardware
- Integrate seamlessly with legacy online charging systems and self-care platforms



"By opting for STREAMWIDE, Outremer Telecom has chosen cutting-edge technology to go along with its 3G deployment, high-quality services and an innovative approach based on a transparent business model that clearly distinguishes between equipment, software and integration."

> Jean-Michel Hégésippe, CEO of Outremer Telecom

Account Information and Refill

Next Generation Self-Care, Balance Inquiry, and Top-Up

STREAMWIDE Account Information and Refill is a carrier grade, next generation, customer care solution that can be adapted to any voucher management system and online charging platform. Built on a cost-effective software architecture using standard hardware, this solution provides dramatic cost savings compared to legacy platforms.

Extended AIR Capabilities

- Multi-language deployments
- Real-time balance inquiries and credit consultations
- Real-time recharge by scratch card, e-Voucher or credit card
- Configurable service logic
- Configurable authentication logic
- Configurable account blocking thresholds
- Real-time fraud detection mechanisms
- Notifications (SMS, e-mail, http)

Service Provider Benefits

- Replace your TDM-based self-care IVR and save on OPEX
- Optimize your ARPU with a reliable and secure interface for account refills
- Benefit from STREAMWIDE multichannel IVR/SMS/USSD/Smart-Phone app self-care bundle

Interfaces

- Built-in IVR
- APIs for SMS, USSD, Web or Smartphone apps-based interfaces

Extended AIR Capabilities

- Access to a graphical IVR Service Creation Environment
- APIs to external OCS and VOMS systems
- CDR/EDR generation
- Statistics



Calling Card System

A Real-Time Charging Solution for Prepaid Card Services

STREAMWIDE Calling Card System is a carrier grade, next generation, real-time charging solution for service providers who deliver voice and data services to prepaid card users. The system includes an exhaustive set of call control, routing, rating, management, and billing modules bundled with a built-in voucher and IVR platform. Enjoy the benefits of an authentic SIP-based solution and optimize your revenues in the prepaid segment.

Call Control and Routing

- Built-in SIP-based call control
- Standard call routing features

Rating Engine

- Rating according to location, destination, duration, and/or time
- Telescopic charging support
- Web-based, user-friendly rating GUI
- Scheduled, calendar-based discounts

Charging

- Real-time account debiting
- Profile management
- Multiple distribution levels

Authentication Interfaces

- Built-in IVR interface
- Web services-based connectivity enabling data portal integration

Data Mediation

- Data mediation layer
- RADIUS and Diameter interfaces: 3GPP TS 32.260/32.270/32.274/32.299

INTERCONNECTION

Streamline your network usage

Based on our expertise in SIP and our track record in deploying value-added services, this product line offers a network-oriented solution set that is complementary to the consumer-oriented offerings in the other lines. Take advantage of the broad capabilities of the products in this line to streamline your network usage (specifically as it relates to VAS), thus optimizing your investment by increasing ARPU and reducing CAPEX.

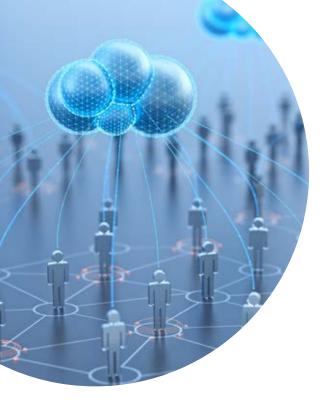
STREAMWIDE Interconnection product line includes the following services:

• SIP Proxy, a bridge between networks and protocols

• Service Locator, a Cloud-compliant solution for facilitating VAS deployments

• Media Resource Function, a network component for delivering Audio, Video, and Fax Media in NGN and IMS Networks





Authentication and Security Features

- Management of terminal subscriptions
- Verification of signaling consistency

Carrier Grade Platform

- Redundant and failure-proof architecture
- Scalable to thousands of SIP ports

Service Provider Benefits

• Platform scalability and flexibility within the cloud

Address multi-vendor SIP compatibility issues

• Boost ARPU by providing end-to-end telephony service launches in complex and heterogeneous network environments

• Reduce time to market and take network complexity out of the scope of the application

• Improve network security

SIP Proxy

Interconnecting Networks and Devices in a Next Generation Environment

In the global context of network convergence and multiplication of devices and protocols, operators need to secure solutions for managing end-to-end audio and video telephony services with seamless integration of network equipment, terminals, and endpoints. Unleash your creativity, launch innovative services, and let STREAMWIDE SIP Proxy handle the interoperability requirements.

Routing Features

- Support for multiple networks and addressing plans
- Network Address Translation (NAT) for signaling and media (RTP proxy, SDP generation)
- Mix of telephony and URL-based addressing
- Match of heterogeneous call flows
- Trunk based dynamic call flow management and adaptation
- Directory interfaces (databases, XML)

Billing Features

• Generation of raw CDR feeds and billing statistics in real time

• Quota enforcement for call legs (maximum duration of a call)





The largest satellite TV provider in the UK uses STREAMWIDE Service Locator integrated with STREAMWIDE Messaging to provide VOIP services to up to 2 million subscribers to counter fierce competition from broadband operators.

Service Locator

A Cloud-Compliant Solution for Facilitating VAS Deployments

With an ever-growing demand for the launch of new services, increased quality, and reduced time-to-market, operators need application providers to supply tools to accelerate deployments and manage growth seamlessly while securing the highest quality and availability. STREAMWIDE Service Locator, which can be integrated with a STREAMWIDE or third-party value-added service platform, is a routing system that distributes traffic between smaller application nodes, resulting in substantial benefits in ease of operations, reliability, and scalability.

Intelligent Traffic Routing

- User location-based routing between multiple platforms
- Transparent HTTP and SIP re-routing
- Diameter proxy
- Geographical distribution of traffic between areas
- Flexibility in defining customized rules for traffic management redirection and fail-over
- User-friendly web administration interface
- Load balancing & support for geographical resiliency

Centralized Management of Multiple Nodes

• Single point of provisioning

Interfaces

- Native connectivity with STREAMWIDE Messaging & STREAMWIDE Charging
- Web services-driven connectivity

Cloud Architectures

- Traffic distribution between virtualized machines
- Platform scalability and flexibility within the cloud

Service Provider Benefits

- Take advantage of an ideal solution for deploying VAS in cloud computing environments
- Manage platform growth and migration issues
- Provide a unique entry point for provisioning
- Implement geographical resiliency





Flexible Interactions with Content Servers

- Local media storage
- HTTP
- Streaming (RTSP)
- MRCP
- MSRP

Service Provider Benefits

- Optimize your media flow and save resources by sharing media capacity
- Focus on applications and deploy new services faster
- Enjoy superior performance and a carrier grade system

Media Resource Function

Audio, Video and Fax Media Delivery in NGN and IMS Networks

The time of legacy services acting as silo platforms mixing application logic and media delivery functionality is over. Save on media resources now with STREAMWIDE Media Resource Function (MRF), a flexible system with unequaled performance that supports multiple control protocols.

Media Handling Features

- Support for all media flow types (audio, video or fax)
- High definition codecs
- Announcement playing
- Recording of any media flow type
- Prompt and collect digits
- Conferencing
- Text-to-speech support
- Early media capabilities

Support for Multiple Control Protocols

- SIP NETANN
- VXML
- MSCML



TECHNICAL APPENDIX

STREAMWIDE technology includes in-house development and support of a variety of protocols, codecs and formats and complies with the RFCs listed below.

For other related protocols, please refer to specific product pages.

SIGNALING, CALL CONTROL & AAA Standard SIP RADIUS Diameter : 3GPP TS 32.260/32.270/32.274/32.299 CAMEL phase 3-4 MAP

REQUEST FOR COMMENTS (RFC)S & 3GPP TECHNICAL SPECIFICATIONS (TS) RFC 2190, 2326, 2327, 2806, 2833, 3261, 3262, 3263, 3264, 3265, 3311, 3323, 3324, 3325, 3326, 3420, 3428, 3455, 3515, 3550, 3551, 3665, 3680, 3725, 3824, 3842, 3856, 4317, 4463, 4733, 4566 TS 24.229

CODECS G711A G711U G729A G729B G722 G723.1 G726 AMR AMR-WB H263 MPEG4 H264 T38 MEDIA STORAGE FORMATS A-LAW (.al) U-LAW (.au) WAV (.wav) 3GP(.3qp) IMAGES (.jpg, .gif, .bmp, .png, .xpm) Proprietary STREAMWIDE Multitrack (.stw) **VIDEO FORMATS** SQCIF **OCIF** CIF 4CIF 720HD VGA OVGA SHORT MESSAGES/IM SMPP 3.3/3.4 UCP/EMI 3.5/4.0 HTTP SIP **MSRP** MRCP **EMAIL** IMAP SMTP WEB-SERVICES XML-RPC **JSON-RPC** HTTP





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