



## CASE STUDY

**ONE STRONG TELCO PLATFORM  
— MANY APPLICATIONS**

## ALL SWISSCOM SOLUTIONS AT A GLANCE

- **Mass Voting**  
5,000 lines for televoting and call-in promotions by Swiss TV and radio stations.
- **Emergency call routing**  
Intelligent emergency call routing system in German, Italian and French.
- **Enterprise IVR**  
Cutting edge voice portal technology for alert systems, network-based holding queues and additional voice services..
- **Cloud Contact Center**  
Easy-to-configure contact center from the Swisscom cloud with flexible use and billing models.
- **Mobile Call Recording**  
MiFID II-compliant recording of calls between banks and their customers in both fixed line and mobile networks.
- **Messaging Server**  
Protected gateway for third party bulk SMS/MMS campaigns.
- **Media Resource Function (MRF)**  
Audio for service numbers, rate announcements or jingles is provided directly to the Swisscom NG-IN through a Content Management System (CMS)

## EMERGENCY CALL ROUTING: FROM OBLIGATION TO VALUE ADDED SERVICE

The CreaLog platform was also a prerequisite for the Dynamic Routing System project implemented for Swisscom in 2015. In the event of an emergency such as a fire or accident, this solution ensures that no emergency calls go unanswered, even if the control center is overloaded, routing them instead to a Public Safety Answering Point (PSAP) in a different canton.

### CREALOG PLATFORM AND INTELLIGENT SERVERS

At the core of the new solution are two geo-redundant SIP application servers from CreaLog that are directly connected to the Swisscom network. A virtual web server is used to configure the emergency numbers and routing. To play informational messages

that screen calls made to the PSAPs accidentally, Swisscom uses the MRF function (interactive voice prompts) on the CreaLog platform.

### INNOVATIVE REROUTING DIRECTS EVERY EMERGENCY CALL TO ITS DESTINATION

For the first time, there is an emergency call rerouting system to support the Swisscom telephone network: If a control center can't take an emergency call, this call is immediately forwarded to a different PSAP. The rerouting plan can specify different overflow control centers for each emergency number and region.

## THE SUCCESS STORY STARTS IN 2010

What began in 2010 with the launch of the largest speech recognition platform for multi-channel voting at Swisscom is now the largest telecommunications platform in Switzerland. Seven innovative applications now run on this strong platform and, with a total of 6,500 lines, there is still enough space to address new demands without limiting performance. The Mobile Call Recording (MCR) module is one of them and was awarded the coveted German Stevie Award in gold in 2018.

## STANDARD SOLUTION AND CUSTOMIZATION UNDER ONE ROOF

Companies such as Swisscom depend on reliable partners such as CreaLog. Their special strengths lie in tailoring existing standard solutions to meet individual customer needs and enhancing them with additional applications. The benefits of this approach for a modern IT environment are compelling: Administration, training and documentation for the uniform and easily scalable platform are kept under one roof. At the same time, this ensures that all applications are easy to migrate.

*"The migration of the previously TDM based platform to the IMS network could be realized within only 5 months, for all services of the large TV shows."*



WERNER DREIER  
HEAD OF  
VALUE ADDED SERVICES

## FROM TEST TO PRODUCTION: SYSTEM ARCHITECTURE

Swisscom wants to be absolutely certain that the services work exactly as they are needed. To that end, they are tested in a laboratory setting where software engineers from Swisscom and CreaLog can thoroughly check the new applications before the solutions are transferred to the staging environment in a second step. Further intensive tests will be carried out here, corresponding to Swisscom's productive systems, until the services go live and are made available to business customers.

## MASS VOTING

The specifications from Swisscom were clear: A real time-enabled and load-resistant platform was to be implemented for voting and interactive call-in formats of Swiss TV and radio stations, which can reliably accept and process voice, SMS and web responses from viewers and listeners. The convergence of the Mass Voting Platform (MVP) now allows parallel and equal participation by TV viewers across all conventional communication channels such as phone, SMS, MMS and Internet.

## MEETING THE HIGHEST STANDARDS

CreaLog experts installed 20 application servers in the Swisscom fixed and mobile access network data centers with a total of 5,000 lines. This enables nationwide TV voting with several hundred thousand callers and SMS responses in the shows' brief window of time.

## PERFORMANCE AT A GLANCE

- Live operation televoting with over 1,400 CAPS (new calls per second) and 800 SMS responses per second
- Platform in IMS network for voice and SMS
- Full integration in Swisscom operations, monitoring and billing
- Multi-client enabled web administration
- Multi-level security concept
- Creation of simple or complex services by Swisscom





## ENTERPRISE IVR: ONE SYSTEM — MANY APPLICATIONS

If there is any company familiar with cutting-edge voice portal technology, it's the CreaLog experts in the field for more than 25 years. So it is almost inevitable that Swisscom would count on the expertise of the Munich-based company for realizing its many standard and individual solutions for business customers in connection with Enterprise IVR.

### THE CREALOG PLATFORM AS A TECHNOLOGICAL FOUNDATION:

- **AlertCall:** Automatically send out information to previously defined recipient groups in the event of a malfunction or service incident.
- **MultiRing:** Simultaneously call multiple devices.
- **NetbasedQueue:** Network-based on-hold queue with corresponding announcements.
- **VoiceRecording:** Classic answering machine in the Swisscom network.
- **WakeUp:** System for wake up calls that is still used surprisingly often despite smartphones.
- **SpeakingClock:** Time announcement that is still popular in Switzerland.

## CLOUD CONTACT CENTER: FLEXIBILITY FOR SWISSCOM CUSTOMERS

The CreaLog team migrated an existing contact center system to the Swisscom network and simultaneously redesigned the online front-end. The Swisscom Cloud Contact Center can now be quickly and easily configured via Internet browser, smartphone or tablet by a Swisscom department or by customers themselves.

Business customers in Switzerland, which are mostly small and medium-sized companies, particularly appreciate the automated reports and clearly arranged user interfaces.

## MESSAGING SERVER

The Messaging Server, a highly scalable service delivery platform (SDP), is the link between Swisscom and value-added service providers whose business models are based on bulk SMS or MMS campaigns. They use the API interface of the CreaLog Messaging Server. Thus the Swisscom network can be used by third party providers for a wide range of services via a protected gateway, while the SMSC remains protected through a configurable performance barrier.

Configurable filter functions provide age verification and prevent fraudulent contest participation by blocking use. Bulk mailers purchase so-called tokens in advance, which they can then use as credits for sending the SMS or MMS messages or information.

The CreaLog Messaging Server at Swisscom is used as a fee-based premium service for news subscriptions, match making services, weather forecasts and traffic updates. In total, 100 million messages per year are sent through the system. Providers such as the largest European vending machine operator Selecta also use the Swisscom solution: It provides a cashless feature that lets customers use SMS to buy and pay for drinks and snacks from the machine.

## MOBILE CALL RECORDING: LEGALLY COMPLIANT

A success story began at Swisscom that is now being continued throughout Europe: The IMS solution Mobile Voice Recording has proven successful in Switzerland and is in use at almost all Swiss commercial banks. Since 2015, it has been legally mandatory in Switzerland to record all internal and external telephone calls between banks and their customers – this applies to both fixed line and mobile calls. This also includes electronic correspondence and all connection information related to securities business, which must be stored unaltered for at least two years.

## EASY OF USE

To use this service, banks or interested companies in the financial sector only have to enter the mobile phone numbers of those employees who conduct customer calls that are subject to mandatory recording. The Mobile Voice Recording solution takes care of everything else — even if one or both call partners are abroad. This service works with all mobile devices and does not require a special app.

*"I am very pleased that we can offer our customers Mobile Voice Recording for phone calls and SMS messages as a managed service. This enables them to meet the requirements set by FINMA and also to comply with the stricter financial market regulations of the European Union."*

STEPHAN GEHRI,  
PRODUCT MANAGER  
MOBILE VOICE RECORDING



## MEDIA RESOURCE FUNCTION: AUDIO PLAYED FROM CMS

Anyone who has ever called a hotline or service number is familiar with it: Before the call goes through to a contact person, the system plays a jingle or rate announcement.

In this connection, more than 5,000 announcements and messages covering a wide range of subject areas are held in Swisscom's central Content Management System. The announcement CMS plays audio content for customer service calls, 900 numbers, rate announcements and jingles for voice VPN customers in the Swisscom network.

## TECHNOLOGY FROM MUNICH FOR SWITZERLAND

An IMS platform based entirely on IP technology, a wealth of useful value-added services and award-winning solutions: What Swisscom, the leading telecommunications company in Switzerland, has been able to accomplish since 2010 together with technology partner CreaLog is impressive indeed. And the Swiss company is quite right to put its trust in the expertise from Munich, which has been at the cutting edge of technology since 1993 and is proud of being part of this extraordinary success story.

## SWISSCOM

Swisscom is the leading telecommunications provider and one of the leading IT companies in Switzerland based in Ittigen near the capital of Bern. Outside of Switzerland, Swisscom is present in Italy with Fastweb.

In the first three month of 2019, some 20,000 employees generated sales of CHF 2,860 million. The federal government owns 51% of Swisscom, which is one of the most sustainable and innovative companies in Switzerland.

## CREALOG

Our multi-award winning solutions include installations at telecommunications companies such as Deutsche Telekom, Vodafone, A1 Telekom Austria, POST Telecom Luxembourg, Swisscom and Unitel in Angola.

Additional information is available at: [www.crealog.com](http://www.crealog.com)

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### GERMANY

#### MUNICH

Frankfurter Ring 211  
80807 München

#### FRANKFURT

Letzter Hasenpfad 64  
60598 Frankfurt / Main

Phone: +49 89 324656-0

### AUSTRIA

#### VIENNA

Simmeringer Hauptstraße 24  
1110 Wien  
Phone: +43 1 74040-640

[info@crealog.com](mailto:info@crealog.com)  
[www.crealog.com](http://www.crealog.com)

