

## dEP

### Digitise End-to-end Customer Engagement



## Key Highlights

- › A full-stack customer-centric engagement platform tailored for CSPs with next-gen features spanning sales and marketing, campaign management, customer service and actionable insights
- › Dockerised and pre-configured solution for easy Integration with for billing and revenue management, customer engagement, product management, order management, customer care and partner management
- › Broad set of applications and channels that helps CSP to stay connected with customers, streamline business processes, automate sales and improve profitability
- › Future-ready system with data-driven relationship management to enhance customer service, improve customer satisfaction, reduce the cost to serve and time-to-market
- › Advance analytics to gain 360-degree customer view to offer an end-to-end and contextual view of data and interactions across multiple channels.

## Introduction

Staring in the eyes of Digital Transformation (DX), the way we do business is changing. DX has the potential to improve customer engagement for broader societal good while providing businesses with novel opportunities for value creation. This will entail that the way we interact with the customer and do business is changing as you read this.

At the forefront of this transformation are the Telecoms and CSPs. It is a sector witnessing large-scale changes and playing a key driver of worldwide DX. The shift has also provided building blocks for the emergence of entirely new business models across industries. Digitalisation is the technologically-induced process of change in industries,

which has given rise to phenomena like the Internet of Things (IoT), Artificial Intelligence (AI), Cloud, Big Data, Blockchain, Analytics and Platforms.

Globally connected networks have placed real-time information, markets and new social paradigms within the easy grasp of millions around the globe. The brave new digital world poses very different challenges like high customer drop-offs during the on-boarding process, stiff competition from the OTT vendors and decreasing average revenue per customer.

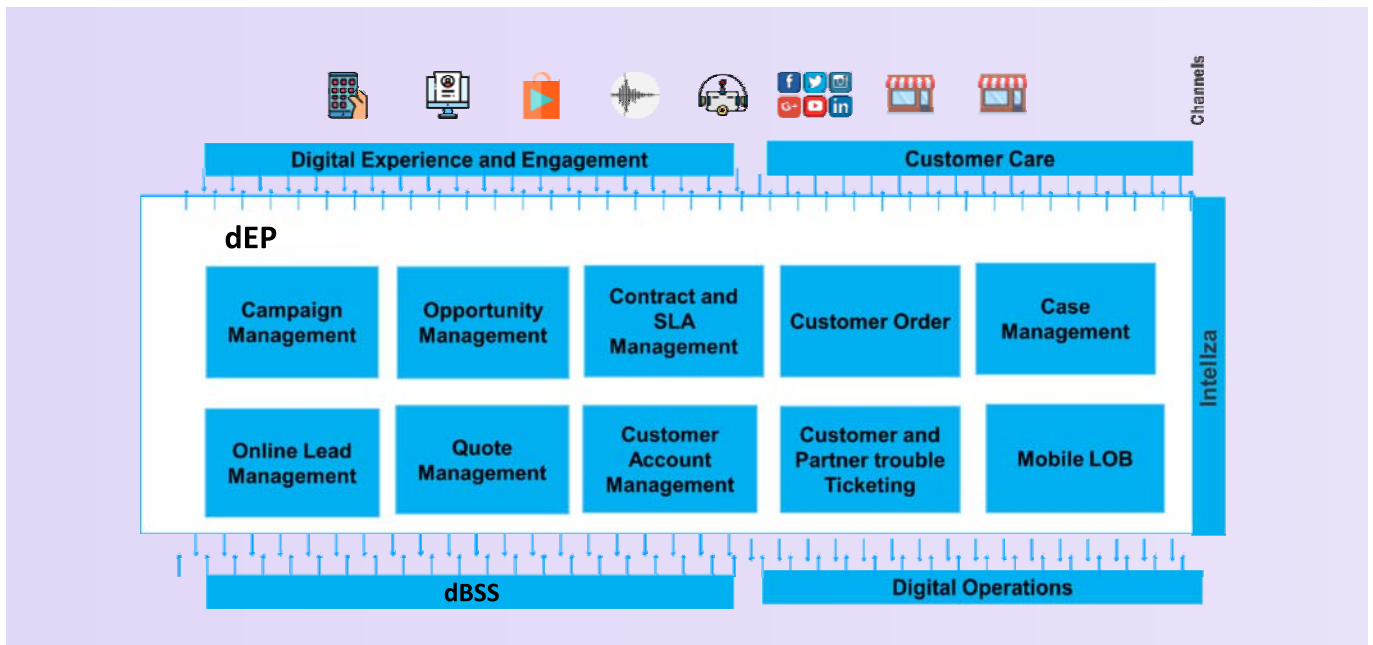
## STL dEP

Customer retention and increasing the customer lifetime value is the most important marketing instruments for a CSP because the competition is only a few clicks away. For CSPs, the digital transformation has fast-tracked the customer's life-cycle. In the given market situation, the relationship management is perceived as an important organisational strategy for CSP to manage their relationships and interactions with customers and potential customers.

STL dEP is powered by DevOps, Analytics, Web-scale, Network Software (DAWN). It covers various customer touch-points and provides multiple features and functionalities to support the customer engagement at right time, right place and right context.

dEP allows CSPs to obtain a single view of the customer and provide proactive care by:

- › Gaining insights into the engagement and performance
- › Manage customer touchpoints to stay connected to customers across the customer life-cycle
- › Analyse customer preferences, automate marketing and sales campaigns specific to customer needs
- › Streamline business process and operations to meet the demands of customers and the market place, improving profitability and enhancing customer loyalty



## Next-gen features with comprehensive functionality

### Campaign Management

It helps to design, plan, launch, manage and analyse marketing campaigns. dEP is equipped with features to cater to the individual stages of campaign management. CSPs can define the objectives of the campaign, target audience (existing customer and/or leads & prospects) with execution rules like customer category, segment, service, area, geography, profile and campaign priority and timeline (start date and end date). The campaign management supports campaign template, campaign code, description, message, content, link, images, Ad link, documents, forms etc. Once the campaign is planned, the system sends the notification to customer/prospect as per prepared definition and maintain the customer history. It provides insights into the campaign effectiveness and performance KPIs

The campaign management also supports the on-going management of an active campaign by providing CSPs with the campaign dashboard.

### Personalisation & Promotions Drive Higher Conversion

Pitching the right product/service at the right time and right place, helps in increasing the conversation rates and order sizes. The subtle pitch helps in shortening the sales cycle by desisting the customer from visiting competitors and getting into comparisons.

Personalisation helps to calibrate pitch and provide a contextual offering to the customer. It helps to:

- › Know your customer's behaviour and preferences
- › Calibrate the sales pitch of product, services and content resulting in increased revenue
- › Avoid customer drop-offs
- › Track and service returning customers

The promotion engine allows you to create and manage dynamic promotions. dEP needs to be integrated with the analytical engine to fetch customer's data to apply for the promotions. You can offer promotions on the fly and control the results throughout the customer journey. The promotions can be sent over omni-channels and across all touch points. It improves customer engagement and retention through highly targeted promotions.

The promotions engine has:

- › Promotion templates
- › Intuitive user interface
- › Promotion management
- › Promotion priority
- › Promotion messages

### Online Lead

It is an end-to-end management of sales cycle from lead generation to provisioning services. The online lead and opportunity management component captures the consumer's interest for a new connection, service/plan offering in the form of a lead and supports campaign mapping with lead. The system has the capability to capture the lead from various communication method like portal, web, email, IVR, self-care portal, offline i.e. bulk support (import) and stores the in-bound contact details with date, and communication method. The system supports the lead segmentation based on different attributes -- rating (hot, warm and cold), category, score, and budget.

### Opportunity Management

The system has the capability to auto create the opportunity when a lead is qualified or directly capture the opportunity for new or existing customers. The system has the capability to segregate the opportunity based on type and category. The system supports the duplication removal based on certain pre-defined parameters like name, mobile number, email-ID, address, plan/offer.

The system supports the opportunity management with the

customer, plan/offer, contact, address, credit details, and budget detail. It also includes quotation, and contract managed with opportunity.

The system has the opportunity assignment and escalation capability based on various business-driven parameters. The system supports different task/activity level management and tracking of an opportunity, which allows managing different type of opportunities. Using this, an operator can plan the opportunity's planning, strategy, follow-up, execution and completion. The system also provides the flexibility to sales managers to validate/verify the opportunity or to finance team for budget approval. The system supports the task/activity management to handle the required activities to complete the opportunity and tracking the progress of the task. Based on required approvals, budgeting and scoring, an opportunity can be converted into an order (CAF).

It also captures the notes of interactions with the consumer. The life-cycle management supports smooth execution and follow-ups with the consumer for order (CAF) generation.

The system records the opportunity history for the end-to-end visibility to sales/finance managers or authorised entity. The system supports opportunity information sharing across individual & teams. In addition, the system supports the flexibility to add operator specific parameters/fields like target closure date, other operator's offering etc. to capture the operator's business requirements.

- The system supports the rejection reason for a rejected opportunity that can be analysed later for future sales references. The system enables the customisation framework to fulfill the operator-specific business requirement that is not supported in general opportunity management.

- The system supports the audit trail for creating/update/modification and notify to the respective stakeholders. It supports document management that helps the authorised person to keep track of all required documents. It is integrated with the reporting tool to provide the details to generate the business reports. The system has the flexibility to perform the frequently used operations in bulk.

### Drop-link Management

dEP provides two ways to re-target a customer:

- › Those who browse different products but drop without adding an item to cart.
- › Those who add items to their cart but do not complete the transaction – abandoned cart.

Drop-link management offers the following features:

- › Drop-link generation

- › Notification & reminder
- › Assisted sales help to complete the journey
- › Recovery link
- › Last state of the customer

### Storefront: B2C & B2B Online Portal

dEP provides a swanky storefront – online portal. There are two facets to the storefront:

**B2C Storefront:** It is similar to any digital e-commerce portal. It is equipped to help the customer make a buying decision by presenting real-time offers, bestselling offers and products, digital wallets and inter-product comparisons. The B2C storefront is designed to aid the customer's in-store digital journey augmented by superior customer experience. It helps the customers to locate a nearby store in case they want to visit it.

**B2B Storefront:** Equipped with Assisted Service Module (ASM), this portal helps the CSP employees to provide real-time customer sales and service support, using the same storefront across the omni-channel framework – physically and online. The ASM allows a customer to finish the remainder of their user journey, by pairing them with customer sales and service support personnel in real-time.

The storefront can have additional business rules configured to grant the customer sales and service support personnel with special access rights to display special pricing, promotions, upgrades and entitlements.

B2B Storefront provides B2B organisations with a flexible multi-channel solution that can easily be customised to match the specific requirements of the B2B purchasing cycle. Multiple business models, channels, and markets can be managed on a single platform. A sophisticated retail-like shopping experience can be provided while serving business customers. The module offers additional administration tools, customer self-service tools, and functionality for the storefront and back-end. All sales administration tasks can be automated, reducing operational costs and eliminating manual, low-value processes empowering the sales team to focus on value selling.

### B2B Key Features:

- › Back-office integration
- › Self-service account management
- › Online ordering
- › Product Catalogue
- › Quote Management
- › Spend control management
- › Advanced product search

### AI-driven Chat-bot

AI-equipped chat-bot is a conversational platform meant to be a single window force multiplier for sales, marketing and support teams providing a consistent brand experience. It helps to automate 60% of business work-flows and saves money by avoiding recurring work-flows. The bot is available 24\*7 with no wait time for the customer and providing instant replies.

### Product & Service White-labelling Support

White-labelling allows the rebranding of a product or a service and help in bulk business. It helps to customise offering, allowing customers to pick and choose as per their inclinations. White-labelling multiplies the reach by increasing the number of leads resulting in boosting sales activities.

### Omni-channel Commerce Capability

API-driven omni-channel commerce capability drives your business across the existing application landscape. It unifies the customer service, order management and tracking for customer account management, order/ticket management, and order/service history with a unified product view across channels.

### Gauging Customer Satisfaction with NPS

The Net Promoter Score (NPS) is an index ranging from -100 to 100 that measures the willingness of customers to recommend a company's products or services to others. NPS helps you periodically gauge the customers' overall satisfaction with a company's product or service and the customer's loyalty to the brand. It can help measure the effectiveness of the pre-sales and post-sales activities. So, it can help understand the shortcoming and provide data-points to improve the offerings and services.

NPS module is equipped with:

- › Customer satisfaction module
- › Dashboard
- › Customer survey capability
- › Integrations
- › Feedback analysis
- › Analytics

### Customer 360-degree View

This feature provides a complete information about each customer. The dashboard displays key indicators like financial information, outstanding issues and service information in real-time and the information on from where they have initiated the process (website, call centre or retails outlet).

### Customer Account Management

Customer life-cycle management and segmentation allow 360-degree view of customer and hierarchy management. dEP provides a single point of entry for all customer management activities. It provides easy access to customer's personal, billing and service information. dEP allows the view of customer history; invoice, account balances, accepts payments, to provide credit advice, and reconnects/renew services. Apart from that, it instantly responds to requests for information.

CPSs can view and maintain complex account hierarchies with drill-down access to detailed items and carry out financial actions such as re-issuing bills, sending credit notes and suspending collection plans etc.

### Customer & Partner Trouble Ticketing

It allows the complete management of escalation, assignment and notifications. Fully-integrated with the customer and partner support module, it is an intuitive tool for customer service agents, built on the back-office framework. It is easy to configure and extend for the business-specific use cases. It can be easily integrated with other customer support tools -- customer ticketing system add-on, assisted service module, commerce accelerator storefronts and single sign-on functionality. It provides real-time guidance to the customer on their purchase journey or resolve issues.

### Quote Management

This module enables design and manage quotes, improve efficiency and accuracy in managing quotes and automate triggers and route the approval process. It enables to design and execute business-specific quotes and approval rules. It has the capability to search plan and view details like benefits, price, discount, deposit, tax, service and prepare quotation as per the conversation with the consumer. The system supports multiple plans (plan & add-ons) offering in the quotation. It supports the audit trail for create/update/modification and notify to the respective stakeholders. It allows document management that helps the authorised person to keep track.

### Contract & SLA Management

This module maximises operational and financial performance. The contract management module enables CPSs to define Contract template, bind the contract with a customer with period-based contracts with the renewable feature. It provides the capability to plan charges, penalty associated with early termination or contract cancellation and quotation. It enables to assign the contract to approval authority as per required business workflow. The system also supports the audit trail for creating/updating/modifying and notifying the respective stakeholders along with document management that helps the authorised person to keep track of all required documents.

### Staff & Access Group Management

This module helps to manage, configure and control access with organisation's roles and responsibilities. The staff management features to configure and control all users within an organisation. CSPs can provide a definite set of access to specific roles to get access to customer accounts that are restricted according to market segments, as well as varying levels of user access on a screen/function basis.

It supports the role association with staff to provide the specific module/function/feature access to staff as per organisation responsibility. Also, the system has the flexibility to map staff with the manager in the form of business hierarchy. Encrypted passwords and configurable password expiry module ensures the highest levels of security and prevent unauthorised access to customer information. In addition, the system has the capability to integrate with LDAP for central authentication.

### Customer Interaction & History

This module captures customer interactions across multiple channels for faster resolution and contextual engagement. dEP provides the capability to record the customer interaction with the CPS. It allows capturing the customer interaction details into the customer account and stores interaction details like communication channel (Email/SMS/Phone/IVR), date & time, notes, meeting points, communication type incoming/outgoing etc. Whenever customer interacts with service provider with registered identify like registered mobile number (RMN)/registered email address (RME), the system identifies the customer and manage the interaction details. This interaction history is useful to CPS while interacting with the customer. In addition, all notifications shared with the customers via Email/SMS method are available in customer account to get a complete view of the customer.

### Common Business Utility

dEP supports various business utility to cater the multiple business processes. These utilities function as a framework to support modules or functionality.

- › **Audit management**
- › **For increased security, risk management, compliance and detailed insight**

The system captures an audit trail (also called audit log). It is a time-stamped record of significant activities on the system. A set of records provides the documentary evidence of the sequence of activities that have affected at any time a specific operation, procedure, or event.

- › **Notification management**  
It triggers and manages notifications to inform a certain set of users on particular activity occurrence and/or

change in behaviour in the system. The event notification informs a certain set of users who are concerned with that particular activity occurrence and/or change such occurring in the system. The system will automatically send an email notification to the concerned users (customer, staff, administrator) whenever that event occurs. The system supports notification template for module and all activities to share information across different communication channel like Email/SMS. The notification history is managed for sent notification only. An authorised user can see shared notification and message content and with the UI-driven capability, the notifications can be re-send to the user.

The framework has the following functionalities:

- › Allows consumers to define their preference channels
- › Implements the general workflow for sending notifications
- › Provides interface for implementing the logic for specific notification type on a specific channel
- › As a prerequisite to support the site messages function, the site message channel has been newly added to the notification framework with API support
- › A set of REST APIs are introduced to allow customers to retrieve and/or update preferred notification channel(s), and receive system notifications such as coupon notifications, and back-in-stock notifications in the form of site messages
- › **Bulk processing**  
The system supports certain pre-defined bulk actions for their related group actions. It shows the total, valid, invalid counts on file upload before processing to enable to user

to get clear visibility. Also, the system supports the statistics of the processed file in terms of module, activity, date, batch details, total records, success records, and failed records. Along with pre-defined bulk actions, the system allows customisation capability to create custom bulk actions based on the different business requirements.

#### › **Key performance indication management**

KPI framework is developed and integrated with reference implementation that enables monitoring the system and helps to find the causes of performance degradation. It should provide KPI for different modules for various business operations, which are business critical. KPIs are recorded for each event published as REST web service. KPIs are grouped and can select which group to be enabled currently for measuring. The KPIs reset after every request fetched from the monitoring system.

KPIs monitored:

- › Total request
- › Total response
- › Total success
- › Total failure
- › Average response time
- › Maximum response time
- › Current request TPS
- › Current response TPS
- › Rejected request

## Business Benefits

**Create positive customer experience:** dEP enables CSPs to easily manage day-to-day operations that are very essential to create a wow factor to enhance customer experience. It provides an end-to-end, result-oriented and hassle-free customer journeys that create a positive customer experience and set the stone for a long-term relationship with the CSPs.

**Personalised customer service:** Personalising customer service helps to improve customer understanding and gain knowledge of the customers. It also helps to have better knowledge about the customers' preferences, requirements and demands. dEP enables the CSPs to run personalised campaigns specifically targeting customers based on certain attributes and segments. This enables CSPs to focus on each and every customer based on their requirements.

**Multi-channel integration:** dEP enables CSPs to offer multiple interaction channels such as mobile self-care app, IVR, web self-care portal, call centre etc. With so many options, the customers can use any of the services based on their convenience.

**Reduction in service requests:** dEP allows CSPs to interact with customers more frequently using personalised messaging and communication channels, which can be produced rapidly and matched on a timely basis to better understand their customers and predict their needs. This reduces the number of service requests. With self-care options, the customers can easily manage their queries on their own.

**Reduced service request cycle:** The total service request cycle time includes the total time starting from a service request initiation to the time that request is closed by the customer support staff. The customer support agents can access complete information about customer interactions and history and solve the case instantly. This helps them in saving research and troubleshoot time.



Sterlite Technologies Limited (STL) is a global leader in end-to-end data network solutions.

We design and deploy high-capacity converged fibre and wireless networks. With expertise ranging from optical fibre and cables, hyper-scale network design, and deployment and network software, we are the industry's leading integrated solutions provider for global data networks. We partner with global telecom companies, cloud companies, citizen networks and large enterprises to design, build and manage such cloud-native software-defined networks.

STL has innovation at its core. With intense focus on end-to-end network solutions development, we conduct fundamental research in next-generation network applications at our Centres of Excellence. STL has strong global presence with next-gen optical preform, fibre and cable manufacturing facilities in India, Italy, China and Brazil and two software-development centres.