

Customer case study



Service Frontend

based on successful Telco implementation of 1CV-SF in heterogeneous post-paid mobile and fix system environment



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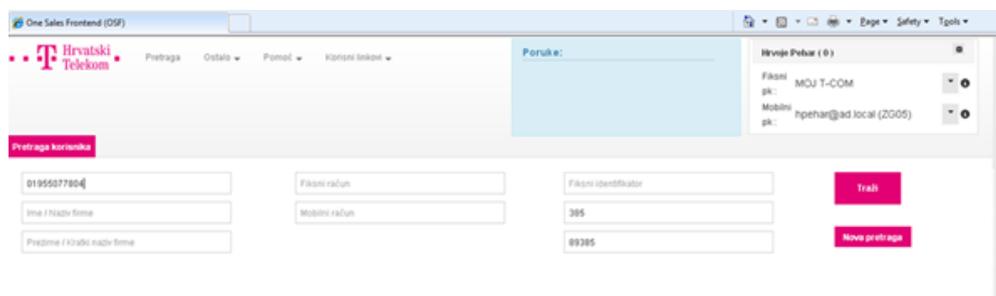
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Legacy systems: Mobile CRM, Mobile Order Management (OM), Fix CRM, Fix Mobile Order Management (OM), Common Document Management System (DMS), Customer Master Data Management (MDM), Account Receivable (AR), EAI platform

Phase 1 – Information Display

Main goal of first phase of project was customer and service information display in uniform and structured manner based on information meaning and context not on information location in backend system. To achieve that customer search, as a first step, is based around one screen with different IDs as input parameters (name, fix/mob IDs, fix/mob account numbers, MSISDN, IMSI ...) which reside in different backend system (Fix CRM, Mob CRM and MDM). With one search screen and system integration basis for customer 360° data view was created independent of information location.

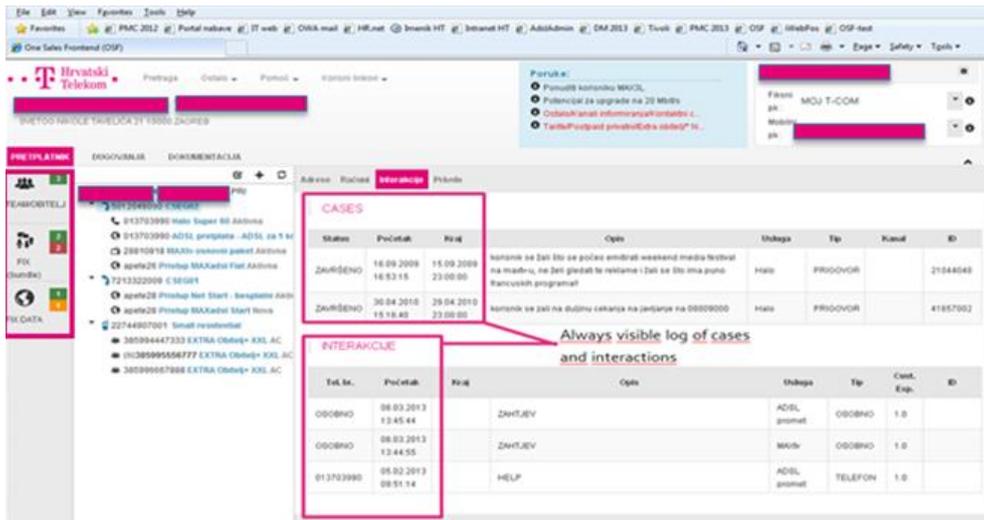


Search parameters can be unique (e.g. tax id) or belong to different backend system (Fix CRM, Mob CRM, Mobile OM and MDM).

After search most important customer data for sales engagement (e.g. top level service info with statuses) is displayed in toolbar and presented with icons and color coded info for agent fast and easy identification of customer needs. Main tree structure exists with all customer accounts (mobile post-paid, pre –paid, fix, energy ...) and with accompanying tabs agent can easily and uniformly access all customer and service information details. Additional integration with AR systems was made to display additional customer info such as invoice, payment, debt and credit scoring information to give sufficient amount of customer information to agents in order to start usage of new system with clear benefits for them thus making easier acceptance of a new system.

Prior to 1CV-SF those operations would require multiple backend applications GUIs, multiple searches via different input parameters and multiple and different structured customer and service information display views. Obvious benefits of 1CV-SF were introduced in first step in terms of Average Handling Time and agent awareness of customer.

Also important aspect of first phase rollout is communication part that displays customer relevant messages from backend systems (campaign, churn, fix service availability, tariff recommendation ...), prepares agent with info on unfinished customer interactions (e.g. unsolved complaints) with additional ability to access all customers interactions and cases as part of more detail view (from separate mob/fix systems).



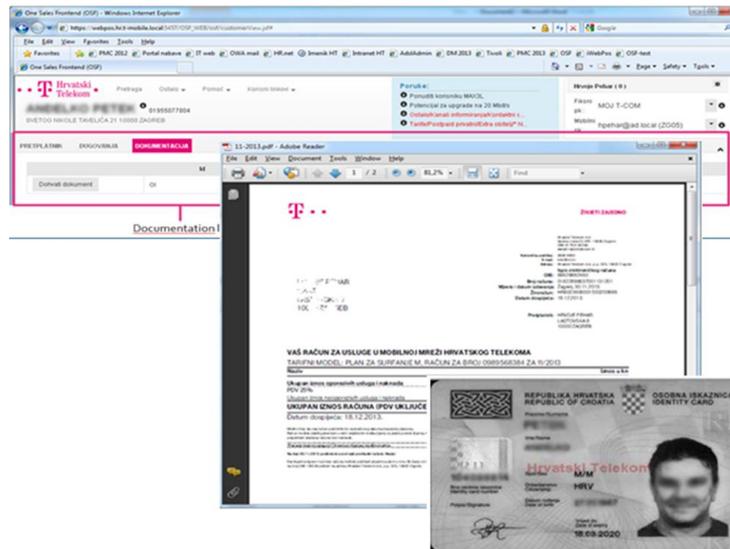
Main tree structure contains all customer accounts. Communication part displays customer relevant messages (campaign, churn, fix service availability, tariff recommendation ...) and customer interactions (e.g. unsolved complaints). Integration with AR systems gets additional customer info such as invoice, payment, debt and credit scoring information.

With newly developed services, processes and modules, usage of existing services and backend modules (with enhancements, orchestration, optimized and integrations) was used to achieve fast development and lower the project costs. One example is usage of mobile and fix user management backend modules for different user roles in 1CV-SF achieving reuse of existing and complex CRM user management processes and thus significantly decreasing development and migration time in that segment. In order to avoid additional agent's credential information, authentication with newly developed Active Directory connector was developed.

Additionally Single Sign On module was developed that enabled various legacy applications to be opened from 1CV-SF application and special SSO integration (inside of 1CV-SF tabs) was done with mobile and fix order management application with data transfer for context positioning inside of these applications (e.g. MSISDN data transfer to legacy mobile order management web applications). This integration enabled integrated process from 1CV-SF unified customer search and data display till mobile or fix order management in the first phase of project and in that way positioned 1CV-SF in core of sales operations from start.

Phase 2 – Convergence and DMS integration

With customer unified search, data display and with SSO integration with mobile and fix order management systems in place, basis for complex convergent (post-paid mobile and fix) order management process was set as main goal for second phase. New convergent order management flow was created to capture additional convergent data with reuse of parts of mobile and fix order management flow with seamless integration on presentation layer (with full data transfer). Flow has all needed steps, from customer search and data display, presentation of appropriate convergent offers (eligibility), enforcement of e2e business rules till contract signature and transaction execution in backend systems. With this convergent order capture solution in place average handling time was greatly reduced and input errors (and fraud) were decreased dramatically (common in convergent offer execution through various mobile/fix backend systems). Reuse and integration of parts of existing order management flow was done in order to deliver capability in short period of time (Christmas campaign) with future plans (step wise) for mob/fix and convergent order capture process reimplementation in 1CV-SF as a target state.



Paperless office concept through integration with Document Management System displays all customers' documents (invoices, contract and customers ID documents). That functionality raises customer authentication level on touch points, lowering a need for paper archive and represents module for easy upload or access of scanned and digitally archived customer documentation.

In order to additionally improve data availability and based on feedback information from touch points additional data was integrated into 1CV-SF display structure (contract obligation data, customer unpaid invoices tab, standing orders ...) and integration with Document Management System was done in order to display all customers invoices in PDF format and all customers ID documents. That has raised customer authentication level, eliminated need for ID document photocopy and paper archive and represents module for easy access of all scanned and digitally archived documentation.

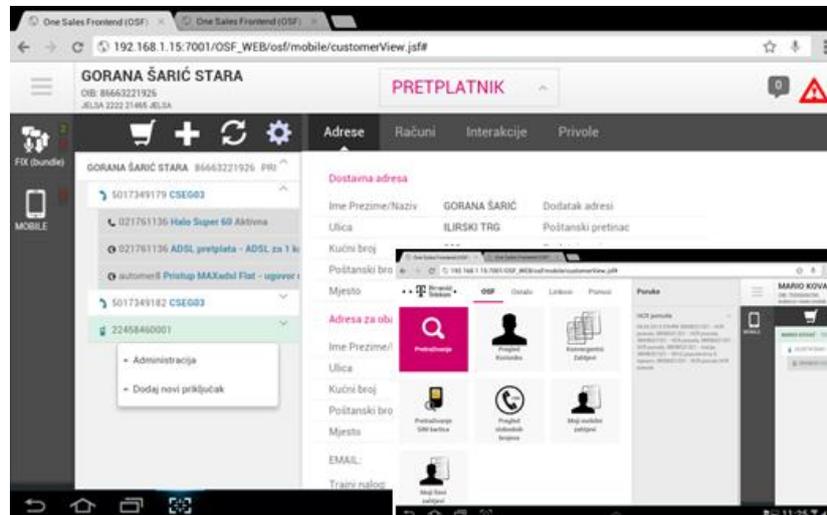
Additional SSO and data transfer integration of 1CV-SF application was done from Customer Service (CS) mobile and fix CRM systems which enabled CS agent to be one click away from order management process on customer they were in interaction with. Additionally most common CS agent operations (e.g. IPTV PIN reset, service reconnection ...) were implemented in 1CV-SF to additionally increase CS agent efficiency.

Since 1CV-SF represent unified view of customer's data it was perfectly positioned for customer data administration, especially in customer MDM system. Due to need for customer data quality improvement, responsibility for data quality was shifted from back office toward front end and as a tool for the task 1CV-SF was chosen due to existing integration with MDM system and same data structure.

Phase 3 – Tablet

Primary task for phase 3 was to enable full coverage of Door 2 Door (D2D) sales process with native tablet graphical presentation of data and processes already implemented in 1CV-SF. All screens were given native tablet look and feel, enhancing human interaction speed of usage with all functionalities as conventional web application. Additionally new module for OCR of tablet photographed customer ID document was developed with ability to archive ID document picture into

DMS system. Also system for capturing customer's signature on contract was developed (signature with a pen on tablet) and archiving of signature picture in DMS was supported. With these enhancements D2D process was fully supported without need for additional back office work eliminating errors and significantly reducing delivery time of ordered services and goods.



Tablet web presentation layer contains all implemented data and processes and covers Door 2 Door (D2D) sales process completely. All screens have native tablet look and feel enhancing interaction speed with all functionalities as conventional web application. Additionally specific module for OCR of tablet photographed ID document is available and customer's signature capture (with a pen on tablet) exists with ability to archive those data in DMS.

Tablet web application also comes with Key account users tablet interface for backend SFA functionality such as territory and customers information and enables complex business order capture and transfer to back office task management system. This enables key account manager to capture orders directly at customer's premises with system control of required input information. This gives greater flexibility and reduces errors in order execution vs. existing communication channels.

Phase 4

Based on different requirements phase 4 was divided on new business sales requirements, CS automation and realization of future steps of convergent order management enhancements.

In business sales area enhancements where needed in area of leads management. Due to lack of tablet support, licensing and installation issues 1CV-SF was used for leads management in touch points with SFA system integration for account manager's further activities toward business customers. With this structured communication and incentive schema ratio of successful leads realization is to be increased.

Since engine for corporate customer Tariff Recommendation Tool gives huge quantities of combinations for any business customers, specialized 1CV-SF module has been deployed to enable business sales to be able to present various pre prepared or ad hoc tariffs and options combination to the business customer with advance set of filters and controls (e.g. rulers) for navigation. Module

has advanced controls and ability to navigate through large result set using latest browser technologies in order to have responsive GUI after initial data load. Accepted offer from TRT system are transferred through key account manager – back office communication 1CV-SF module with additional flexibility for sales personnel in tablet version that enables interactive collaboration with business customer at his premises (with automatic order transfer to back office).

MSISDN	OPCIJE	146.78kn	152.93kn	156.18kn	162.33kn	164.97kn	166.54kn
237.57 kn 38598989630 ČLAN NEWFT 600 + MOBILE PLUS		VPN S 100/0/500/0	VPN M 100/0/500/0	VPN S 100/55/500/0	VPN M 100/0/500/0	VPN S 400/0/500/0	VPN L 100/0/500/0
202.96 kn 38598782882 ČLAN NEWFT 600 + MOBILE PLUS	WNW SMALL	179.37kn	181.62kn	185.39kn	185.81kn	187.93kn	189.05kn
143.39 kn 385981936934 ČLAN NEWFT 600 + MOBILE PLUS		129.40kn	129.79kn	130.38kn	130.96kn	135.25kn	140.29kn
115.40 kn 38598277964 NOSTELI NEWFT 600 + MOBILE PLUS		96.12kn	103.60kn	105.06kn	105.21kn	106.26kn	106.28kn
91.29 kn 385992121060 ČLAN NEWFT 600 + MOBILE PLUS		82.97kn	83.19kn	92.39kn	93.06kn	93.28kn	94.59kn

Module for large data grid display is used in business Tariff Recommendation Tool implementation which contains different tariffs and options combinations for business customer's subscriptions. Huge quantities of data are stored in database so native application to database communication is established with additional ad-hoc calculations through database service call. This enables back office personnel to prepare several optimal combinations into offers with help of advanced controls and filters Tablet view of module enables key account managers interactive collaboration with customer at their premises with pre prepared offers tuning (parameter change).

As a second step in convergent order management process mobile order management flow will be rewritten inside of 1CV-SF and thus additionally enhance mobile and convergent order management flow. After this phase, mobile order management GUI will be decommissioned, mobile (and convergent) processes optimized and technologically enhanced and 1CV-SF implementation comes step closer to shield agents from backend consolidation project with delivery of critical business needed (customer 360°, convergent offer management) in existing fragmented landscape.

SIM	MSISDN	Roaming	Device	Use points	TMR	SC	REI
Dejavnica *	892050415614543370		SAMSUNG C3020 - 2410910091				2121111111111111
Dejavnica *	892050415614543368						

Additional modules will be deployed to atomized and integrate Customer Service financial processes in respect to SAP SD & IS-T system (SAP SD invoices and payments in details, reprinting of SD invoices, dunning status and dunning history, installment plans and collection through collection agency, court cases in details, status of mobile phones per contingents). Since CS uses only subset of SAP processes and with intensive CS work force fluctuation complex and powerful SAP GUI represent big learning curve. With specially tailored automatic processes that cover multiple systems efficiency of CS groups dealing with SAP will be increased.

Future Phases

In order to achieve truly unified front end for touch points last phase will involve rewriting of fix order management GUI into 1CV-SF and thus be in a position to have truly unified frontend. With this upgrade, additional flexibility and process optimization will be achieved and basis for backend mobile and fix integration will be set in a way that business can get needed functionalities and not to be in the position to suspend long lasting transformation project due to urgent business needs.

With unified order management suite and one customer view additional campaign management module can be deployed for campaign execution with scenario scripting. In that way all mobile and fix campaign execution will be executed from one order capture system with hard linkage with campaign results in DWH system.

In order to have full flexibility of backend transformation 1CV-SF has to transform data presentation for Customer Service, keeping order management functionality but putting customer interaction information as a first screen after search. Additional integration with telephony system to enable automatic search based on fix or mob number of customer which is involved in interaction with CS agent.