



COMPLETE PORTFOLIO
OF IT SOLUTIONS AND SERVICES FOR
TELECOMMUNICATIONS

We live in a world of constant connectivity. A world where interactions happen online in real-time, where massive streams of big data are sent through mobile networks every second, where traditional communication has become digital and devices intelligent, reshaping people's lives globally.

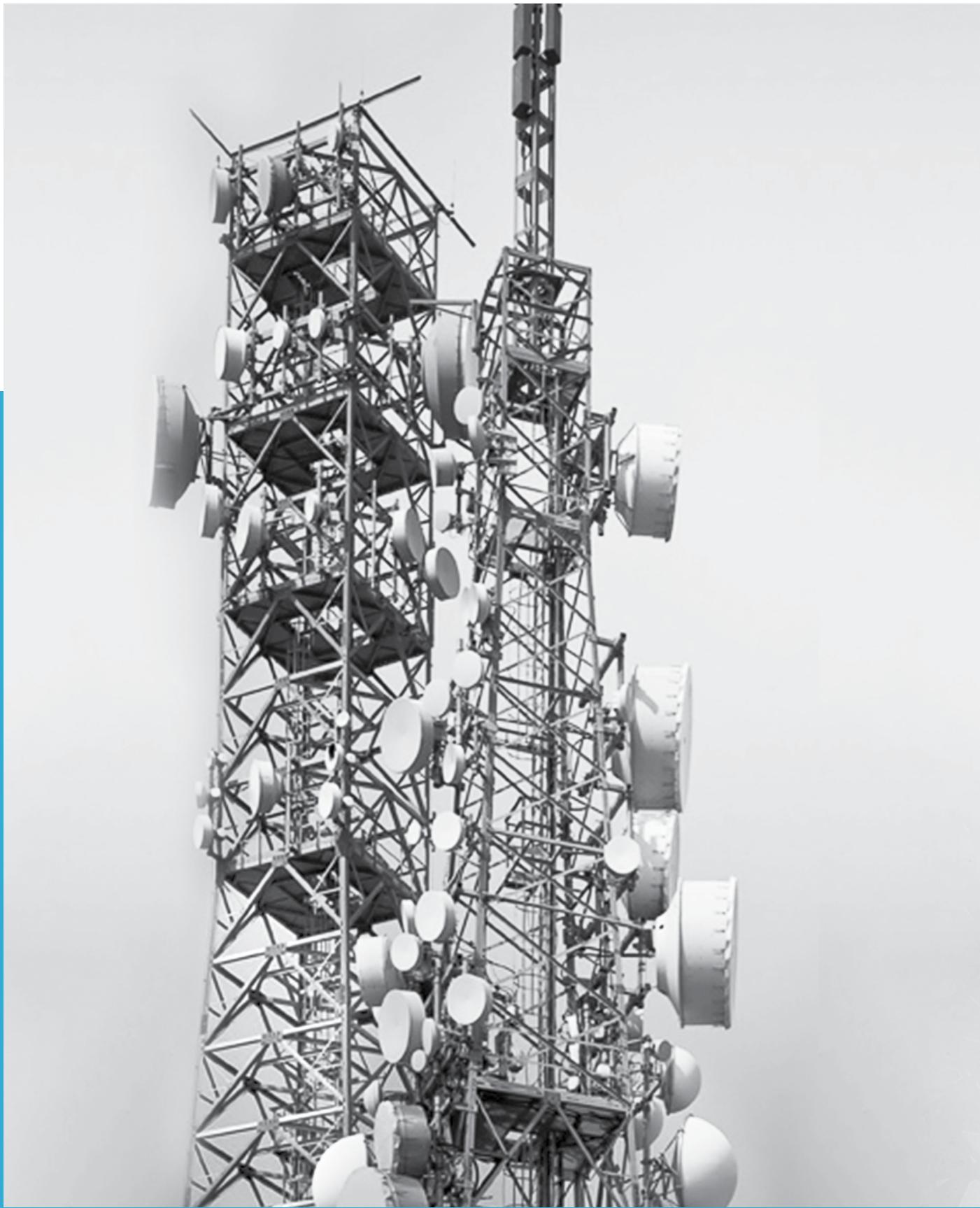
Height 8
Technologies

Reaching for the stars

BSS

OSS

CRM



ABOUT US

Height8 is a contemporary organization tuned to the needs of the current world and committed to be your technology partner aiding smooth systems and efficient functioning. We are a technology enabler providing well-researched solutions to business through a thorough understanding of the business needs and environment. Drawn from the experiences and learnings of the market leaders and rooted in the best practices of the industry, we offer forward looking, user-friendly, highly competitive products and services tailored to the needs and requirements of small and medium scale industries operating in varying sectors across the globe.



SMART CITY

A smart city uses digital technologies or information and communication technologies (ICT) to enhance the quality and performance of urban services, reduce costs and resource consumption, and engage more actively with its citizens.

Smart cities of the future will be informed, connected and aimed to a more sustainable and resilient path to prosperity. The term "smart" embraces not just the technological, but also the social and human aspects of a city. According to Gartner, there are now more than 220 cities across the world housing more than 1 million citizens. Of said 220, 90% are in emerging markets. In respect of varying levels of affluence across these 200-odd cities, it would still be fair to assume that deploying even the most rudimentary Smart Sensors should be possible. With that in mind, the opportunity for smart cities infrastructure is abundantly clear.

The foundation of any smart city is a modern smart infrastructure that is composed of devices that are connected through telecom networks back to data repositories, where all the data gathered from these devices is stored. This data is leveraged by various systems and platforms to make decisions and initiate activities, and to address the needs of users via services and applications.

H8's contribution for enabling a Smart City is in intelligent Wi-Fi system, IP Based Solution, Mobile App & Device Authentication. Since Digital Setu Project of Gujarat, H8 has started the journey with the vision of 100 Smart Cities and it support this mission of Digital India.

Network communication systems, cloud computing, infinite storage, connected devices and more will provide data that cities can use to address their challenges and drive economic growth. Standards are evolving to help cities identify opportunities and the best approach is to deliver smart city projects.

charged for the services they're using and generating revenue leakage.

Elsewhere, the telco is vitally important when it comes to onboarding new customers of such services. The average portfolio of smart services provided by a telco would average out at roughly several thousand devices.



Importants of BSS/OSS :

One incredibly important factor is access to the core network and delivery of OSS/BSS functionality in the backend. When it comes to smart connectivity, whether it's in buildings or on city streets, it's extremely important to have work flows that the service providers can support based on the execution of the work flow and the billing related to it. If smart city or smart building projects don't have core OSS and BSS implemented, customers won't be appropriately

The telecommunications industry has been witnessing high device proliferation and it is only going to increase, perhaps at a much faster rate. With a multi-technology, multi-purpose, and multi-vendor device mix, service providers need extensive manual intervention in managing network devices configurations.

Height8 Solution enables Service Providers to effectively manage device configurations, activation, and assurance in addition to eliminating manual processes.





As per a research the 10 reasons to make your city smart:

1. To drive efficiency through reduced cost of service delivery
2. To cope with increased demand on city infrastructures
3. To reduce demand on scarce resources by identifying actual need and eliminating excess demand and resource duplication
4. To add capacity with minimal investment

5. To reduce cost to citizens, businesses and visitors etc.
6. To deliver better and seamless services to citizens
7. To empower people with information and choice for varied services
8. To provide healthier environments and eliminate pollution
9. Drive innovation and provide business opportunity to new emerging sectors
10. To provide quality of life, attracting human capital, business investment and economic growth

H8 BSS

It uniquely enables real-time rating for dynamic subscriber package creation and monetisation offered by CRM.

- Billing includes all the components of a fully convergent billing and charging system, including rating, billing, online and offline charging, policy management.

Billing is designed with the end customer in mind focusing on their interaction with operator services and empowering them with Real-time Self Service (RTSS) to put them fully in control of their spend and service usage.

- Providing the operator with the ability to charge

small fees for these self-service transactions enables operators to devise innovative pricing models and monetize data in ways which are not possible with existing legacy systems. In addition, being able to interact with end customers in a personalized way, by methods preferred by them and irrespective of the specific device they are using, enables a transparent end-to-end service experience that benefits both customer and operator alike.

At the heart of Billing

is real-time charging that provides proven scalability and performance to manage users in 'intelligent' real-time whatever the preferred payment method. In this way, real-time credit management is only invoked when actually needed. Real-time credit management combined with real-time self service ensures the customer has accurate, up-to-date information on which they can act.

The Policy Management component of Billing is designed to deliver policy and charging rules, in real-time, to multiple network elements and application functions using standard interfaces. It makes real-time policy decisions based on service.

- Billing provides the fundamental building blocks to successfully bill and manage both postpaid and hybrid customers, such as Charge Generation, Discounting, Invoice Generation, Accounts Receivable and Dunning.

- The overall goals are to find, attract, and win new clients, nurture and retain those the company already has, entice former clients back into the fold, and reduce the costs of marketing and client service. Once simply a label for a category of software tools, today, it generally denotes a company-wide business strategy embracing all client-facing departments and even beyond. When an implementation is effective, people, processes, and technology work in synergy to increase profitability, and reduce operational costs.

- BSS is a complete pre-integrated business support systems (BSS) offering that enables a single view of the customer from device down to the network. Driven by business processes and best practices, BSS delivers low-cost scalability and operational efficiency through a best of suite approach. It eases implementation of products and services and quickens time to production while helping to ensure an optimal customer experience.

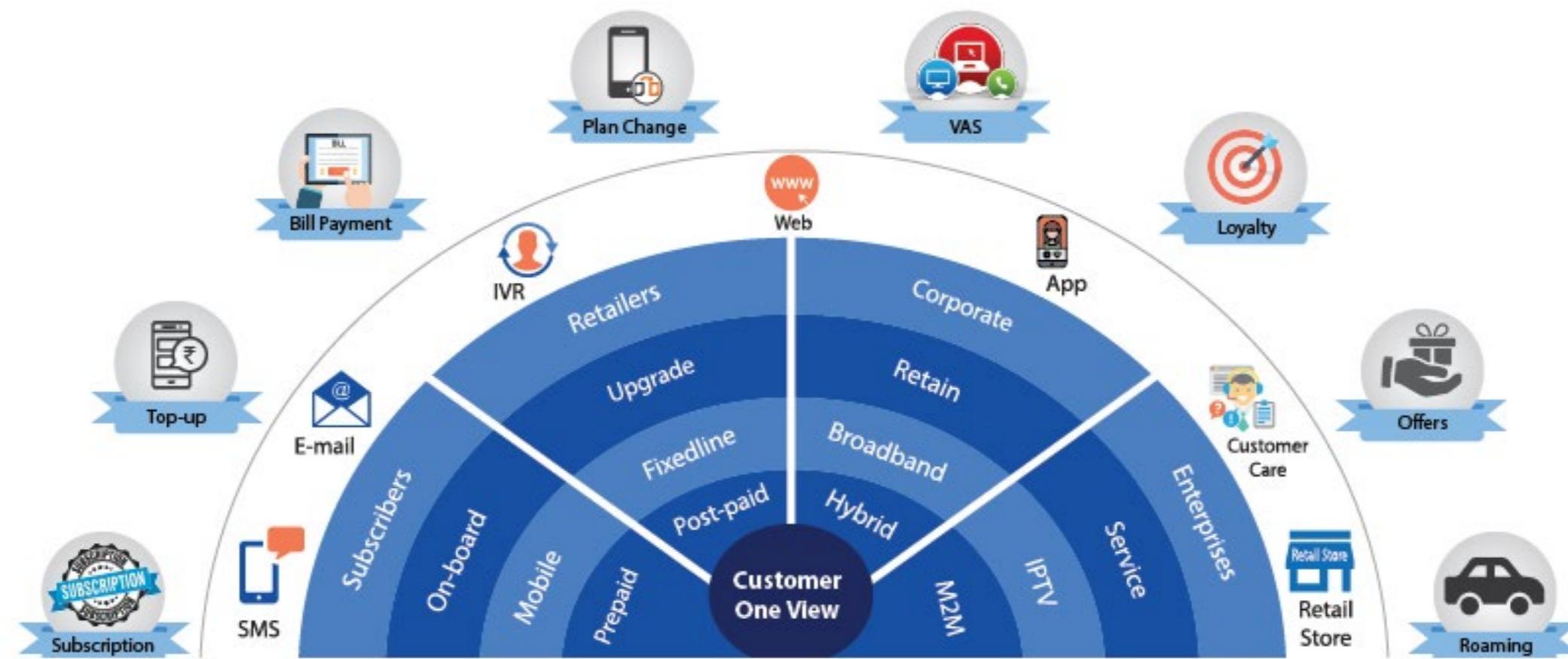
Why use Height8 BSS:

- Stimulate service usage. Gain clear real-time rating and simplified billing that can give customers the confidence to test and subscribe to new innovative services.
- Reduce time to market. Easily assemble offers, discounts, promotions, new services and bundles from catalog components.

- Improve customer service. Consolidate your customer information and reduce average call times, while letting customers handle their own accounts through self-care.

- Reduce total cost of ownership. Gain a convergent solution that can mean TCO savings of up to 20%.

- Support greater IT consolidation. Reduce the number of systems you maintain and simplify IT.



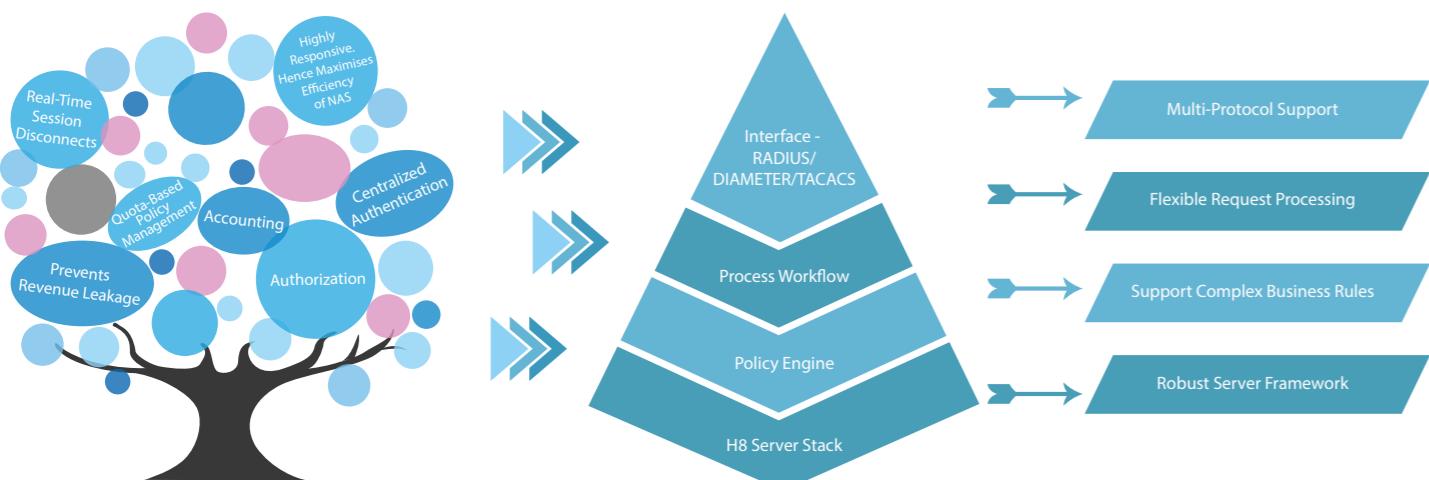
H8 OSS

As telecommunications networks evolve, so does the role of AAA. Different access wire- technologies evolution for line and wireless networks leads to a need of multi-protocol centralized authentication, authorization and accounting platform. It is imperative in the modern telecommunications landscape to have a robust AAA Server that performs not only basic AAA functions, but also more advanced functions. H8AAA Server has integration points toward online charging systems and postpaid systems that can enable the following features for all telecommunications networks.

Why use H8 Cloud OSS...

Multi-Service Support :

- H8 OSS is able to provide a centralized session and identity management system for a variety of services and networks, ranging from data, voice, video, and content.
- Manage request for multiple services like PPPoE, IPoE, Hotspot, MAC based, etc. on single instance.



AAA Server Stack :

Access control central server with RADIUS, TACACS+ and Diameter Interface.

H8AAA RADIUS stack implements all major authentication protocols, policy engine and centralized session manager.

H8AAA TACACS+ stack provides authentication, authorization and accounting capabilities with detailed logging to network administrators.

Enables Diameter standard for Authentication, Authorization, and Accounting (AAA) by implementing the Base Protocol as well as some of the most important and widely used applications.

H8AAA Diameter stack support Base, Credit Control Application, Online Charging, Offline Charging and many more. It also provides extensible architecture that allows additional diameter modules to be plugged in.

High Performance:

H8AAA Server is extremely high-performing. Even on entry-level hardware, H8AAA Server can achieve a result of maximum output from the hardware.. A high performing solution decreases churn by creating a highly responsive system that maximizes efficiency of network elements.

Centralized Identity Management:

H8AAA Server provides a centralized location for subscriber data, including logon and session management parameters. This provides a secure, centralized location for subscriber information, streamlining networks and assuring security of login

details by utilization of cryptographic algorithms. Subscriber identity can be based on username, mobile number, MAC-ID, IMSI or any custom defined based on request parameter coming in authentication request.

Vendor Neutrality and Standards Compliancy:

H8AAA Server is vendor neutral as it comes from a pure B/OSS player instead of a hardware vendor. A vendor neutral and standards-compliant AAA solution allows providers to choose mix-brand, best-of-breed networks at inception and as the network grows, saving money at network launch and beyond.

H8 CRM

- Actively tracks and manages customer information.
- Connects your entire team from any device.
- Simplifies repetitive tasks so you can concentrate on leads
- Delivers instant insights and recommendations
- Extends and customises as your business grows

Why CRM matters?

It helps you ditch clunky processes and manual efforts so you can get on with business. You can track more leads, close more deals, reduce your churn rate and grow your business. One place to store all customer information means your conversations are always personal, relevant and up to date.



Telecom CRM in Brief:

Customer relationship management forms the core of any telecommunications service provider's enterprise architecture. Telecommunications companies that are committed to constant CRM improvements focus on faster time-to-market and an improved customer experience. They expect smoother, more successful implementations of large-scale, multi-regional transformation programs.

Telecom CRM systems assist in controlling customer churn as they study data gathered from other functional spheres like sales and service. When the analysis is combined with transactional information, it discovers deep understanding of customer behaviour

individual care and attention that today's consumers expect. At the same time, it enables to achieve strategic business goals, such as lower costs through process automation and optimization. Moreover, it helps to increase profitability, productivity of



and helps to recognize and restrain customer churn. H8 CRM solution gives companies the functionality and integration needed to meet the demands of the market and customer satisfaction. It can contribute into the growth of the company and turn it into a truly customer-centric organization, with the kind of

administration and operations departments, and lower churn.

Accelerate customer acquisition, increase customer loyalty and improve partner management. Transform from a product-centric to a customer-centric organization with your H8 CRM.

Enjoy Faster Lead Conversion:

Manage leads across multiple channels of acquisition on a single window platform. Increase efficiency by reducing response time through automated lead assignment. Accelerate customer acquisition with streamlined marketing campaigns.

Apply lead nurturing strategies using direct marketing and telemarketing. Build mechanisms to ensure timely action on leads.



Faster time to market



Faster Customer Acquisition



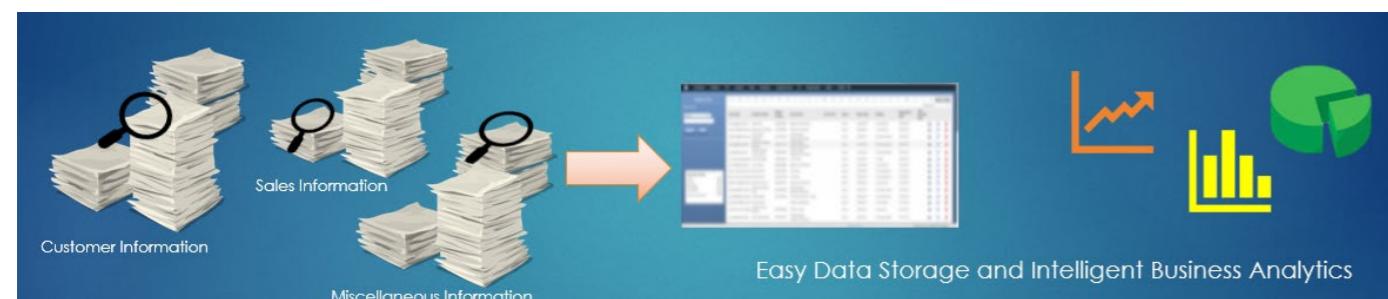
Satisfied Customers



Dissatisfied Customer
Low Churn Rate

Enhance Customer Experience:

Accelerate service request resolutions across channels. Implement inter-departmental workflow synchronization to ensure timely resolution of requests. Monetize goodwill using 'Service-to-Sales' processes to cross-sell value added products.



Utilize Advanced Reporting:

Get real-time reports across teams, products and geographies. Move from 'fragmented' to a 'unified' multi-system collated reporting. Establish an efficient analysis path using drill-down capabilities. Provide actionable insights that can help you take critical decisions in real time. Boost results by measuring and improving key performance indicators.

Reduce Churn and Increase Retention:

Identify cross-sell opportunities with insights into category, subscribed services and potential. Mine usage pattern for value segmentation and create personalized offers to increase ARPU (Average Revenue Per User).

Run proactive retention and acquisition campaigns to prevent churn and increase customer base with H8 CRM. Capture market share with innovative marketing models.



Conclusions

How we put a technology lens on our cities to support decision making in the short and long term will define the economic success of today's cities as they journey to the future.

What is becoming clear is that this is not an industry that any one stake holder or player can dominate, and that the operator is very much to be the connectivity glue to help integrate all the players in that ecosystem. Whether that be the platform provider, or the company that analyses the workflows in action, or the connectivity provider, or the manufacturer of sensors and smart infrastructure, or the city's council or government. That too extends to building management and property development organisations, particularly when defining the use case for smart buildings.

Hence we will definitely need a United Approach.

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Address : 501, Swagat Building, C. G. Road, Navrangpura
Ahmedabad - 380009, Gujarat (INDIA)