PortaBilling Beyond Telecom: Spotting Industries, Technologies, and Our Competitive Edge

Blog Story Draft

Focus keyword: PortaBilling

SEO title [67 max]: PortaBilling Beyond Telecom: Industries and Technologies

Meta description [155 max]: Is the “subscriptions era” over? Why does Silicon Valley vet heavily on consumption-based billing? Figure out and learn more with PortaBilling

Excerpt [250 best, 300 max]: How is billing different from invoicing, charging, and service provisioning? Why is the “subscription economy” era nearing its end? What is consumption-based billing, and why is it's industry changer? We interview the PortaBilling team to deliver their expertise to you.

Our previous “beyond telecom” story covered the use cases PortaBilling enables for EV charging and the smart grid. Frankly, we hardly expected it would arouse much discussion and interest inside PortaOne and among our customers. That’s why we decided to expand it further, adding new actual and potential PortaBilling use cases from various industries and explaining the technologies that make PortaBilling a unique offering for its niche.

First, Let’s Agree on The Vocabulary

While researching the competitive landscape and the existing state of technology for this story, we discovered various concepts: such as “billing,” “charging,” “invoicing,” and others. All these terms define a relationship between the customer and the service provider, resulting in the provider getting remunerated. However, these concepts are not synonyms. Disclaimer: All of the explainers below are very far from academic definitions. This is just our attempt at coming to terms on terms.

Invoicing

Zoho’s simple and elegant definition (we cover Zoho’s story in the next part of the saga) explains that an “invoice” is a document given to the customer by the service provider to collect payment. It includes the cost of products or services purchased by the customer and rendered by the service provider. Therefore, “invoicing” is a process of generating an invoice by the service provider and presenting it to the customer.

Charging

According to Oracle (corporation, not deity), a “charge” is an expense item. At the same time, an “invoice” is a document that summarizes a group of incurred or future charges during a specific time period. Therefore, charging is about producing correct amounts for individual items, which will be included in an invoice separately or as a group later on. For instance, instead of presenting call records for each of 100+ calls, it’s sufficient just to show “domestic calls — 250 minutes.”

What to expect with PortaBilling invoicing: Invoicing in a nutshell: PortaSwitch 101 c…

https://www.youtube.com/watch?v=AOV3DOvHZ4c&list=PLtWHYaFvc8400OLITvts9HQpNS9PQfw7j

Tanya Zablotski, project manager at PortaOne, created this wonderful video course on invoicing process in PortaBilling. You will learn to create invoice templates and customer classes using PortaBilling’s built-in visual editor. Engaged customers might also enjoy part 2 of this course.

Charging does not necessarily require instant invoicing. This can be done later. However, for tax reasons, API-based charging (see Stripe API, for example) still requires an invoice in many cases. A good example is calculating the VAT in Europe.

Billing

The “billing” is a process of recording and collecting service charges. Billing consists of multiple steps, the most general being:

1. Setting the price for the services and presenting the buyer with these prices.
2. Recording the charge for the services.
3. Presenting a single charge or a group of charges to a customer, usually in an invoice.
4. Tracking payment of the charge by the customer.
5. Reminding customers of the need to pay (if they fail) for a certain amount of time (see “dunning”).
6. Provisioning services to this customer based on their payment history.

Dunning, Reminders, and Collection Policy

“If billing was as simple as sending an invoice to your customer, we would have had trouble staying in that business,” jokes Andriy Zhylenko, CEO of PortaOne. According to ProfitWell by Paddle, nearly 35% of all payment card transactions fail. And that’s over ⅓ of the revenue our customers can make. How to design a payment reminder policy that is gentle enough not to scare the customer away yet provides efficient collections?



“Settling the Debt” (Die Begleichung der Schulden) by Erwin Eichinger (1892-1950). Reproduction by Meisterdrucke.uk. PortaBilling’s collection policy helps our customers’ customers to settle their debts on time.

According to Investopedia, “dunning” is an XVIIth-century term that describes the process of service providers communicating with their customers to collect money owed for goods or services provided. This collection process involves various degrees of escalating intensity, from gentle in-app reminders to hard-core litigation. The PortaBilling team calls dunning an XXI-century term “collection policy.”

Service Provisioning

This term has its origins in telecom. However, in the age of SaaS, service provisioning is relevant to many other industries where “providing a service” is technologically complicated and involves multiple computer systems and technologies.

OK Go - Behind-The-Scenes: Anamorphic Illusions in The Writing's On the Wall

https://www.youtube.com/watch?v=xRCZeEUP6Uk

Eight years after the initial release of its “The Writing’s On the Wall” song video (watched by 28M people since then), US rock band OK Go produced this interesting behind-the-scenes documentary. “The Writing’s On the Wall” required lots of service provisioning behind the scenes to attract you. PortaBilling can handle service provisioning of any complexity for your business ventures.

Technologically, giving a piano lesson or babysitting is plain vanilla. You might need a phone (or messenger) to agree on the time and date. You will also need basic equipment (piano, baby bottle, diapers, toddler books, and a tablet playing Peppa the Pig.) However, an SMS you must send when scheduling a piano lesson or inviting a babysitter usually involves hundreds of technologies, APIs, and computer systems. The system which orchestrates them all is service provisioning (named differently in various mobile network architectures).

Industries PortaOne Team Is Planning to Explore First

Writing about software development and testing, Chinese military strategist Sun Tzu (or was it Heemeng Foo and Brian Feldman?) articulates principle No. 8: “Know your business” (we have reasons to believe it was “know your terrain” in the original.) Therefore, after researching the terrain, we opened some battle plans in case you decide to become our ally.

PortaBilling in SaaS, Especially Billing-per-API-calls Model

“The SaaS billing problem has been around pretty much since there have been SaaS companies,” explained Bogomil Balkansky, a partner at Sequoia Capital, in an interview with Aisha Counts for the Protocol. “SaaS has been around for over a decade,” explains Oleh Shevtsov, the Head of PM Department at PortaOne. “Yet, we don’t see even a hint of standardization for SaaS billing. That’s understandable. Each major player in SaaS billing shows off the simplest possible API a company could produce to convince newcomers that the integration will be almost free.”

API 2.0: App development made faster, easier and less demanding: PortaOne Telco …

Oleksandr Zakharchenko, PortaOne’s Development Team Lead, explains PortaBilling API 2.0. In 2021 PortaOne launched a large-scale modernization program for our APIs and documentation. The outcomes are now visible. Disclaimer: it’s still telecom-centered, yet we are now in the process of “unbundling” the telecom (hello, PortaSwitch) from PortaBilling and welcoming other industries to it.

Amazon (AWS), Google (Places API), Microsoft (Azure API), Twilio (numerous APIs), and many other tech giants have already implemented usage-based billing for their APIs. There’s also Moesif with its recent $12M round-A check and single focus on API monetization. So why did we pick per-call billing as a focus area for PortaBilling?

“We see that SaaS billing supply won’t match the demand for another several years or even a decade,” reasons Andriy Zhylenko. “And PortaOne has over two decades of combat experience in telecom billing, a field dominated by giants such as Ericsson, Cisco, and Amdocs.” The (not so) secret sauce is finding your niche and focusing on it.

PortaBilling for IoT

“There are two elements in the business model for IoT billing,” explains Oleh Shevtsov. “The one is the transport function — each IoT device needs some kind of connectivity to ensure the “i” element of the IoT. The second element is the monetization model for the sensor or connected device’s service. This is where the provider generates the actual value to the end-user, and so it is where the charging for the value occurs.”

The focus keyword is PortaBilling

PortaOne launched its first ventures into IoT-transport billing in the 2000-s. “Because IoT was new, customers usually bundled the “transport” and value-based billing. That’s how PortaOne ended up helping save the newborn calves in remote pastures of Brazil and empowering branded alcohol corporations to reach out directly to the end-users while bartenders keep track of their patron’s “digital tap” whiskey in the local bars,” recalls Roman Khalenkov, Chief Commercial Officer of PortaOne.

End-to-end IoT products with PortaBilling

https://www.youtube.com/watch?v=sKl0TJc6txE

Here’s a video by Oleg Shevtov explaining how PortaBilling helps our customers to unbundle the telecom-centered IoT “transport” billing from the usage-based IoT billing.

However, in 2010-s, the IoT billing situation started to change as more smart home devices appeared, using home WiFi (not EDGE or 3G SIM card) for transport. Therefore, there was no need for separate “connectivity billing” for those IoT devices. Hence, IoT entrepreneurs decided they could “go on their own” and bill for their added value separately from the connectivity fees charged by the telcos. Welcome to usage-based IoT billing!

PortaBilling for Data Center and Cloud Infrastructure

Datacenter billing has been around for over a decade. However, each of this world's Google, AWS, and Azure attempt to grow their own garden. “Billing is half the deal in cloud computing,” explains Andriy Zhylenko. “Once you get it right, you can scale business while growing your infrastructure simultaneously.” We don’t want to be the conspirologists here, but that’s why “the cloud gang” is not really interested in removing this barrier to entry for other potential players.

We know only one pro-SME cloud provider among the large ones. It’s Oracle and their Cloud Scale Billing. Yes, you are reading it right. That’s a large cloud provider’s billing solution for smaller-scale cloud providers. Please don’t confuse it with the billing and cost management for OCI, though.

Billing Basics

https://www.youtube.com/watch?v=O_zetEe35Ww

Here’s a great explainer by Oracle of its own billing for OCI. It highlights problems common to an entire data center industry. PortaBilling helps solve many of those problems.

Therefore, PortaBilling offers what “the cloud gang” fails to offer to smaller cloud providers — reliable and intense-load-ready SaaS billing (with its roots in telecom.) However, PortaBilling shines even lighter with the edge computing business model.

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Edge Computing

“Edge computing” is a distributed computing paradigm centered around bringing computation and data storage geographically closer to the data sources. In simple English: not all countries have dedicated “regions” (cloud jargon for infrastructure located in direct proximity to customers, simplifying Internet traffic routes.)

“Edge computing of the 2020-ies resembles long distance SIP-calls in the early 2000-s,” explains Andriy Zhylenko. Large cloud providers cannot build data centers everywhere. There are various barriers ranging from bad investment climate or ongoing armed conflict (Google building a data center in Kherson right now would be a total surprise even for us) to legal limitations or economic feasibility. Yet, there’s a huge untapped potential there for smaller cloud operators, pretty much like SIP-calling and long-distance CSPs of the 2000-s.

However, how do you bill for your edge computing services besides weighing and taking all the risks? You need a reliable, load-proof system that’s sufficiently customizable and agile for your local business needs. And it would be nice to have it with an unlimited lifetime license. Does this remind you of something? Exactly, welcome PortaBilling!

PortaBilling in EVs and Utilities

Last but not least, EVs and utilities had become one of the initial ventures (alongside IoT) where PortaBilling experiments outside our traditional telecom expertise. Please read our story, that’s completely dedicated to EV charging and utility billing. It’s a prequel to this one. Or simply watch this video playlist:

Manage electric vehicle charging: PortaBilling - a powerful billing solution for EV cha…

https://www.youtube.com/watch?v=XmPCeKDrL2o&list=PLtWHYaFvc843WY-pnWGsk6CEcQuHz_2Gi

Andriy Zhylenko created this video series explaining how PortaBilling can help entrepreneurs in the EV charging business. This is the first video in a playlist of four. Click on the YouTube logo in the bottom left corner of this embed to see the entire playlist (or just wait for the autoplay to kick in when the video ends).

This concludes part 2 of the “PortaBilling Beyond Telecom” series. We invite readers to read the upcoming part 3: PortaBilling Alternatives in SaaS: Teams that Inspire Us.

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