# Digitally Enhanced IoT Solution As A Service

**DIGITIZE THINGS**

# Beyond Connectivity– Moving up the value chain

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*"With Cumulator, we were able to cut down the solution introduction time to its tenth. Its orchestration of order fulfilment & settlement across our vendors helped us eliminate the cost of manual operations."*

**Ivo Rook,**
**SVP IoT, Sprint Business**

## Executive Summary

As connectivity-only provider in the IoT ecosystem, carriers have to deal with persistently low ARPU. Selling IoT solutions as a service, not only moves them up the value chain but also enables their salesforce with more offerings. Digitize Things Cumulator marketplace allows them to collaborate with device vendors and application providers to create appealing solution packages for business customers and add those subscriptions on a single bill.

- Choose from a large number of device makers
- Zero inventory - Goods drop shipped from respective warehouses
- Cross party order processing and fulfilment
- Single bill and digital settlement

## Challenges

Sprint had many small and medium businesses and enterprises as customers for their mobile broadband or WAN connectivity solutions. As these customers got interested in IoT solutions such as fleet management, asset tracking or sensor solutions, Sprint salesforce was in a unique position to provide these "as a service". To support these opportunities, Sprint started using a subscription platform that was designed for software licensing. Using such systems for IoT solution is cumbersome since they lack proper modeling for a typical IoT Solution and its components such as hardware devices, accessories or connectivity. The solution components have compatibility, dependency and bundling rule of their own.  In a flat subscription management platform that they had, every variation became a unique product and the person placing the order was required to know which product identities as per the dependencies had to be added to a customer order to match the need. Hardware was often modeled as one-time fee and a separate offering was created for each connectivity plan. Needless to say, it lacked visibility and flexibility.

Secondly, they did not have adequate ability to interact with partner system for ordering or provisioning parts of the solution and orchestrating across the partners, leaving those activations or configurations as manual tasks.

Finally, being a closed and flat subscription management system, they did not lend to digitally enhanced solution e.g. an integrated 3rd party service such as device management, mapping or storage in the package.

## How Digitize Things Helped

Digitize Thing's offering - Cumulator allowed Sprint's product managers to conceive and model all parts of IoT solution such as application, connectivity plan, device and accessories. They were able to set pricing rules, promotions and include T&C from each party as applicable.

A completely spec'd offering could then be put in the catalog and made available for sale. Cumulator provides full CPQ (Configure, Price and Quote) capabilities.

Once order is placed, Cumulator ensures that sub orders are propagated to parties providing part of the solution. As fulfilment step, it provisions devices and services including any activation as applicable. It communicates the progress for the placed order with all revenant participants.

For completed orders Cumulator starts a Subscription and allows authorized user to manage it. For each active subscription, it performs rating and computes charges that are basis for billing the customer and settlement with partners. While Cumulator has built-in billing capability, a simple API based integration with client's billing system allowed IoT solutions to be including in the single bill to the customer.

Prior to Cumulator, getting the legacy subscription management platform to provision a new service required custom development by client's IT. Even creation of new combination of existing components meant create of new codes in their IT system. With Cumulator, a product manager can create and catalog a new package using GUI and as a no-code exercise.

Cumulator can provision cloud services from AWS and therefore those can be used to digitally enhance IoT solution or can be sold as services by the client.

## Results, Return on Investment and Future Plans

For client, an IoT solution typically makes 20x contribution to the top line as compared to pure connectivity for the same IoT solution. With Cumulator the go-to-market time for a new solution reduces to a couple of weeks of low-code API driven integration as compared eight months to a year for IT development on the legacy systems.

Using Cumulator, client not only achieve unprecedented velocity for brining IoT solutions to the market, they also became capable of offering digital services such as their own device management ad services from 3rd parties such as Mapbox mapping or AWS storage.