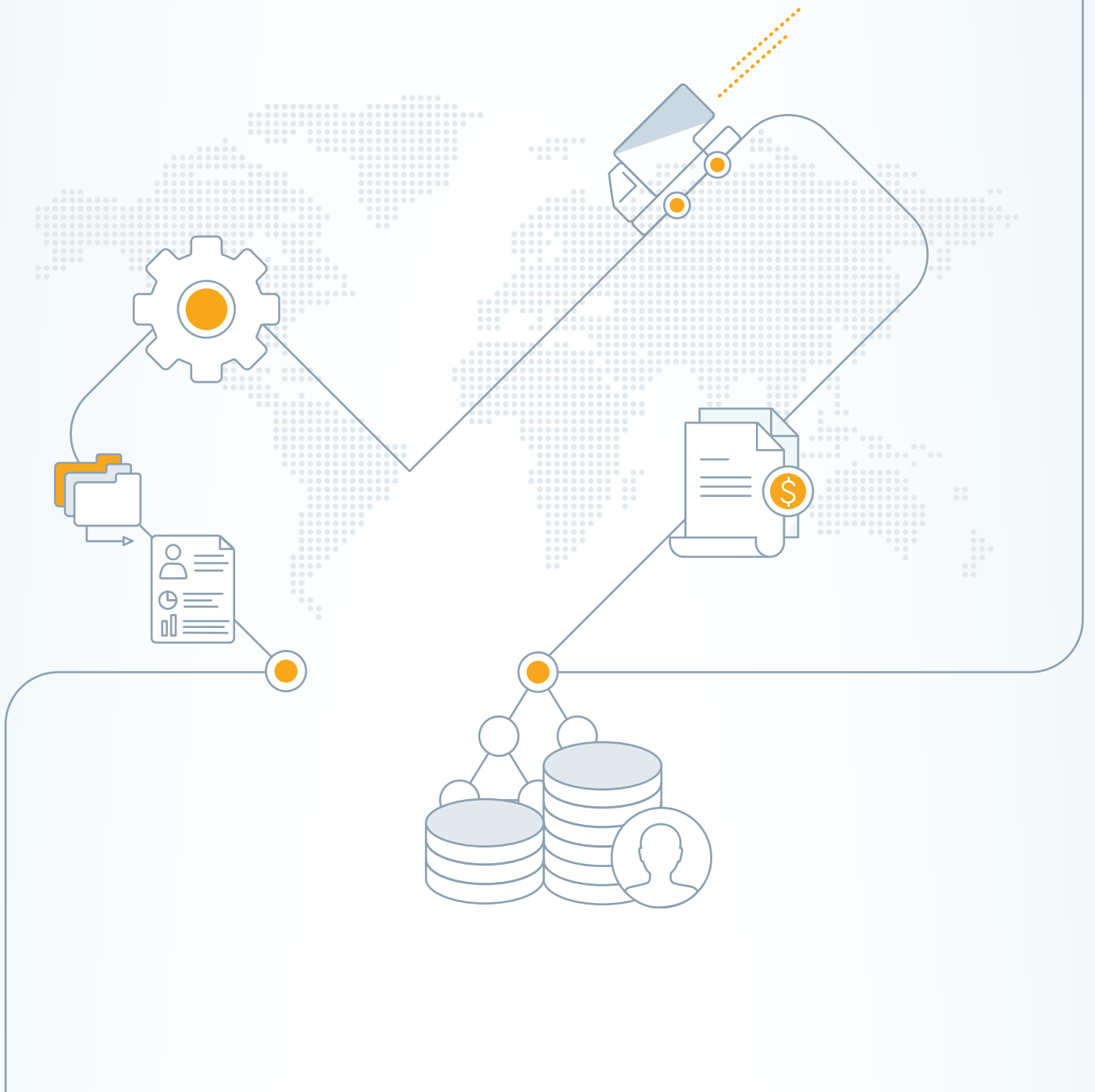




Your BSS Checklist For IoT Scale





Why are mobile operators increasingly moving to support IoT use cases?

More than ever, service providers, including mobile operators, are looking to expand into new revenue streams. Mobile penetration is now extremely high in every country and almost every region in the world, which limits the ability for revenue growth through mobile alone. Instead, companies are looking for new telco-related services that have a viable potential for growth.

It's not hard to see why so many service providers are putting their hopes on IoT. As a connectivity solution, it's an easy sidestep from consumer networks, and as an extremely successful emerging technology, there are limitless opportunities in the pipeline for savvy CSPs, especially with the rollout of 5G.

The route to monetizing IoT



Provide flexibility to your customers, and their customers



Support new lines of business



Introduce additional services



Simplify and automate new & existing processes



Shorter time to market



Bringing these Factors Together?

A Holistic, Next-gen BSS

A strong BSS can provide all the above benefits and more. However, not all BSS solutions are created equally. To really get the most out of the move to IoT value-added services, your BSS needs to check five boxes.

1

Enables New Business Models

Without a BSS, a move into IoT connectivity is short-sighted. Let's say you're looking to provide IoT connectivity to a Utilities company. The Utility provider would like to start leveraging smart metering systems for its own customers, and as the CSP, you will provide connectivity to the IoT devices. How can you bill for this service when you're a hierarchy away from the actual consumer? How can you monetize your own efforts to see business growth without a multi-layered engine for various business streams?

Your first thought is probably going to be, 'Why not work with what we've got?' However, legacy systems are not built to manage IoT services, they're built in a monolith structure which is impossible to adapt without heavy resource investment. Making this attempt can launch years of costly development, just for a subpar solution that's already out of date by the time the project is complete.

IoT is a future-focused technology, which thrives when paired with a future-focused technology stack. Cloud-native infrastructure has allowed businesses to turn from legacy BSS, to something scalable, modular and affordable.

- **Scalable** – Grow your services to meet your needs, adding customers, features and functionality without the need for added hardware investment, and in a fraction of the time. With the might of the cloud behind you, performance stays best-in-class.
- **Modular** – Take the theory behind micro-services and apply it to your business structure. Everything is decoupled, and with the building blocks you can add any new innovation, such as billing and rating, or even an industry specific module, that can then be customized for your roadmap.
- **Affordable** – Be charged for only what you use with innovative cloud consumption models that measure supply and demand in granular detail. The best partners will also offer a connectivity agreement that allows you to only pay for active devices.



2

Includes a CRM That Plays Nicely With IoT

One of these building blocks should be a CRM that is built for IoT behavior and scale. IoT devices are not the same as mobile phones, they take unique actions, they communicate on a different scale, and they require varied provisions for maintenance and support. Even in terms of sheer number, while each person might have one mobile phone, one enterprise IoT deployment could need hundreds of thousands of devices alone, and even a single customer might use dozens of IoT solutions.

A CRM that's built for IoT can manage multiple devices within the same customer record with ease. That means if your customer has a mobile phone contract with you, and you're expanding into smart home capabilities, you can add, view, provision and manage additional services such as heating, hot water, lighting and more, all through the same single dashboard.

On a larger scale, think about this functionality for B2B services. If a Telco wants to sell their connectivity services to a utilities provider that wants to launch smart metering, legacy systems hold the CSP back from being able to say yes. How would they create this multi-hierarchy environment with their legacy technology? With a multi-layered and multi-faceted CRM, you simply add the new business as a customer, and allow them to manage their own users within the system directly.



3

Expands your Options with Real-time Visibility and Control

The benefits of having real-time insight into usage and ratings have been established for years, even under traditional cellular business models.

Think about something as simple as bill shock prevention. When a customer can access their usage in real-time directly from a self-service app or website, they have control and insight into exactly their end of month cost, for example checking on the accurate cost of an overseas call that comes in over and above their monthly bundle, or a push notification that alerts them to excess data usage.

This benefit is just as important when it comes to customer service in IoT. Now consider how this expands to become a business benefit as you add more revenue streams to your service model, particularly when we're talking about IoT.

Let's take the example of a smart city project. A connectivity supplier to a smart city initiative might need 50,000 SIM cards, all usage agnostic as the specifics haven't been decided yet for which will be used for smart cameras, which might be lighting, which will be car chargers and so on.

Through an intelligent connectivity partner, you can make this happen, providing a pool of data usage that can be apportioned according to your exact needs. But the connectivity alone is not enough.

Here's where the real-time visibility and control of an intelligent BSS becomes essential. Of course, as discussed above, a smart BSS enables you to monetize all of these services in the first place. Next, real-time insight provides the opportunity to take your control over these services to the next level.

Your system recognizes an unusual spike in consumption? With a real-time window you can find the cause and block it immediately. On the contrary, a particular device should be using a certain amount of data and has suddenly taken a dip? Solve the issue before it becomes a customer's problem.

The use cases for this technology are as broad as your imagination, allowing an enterprise or service provider to create rule sets, policy creation and reporting and analytics over any and all consumption and behavior. To make this happen however, the real-time infrastructure has to be in place – and that's just not possible with legacy BSS.



4

Puts a Focus on Billing and Rating

Creating new business models as a service provider or mobile operator, training your staff or adapting your culture means very little if you don't have the actual infrastructure in place to manage the new technologies.

A sophisticated billing and rating engine is the center of this, because if you can't monetize your value-added services, what next?

Let's look at just a few use cases that this advanced BSS should be able to seamlessly achieve.

- **Unified invoicing-** One single invoice that covers different rates, currencies, languages, locations, and tax requirements. IoT is a global business, but an invoice needs to be tailored to your customers business needs.
- **Out of the box services-** IoT services push the boundaries of package pricing or monthly bundles. Think about annual check-ups, added allowances, maintenance or connected services. Your BSS should be able to configure, provision and charge for all this and more, or you're missing a trick when it comes to value-added services.
- **Bill on Behalf of (BoBo)-** Today's 'as-a-service' culture means multi-tier, multi-hierarchy and multi-solution as standard. There are often 5 or more layers of customers from the BSS provider through to the end user. Multi-layer billing makes simplicity out of this complexity, empowering providers to bill their own customers through one single system.

- **Business-agnostic:** While some industries such as Utilities seem a perfect fit for IoT, use cases are broadening all the time. Automotive, Healthcare, Government, and the list goes on. Templated billing systems that can be tweaked with low/no code development make billing much easier to onboard for any new customer.



5

Facilitates Self-Management, On Multiple Levels

As relationships and business models become more complex, there's a real value in being independent. Whether that's internally, not being forced to turn to IT or development for every little change, or whether that's externally, not relying on your BSS vendor to handle maintenance and support, the ethos is the same.

Creating a dependency on your BSS vendor doesn't help anyone, so a smart BSS will allow you to provide freedom to your customers, and perhaps more essentially still, give your customer the tools to hand over that freedom to their own customers, too, for example resellers or channel partners, or in some cases, end users.

As a modern BSS utilizes codeless development, any operator can handle implementing new customers, features or even business models without the need for passing the project over to IT or development. This speeds up your return on investment, and allows you to empower your staff to do more with less effort, customizing ready-made templates for value right out of the box.

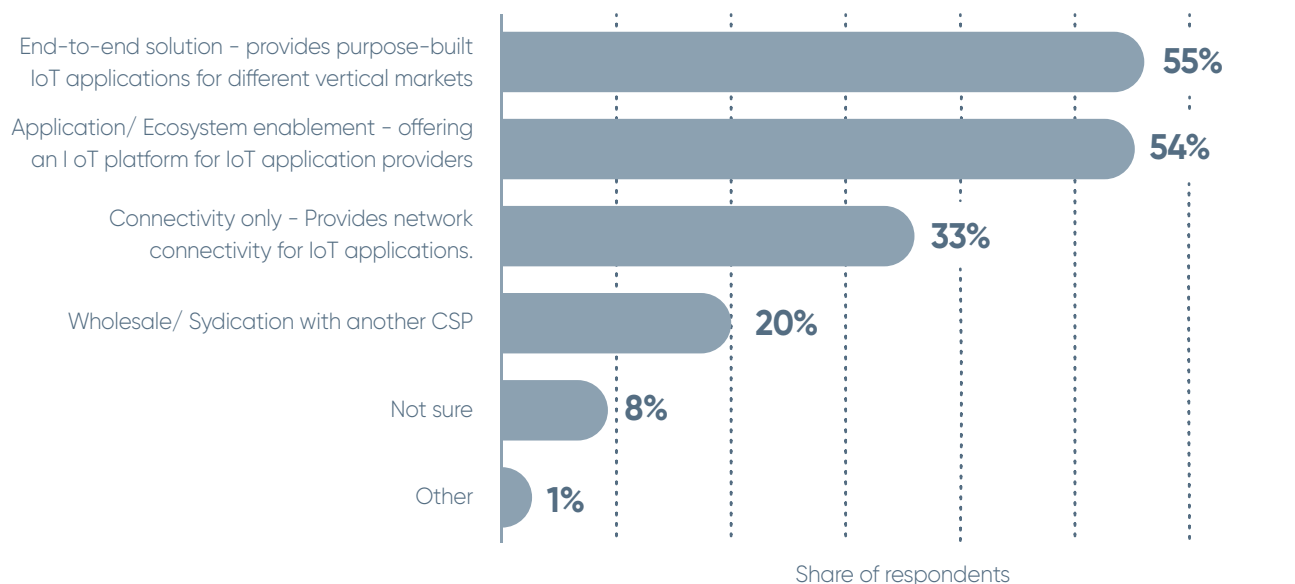
This focus on self-management should be embedded in the BSS throughout, from these low/no-code development tools, to transparency into all devices and services. It's also important when thinking about integrations.

No solution is an island, and even if a BSS is integrated with your connectivity solution, organizations need the freedom to be able to create relationships with other third-parties. This could include financial services like banks or payment systems for the end user, or additional layers such as fraud checks or identity verification tools. A smart integration later allows the provider to build up APIs in the system without the need to ask the vendor to do it for them. Each operator can build the APIs that they need, integrate with specific third-parties, and feel empowered to take control of their own services from end-to-end.



A Checklist for BSS Success

By 2021, 55% of customers expect CSPs to be providing end to end, purpose-built IoT applications, while connectivity alone will only meet 33% of customer's expectations.¹ Ask yourself, without a BSS that enables these solutions, how are you going to get this done?



An intelligent, future-focused BSS is the gateway to monetizing and profiting from new value-added services, but when it comes to IoT, it needs to be built with the specific needs of the technology in mind, by a vendor that understands IoT intrinsically, both its opportunities and its constraints.

The right choice, one that includes the 5 items on our checklist as standard, will make IoT deployments easier to implement and faster to see value from, complete with no-code modular development out of the box, and the freedom to customize to your specific business needs. That's exactly why floLIVE owns the whole technology stack, not just core network and connectivity solution, but also the most cutting-edge, future-focused BSS platform that checks all the boxes.

IoT is poised to create opportunities for service providers across all spectrums, including mobile operators and enterprise solution vendors. The right business support system can turn those opportunities into revolutionary value-added services for truly game-changing business growth.

1. <https://www.statista.com/statistics/954529/telecom-iot-offering-models-to-come/>

floLIVE is a secure, cloud-native connectivity solution backed by strategic investors 83North, Dell Technologies Capital, Saban Ventures and Qualcomm Ventures LLC. It supports chipset and device manufacturers looking for seamless global coverage

Our platform comprises distributed core networks that provide local connectivity while being centrally managed and controlled over the cloud. This unique approach enables manufacturers to benefit from high performance, secure and regulatory-compliant local connectivity with the flexibility and elasticity of a cloud-native platform.

floLIVE's solutions are offered as-a-service in a pay-as-you-grow business model.



Let's connect

Get in touch to discuss how we can meet your IoT requirements. We're sure to surprise you.

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