



New Way of Document Creation

Customer Story | Compart



Swisscom, the largest ICT and telecommunications provider in Switzerland, has a global reputation as a driver of digitization. This can be seen not least in communication with consumers, where greater use is being made of electronic data exchange. The basis for this is a new approach to the creation and preparation of documents and content.

With a market share of 59% in the mobile telephony market and 36% in the TV market, Swisscom is not only the number one Swiss telecommunications provider, but also one of the most innovative companies in Europe.

In fact, in a recent study by HTP St. Gallen, a spin-off of the University of St. Gallen that specializes in strategic marketing consulting, Swisscom ranked third among all 2,200 Swiss companies, after Roche (pharmaceutical industry/biotech) and Logitech (IT). The survey of around 530 managers concluded that Swisscom is a market leader mainly due to its customer-friendly services. For example, its mobile phone network is one of the best in Europe, as evidenced by the trade journals "connect" and "CHIP". This is due not least to the accelerated expansion of the 5G standard, which has been available throughout Switzerland since the end of 2019. Swisscom develops many innovations together with partners, customers and interested parties and maintains a specially created innovation center in Biel, "La Werkstatt".

Innovative also in customer communication

According to the study, Swisscom is a leader in digitization among Swiss companies. This is certainly true when it comes to billing. For many years, Swisscom customers were able to download their bills as PDF files from the online portal - a common practice today, but innovative at the beginning of the 2000s, when it was first introduced. Today, Swisscom is converting bills and statements to HTML5, so that consumers can view their invoices directly on their mobile devices (smartphone, tablet, etc.). HTML5 is a markup language designed for "responsive"

dynamic content displays, allowing documents to be displayed on any medium, regardless of the size of the display/output device.

Furthermore: A "pay button" is embedded in the document, so that the recipient can immediately and directly from the invoice instruct them to pay. "The aim is to make the payment process as convenient as possible", explains Philip Achermann, Tribe Chief Billing at Swisscom. According to the manager, digitalization ultimately means offering consumers a high level of service convenience in the administrative area as well. Apart from that - the whole thing still has

Executive Summary

Much higher performance, significantly lower maintenance costs, and the ability to output each invoice in four languages on all of today's common analog (paper) and digital media „on demand“: With the introduction of DocBridge® Impress and DocBridge® Pilot, Swisscom has set the basic course for Omnichannel customer communication at a high level. A challenging project with which the largest telecommunications provider in Switzerland once again lives up to its reputation as an innovation leader.

a financial advantage for both sides: On the one hand, the risk of customers being sent reminders for missed payment deadlines is reduced (How easy it is to forget to pay a bill on time.); on the other hand, Swisscom gets its money faster.

The Group is deliberately pushing digital communication - among other things through various promotional campaigns - without neglecting the analog channels; because despite all the digitalization, a large proportion of customers still prefer the classic paper invoice. But behavior is changing:

According to Achermann, since the online customer portal went live in 2001, its acceptance by end consumers has been rising continuously. In particular, the "Invoices" area in particular now records the highest average number of call-offs. The following also shows that the number of paper documents at Swisscom is actually declining: Whereas in January 2018 some 2.3 million invoices were printed and sent by traditional mail, by mid-2019 - with the same number of customers - this figure had fallen to less than two million.

At a Glance - Facts and Figures

DocBridge® Pilot (Output Management System)

- Main benefit: Centralisation and consolidation of the previous heterogeneous output management system; ("everything from one source")
- High flexibility of the new OMS (including omnichannel capability);
- Document preparation today 3x faster than before;
- Reduction of maintenance costs by about 70 percent;
- Annual dispatch of around 33 million invoices ("postal items"/envelopes).

DocBridge® Impress (Document creation)

- Main benefit: Modern, flexible "layout system" for creating documents for all analogue and digital communication channels;
- Based on HTML5 standard - no proprietary programming know-how required;
- High flexibility;
- Significantly reduced maintenance requirements compared to the old system.

"Our industry has to adapt to the new media much earlier than others," explains Philip Achermann, thinking also of language assistants (Alexa, Siri, Bixby etc.), the new Swisscom TV box and also chatbots as communication channels. "In the future, other channels will be added that we do not even know today." Therefore, the technological basis for this should also be created as early as possible.

„Digital First – Design Once“: Document creation for print, web, mobile

The manager is thus alluding to an essential aspect in the customer communication of companies: In order to actually be able to serve all media, content today must be created and made available in such a way that it can be automatically output, received and ideally immediately edited or answered on all channels - depending on the customer's requirements. After all, it is more and more the recipient who determines the communication medium. For this reason, Swisscom is currently introducing new software for document creation: DocBridge® Impress, a scalable, platform-independent and cloud-enabled application for the page and device-independent design of documents.

The basic principle of the Compart software is that the design is carried out detached from DIN A4 as a page format, because this rigid standard is conceivably unsuitable for display and processing on the Web or on Smartphone & Co. Instead, DocBridge® Impress is based on the principle of "Digital First - Design Once": Each document is created once on the basis of HTML5 and only converted into the desired output/display format immediately upon retrieval or dispatch. Instead of having a separate layout software for each analogue and electronic communication channel, the document is created from the outset in such a way that it can be displayed, sent and edited on all channels. The basis for this is raw data, which - centrally managed - is then combined with text modules, images, freely definable templates and other resources by the person responsible to finally create a finished document (layout). The decision as to how it is ultimately delivered to the recipient is initially secondary and often comes much later: Whether it is sent by analog or digital means, as a classic letter, as a download file on a web portal or as a WhatsApp message or SMS - once created, the document can be displayed and sent in any conceivable form.



Philip Achermann

Default: Max. 15 minutes per process ID

The software change became necessary because the previous layout software had considerable weaknesses with regard to use and maintenance. For example, the maintenance of the stored document templates was quite complex. Even the slightest change could degenerate into a tedious affair lasting several hours - due in part to the very specific (proprietary) programming language of the legacy system.

The situation is different with DocBridge® Impress, which is based on open standards (HTML5) and facilitates programming. According to Achermann, this circumstance is a "huge opportunity" for employees to further their education. By using modern, marketable technologies, they could broaden their professional horizons. "DocBridge® Impress has a high degree of flexibility and is open for new channels."

The target was challenging: a maximum of fifteen minutes per Process ID (PID) - this was the management's target. In total, the monthly Billrun comprises about 1,360 PIDs with 6,600 documents each, of which about 2,300 are invoices. With DocBridge® Impress, the performance increased significantly. Compart invested a great deal of know-how in optimizing DocBridge® Impress in order to achieve the required parameters. Almost the entire development team was brought on board for this purpose. Philip Achermann: "We were surprised how the performance actually increased with every further test." When the "Proof of Concept (PoC)" was accepted, it was clear that the new system could be used to

implement the requirements. Around 40 million documents annually, not just invoices, are to be created once with Compart software - in four languages (German, French, Italian, English) and available on any medium. There are also notifications via e-mail and SMS.

Consolidation of the OMS was the first step

Compart was not unknown to the Swiss - after all, Swisscom has been using DocBridge® Pilot, another solution from the Böblingen software house, since 2017). The software acts as a central output management system for the print-ready preparation of the documents before they are handed over to the service provider. DocBridge® Pilot provides the functions for the compilation and output of documents as mailings. In addition, there are functions for "enriching" pages with additional information for further processing, for example for adding inserts and for downstream inserting. Around 33 million invoices are now produced annually via the new OMS. This makes processing 3x faster than with the previous OM structure. With the Compart software, Swisscom now has "everything from a single source".

Achermann and his colleagues are particularly pleased about the time saved; firstly because of the management's requirement to reduce overall billing processing times, and secondly because Swisscom's external print service provider now receives the finished documents earlier and thus has more time buffer for dispatch.

Philip Achermann: "The great advantage of DocBridge® Pilot is, in addition to high scalability and performance, above all its flexibility, which is reflected not least in its omnichannel capability". The software serves all analogue and electronic

channels - even though Swisscom currently only uses paper-based dispatch. A useful side-effect: By consolidating the once "fragmented" OMS landscape, maintenance costs have been significantly reduced.

Document generation "on demand"

For Swisscom, the introduction of the two Compart solutions represents a technological milestone that will enable it to further advance the digitalization and automation of customer communications. DocBridge® Impress in particular still offers considerable potential. In this context Philip Achermann speaks of "document generation on demand": If, for example, the customer calls and wants to have a certain invoice again, the corresponding (raw) data from the specialist application is called up via DocBridge® Impress "at the push of a button", compiled into a document and sent or made available on the medium desired by the customer - analogue or digital.

This would have the charm that Swisscom would no longer have to keep tens of millions of bills as finished documents (unnecessary consumption of storage capacity). Even though paper still sets the tone in Swisscom's document processing, the Group has already laid the foundations for even more efficient and resource-saving omnichannel customer communication.

The Software

DocBridge® Impress is a scalable, platform-independent and cloud-enabled software for the page and device-independent design of documents which can also be operated by users without in-depth IT know-how. The documents created with DocBridge® Impress are omnichannel-compatible and barrier-free in accordance with PDF/UA and WCAG. DocBridge® Impress gives users fast access to all modern, digital communication channels.

With the composition solution, documents can be created and displayed or sent on different media: as printed pages, as PDF in an e-mail attachment, as a responsive HTML page in the web browser and on the smartphone/tablet, via messenger services (WhatsApp etc). Each document only needs to be created once and is available for all communication channels without any major effort. DocBridge® Impress is tantamount to a paradigm shift in document design: creation is independent of a given page size and is based on open standards.

The Most Important Specifics are:

- HTML5 extended by print-relevant functions,
- Storage of business and language logic,
- Integrated management of templates, images, text modules and other resources for consistent and coherent documents,
- Individual preview for each output channel already during creation ("What You See is What You Mean").

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