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# Simplifying Telecommunications -

Leveraging automation and  
AI for Telecom Billing

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## Introduction

Billing has always been a complex and error-prone activity and billing system is the most important component of the Telecommunication outfit. The complexity is ever increasing due to multiple legacy stacks, mergers and acquisitions, new and evolving products and services, on demand provisioning, dynamic online charging, complex subscription and more.

Thought leaders have a point of view on how organisations can maximise benefits from billing solutions.

**Listed below as questions are a few challenges that telecoms face when it comes to billing and the POVs of Industry experts.**

*With the adoption of 5g, cloud, edge and network slicing of services. What changes are we seeing in the billing space?*

### **The Omdia POV by Kedar Mohite, Senior Analyst**

Business models are rapidly changing. M& A, evolving capabilities, new revenue streams, 5g, new products etc., add pressure on telecoms. Pressure to reduce operational costs, ensure transparent and timely billing, reduce manual work and dealing with queries from customers are major concerns.

Here's where technology such as AI and cognitive automation come into picture.

AI analytics help understand customer behavior, detect spikes in usage and frauds.

Bespoke products and catalogues means customized billing. This is made easy using cognitive automation.

Post bill queries are addressed using AI technology. For example, any discrepancy in the bill (even if it is a physical paper bill) can be

addressed using AI. The customer simply has to mark the suspect, click a pic and share. The AI technology allows easy resolution of queries.

*There is an uptick to 85% of customers not understanding their bills and pre-pandemic OFCOM confirmed 33% of calls to Call centres are billing related. So how are CSP's looking to use digital to not only reduce their operating costs but also improve the NPS through billing evolution?*

### **POV-Ravi Kumar Palepu, Head of Solutions, Virtusa**

Legacy stacks, multiple billing stacks for multiple services leads to a complex ecosystem brings many challenges such as High number of billing systems, Legacy Billing stack, M&A, increasing product portfolio, Increased time-to-market and 3rd party services.

The 33% calls to contact centre cannot be seen as just billing discrepancies; they adversely affect your business and revenues.

CSP's most definitely want to reduce their operating costs, improve CX and NPS. It is therefore critical for CSPs to integrate disparate systems and platforms to create a single view of customer communication and they have a technology that supports this.

### **POV-Uday Paturi, Head of Solutions, In10s Technologies**

#### **New digital technology that transforms Billing in the most interactive and concise way is the answer!**

Billing discrepancies leading to higher contact centre volumes is a challenge most telecoms face. Increasing calls to the contact centre are usually because the customer wants to change his billing plan or has queries regarding the services or discrepancies in the billing.

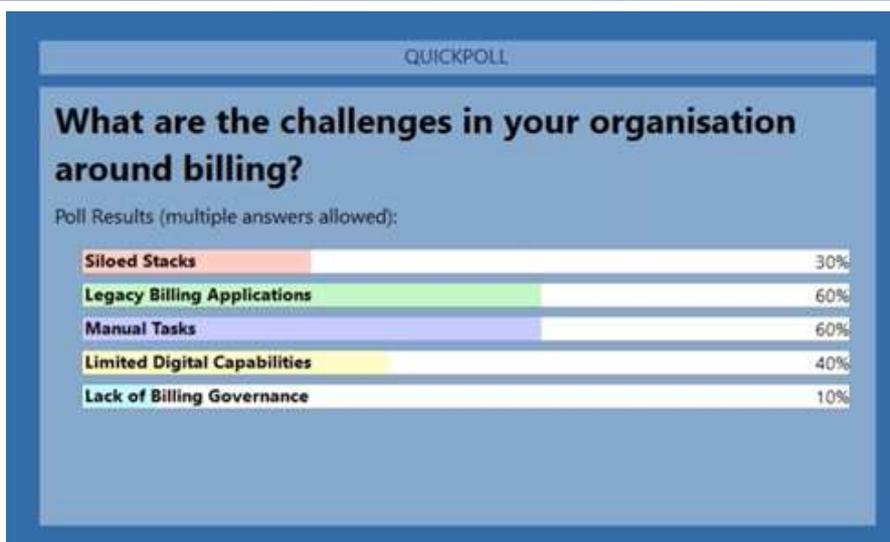
What we need is a unified customer journey, unified billing presentation and a digital overlay platform to support the billing transformation initiative. Overlay billing that provides a single bill consolidating different products, services, 3rd party products,

discounts and offers and has a sophisticated level of interactivity embedded in it (voice, video, deep-links), is your answer.

Technology innovations such as personalized video and voice billing for such customers is great way to run them through the billing components in detail and avoid any discrepancy.

This reduces customer shock, calls to contact centre and operational overload.

Interestingly, a poll conducted during a webinar showed the following results: with legacy billing applications and manual tasks being a major challenge!



*What is driving the need to innovate in the billing space? How are business and commercial models evolving in the consumer space?*

### **POV-Dilip Nedungadi, Senior Director, Telecom Solutions-Virtusa**

Innovations are happening on product catalogue, sales, technical catalogue, with flexibility to bundle and bill services on usage basis and cloud based billing solutions. However, the idea is to simplify and rationalize the product portfolio. Today, as telecoms move towards bundled products, this surely poses a challenge for the billing domain.

For instance, a TSP providing new services like gaming, the billing is based on the amount of time spent on the game. So, how is this billing mechanism communicated for better understanding? The concern is how do telecoms charge, especially since they have moved from simple CDRs to usage based data from EMS/NMS?

So, billing has moved from consumption to experience and these challenges definitely call for evolving business models in terms of not just service offerings but different types of data and building different experiences.

*What challenges & opportunities do we see Global & Regional Enterprise customers presenting CSP's in the billing space?*

### **POV-Ravi Kumar Palepu, Head of Solutions, Virtusa**

Enterprises with global customers need a single contract across the country. But in practice, this brings with it challenges like different billing stacks, different commercial models, offering, regulatory policies, taxation differences etc. Delivering at a global scale is tough. Payment schedules in different local markets causes additional challenges.

To address these, the solutions being explored are digital overlay platforms and catalogue management that reduce manual work.

### **POV-Uday Paturi, Head of Solutions, In10s Technologies**

In the evolving billing domain, the new stacks that get added only increases complexities to the billing activity. To this throw in legacy stack, manual operations and agents from different interfaces- you'll have a complex environment.

One way to handle large enterprise customer other than overlay platform is to ensure the operator has a master hierarchy view of enterprise and billing hierarchy.

With digital platforms, you can fast-track the process with solutions that offer adaptors that work with legacy systems, create a consolidated account hierarchy to service their enterprise customer and seamlessly offer self-service experience.

The crux is to build a hierarchy to service enterprise customer. For CSP's with Enterprise customers we have seen the need to improve the billing processes to improve CX and create cost synergies to support new digital models via effective platform consolidation.

Yet, another poll question that was answered in alignment with thought leadership: CX bringing about the much needed differentiation.



*In the world, we live in now where CSP's need to change business models quickly, operational models equally need to adapt & evolve to drive cost synergies. What can be done in Billing domain to support these digital growth strategies?*

**POV-Dilip Nedungadi, Senior Director, Telecom Solutions-Virtusa**

Automation and AI have significantly helped in reducing manual effort and Opex while checking for billing discrepancies and facilitating

automatic reconciliations etc. As more and more finance CSPs continue to leverage automation with AI-based reconciliation they will see a reduced costs and better operational efficiency.

Another poll question that has respondents re-emphasize cloud as epicenter of billing transformation:



## The Omdia POV by Kedar Mohite, Senior Analyst

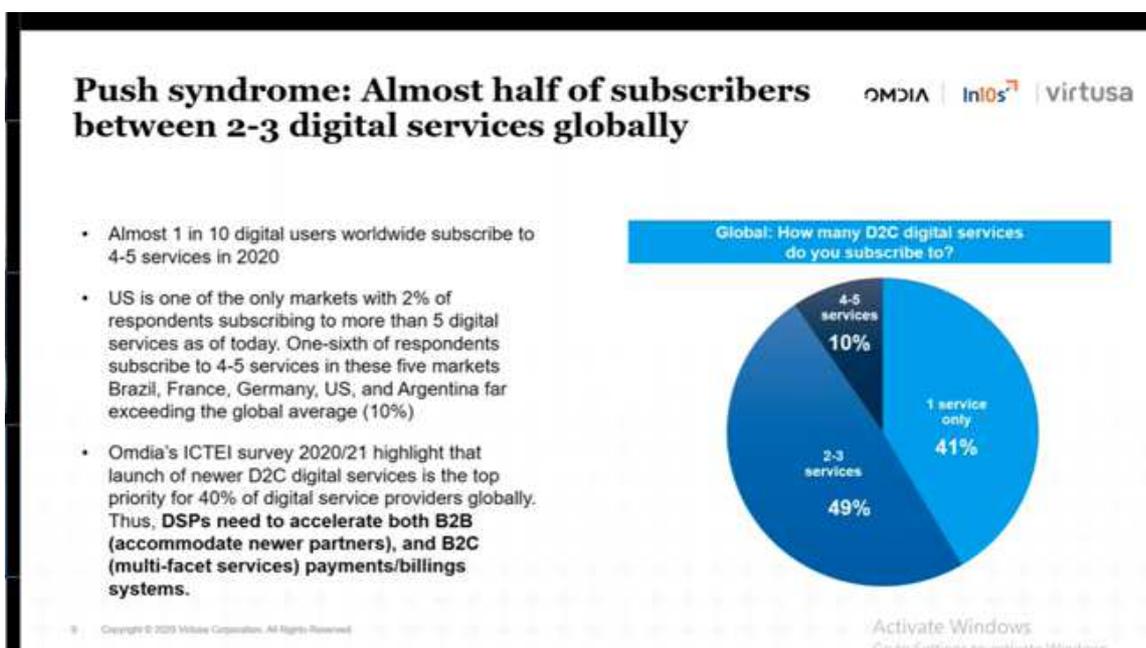
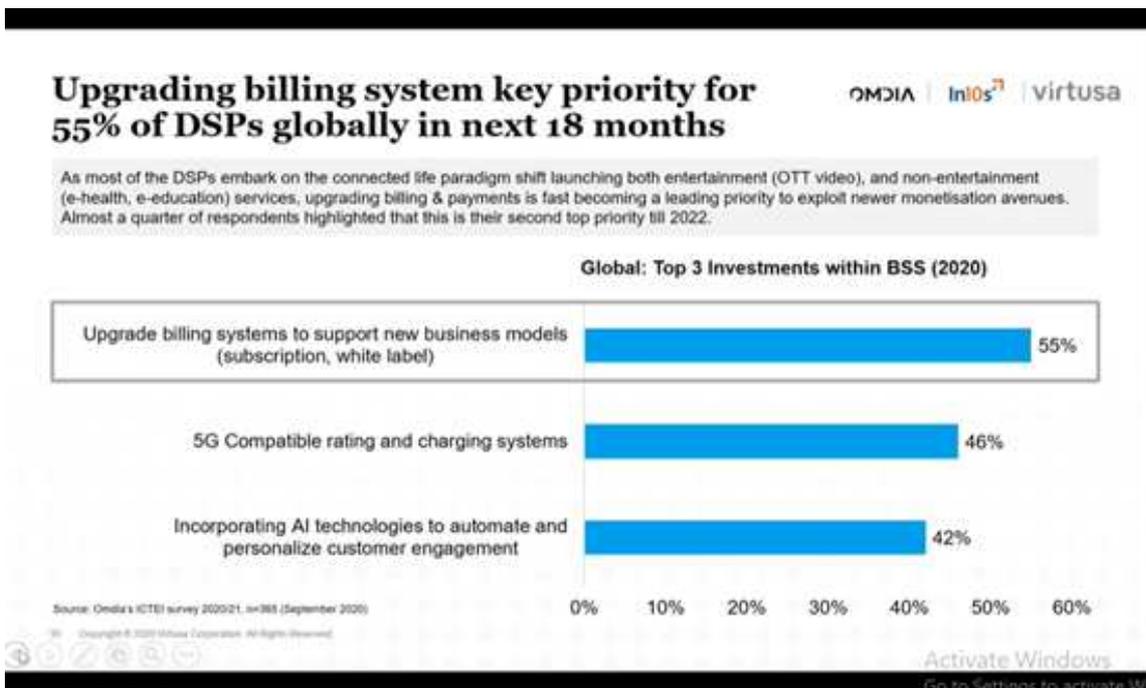
Billing transformation in tomorrow's connected economy is much needed and there is a tremendous push for DSPs to go for this agile transformation and every CSP will soon be a DSP.

Some statistic/insights:

- A survey showed 55% of CSPs are willing to upgrade their billing systems in the next 18 months.
- Almost 1 in 10 digital users worldwide subscribe to 4-5 services in 2020
- US is one of the only markets with 2% of respondents subscribing to more than 5 digital services as of today. One-sixth of respondents subscribe to 4-5 services in these five markets Brazil, France, Germany, US, and Argentina far exceeding the global average (10%)
- **DSPs based in EMEA** to be at the forefront of the billing transformation journey with almost a quarter (23%) of respondents to increase IT spend by more than 6% by 2022

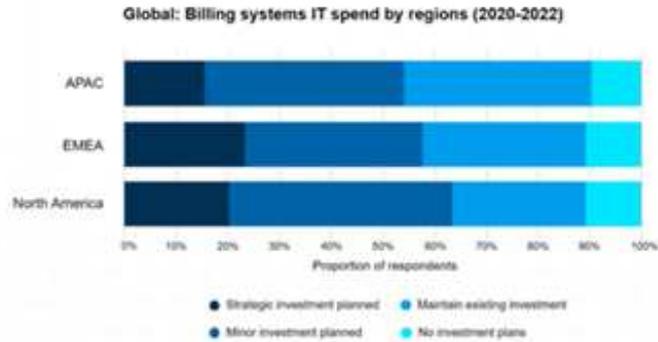
- Slightly more than one-sixth of DSPs based in APAC will be increasing IT spend on their existing billing systems by more than 6%
- Globally, almost one in ten will resort to no investment plans in the next 18-24 months

A few more significant insights:



## EMEA and North America to lead billing transformation spend

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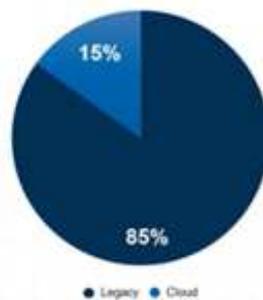
## Cloud at the epicentre of these transformation journeys

There has been a rapid surge of cloud-based billing deployments in the past 18-24 months resulting in almost 15% of total deals.

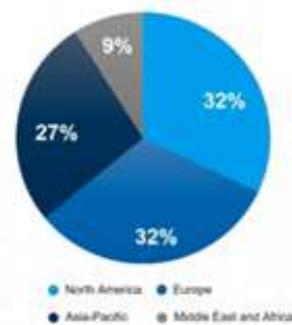
The propensity towards cloud-based deployments is witnessed more across North America and Europe predominantly attributed towards early movers into the connected D2C economy to enrich its monetisation avenues across both B2C and B2B segments.

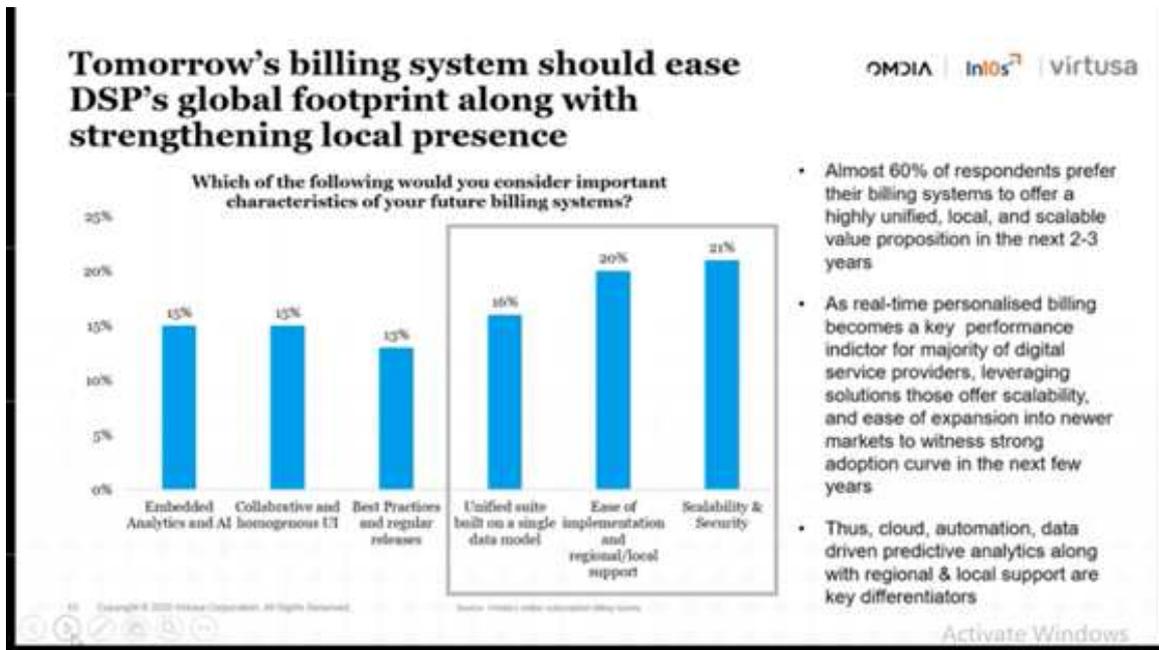
A good example is Vodafone TV. AT&T's newly launched OTT offering.

Global: Billing systems by deployment configuration (2019-2020)



Global: Cloud billing system deployments by regions (2019-2020)





While traditionally, billing was a passive IT functional asset it is now a potential digital weapon in the CSP's toolbox to make customer feel comfortable with the billing experience and drive a more positive long-term Customer engagement. Concise billing as mentioned before averts revenue leakages while improving operational efficiencies.

***To conclude Innovative Billing truly lies at the epicenter of transformation. With 5G and IoT products becoming a norm, CSPs need to be customer centric NOW. Transparent, clear and concise billing communication is the need of the hour as it brings in the much needed CX differentiation***