

An Introduction to Charging Solutions

A guide to selecting the right mobile device charging solution for your organisation.

ChargeBox Information Guide No.1
April 2021

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CHARGE & LOCK
CHARGE & STAY
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WHAT THIS GUIDE PROVIDES

This guide summarises the charging solutions on the market, the benefits and, where applicable, the limitations of each. You'll learn that they all deliver different experiences and as such, will reflect differently on your brand values so it's important to know what's what before you dive into choosing a solution.

There are three charging options that are most commonly adopted by organisations over and above the provision of a traditional plug and socket. They are Charge and Lock, Charge and Stay and Charge and Go.

- * **Charge and Lock** gives people the option to put their phone into a locker where they can connect their phone to a cable* that's fitted inside, lock the door and come back to it when they have finished their shopping or watching a movie for example.
- * **Charge and Stay** means people stay while they charge their phone i.e. plug their phone into a cable or place on a wireless charging pad - perhaps while they catch up on emails when there is a break during a conference.
- * **Charge and Go** allows people to take a portable charging pack with them and effectively 'charge on the go'.

Each one has their own merits according to where they will be used, how often they will be used and by how many people. They will all build brand loyalty in different ways, much of this is to do with whether they are provided for free or on a 'pay per charge' model.

All of them need to be assessed according to the speed of charge, ease of use, safety and security, and the logistics and administration of keeping the service running.

This guide looks at the pros and cons of each charging method so you can make an informed decision about which is best for your organisation. In addition, we look at the traditional plug/USB socket and consider if it's one that can work at scale.

* It's important to check your supplier provides safe, industry-approved cables. ChargeBox only supplies industry-approved cables.

18 million
charges+
delivered
to UK retail
centres

(by ChargeBox across 41 UK
shopping centres in the period
2016 - 2021)

UNDERSTAND THE VALUE

Understanding the value of each service helps determine both the solution needed, the space and the level of investment required.

Much of this requires a clear understanding of your visitors and to a certain extent your staff. Knowing the capacity your team has to support a new service should help inform the assessments you make - do you want a self-service solution or are you happy to have some staff involvement? In addition, through the provision of charging, it's important to ask what behaviours you are looking to encourage?

Running out of battery creates anxiety and impacts the way people behave. Helping to remove the anxious feelings and offer help is why more and more organisations are turning to device charging services as an essential element of their customer experience strategy.

SO WHAT ARE THE OPTIONS?

There are four major solutions for public charging, charging lockers through to the traditional plug and socket. Each has its benefits, and some have more disadvantages than others:



ChargeBox®

CHARGE AND LOCK

What is it? Self-service secure lockers with charging cables that let people go off and do something else while their phone charges.

Things to know:



Great for high volumes of charge

in retail environments, airport lounges, hospitals, universities and large public events



Free or Payment options: Free to use, freemium or pay to use models available depending on the brand and investment strategy

(Free to use drives the highest usage, customer satisfaction and ROI)



Easy to use: A simple lock & key approach takes seconds to use and will revive dead phones. PIN or biometric locking systems create user friction and can be more open to deception



Safe and secure: With a combination of our SmartLock, USB charging, use of manufacturer cables and robust design, only ChargeBox guarantees both safety and security. PIN and biometric systems are proven to be less secure

(Lock & key is the simplest and most secure security system but others are available such as PIN code and facial recognition)



Fast charge: Most modern phones made by the likes of Apple, Samsung and Google support fast charging. To be future proof and deliver a great customer experience, your service should offer this

(At the time of writing, ChargeBox is the only known supplier of Fast Charge Solutions)



Managed service options available: A guaranteed safe charge and guaranteed device security can only be achieved by supporting your solution via a monitored maintenance service. Suppliers such as ChargeBox provide a number of servicing options to deliver this and match the demand for charging.



Revenue through advertising space:

Can be used as an additional revenue income e.g. as a an advertising opportunity with branding on the locker and screen



Higher investment: Free to use solutions require a higher investment, but the ROI is proven to be greater than other options

GREAT FOR:

High footfall locations such as retail stores, shopping centres, airports, hospitals, universities and large public events



Free to use charging lockers are proven to deliver charging at scale and ChargeBox lockers charge tens of thousands of devices globally everyday

CHARGE AND STAY

What is it? Charging hubs with cables and/or wireless charging pads, where people sit and wait and can still use the device.

Things to know:



Can be deployed at scale: Suited to settings where people are happy to wait e.g. beauty counters, seating areas, restaurants, cafes, airport gates, networking areas at conferences



Great user experience: Great user experience when it's monitored, supported, and you know it's working. Poor user experience if it's broken and your business is unaware



Free and easy to use: Takes seconds to plug in and will revive dead phones



Fast: Fast charging technology is available in some systems

(At the time of writing, ChargeBox is the only supplier to offer the fastest available wireless charging through integration of Apple's MagSafe® tech)



Safe charge: A safe charge should be guaranteed by the manufacturer (varies by supplier)



Servicing need can be high for some solutions: Some solutions require frequent support and testing

(ChargeBox solutions require minimum servicing)

GREAT FOR:

Seated areas such as restaurants, cafes, airport gates, networking areas, car showrooms and retail environments.

CHARGE AND GO








What is it? Portable battery packs rented by time using an app eg £1 / hour, that people can carry with them as the phone charges.

GREAT FOR:

Charging devices whilst the user is on the move or in locations where a static charging offering is not feasible



Things to know:

-  **Charge your phone on the move:** Users can pick up a unit and take it with them
-  **Doesn't support dwell time strategies:** Great for keeping moving but the down-side is there is no dwell time in highly localised areas such as a food court
-  **Unable to provide a large scale solution:** because it's associated with a payment model, and better suited to lower footfall environments where the demand for charging isn't so great
-  **High friction points:** Requires users to download app, sign in, enter payment details and scan a QR code and requiring some battery power. Plus if there are multiple holding stations it is difficult to ensure the available slots for returning power banks
-  **Cheap to deploy:** Usually free to deploy - assuming usage is sufficient to outweigh the cost of providing the service as the business model is yet to be proven. May generate a small amount of revenue
-  **Limited charging tech:** Not all solutions will revive dead phones due to QR code requirement and unlikely to support new technology like fast charging. Most battery pack solutions also don't use manufacturer approved components which presents a safety risk for users and devices
-  **Can be onerous on staff:** The burden is on teams to manage the process and still do their day job. Even with a free to deploy service, on-site staff will still need to manage the supplier to make sure an adequate service is delivered. Plus it is unlikely to drive incremental revenue










POWER SUPPLY ONLY

What is it? USB or three-pin plug sockets fixed into a bank of chairs or a coffee bar.

GREAT FOR:

Domestic and low usage environments

Things to know:

-  **Cheap to deploy:** Can seem simple to deploy, however investment can be significant if routing of power is needed
-  **Easy to use:** Users can simply plug in and continue to use their devices
-  **Requires people to have a charging cable with them:** No cable - no charge. Most people tend not to carry their chargers
-  **Health and Safety risk:** Can breach Health & Safety guidelines and present a serious fire risk if the cable and charger being used isn't manufacturer approved. Potential trip hazard (depending on socket positioning) and significant fire risk when cheap chargers are used
-  **Technology soon to become obsolete:** USB-C is now becoming the norm, ports being implemented are still fairly fragile and do not support Fast Charge.
-  **Power sockets and USB ports break easily:** Standard USB ports aren't designed for heavy public use and so they break easily and frequently. Faulty ports can go unnoticed if not managed, contributing to bad user experience and incurring cost to the organisation to diagnose and fix
-  **Usage cannot be measured:** No onboard telemetry to indicate usage or highlight faults
-  **Encourages non-converting dwell time:** For example in food courts or cafe/restaurant areas. Those charging their devices may be blocking other paying customers from taking a seat
-  **Can be onerous on staff:** to manage requests for the provision of charging cables

WHAT NEXT?

Next: So what are the main considerations for the provision of charging?

As you can see there are a lot of variables when choosing a solution from how they will be managed, to how they will be used, through how they will keep up with changing technology standards. Our next guide takes a look at the five most important considerations for charging solutions including safety and security, management and ease of use, and will help narrow down the options for your business or organisation.

Next Reading: [Making the Right Charging Choice](#), 5 things you should consider.

ABOUT CHARGEBOX

The ChargeBox Story

Since 2005, ChargeBox has led the way in providing secure out-of-home charging for mobile devices. We are the experts in helping companies to keep their customers charged and connected.

Our clients benefit by improving customer satisfaction and loyalty, increasing footfall and spend while ensuring their customers are always able to use their smartphone for payments, tickets, boarding cards, and critical apps. As a result, customers experience reduced stress and anxiety from low batteries and feel safe in the comfort of knowing they can securely charge mobile devices and stay connected to their loved ones.

We specialise in mobile charging for retail, mass transit, healthcare, education, corporate and the events sector. On a purchase or rental basis, we can provide 'stay and charge' or 'lock and leave' units with standalone or integrated solutions.

Our British designed and manufactured charging stations, which include our patented 'Smart Lock' system, have delivered more than 50 million out-of-home device charges worldwide at over 2,000 points globally such as train stations, airports and shopping centres, through major sport and music events to industry conferences. All of our solutions feature Fast Charge capability plus ultra-robust charging cables for the latest devices and are backed by our real-time monitoring system that provides a safety and security audit trail, usage statistics and also enables our service team to ensure every charging point is working at its optimum.

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www.chargebox.com

THE CHARGEBOX ADVANTAGE

Not all solutions are created equally.

Throughout 16 years of developing charging solutions and charging over 50 million devices in the process, we've learned a lot and fed that back into our designs, software and products. Everything we do, we do for a reason. We have many unique advantages and a world-class heritage. If you're not sure why any of the below is important, just ask us. We'd be pleased to share our insight and why many of our competitors have not learned these lessons or won't invest in the quality needed for high-volume robust, public-facing solutions.

	Locker Solutions	Stay and Charge	Notes
Product Names	FAST6	FASTHub, AirHub+	
User Experience	USB Fast Charge significantly reduces time required for same charge level by between 2.5-4x	USB Fast Charge significantly reduces time required for same charge vs others	
	N/A	Integrated Apple MagSafe Wireless charging for fastest wireless charging	
	Enhanced cables for easy connection	Enhanced cables for easy connection	
	SmartLock Patented system for ease of use (around 5 seconds) - just 2 steps - Connect and Lock	N/A	
	Unique Lock/Key provides ultimate security every time including when power is lost to unit		Note situations of power loss in competing products result in customers unable to retrieve devices

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	Locker Solutions	Stay and Charge	Notes
Safety / Security	Highest quality Fast Charge charging hubs	Highest quality Fast Charge charging hubs	
	Manufacturer cables (enhanced)	Manufacturer cables (enhanced)	
	Guaranteed Safe Charge	Guaranteed Safe Charge	
	Guaranteed Secure Charge	N/A	
Fully Managed	Maximises availability through remote fault diagnosis	Maximises availability through remote fault diagnosis	
	Underpins Safety and Security Guarantees	Underpins Safety Guarantees	
	Detailed Analytics on Usage	Detailed Analytics on Usage	Optimises service levels, investment, ROI measurement
	Remote software and media content downloads	Remote software downloads (optional media for FASTHub)	
Robustness	Designed for high volume use	Designed for high volume use	
	Enhanced ChargeBox X-Ten protected cables for maximum cable life	Enhanced ChargeBox X-Ten protected cables for maximum cable life	
	3rd generation mechanical design for maximum lifecycle and highest reliability	N/A	16 years experience of operating systems with 50 million charges
	Highest quality materials including stainless steel, aluminium acrylics	Highest quality materials including stainless steel, aluminium acrylics	

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	Locker Solutions	Stay and Charge	Notes
Hygiene	Long-lasting anti-microbial coatings	Long-lasting anti-microbial coatings	
Host Interventions	Minimal with managed system, robustness and ease of use. Limited to rare lost key events. Alternative systems require many interventions to do with failed PIN code, or other security system errors and lower reliability	Minimal with managed system and robustness	
Lifecycle	Guaranteed components for 5 years under contract	Guaranteed components for 5 years under contract	
	Software and standards based for future-proof	Software and standards based for future-proof	
	Lowest cost per charge	Lowest cost per charge	
Devices Supported	<ul style="list-style-type: none"> • All modern smartphones, especially Apple, Samsung, Google, Sony • Tablets - inc iPad • Many modern laptops up to 13" with USB-C charging 	<ul style="list-style-type: none"> • All modern smartphones, especially Apple, Samsung, Google, Sony • Tablets - inc iPad • Many modern laptops up to 13" with USB-C charging 	
Origin	UK designed, manufactured and operated	UK designed, manufactured and operated	