Simplify Technology
Simplify Experience

► LotusFlare DNO[™] Cloud

Overview

www.lotusflare.com



© LotusFlare, All Rights Reserved.



Challenges for Communications and Media Services Providers



LotusFlare DNO[™] Cloud



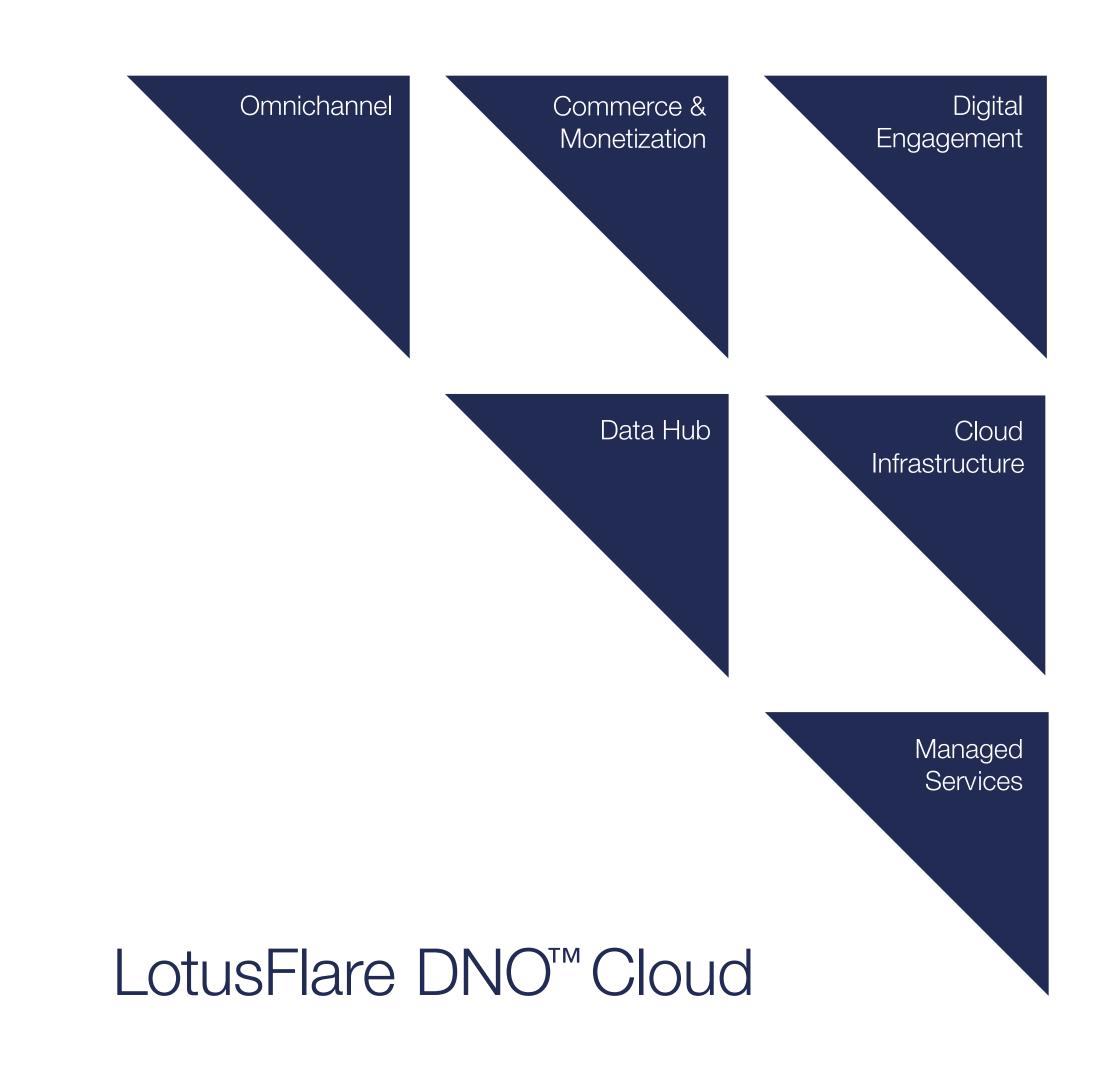
The telecommunications and media services industry is undergoing major changes driven by 5G network deployments, convergence among wireless, broadband and media, and consumers rapidly shifting to a zero-touch, digital-first sales and support model.

These changes present communication services providers (CSPs) with a tremendous opportunity to create new business models and product lines to enhance the customer experience with personalized, convenient and friction-free digital services.

Current business support system (BSS) stacks often consist of hundreds of different systems, applications, associated processes and databases that have grown over the course of decades, both organically and through acquisitions. These complex systems and their associated processes are difficult to upgrade and scale. More importantly, legacy BSS stacks generally lack the agility required to let CSP business leaders innovate in today's marketplace.

How can businesses innovate when the very systems designed to enable innovation are not built for to deliver the outcomes required by customers in the digital age?





■ LotusFlare DNO[™] Cloud



LotusFlare designed, built and continuously advances LotusFlare Digital Network Operator[®] (DNO[™]) Cloud to address the business innovation challenges of CSPs. LotusFlare DNO Cloud is a fully-managed cloud-native commerce and monetization service that provides an all-digital BSS to deliver valuable business outcomes to consumer and enterprises customers of CSPs. Developed from "customer experience down", LotusFlare DNO Cloud enables CSPs to:

Create A Business Innovation Engine

LotusFlare DNO Cloud allows CSPs to test, tune and launch new business on the same DNO Cloud instance in months rather than years. CSPs can integrate a single DNO Cloud instance on top of multiple networks to serve multiple lines of business.

Lower IT Total Cost of Ownership

LotusFlare DNO Cloud enables CSPs to significantly reduce CAPEX and OPEX expenditure. Its cloud-native architecture is designed to run on the public cloud at a fraction of the total cost of traditional legacy stacks and provide greater agility to roll out new businesses.

Move At Internet Speed

LotusFlare DNO Cloud removes the burden of maintaining and upgrading a BSS stack, letting CSPs move at the speed of internet players. LotusFlare's "un-vendor" MVP mentality drives rapid deployment and the testing and tuning of new business while in production.

Deliver Valuable Business Outcomes

Whether B2C or B2B customers or wholesale partners, LotusFlare DNO Cloud is proven to quickly move a project to completion and deliver a valuable outcomes to CSPs in service of their consumer and enterprise customers.





Delivering Valuable Business Outcomes

Whether launching a digital telco brand, creating a 5G marketplace or simplifying and streamlining an overly complex BSS environment, LotusFlare DNO Cloud allows customers to achieve valuable business outcomes.

OUTCOME

Marketplace Creation

T-Mobile US employed LotusFlare DNO Cloud to create DevEdge, a digital API marketplace for developers. From conception to launch, the project was delivered in 5 months.

OUTCOME

Business Innovation Engine

DNO Cloud provides the technology foundation for "innovation engines" to foster agility so CSPs can test, pilot and roll out new business lines quickly.



OUTCOME Bring eSIM to Life

A European CSP partnered with LotusFlare to deliver true digital onboarding to its customers with eSIM activation.

LotusFlare DNO Cloud functionality is delivered by a set of integrated SaaS components organized into six modules described below.



OUTCOME

Launch Digital Telco Brands

Digi partnered with LotusFlare to create a new brand called Tapp where customers register in seconds, order a SIM, choose or port-in their number and customize their plans without ever having to visit a store.

OUTCOME

Super App Creation

Globe Telecom partnered with LotusFlare to create the New GlobeOne Super App. With the Super App, Globe built a cost-effective, engagement-boosting, fully digital journey and engagement experience for its subscribers while gaining over 3 million active users per month on the new app.



OUTCOME MVNO in a Box

Lotus Flare DNO Cloud gives an expanded set of digital products for MVNO partners including eSIM, rapid offer creation and white label self-service mobile apps.





Omnichannel

To meet the expectation of a digital-first customer experience from initial contact to on-going support, DNO Omnichannel provides the front-end experience framework that exposes DNO Cloud functional capabilities to front-end customer channel interaction applications.

DNO Cloud's Omnichannel module integrates with a customer's existing infrastructure to enable a seamless customer experience across all digital channels including apps, websites, SMS, physical shops and metaverse channels.

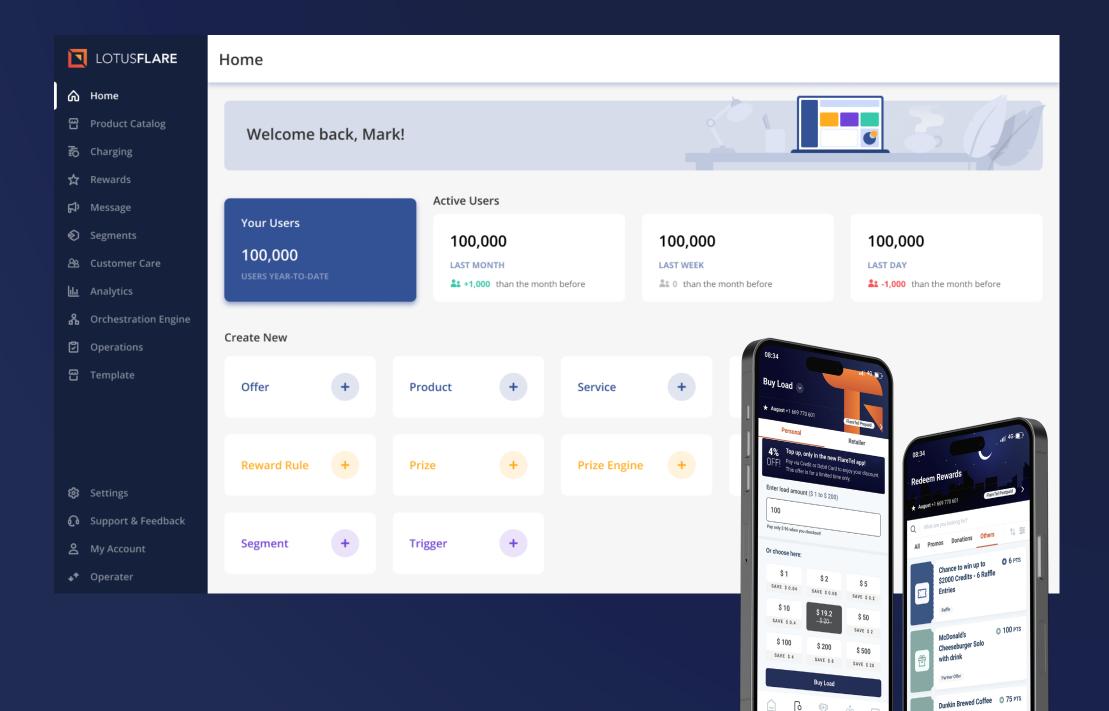
Everything from in-app onboarding, eSIM activation, online billing, referrals and rewards, and customer service can be managed by the Omnichannel Experience Framework. This enables CSPs to offer a 100% digital experience to their customers.

LoutsFlare DNO Cloud Omnichannel SaaS components include:

- LotusFlare Experience Framework
- LotusFlare DNO Portal
- LotusFlare CMS

LotusFlare DNO[™] Cloud





n Fillet with Ric



Commerce & Monetization

The heart of LotusFlare DNO Cloud, DNO Commerce & Monetization is a catalog-driven set of commerce and monetization SaaS components that support lead-to-cash-to-care business processes for communications and media services providers. DNO Commerce & Monetization enables CSPs to dramatically reduce the time-to-market for new products, offer services at a lower cost and significantly simplify and improve the customer experience.

At the same time, CSPs lower deployment and operating costs when they no longer have to maintain and upgrade legacy systems. DNO Commerce & Monetization integrates using micro-service APIs with provisioning, ERP and OSS to create a robust end-to-end system that addresses everything from product and offer creation order management, eSIM deployment and charging and billing.

DNO Cloud Commerce & Monetization SaaS components include:

- LotusFlare Account Management
- LotusFlare Product Catalog
- LotusFlare CPQ
- LotusFlare Converged Charging
- LotusFlare eSIM
- LotusFlare Order Management
- LotusFlare Orchestration Engine
- LotusFlare Resource Management
- LotusFlare Subscription & Billing







Digital Engagement

DNO Digital Engagement is an integrated set of software tools that create campaigns of personally targeted messages to customers, schedule or trigger an interaction event and track and measure the impact via delivery and conversion tactics.

Digital Engagement components enable users to create customer segments, set trigger events, and track campaigns as well as communicate with customers via all channels and track responses. To increase overall engagement, CSPs can launch, track and analyze loyalty and rewards programs in a unified user interface and manage relationships with current and prospective customers through sales and support.

DNO Digital Engagement SaaS Components include:

- LotusFlare Contextual Engagement
- LotusFlare Notification
- LotusFlare Rewards & Referrals
- LotusFlare User & Account Management



| Create User Segments | Design Messages | Configure Campaigns | Analyze Campaign Performance | Campaign Dashboard |
|-------------------------|---|--------------------------------------|------------------------------------|-------------------------------------|
| Filter User Groups | Add Personalized Content | Configure A/B Tests | Review Campaign Results | Relaunch Successful Campaigns |
| | Preview Message Appearance | Triggered / Scheduled Delivery | Examine Campaign Efficiency | Retarget Unaffected Users |
| | Select Delivery Channels | Select Campaign Segments | Analyze trends and reach | |
| | Engage with our Recommenda tions Engine | | | |



Data Hub

DNO Cloud Data Hub is the central point within LotusFlare DNO Cloud where business intelligence specialists and business analysts can configure and manage the definition, processing and storage of all DNO Cloud data related to user activity and operations.

Data Hub SaaS components enable users to organize and define data sources, have a holistic view of customers, identify actionable insights into customer behavior, define customer segments to target for engagement, and quickly gather data on conversion and outcomes by comparing product features, value propositions, calls to action and offers.

CSPs use Data Hub SaaS components to carry out detailed analysis and generate reports to improve business operations and increase revenue by leveraging data to identify opportunities to optimize their offerings and upsell their customers.

LoutsFlare DNO Cloud Data Hub SaaS components include:

- LotusFlare Central Data
- LotusFlare Analytics & Reporting
- LotusFlare Segments & Triggers
- LotusFlare Growth Tools



| | | | | Add New Operational F | | | 3. Report cor | fig output | 4. Report config review |
|--------------------|-----------------------------------|--|------------------------|-------------------------|-------------------------|--------------------|-------------------------|-------------------------|-------------------------|
| | | | © на≡е | 🥑 1. General | | 2. Event selection | | | |
| | | | 😁 Product Catalog 🔍 👻 | | | | | | ✓ Expand |
| | | LOTUSFLARE Ad | d New Operational Repo | | | 3. Report con | nfig output | 4. Report config review | long |
| | | nome g Product Catalog 👻 | 1. General | 2. Eve | nt selection | | | | string |
| | LOTUSFLARE Add New | Operational Report Co | onfig | | a forward | | 4. Report config review | | date 🗸 |
| | А ноте | 🥑 1. General | 2. Event selection | 90 | 3. Report config output | | | - | date 🗸 |
| | 🕾 Product Catalog 🗸 | | | | | | | | double 🗸 |
| JSFLARE Add New | w Operational Report Config | | | | 4. Rep | ort config review | | | |
| | 1. General | 2. Event selection | | 3. Report config output | | | | | |
| er Cataloz 🗸 🖌 | , ucherat | | | | | | | | |
| (CDINTO | | | | | | | | | |
| 16 ~ | Report Configuration | | | | | | | | |
| tions | Report Neme | | | | | | | | |
| is 👻 | Purchase report | | | | | | | | |
| s 🎽 | Description | | | | | | | | |
| nts Y | Daily generated purchase report u | used to track service related spending | | | | | | | |
| ь <u>~</u> | | | | | | | | | |
| 3 | | | | | | | | | |
| configuration | Frequency | | * | | | | | | |
| nfiguration 🖪 | Daily | | Ŧ | | | | | | |
| k configuration | Interval | | | | | | | | |
| xer sink | 1 | | | | | | | | |
| ation 🔁 | Show Advanced Configuration | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| ration Engine 🗸 | | | | | | | | | |
| ons 🗸 | | | | | | | | | |
| | | | | | | | | | |
| 25 | | | | | | | | | |
| vrt & Feedback 🗸 🗸 | | | | | | | | | |
| | | | | | | | | | |
| | | | | Cancel | Event Selection > | | | | |
| | | | | | | | | | |







Cloud Infrastructure

LotusFlare's Cloud Infrastructure is an advanced, cloud-native foundation to enable secure management, continuous integration and continuous deployment (CI/CD), reliability and hyper-scalability.

Over the years, CSP infrastructures have grown incredibly complex, costly to maintain and difficult to scale. Outsourcing the management and maintenance of the enterprise BSS to LotusFlare's cloud-native platform can significantly lower OPEX and CAPEX.

By taking the burden of scaling systems, managing system performance and system upgrades off the shoulders of our customers, LotusFlare's Cloud Infrastructure leaves CSPs free to focus on their business and create a business innovation engine. CSPs can roll out new products with increased speed, monitor their success, and pivot quickly if necessary.

Dynamic deployment means that CSPs can experiment with new technology with lower risk and on demand. LotusFlare also helps customers increase efficiency and improve cost management by dynamically managing systems and resources depending on use. Because LotusFlare Cloud Infrastructure was built with the goal of simplifying the end-user experience, end users will experience CSPs products and services in a simple and rewarding all-digital manner across all channels.





The LotusFlare DNO Cloud has been built from the ground up to be cloud native (public or private) with the performance and cost advantages of cloud hosting. LotusFlare is a preferred partner to both AWS and Microsoft Azure.

In contrast, solutions from legacy vendors have often been migrated from dedicated, on-prem hardware to a cloud environment, and do not deliver the benefits of a true cloud-native solution.



Telco-grade reliability combined with internet grade scalability and speed makes the LotusFlare DNO Cloud a unique solution. The continuous improvement and canary release process

allows innovation at unmatched speed without compromising the quality of the charging core. Dark launch capabilities enable LotusFlare teams to identify performance and functional regressions and quantify improvements before new code goes into production.



Connectivity Between Core and DNO

Concerns regarding the availability and reliability of cloud environments have been eliminated using the following cloud-native architecture design:

- Stateless microservices
- Hyperscale persistence layers
- Intelligent workload monitoring
- Orchestration of microservices

In partnership with the leading cloud providers, LotusFlare deployment teams have engineered redundantly connected cloud and traffic classes required to run a real-time Digital Network Operator out of a cloud environment.



Observability

All nodes, processes and databases are monitored and managed using the DNO Portal Dashboard, a graphical representation of real-time system performance.

Real-time insights on key performance metrics like throughput, latency or error rates provide visibility into service health and user experience KPIs.

Managed Services

Incorporated into every deployment of LotusFlare DNO Cloud, LotusFlare provides expert professional services to ensure the successful design, implementation, configuration, testing, operation and on-going support of LotusFlare DNO Cloud. LotusFlare works in small, focused teams directly with CSP teams, thus avoiding the need for costly system integrators.

LotusFlare systems architects design and lead the integration of third-party software solutions included in the overall solution. By taking this single vendor approach, LotusFlare simplifies and accelerates integration and deployment, and streamlines efficiency in on-going maintenance and support.

LotusFlare Managed Services include:

- Experience Design & Development
- Design, Configuration & Deployment
- Integration
- Third-Party Solutions
- Operation, Maintenance & Support
- Growth Services





To enable the DNO Cloud managed commerce and monetization service, LotusFlare experts work directly with your teams to configure LotusFlare DNO Cloud SaaS components to support the exact requirements of the project.



24×7 customer support, dedicated account management, training resources and documentation are included in the DNO Cloud managed service. LotusFlare creates and provides ongoing support according to agreed SLAs between LotusFlare and its communications and media services customers.



DNO Cloud works within current and prospective systems environments and LotusFlare provides integration services as part of the managed service – from CRM systems and chatbot to network provisioning systems.



Experience Design & Development

Digital customer channels are more important than ever. Working with LotusFlare, CSPs do not need separate suppliers to create the websites. mobile apps or metaverse storefronts. LotusFlare provides these valuable services as part of the DNO Cloud Service.



LotusFlare Growth Services provide an Internet playbook to build core product values and drive user acquisition, engagement, retention and monetization.



Services for the deployment of LotusFlare DNO Cloud include the management of third-party solutions that a CSP may choose as part of the overall solution. LotusFlare has preferred partner solutions (see below).



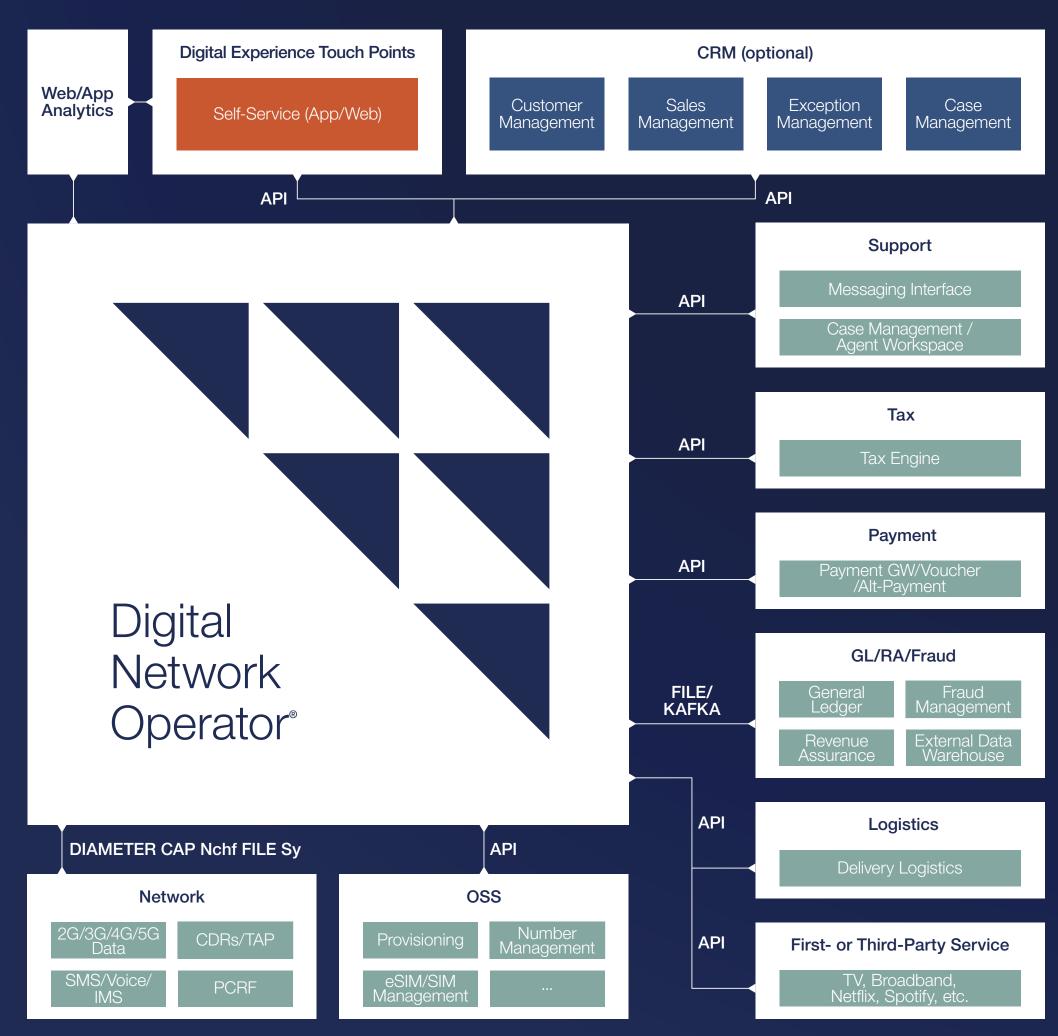
Integration

LotusFlare DNO Cloud is pre-integrated with supporting functions such as Tax, Accounting, Payments, Support, Logistics, and App/Web Analytics platforms. The only integration required is with a specific provisioning back-end layer for wireless, wireline or partner networks.

LotusFlare DNO Cloud also supports non-wireless services (first- or third-party) such as broadband, TV and other digital services. This enables the possibility of double or triple play offerings powered by a single IT stack. The integration between LotusFlare DNO Cloud and the network is via 3GPP standard interfaces.

The integration points with other systems are via RESTful APIs or standard file exchange protocols.







Simplify Technology - Simplify Experience

LotusFlare DNO Cloud Partners

LotusFlare partners with solution providers that enable valuable business outcomes when integrated with and supporting LotusFlare DNO Cloud.



Amazon Web Services (AWS) Cloud platform supporting LotusFlare DNO Cloud



Microsoft Azure Cloud platform supporting LotusFlare DNO Cloud





VCTI

Accelerate broadband expansion, automation of operations, and innovation

Conversational AI for customer care, conversational commerce, voice solutions and more





SugarCRM

Create and outstanding customer experience and streamline customer processes



Jumio Identity verification, eKYC, and transaction monitoring by artificial intelligence

LIVEPERSON



Branddocs

Orchestrate and shield digital transactions carried out between companies and users

Liveperson



| 12 |
|----|
|----|

Simplify Technology - Simplify Experience

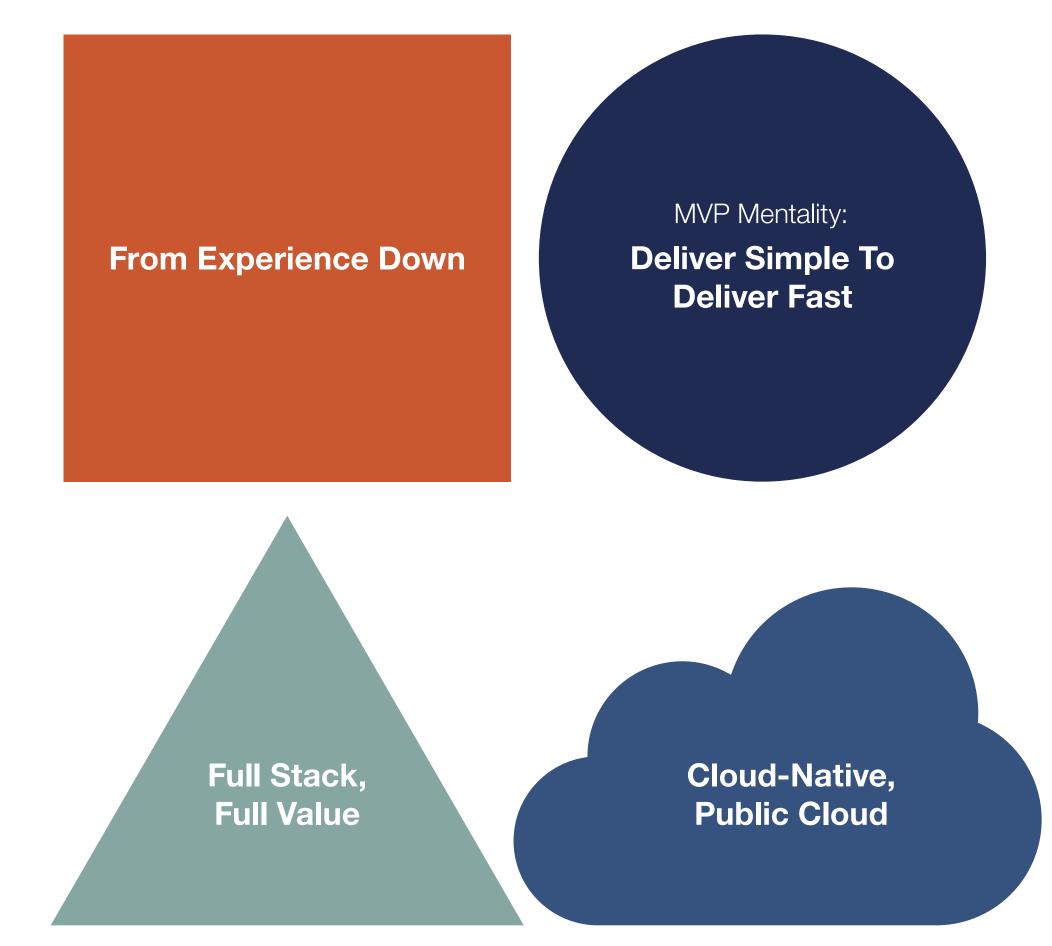
"UNVENDOR" LotusFlare Difference.

LotusFlare is the "un-vendor" when compared to the traditional vendor companies that have provide on-prem business and operational support systems to CSPs for the past 30 years.

Simply stated, LotusFlare's approach is different, having come from serving the leading internet and OTT players in the market.

If it's your preference to work with one agile company that can provide a complete service to deliver a valuable business outcome, then look to LotusFlare.





LotusFlare DNO Cloud Overview | 13







Based in the heart of Silicon Valley, LotusFlare's mission is to design, build and continuously advance a digital commerce and monetization platform that simplifies technology and customer experience to deliver valuable outcomes to enterprises. Developed from "customer experience down", LotusFlare Digital Network Operator® (DNO[™]) Cloud is a fully-managed cloud-native commerce and monetization service that provides an all-digital BSS to deliver valuable business outcomes to consumer and enterprises customers of CSPs. Learn more at lotusflare.com.

F Mobile[®]





©LotusFlare, All Rights Reserved.

LOTUSFLARE

Simplify Technology Simplify Experience

