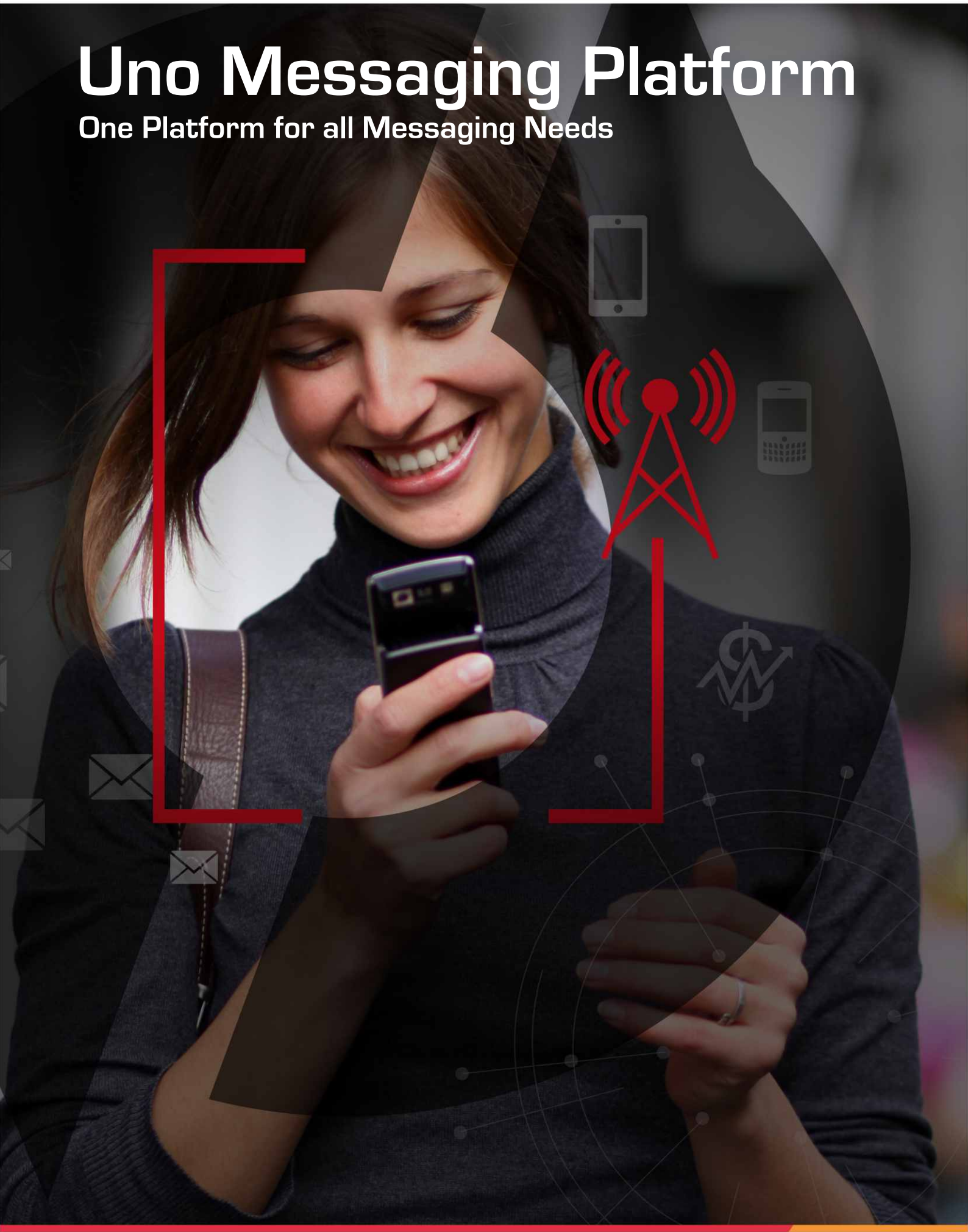
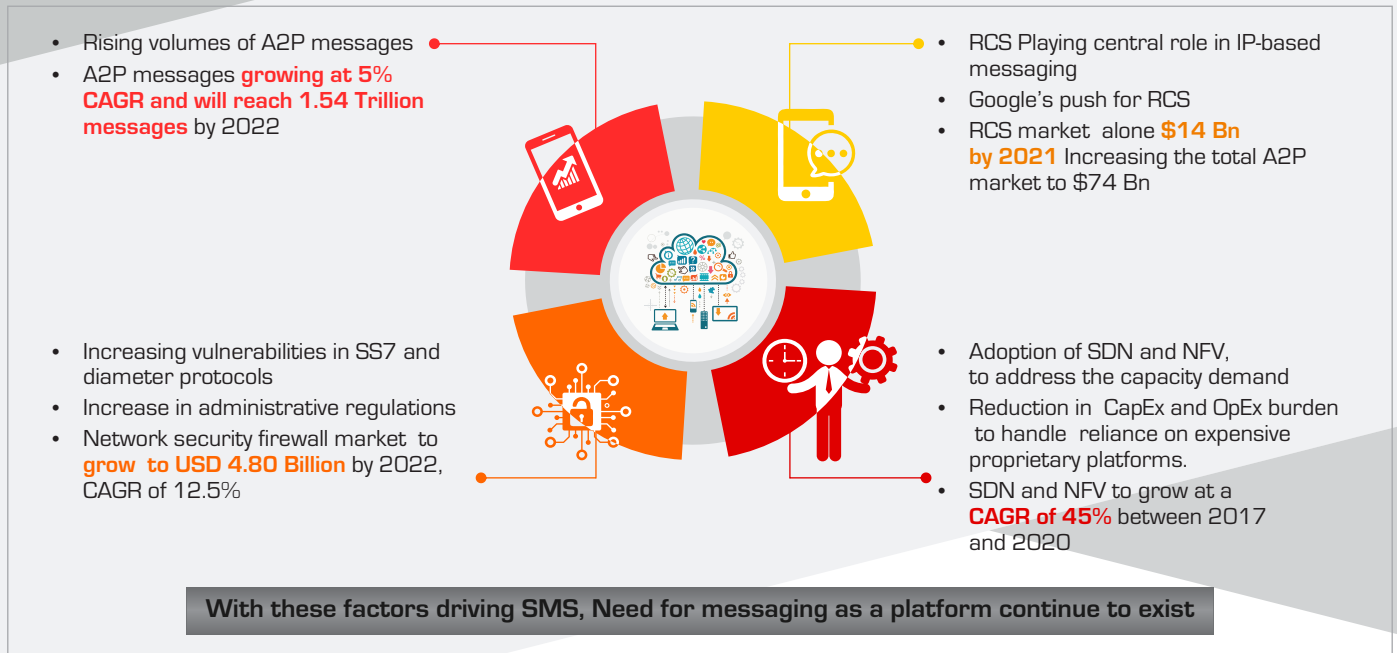


# Uno Messaging Platform

One Platform for all Messaging Needs



With the growing consumer demands and evolving habits, the messaging landscape is becoming increasingly complex. Trends influencing the messaging market



Standalone systems are poorly equipped and largely incapable of handling the business challenges that operators needs to address. With the growing volumes and diversity of message types (SMS, MMS, USSD, Voicemail, IP-SM and RCS) the need for effective management and control has never been greater. To drive business forward, Consolidation is a natural step in evolving messaging infrastructure with multiple value added service systems bundled into a cohesive solution.

Mahindra Comviva's Uno messaging platform takes a unified approach to the provisioning, control, and management of multiple services and channels. Uno messaging platform simplifies the messaging lifecycle in itself, by allowing you to address dynamic market needs by offering end-to-end transaction visibility, just-in-time capacity management, rapid service launches, and increased operational efficiencies.

Offering an intelligent and modular design with scalability and robust architecture as the core of the platform, Uno changes the way operators monetize their offerings, powering a shift from fragmented, disparate architectures into a cohesive, targeted solution.

## COMPREHENSIVE MESSAGING INFRASTRUCTURE AND MONETIZATION PLATFORM

### NFV MANO Ready messaging platform

- NFV MANO ready messaging platform based on ETSI standards
- Hardware agnostic and works with leading OpenStack and VMware deployments.
- VNFs are engineered as small as possible to enable speed and elasticity



### LEAP – Lean Enterprise Application Platform

- Build application with Drag-and-Drop of connectors
- Single platform to develop, test, launch and host numerous services.
- Quick Integration with any Operator system [IN, HLR, Databases, SMSC etc.]
- Re-usable connectors to build different applications faster
- Built in simulator for application flow logic testing and debugging.



### Robust Architecture

- Built on Mahindra Comviva's vast messaging product line experience
- Leverages common components to derive operational efficiency
- Layered architecture with easily pluggable Add-On modules



### AddOn Security modules

- Integrated DND to curb UCC messages and adhere to regulatory requirement
- Signalling level Fraud and spam prevention integrated into Uno
- Easily Addon content based filtering
- Ability to create Signal Filters by combining multiple parameters dynamically
- Real-time Analytics and Dashboard



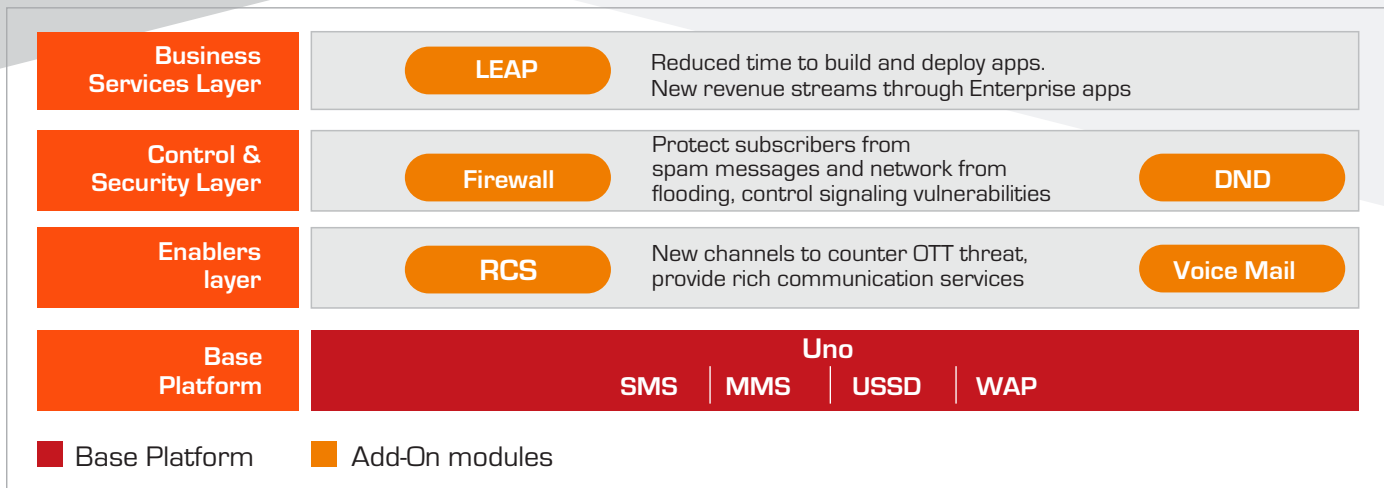
### Future ready

- RCS integrated seamlessly with Uno over standard interfaces
- Support for SMS fallback when handset does not support RCS
- GSMA accredited RCS solution
- LTE ready SMSC and USSD solution
- Simple integration with IP-SM-GW existing in the network over signaling

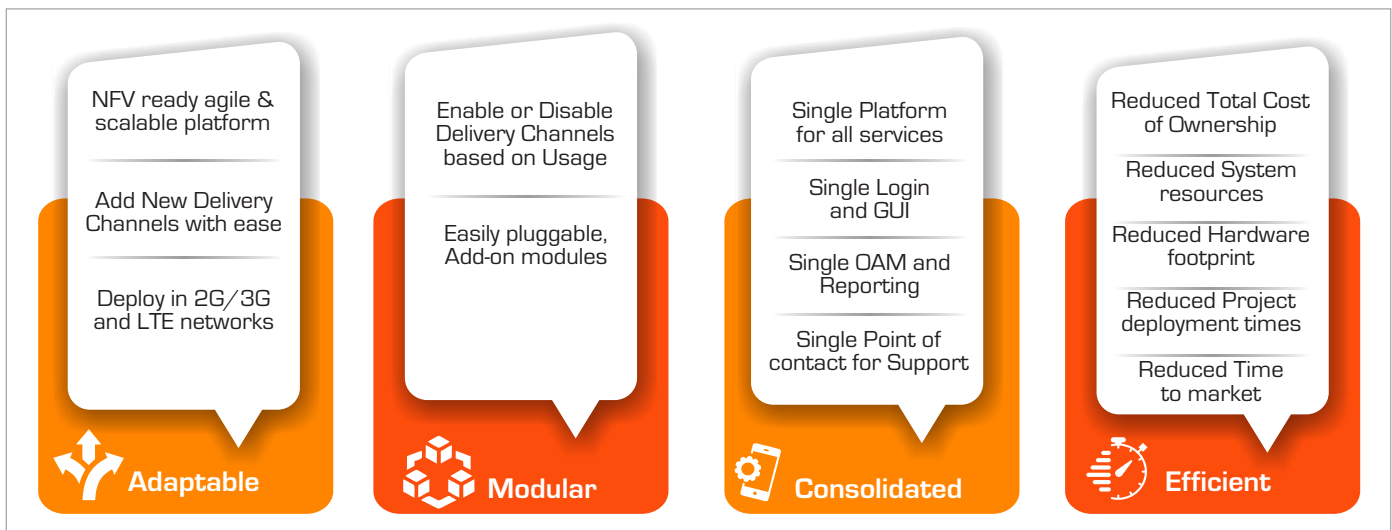


### Floating License

- Single license for all messaging channels
- Dynamically use Floating license across all channels as per traffic requirement
- Priority allocations for premium and critical services
- Enables capacity planning; eliminating the need to buy individual messaging license



## BENEFITS



# VIRTUALIZATION CASE STUDY 45% OPEX SAVING FOR A TIER1 INDIAN OPERATOR



## Operation Challenges

Datacenters with many servers each operating much below their capacity

### Increase in capital and operating Cost

- Four Hubs with GR
- 2 Geo Groups
- 105,000 TPS H/W capacity
- 55K TPS in S/W capacity
- Services - Firewall, SMSC, USSD, MMSC and Mobile Internet Gateway

Delay in service rollout due to inefficiency



## Mahindra Comviva's Solution

Comviva Messaging platform in a virtualized environment

Deploy Comviva solution is a virtualized environment

Deployment and migration in phased approach

2-Sites in an Active-Active configuration



## Impact

Reduce the hardware footprint and improve service agility

**45% OPEX saving**  
No additional HW required for future expansions.

Savings in Power, Space, Cooling, Hw, Support, operation cost.

Ease of rolling out of services in weeks compared to months

## WHY MAHINDRA COMVIVA

The benefits that Mahindra Comviva's Messaging Solutions bring to the industry, includes a strong, global legacy of success, such as

### MAHINDRA COMVIVA'S MESSAGING SOLUTIONS

No. **1** USSD Vendor with deployments as big as **45000** TPS for a single customer

**70,000+** Peak TPS handled by a single operator

**350+** Deployments in **90+** countries

**25%** market share in emerging markets

**\$100** Million Annual SMS Revenue for single operator

**1** Trillion+ Messages Processed annually

Comviva is the global leader of mobility solutions catering to The Business of Tomorrows. The company is a subsidiary of Tech Mahindra and a part of the \$21 billion Mahindra Group. Its extensive portfolio of solutions spans digital financial services, customer value management, messaging and broadband solution and digital lifestyle services and managed VAS services. It enables service providers to enhance customer experience, rationalize costs and accelerate revenue growth. Comviva's solutions are deployed by over 130 mobile service providers and financial institutions in over 95 countries and enrich the lives of over two billion people to deliver a better future.

For more information, please visit [www.comviva.com](http://www.comviva.com)

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