# A Day in the Life of an OptConnect Device


Countless businesses depend on reliable, consistent connectivity for many different facets of their operations. Consider a vending company that needs to update pricing on their products from a central location, or a kiosk company that needs to push new content to their displays, or an energy facility that is needing to check input levels. Many of the most critical aspects of reliable connectivity happen behind the scenes in ways not visible to typical business operators or deployers.

You can't always be monitoring, managing, or working on your cellular devices; you have other things to worry about and simply want consistent and reliable connectivity. OptConnect as a managed service takes care of getting and keeping you connected, so you can focus on your business.

**With this in mind, let's walk through a hypothetical first day of your OptConnect device, highlighting its functionality and performance that you may not be aware of.**

## DAWN

**9:00 AM**

***DEVICE ESTABLISHES AN INTERNET CONNECTION***

~

***DEVICE SENDS HEARTBEAT TO OPTCONNECT SERVERS***

~

***POWERED ON AND CONNECTED***

~

***NO UPDATES NEEDED***

**9 A.M. –** You unbox your newly-received OptConnect device, attach the antenna, connect your equipment to the OptConnect device via Ethernet, and power up the device. The device was provisioned in OptConnect's warehouse to be plug-and-play specifically for your use case, so two minutes later—once the device has established a cellular session with the carrier—your application has internet connectivity and is up and running. You run a test communication on your machine, that works, all is well.


However, in the first few minutes after being powered up, behind the scenes what you didn't see: the device sent the OptConnect servers a heartbeat noting the device was online and powered up. The device next sent a snapshot of its signal strength, signal quality, its configuration, cellular network statistics, and estimated location based on cellular towers.

After sending its snapshot, the device next checks OptConnect servers for any potential/necessary updates. As the device is new and was updated in OptConnect's warehouse recently, there are no updates necessary. All of this happens within the first few moments of the device powering up and connecting.

**9:03**

***DEVICE VISIBLE IN SUMMIT***

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***SIGNAL STRENGTH 100%***

~

***LOCATION REPORTED***

**9:03 A.M. –** As you're walking away from your machine, you're curious about how things look with the cellular device. You next walk to your computer and log into Summit, OptConnect's portal/device platform. In Summit, you're able to see the device very recently sent that heartbeat, able to see the signal strength is at 100%, the device is connecting on a 4G network, and the estimated location the device just reported. To

OptConnect SUMMIT

**9:05 AM**
***CONTINUAL CONNECTIVITY CHECKS***

**9:30 AM**
***DEVICE SENDS HEARTBEAT TO OPTCONNECT SERVERS EVERY 30 MINUTES***

**MID DAY**

**12:15 PM**
***DEVICE LOSES VERIZON CONNECTIVITY***
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***DEVICE AUTOMATICALLY RECONNECTS TO SECONDARY CARRIER AT&T***

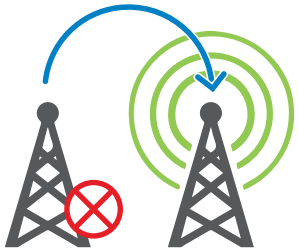
**1:00 PM**
***DEVICE LOSES AT&T CONNECTIVITY***
~
***REPARATIVE ACTIONS TO RECONNECT***
~
***RESTARTS CELLULAR SESSION***
~
***SOFT THEN HARD THEN FULL REBOOT***
~
***CONNECTS TO CARRIER***
~
***DEVICE SENDS HEARTBEAT TO OPTCONNECT SERVERS***

help keep track of your devices, you associate this device's serial number with your own unique name, "Bobby Digital's Grocery Store". This way you know explicitly where you have that serial number installed.

**9:05 A.M. –** The OptConnect device performs a connectivity check; it verifies it is still in a cellular session and able to reach the internet and continues to operate normally. ***OptConnect devices perform this connectivity check every five minutes,*** so this device will continue to do so for as long as it's powered up. Knowing that, we'll omit future connectivity checks from this timeline to keep it from getting too cluttered.

**9:30 A.M. –** The OptConnect device sends a heartbeat to OptConnect servers, noting that it is still online and in a cellular session. ***Like connectivity checks happening every five minutes, this heartbeat will repeat every 30 minutes*** if the device is powered on, so we'll omit future heartbeats from this timeline.

**12:15 P.M. –** Let's imagine the Verizon tower the device connected to experiences an issue and the device loses its carrier session with Verizon. The device recognizes that loss of cellular session and reverts to its secondary carrier, AT&T. The device then facilitates internet access for your application to keep running, just on a different cellular carrier. Since downtime for this action lasts only roughly a minute or so, you and your application don't even notice this happened. The dual carrier failover is automatic and requires no action by the customer to do anything. OptConnect's routers have the intelligence and software built right in to handle this seamlessly.



**1:00 P.M. –** Let's say this hypothetical day is a bad one for cellular carriers, maybe a storm or some other issue is causing lots of disruptions. At 1 P.M. AT&T has an issue as well and the device loses connectivity. The unit performs its internet connectivity check and realizes it's no longer able to reach the internet. As a result, the device undertakes a series of reparative actions aimed at re-establishing connectivity. The device first tries to restart its cellular session, which fails. Next it attempts a soft reboot of its cellular module; the reboot succeeds, but the device is still unable to connect to the internet due to carrier issues. The device next tries a hard reboot of its cellular module; the reboot succeeds but the carrier is still unavailable. After exhausting those options without successfully reconnecting, the device fully reboots itself.

The device reboots itself and comes back online. It attempts to connect to its primary carrier, Verizon, and that succeeds. The device sends its heartbeat, its snapshot, and checks if any new updates. There are none. Since the reparative actions happened within a few minutes of the initial loss of connectivity, neither you nor your application really notice the brief service disruption.

From here, the device continues operating as expected, facilitating internet access for your application.

**5:00 P.M. –** The OptConnect device has finished its first business hours working with your application and you'd like to see how things have gone. You log into Summit again and pull up the device. Here you're able to see the 30-minute heartbeats from the device throughout the day, you see the signal strength of the device and how it's slightly fluctuated throughout

**5:00 PM**

***CONNECTIVITY STATUS TIMELINE VISIBLE IN SUMMIT***

~

***DATA USAGE***

## NIGHT

**9:00 PM**

***DEVICE OFFLINE***

~

***DEVICE ONLINE AND CONNECTED***

**1:00 AM**

***CHECKS FOR UPDATES***

~

***OPTIMIZATION PATCH APPLIED***

## DAWN

**9:00 AM**

***24 HOURS OF CONNECTIVITY***

~

***SELF-MONITORING***

~

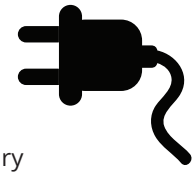
***SELF-REPAIRING***

~

the day. You're also able to see the amount of data the device has used to ensure the data plan you're on meets your needs.

Additionally, you see for the first time that the device had to undertake some reparative actions. You're curious about this, so you call OptConnect's support line and speak with a technician. With OptConnect's award-winning 24/7 Customer Care team, the technician quickly answers the call and has all the tools, training, and expertise to provide the highest level of support possible. The technician explains that the device did need to reboot itself at 1 P.M. to re-establish connectivity, but that was successful, and the unit has been operating continuously since then with no further issues.

**9:00 P.M. –** You receive an e-mail alert from OptConnect notifying you that your device has gone offline. This is concerning, but you're already at home so you call to the site and ask someone there to check it out. They let you know that it looks like the cleaning crew had unintentionally unplugged the device to plug in a vacuum and forgot to plug the unit back in. Someone on site plugs it back in, the device comes online, sends its snapshots and heartbeats, and your application is back up and running with internet access.



**1:00 A.M. –** The OptConnect device again checks for any potential/necessary updates; devices are scheduled to check for these during the middle of the night, that way if updates are necessary, they do not run during peak business hours.

In this example, an optimization patch was available for the device and queued for this unit. The device then automatically pulls and applies the update. As your managed service provider, OptConnect handles keeping your devices current; there's no need for you to worry about staying on top of security patches, optimizations for cellular industry changes/trends, ensuring you're always running the latest and greatest; OptConnect does that work, even while you're sleeping.

**9 A.M. the next day –** The OptConnect device has completed its first full 24 hours providing you connectivity! This was just the beginning though; OptConnect devices' automatic reporting, self-monitoring, and self-repairing functionalities paired with OptConnect user platforms such as Summit, the device is ready to keep you connected for many more to come! Customers benefit from a full suite of services and support that have been perfected over the past 14 years. They have the most reliable partner and services that they can trust their business to, and it is all managed and facilitated by our systems and teams who work around the clock so our customers can focus on running and growing their business. Partnering with OptConnect is like hitting the easy button for your IoT connectivity needs.

**Ready to learn more about how OptConnect help you simplify and scale your business through our fully managed connectivity solution? Contact one of our experts today at 877-678-3343 or chat with us online at www.OptConnect.com.**